

USER'S MANUAL

FIO Series

**FIO-FH2150C 21.5" IP65 FHD 16:9 Open Frame
Industrial Touchscreen Monitor**



Prefaces

Revision

Revision	Description	Date
1.0	Manual Released	2023/10/10

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Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. Please recycle to minimize pollution and ensure environmental protection.



Available Models

Model No.	Description
FIO-XG1500C	15" IP65 XGA 4:3 Open Frame Industrial Touchscreen Monitor
FIO-SX1900C	19" IP65 SXGA 5:4 Open Frame Industrial Touchscreen Monitor
FIO-FH2150C	21.5" IP65 FHD 16:9 Open Frame Industrial Touchscreen Monitor
FIO-FH2700C	27" IP65 FHD 16:9 Open Frame Industrial Touchscreen Monitor

	FIO-XG1500C	FIO-SX1900C	FIO-FH2150C	FIO-FH2700C
LCD Size	15"	19"	21.5"	27"
Touchscreen	10-point PCAP			
Max Resolution	XGA 1024x768	SXGA 1280x1024	FHD 1920x1080	FHD 1920x1080
Brightness(cd/m2)	350 nits	250 nits	250 nits	300 nits
Contrast Ratio	1000:1	1000:1	3000:1	3000:1
LCD Color	16.7M	16.7M	16.7M	16.7M
Viewing Angle	88/88/88/88	89/89/89/89	89/89/89/89	89/89/89/89
Backlight MTBF	50,000 Hours			

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Important safety notice

Please read this manual carefully and save to use in the future.



Make sure to unplug the power lead before cleaning the product. Unplug the power lead from the power outlet and wipe the product using a soft, dry cloth.



Do not use components except those recommended by the manufacturer, failure to do so may cause damage.



Do not try to move the monitor by pulling only the cord nor touch the plug with wet hands.



Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.



Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle, this may cause malfunction, an electric shock or fire. Especially avoid operating the monitor near water or outdoors where it could be exposed to snow or rain.



Do not cover the vents on the monitor case, do not place the monitor or power adapter on the bed, sofa, carpet etc, as bad ventilation may cause a breakdown or fire.



When installing the product, make sure to keep it away from the wall (more than 76mm (3 inch) for ventilation purposes.



Only the type of power listed in the label of the LCD can be used. If you have questions of power type, please contact local dealer or power supply department.



Use only a properly grounded plug and receptacle. An improper ground may cause electric shock or equipment damage. If you can't insert the plug into outlet, please change the outlet.



Make sure the outlet can support total electricity of products be plug into it, do not connect too many extension cords or plugs to an outlet. Otherwise it may cause fire.



Do not place the product on an unstable or small surface area. Place the product on an even, stable surface, as the product may fall and cause harm to someone walking by, specifically children.



Do not try to extend the power wire, otherwise it may cause fire.



Do not open the monitor cabinet by yourself, if monitor needs to be examined or repaired, please contact the professional service.



Firstly pull out the power plug and connect the professional service when it happens following:

- a. power wire or power cable is damaged.
- b. monitor fall into ground or monitor cabinet is damaged.
- c. monitor displays obviously out of the way, needs to be repaired.



Unplug the power cord from the power outlet when monitor is not used.



Do not install the product in places with poor ventilation, high light, high temperature or moisture.

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1.1 Introduction

1.1.1 About this Manual

This manual is intended as a reference guide for the FIO Series Open Frame Touch Monitors.

This Manual provides the information needed to install, set up and maintain the Open Frame Touch Monitors. In addition, this manual describes basic technical information about the touch sensor, troubleshooting and contact information.

This manual is organised as follows:

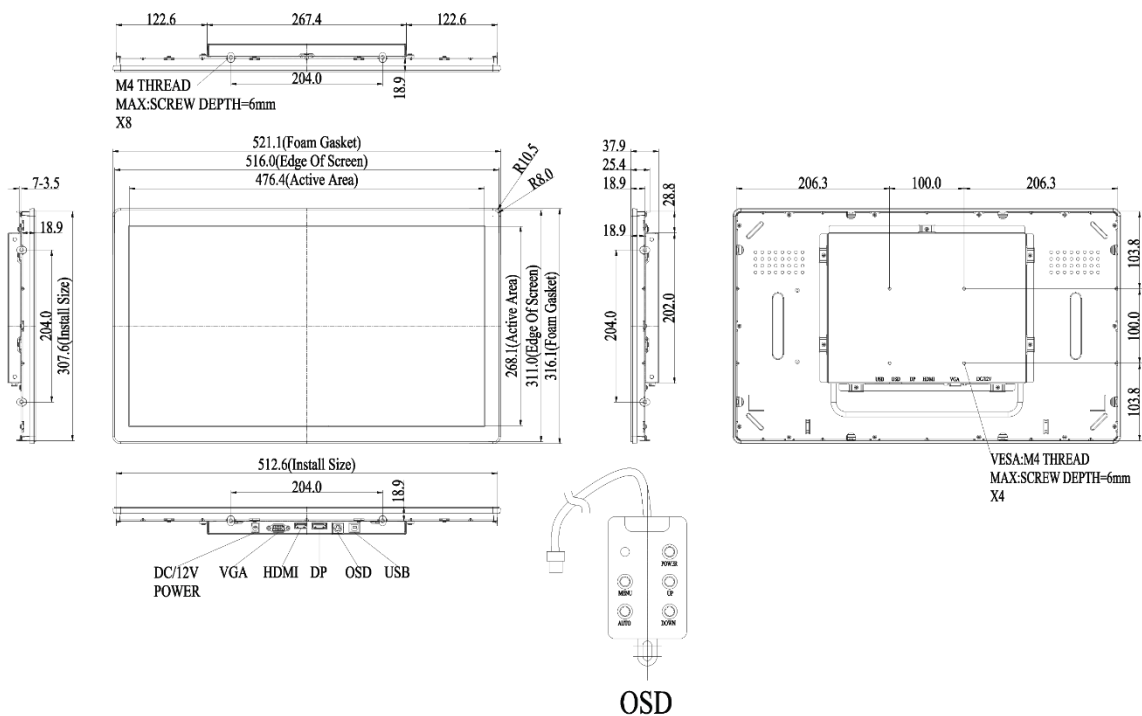
- Chapter 1 Introduction and general information.
- Chapter 2 Unpacking care and maintenance.
- Chapter 3 Hardware Installation guide.
- Chapter 4 Warranty information.
- Chapter 5 Troubleshooting.

1.1.2 The features

Model name	FIO-FH2150C
Description	21.5" Open Frame Touch Monitor
Native Resolution	1920×1080@60Hz
Contrast Ratio (Typ.)	3000:1
Colours	16.7million
Response Time (LCD Panel)	18ms
Luminance (LCD Panel)	250nits; with P-Cap 225nits
Viewing Angle (From Centre, CR≥10)	Horizontal (left/right) CR≥10 89°/89° Vertical (up/down) CR≥10 89°/89°
Touch Technology	Projected Capacitive Touch (P-Cap)
Touchscreen Interface	USB

1.1.3 Physical Specifications

Parameter	Model	FIO-FH2150C
Length		521.1mm
Width		316.1mm
Thickness		37mm
Active area		476.64×268.11 ±0.3mm



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2.1 Unpacking

2.1.1 Shipping Damage/Unpacking



Premio takes every precaution in testing and packing its products prior to shipment.

On delivery of the products, check the shipping carton for damage. If any damage is seen that could have caused damage to the contents, keep all packing materials for later inspection by Premio or the carrier who are responsible for any shipping damage.

Handle the monitor with care. Take care not to mark or scratch the glass when removing it from its packing.

2.1.2 Packing list

Please open the package carefully and check the items below are in the package:

1. Touch monitor,
2. USB touch cable,
3. VGA cable,
4. Power adapter (Optional Accessories),
5. US power cord (Optional Accessories),
6. DVI cable (Optional Accessories),
7. DP cable (Optional Accessories),

If any items are missing, please contact your local dealer or the Premio Service Department.

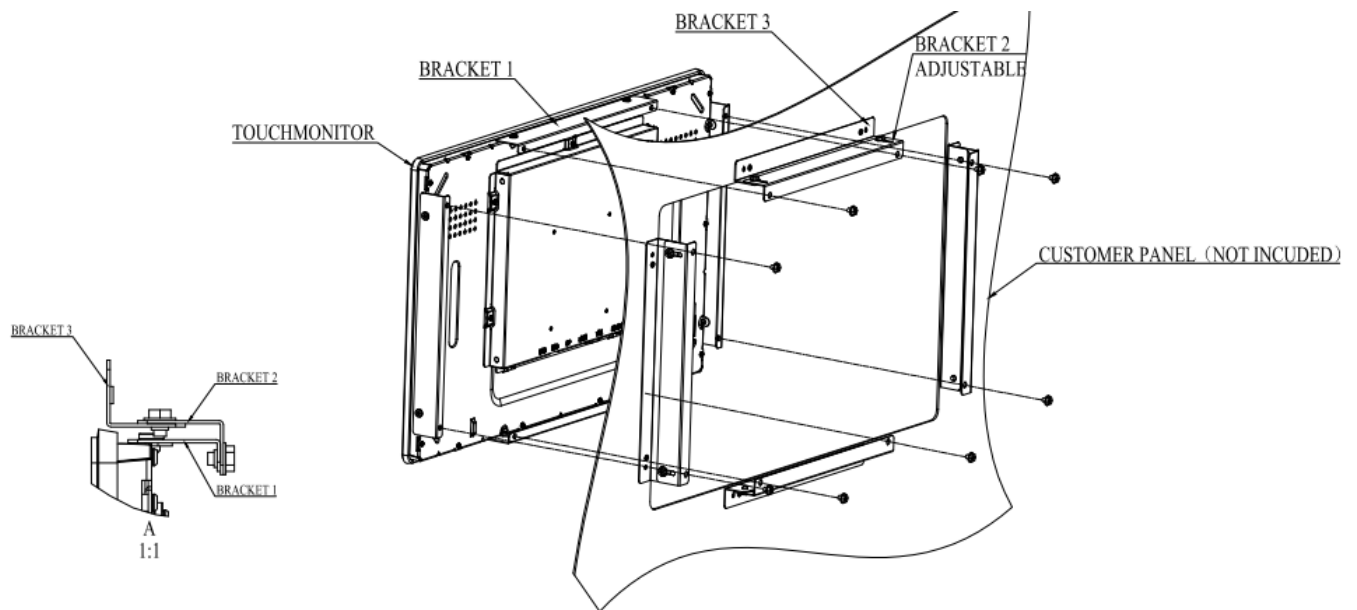
Note: please save the original package in order to ship the monitor in the future.

3

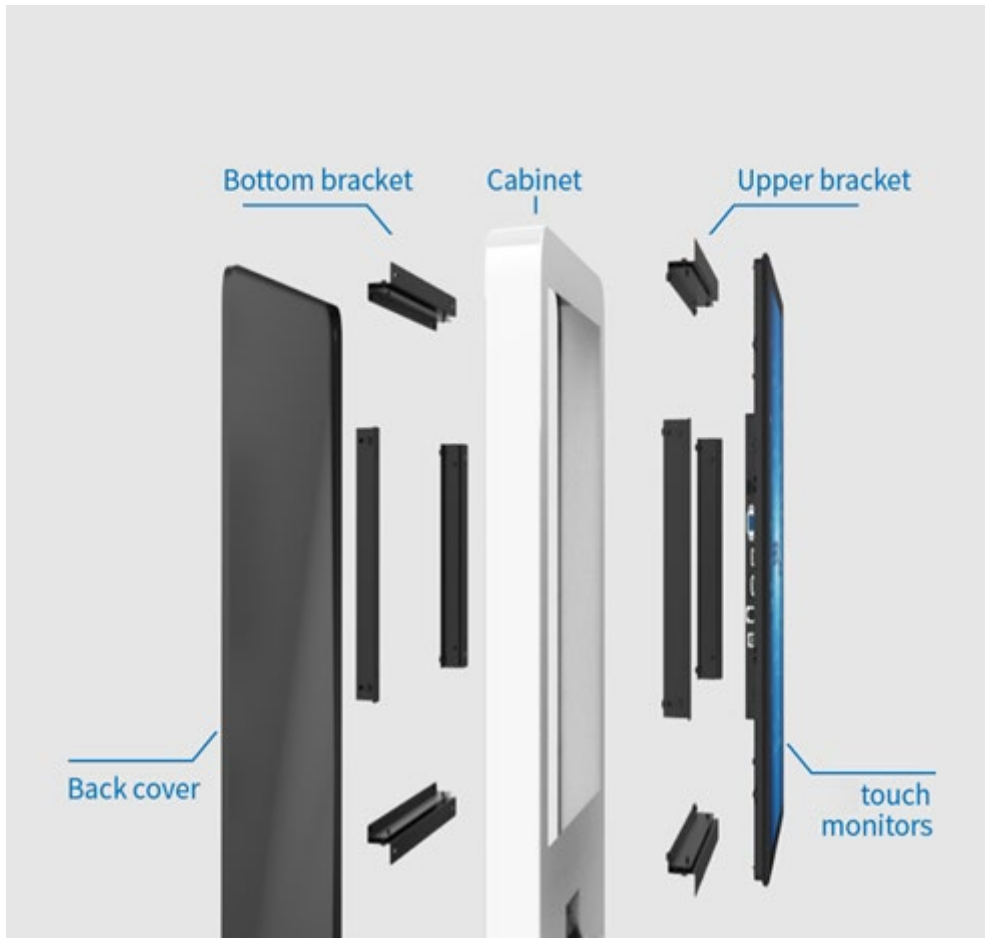
3.1 Hardware Installation

3.1.1 Rear Mount installation

The RTL touch monitor's mounting functions include Open Frame, removable base VESA and wall mount.

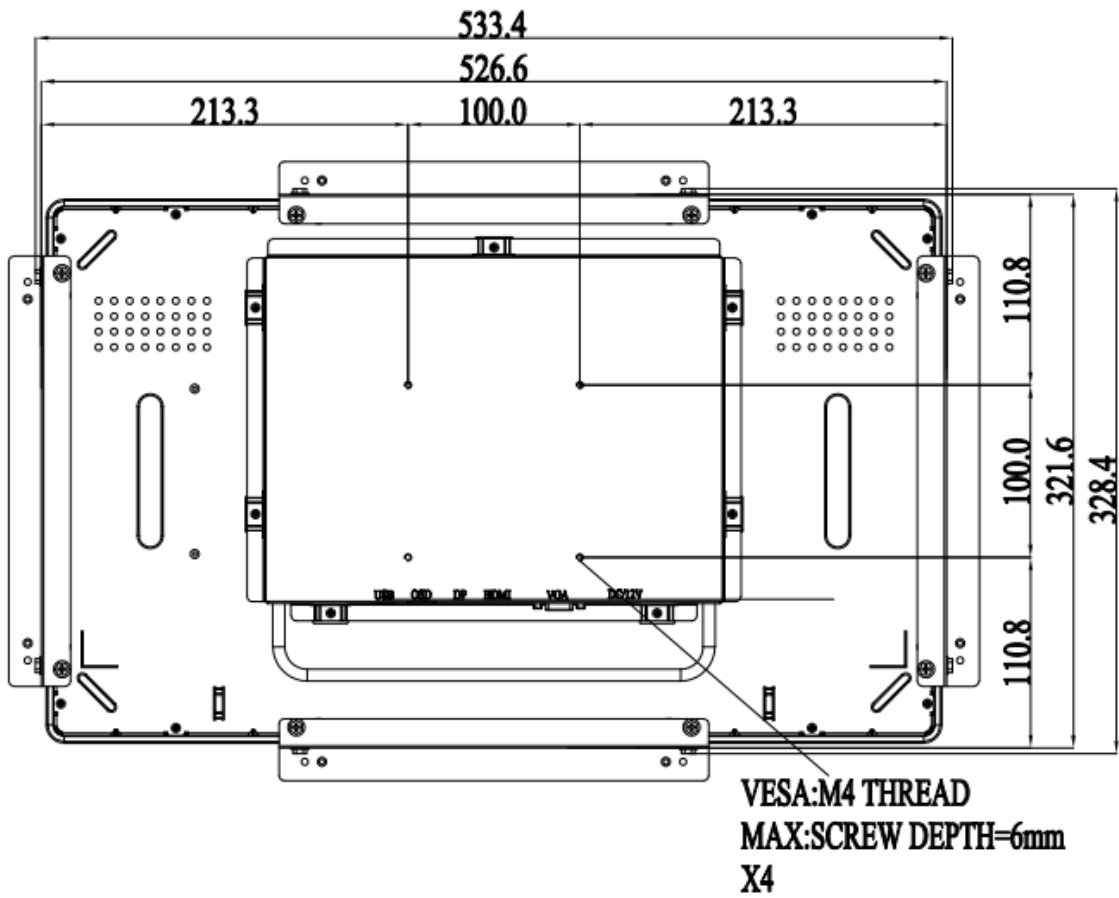


Rear mounting



Common schematic diagram

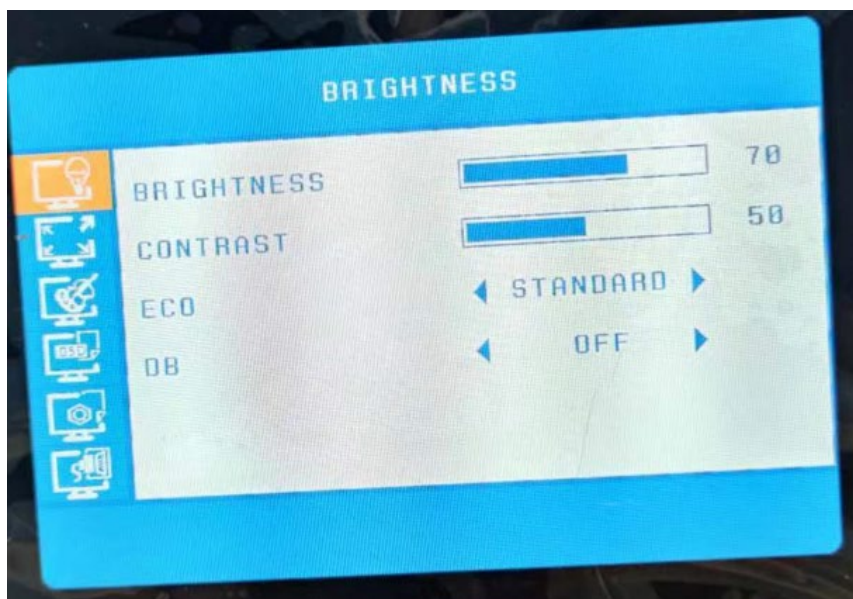
3.1.2 VESA standard installation



VESA installation holes

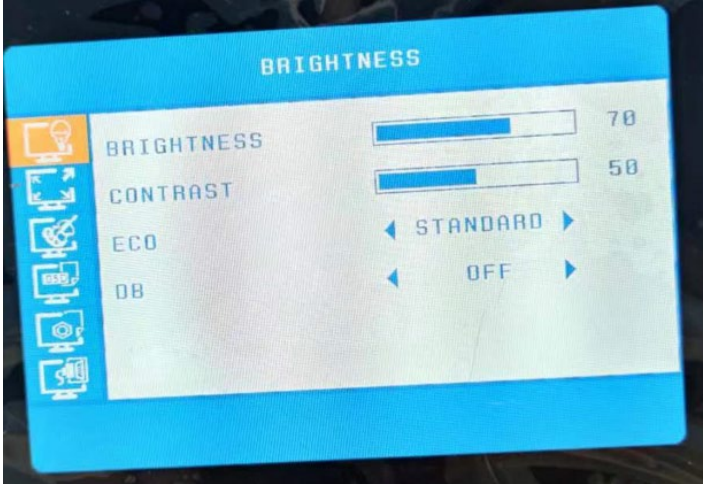
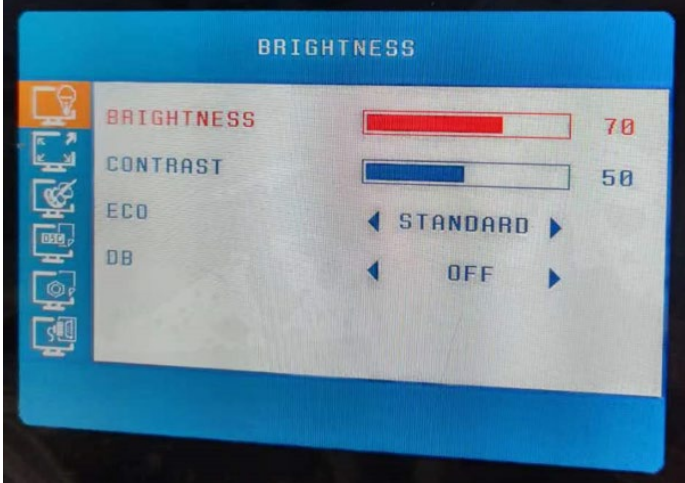
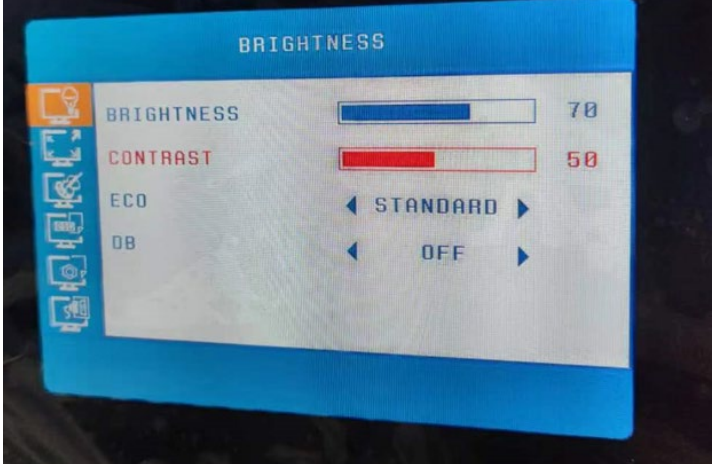
3.1.3 OSD Functions

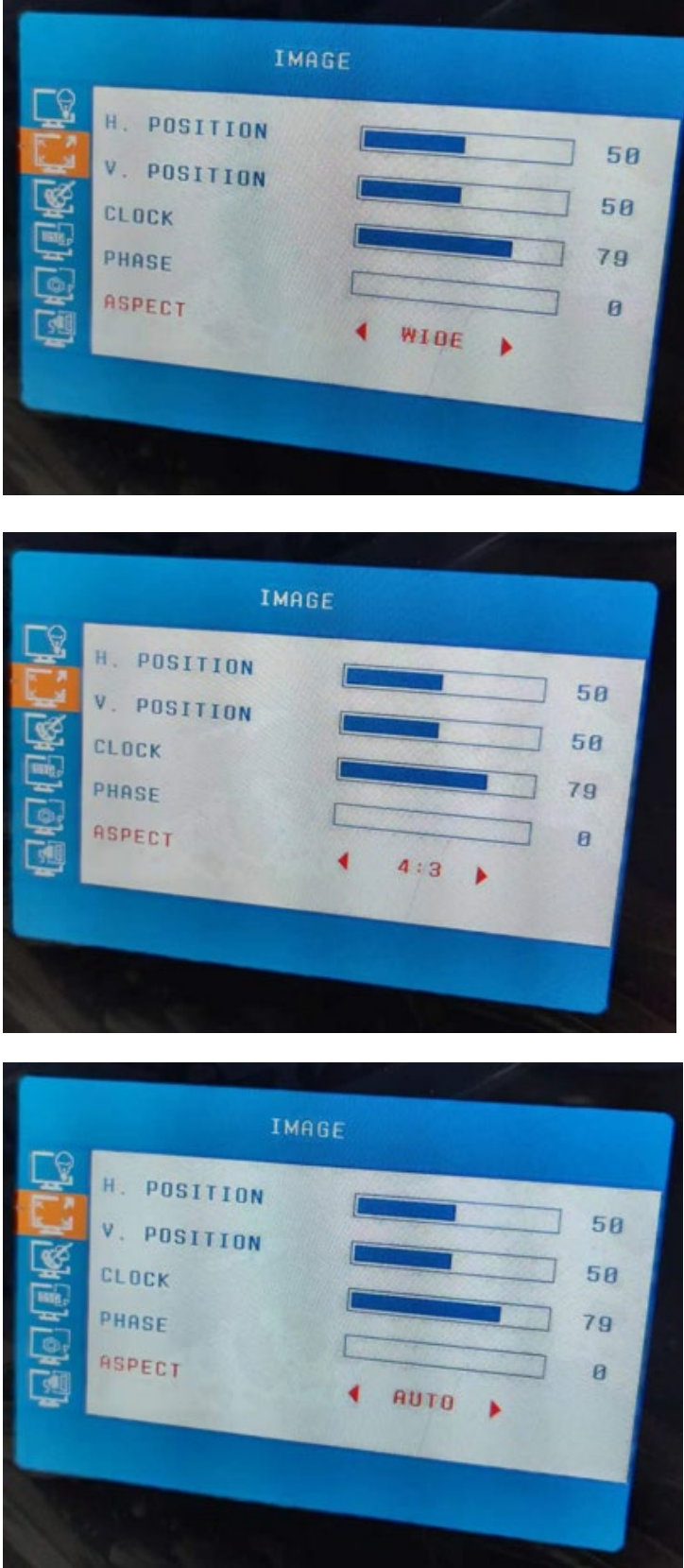
A. MAIN MENU




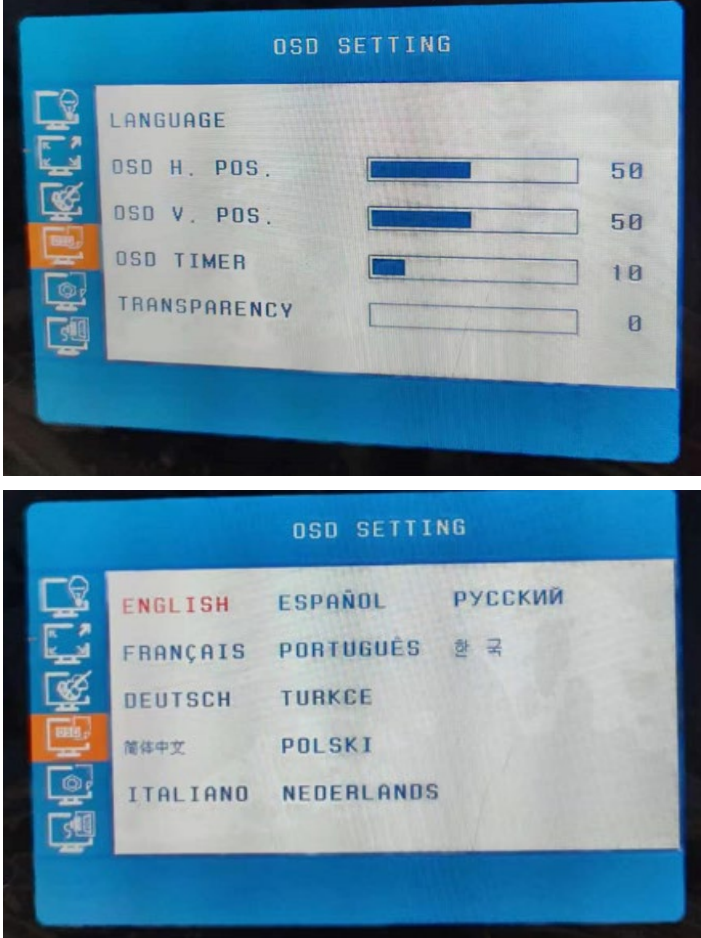
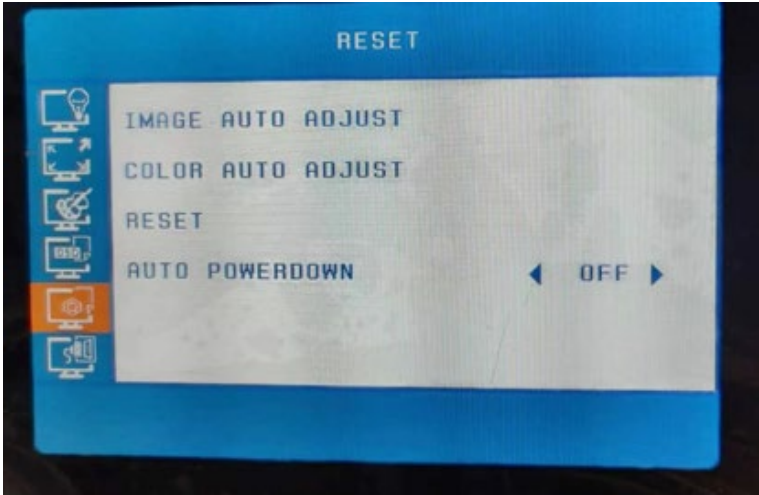
B. OSD STRUCTURE

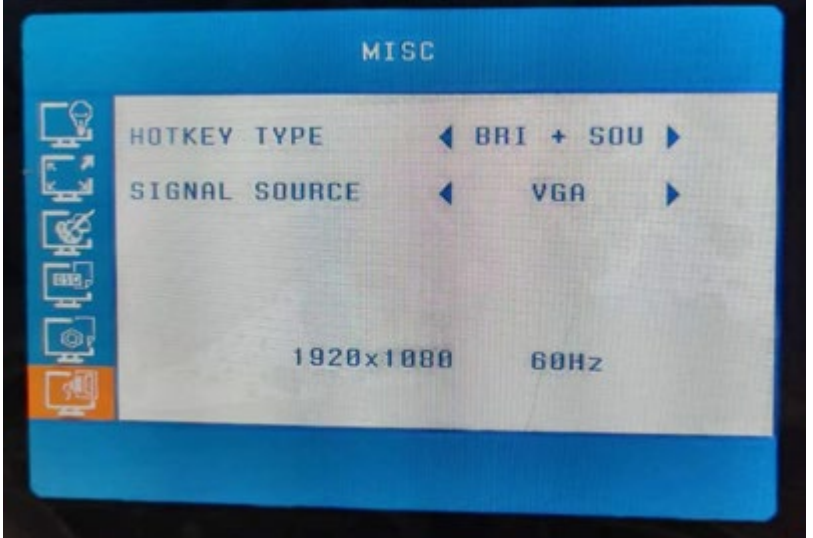
「Menu」 button to confirm, 「Auto」 button to quit

Option	Function	Illustrations
MENU	「Menu」 button, Enter the function interface	 <p>The illustration shows the main OSD menu. At the top, the word 'BRIGHTNESS' is displayed. Below it, there are four menu items: 'BRIGHTNESS' with a slider set to 70, 'CONTRAST' with a slider set to 50, 'ECO' with 'STANDARD' selected, and 'DB' with 'OFF' selected. A vertical column of icons is on the left side of the screen.</p>
BRIGHTNESS	Pushing 「Menu」 button twice to adjust brightness with 「▼」 「▲」 buttons; you can push the 「Auto」 button twice to quit	 <p>The illustration shows the OSD menu with the 'BRIGHTNESS' option highlighted in red. The slider for BRIGHTNESS is now at 70, and the slider for CONTRAST is at 50. The 'ECO' and 'DB' options remain 'STANDARD' and 'OFF' respectively.</p>
Contrast Ratio	Pushing 「Menu」 button once and pushing 「▼」 buttons to adjust the contrast ratio, you can push the 「Auto」 button twice to quit	 <p>The illustration shows the OSD menu with the 'CONTRAST' option highlighted in red. The slider for BRIGHTNESS is at 70, and the slider for CONTRAST is at 50. The 'ECO' and 'DB' options remain 'STANDARD' and 'OFF' respectively.</p>

Option	Function	Illustrations
<p>IMAGE</p>	<p>The default is (Wide)16:9, we can adjust by 「▼」 「▲」, 「Menu」 to confirm selection, options: auto adjust mode, wide view mode, 4:3 mode,</p>	 <p>The illustrations show three sequential screenshots of the TV's 'IMAGE' menu. Each screenshot displays the following settings:</p> <ul style="list-style-type: none"> H. POSITION: 50 V. POSITION: 50 CLOCK: 79 PHASE: 0 ASPECT: 0 <p>The ASPECT setting is highlighted in red in each screenshot, and the selected mode is shown at the bottom of the menu:</p> <ul style="list-style-type: none"> Top screenshot: WIDE Middle screenshot: 4:3 Bottom screenshot: AUTO

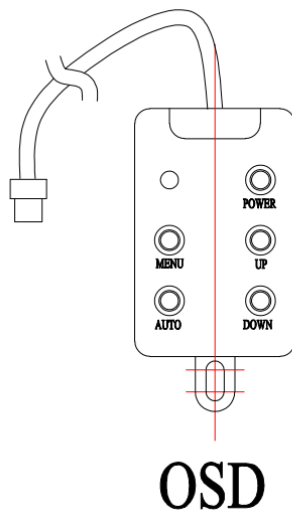
Option	Function	Illustrations																								
<p>Color Temperature</p>	<p>Default warm color, adjust status by 「▼」 「▲」, 「Menu」 to confirm selection, available options: Warm, Cool, USER (you can change the ratio of RED GREEN and BLUE).</p>	 <p>The illustrations show three sequential screenshots of a 'COLOR TEMP.' menu. Each screenshot has a blue background and a white central area with a grid pattern. On the left, there is a vertical menu with icons for light, zoom, color, and other settings. The 'COLOR TEMP.' option is highlighted in orange. The top of the menu displays 'COLOR TEMP.' and the current mode: 'WARM', 'COOL', or 'USER'. Below this, there are three sliders for 'RED', 'GREEN', and 'BLUE' with numerical values to their right.</p> <table border="1"> <caption>WARM Mode</caption> <thead> <tr> <th>Color</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>RED</td> <td>54</td> </tr> <tr> <td>GREEN</td> <td>48</td> </tr> <tr> <td>BLUE</td> <td>45</td> </tr> </tbody> </table> <table border="1"> <caption>COOL Mode</caption> <thead> <tr> <th>Color</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>RED</td> <td>47</td> </tr> <tr> <td>GREEN</td> <td>43</td> </tr> <tr> <td>BLUE</td> <td>45</td> </tr> </tbody> </table> <table border="1"> <caption>USER Mode</caption> <thead> <tr> <th>Color</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>RED</td> <td>50</td> </tr> <tr> <td>GREEN</td> <td>50</td> </tr> <tr> <td>BLUE</td> <td>50</td> </tr> </tbody> </table>	Color	Value	RED	54	GREEN	48	BLUE	45	Color	Value	RED	47	GREEN	43	BLUE	45	Color	Value	RED	50	GREEN	50	BLUE	50
Color	Value																									
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GREEN	43																									
BLUE	45																									
Color	Value																									
RED	50																									
GREEN	50																									
BLUE	50																									

Option	Function	Illustrations
OSD Setting	<p>Language Selection</p> <p>Push the 「Menu」 button to confirm, use the 「▼」 「▲」 to select language you want</p>	
RESET	<p>Restore the factory settings</p>	

Option	Function	Illustrations
Input Source	No default mode, automatically switch. According to signal source, no adjustment required.	

3.1.4 OSD Key Information

A. OSD



B. Key Events

Button	Function	Status	Hot Key
POWER	Indicates Operation status	Green: Normal Operation Red: No signal, Sleep mode, Factory mode, Burn in mode Off: Off Mode	
POWER	Turn on or turn off the power		

AUTO	1、 Adjust the Picture of Analog input 2、 Exit menu or Exit a menu of sub-menu		
MENU	Display the OSD Menu or Select highlighted function		Keep pressing the button for 6 seconds, Turn OSD LOCKED or OSD UNLOCKED,
UP	Select Previous menu item or increase value		Select Brightness Adjust menu
DOWN	Select next menu item or Decrease value		Switching signal source

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4.1 Warranty

Premio is only under obligation to offer the following Warranty Repair and Services except those authorized formal documents in written form:

3 years warranty

The above warranty period takes 9~12 of the Serial Number label on the Premio products as the starting date.

Warranty products cover panel, controller and communication cable. Accessories included with the products are not included in the warranty.

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5.1 Troubleshooting

5.1.1 No picture

The signal cable should be fully connected to the graphics card/computer.

The graphics card should be completely seated in its PC slot.

Power Button and computer power switch should be in the ON position.

Check to make sure that a supported mode has been selected on the graphics card or system being used. (Please consult graphics card or system manual to change graphics mode).

Check the monitor and your graphics card with respect to compatibility and recommended settings.

Check the signal cable connector for bent or pushed-in pins.

Check that the BNC or D-SUB button is in the correct position.

5.1.2 Power Button does not respond

Unplug the power cord of the monitor from the AC outlet to turn off and reset the monitor, or simultaneously press the RESET and Power buttons.

5.1.3 Image is unstable, unfocused

Signal cable should be fully connected to the computer.

Use the OSM™ Image Adjust controls to focus and adjust display by increasing or decreasing the Fine control. When the display mode is changed, the OSM Image Adjust settings may need to be re-adjusted.

Check the monitor and your graphics card with respect to compatibility and recommended signal timings.

If your text is garbled, change the video mode to non-interlace and use 60Hz refresh rate.

5.1.4 LED on monitor is not lit (no green or amber color can be seen)

Power Button should be in the ON position and power lead should be connected.

Make certain the computer is not in a power-saving mode (touch the keyboard or mouse if present).

5.1.5 Display image is not properly sized

Use the OSM Image Adjust controls to increase or decrease the H. Size.

Check to make sure that a supported mode and signal timing has been selected on the graphics card or system being used (Please consult the graphics card or system manual to change graphics mode or refresh rate).

5.1.6 Selected resolution is not displayed properly

Select the Display Resolution in the OSM Information menu to confirm that the appropriate resolution has been selected. If not, select corresponding option by pressing the control button.

5.1.7 No touch function

Check or replace the USB cable, as well as replace the USB port on the PC; If replacing the USB cable and interface does not work, please restart the computer, if it still has no effect, please replace the computer host to test again; If it still does not work, please contact our technical support engineer

Technical Support and Assistance

1. Visit the Premio Inc website at <https://premioinc.com> where you can find the latest information about the product.
2. Contact your distributor, our technical support team or sales representative for technical support if you need additional assistance. Please have following information ready before you call:
 - Model name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Conventions Used in this Manual



This indication alerts operators to an operation that, if not strictly observed, may result in severe injury.



This indication alerts operators to an operation that, if not strictly observed, may result in safety hazards to personnel or damage to equipment.



This indication provides additional information to complete a task easily.

