

OMRON

Model FZ-M08

LCD monitor

INSTRUCTION SHEET

Thank you for selecting OMRON product. This sheet primarily describes precautions required in installing and operating the product.

Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convenience, keep the sheet at your disposal.



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PRECAUTIONS ON SAFETY

● Meaning of Signal Words

WARNING Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury, or may result in serious injury or death. Additionally there may be significant property damage.

● Alert statements

WARNING

Do not open rear cover.
High voltage part inside may cause electric shock hazard.

Do not use this device in locations where foreign substances or water (droplets) may enter. This may result in electric shock or fire.

PRECAUTIONS FOR SAFE USE

Please observe the following notices that are necessary for maintaining safety:

■ Power supply and wiring

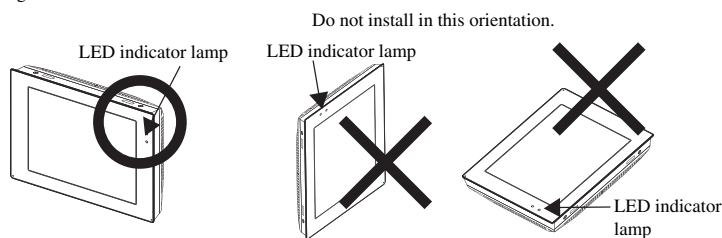
- Be sure to use the product with the power supply voltage specified by this manual.
- Use crimp terminals of the specified size. Do not simply connect the twisted ends of the wires directly to the terminal block.
- Use a DC power supply with safety measures against high-voltage spikes (safety extra low-voltage circuits on the secondary side).

■ Installation environment

- Do not use the product in environments where it may be exposed to inflammable/explosive/corrosive gas.
- Do not use the product outdoors or in environments exposed to direct sunlight.
- Install the unit so that air can flow freely through its cooling vents.
- Install the product away from high-voltage devices and motor-powered devices in order to secure safe operation and maintenance.
- Be sure all mounting screws are tightened securely.
- Install the unit in a site where it will be not come into contact with water, oils or chemicals.

■ Installation method

- To improve heat dissipation, install the product in the following orientation as shown in the figure below.



■ Other

- The liquid crystal panel contains stimulant inside. If an LCD panel is damaged and the liquid substance inside comes in contact with human skin or get into an eye, immediately wash with flowing water and consult a physician.
- The LCD panel is a glass product. Do not hit or drop it or it may break and cause a dangerous situation. Handle it with care.
- Ensure you do not disassemble, deform under pressure or incinerate the main unit.
- If you suspect an error or malfunction, stop using the unit immediately, turn OFF the power supply, and consult your OMRON representative.
- Dispose of this product as industrial waste.

PRECAUTIONS FOR CORRECT USE

- A transparent seal covers the front screen of FZ-M08 for protection. It may impair your screen visibility if used with it on. Peel it off before using.
- Although the LCD panel is manufactured with precision technology, there are cases where some products are shipped with traces of pixel defects. This is due to the structural reason of LCD and is not a failure.
- Wire the Power Supply Unit independently of other devices. Keep the power supply wires as short as possible.
- Turn OFF the power and take appropriate safety precautions before conducting maintenance work. When soiled, wipe the unit with a piece of soft cloth. Use an air brush to clean the dirt off the display panel screen. Do not use benzene, thinner or other solvents for cleaning.
- Use FZ-VM for monitor cable.

1. Checking the package

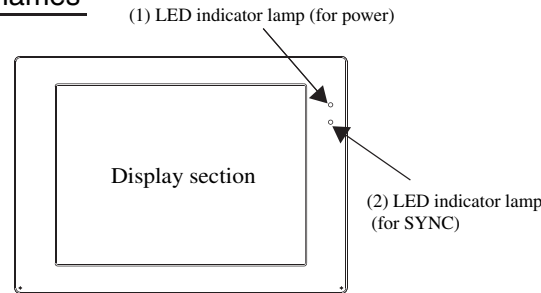
Check that the following items are included in the box.

- LCD monitor 1 unit
- Instruction sheet (this sheet) 1 sheet
- Brackets 4 pieces

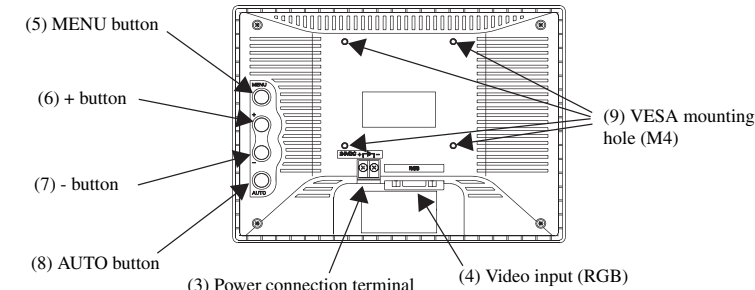
All possible care is taken in packing the required quantity of items. However, in the case of a shortage, contact your dealer or any of nearby branch office of OMRON corporation.

2. Component names

● Front view



● Rear

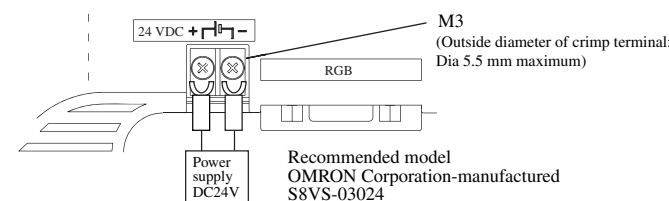


- (1) Lit up green when power is ON.
- (2) Lit up orange while the video signal is input.
- (3) Connect power unit for 24 VDC.
- (4) Video input terminal (RGB)
- (5) OSD operating button (MENU button)
- (6) OSD operating button (+ button)
- (7) OSD operating button (- button)
- (8) OSD operating button (AUTO button)
- (9) Mounting hole for VESA 75 mm x 75 mm

For the operating methods of respective buttons, see 4. OSD (On Screen Display) adjust function.

3. Power connection terminal

Power connection terminal is located on the back of the main unit. Connect power unit for 24 VDC.



- Keep the power supply wires as short as possible (maximum 10 m).
- If UL recognition is required, use a UL class II power supply. Regarding installation, do not use the VESA mounting but fix the monitor unit using the board mounting.

4. OSD (On Screen Display) adjust function

Adjust the display condition of this product by operating the adjustment menu indicated by OSD. Operate OSD with the adjust buttons provided on the back of the monitor. OSD menu will not start up unless a video signal is input.

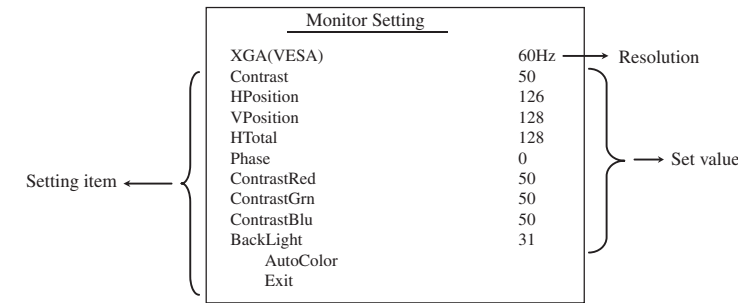
Functional descriptions of each button

■ Button

- MENU : Starts OSD operation. Decision and release of adjust items
- + : Adjustment of set value Upward shift of adjust item
- - : Adjustment of set value Downward shift of adjust item
- AUTO : Automatic adjustment will run if pressed when OSD is not indicated (Phase, HPosition, VPosition)
Automatic adjustment may be disabled depending on the input signal and/or monitor cable in use.
In such a case, users are requested to adjust the screen manually.

Set values can be reverted to their default values (setting at shipment) when the "+" and "-" buttons are pressed simultaneously for approx. 5 seconds.

OSD function
OSD screen will appear when the setting item selector button (MENU) is pressed. (Example of OSD screen)



Adjust item

Adjust item	Descriptions	Range of adjustment	Defaults
Contrast	Adjusts the screen contrast.	0~255	50
HPosition	Adjusts screen display position in transverse direction.	78~178(※)	126
VPosition	Adjusts screen display position in longitudinal direction.	106~150(※)	128
HTotal	Adjusts until strip flickering in longitudinal direction is eliminated.	78~178	128
Phase	Adjusts bleeding and flickering of characters in the screen.	0~124	0
ContrastRed	Adjusts the screen contrast of red.	0~255	50
ContrastGrn	Adjusts the screen contrast of green.	0~255	50
ContrastBlu	Adjusts the screen contrast of blue.	0~255	50
BackLight	Adjusts brightness of the screen.	0~31	31
AutoColor	Automatically adjusts contrast of the screen.	-	-
Exit	Saves the set values and ends OSD.	-	-

※ Adjustment range of transverse and longitudinal directions of the position varies by the input resolution. The above table shows the case of XGA.

(Example of operation)

- When desiring to adjust flickering and display position by auto adjust function.
 1. Press the "AUTO" button when OSD screen is not shown.
 2. "Adjusting ..." message appears during automatic adjustment.
 3. "AUTO Adjust OK" or "AUTO Adjust error" appears several seconds later.
 4. In the case of an error, select an item to adjust and make adjustment manually.

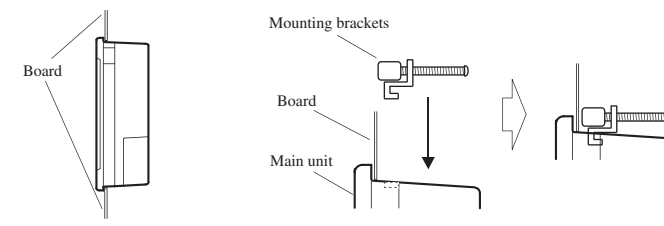
• When desiring to adjust the screen position (transverse direction) manually.

1. Press the "MENU" button to have OSD displayed on the screen.
2. Use the "+" and "-" buttons to move the gray cursor through the settings items.
3. Clicking on the "MENU" button when the cursor is aligned with the "HPosition" will change the cursor to yellow and switch to the Value Adjustment Mode. Use the "+" and "-" buttons to achieve the optimum positions while looking at the screen.
4. The setting will end if no button is pressed for 10 seconds or longer and then the set values will be memorized.

5. Mounting

● In the case of panel mounting

- (1) Fit the LCD monitor into a mounting board prepared in advance.
- (2) Brackets at 4 locations on the top and bottom sides of the main unit Hook the protrusions of the brackets on to the holes for installation, and turn the screws to fasten.



● In the case of VESA mounting

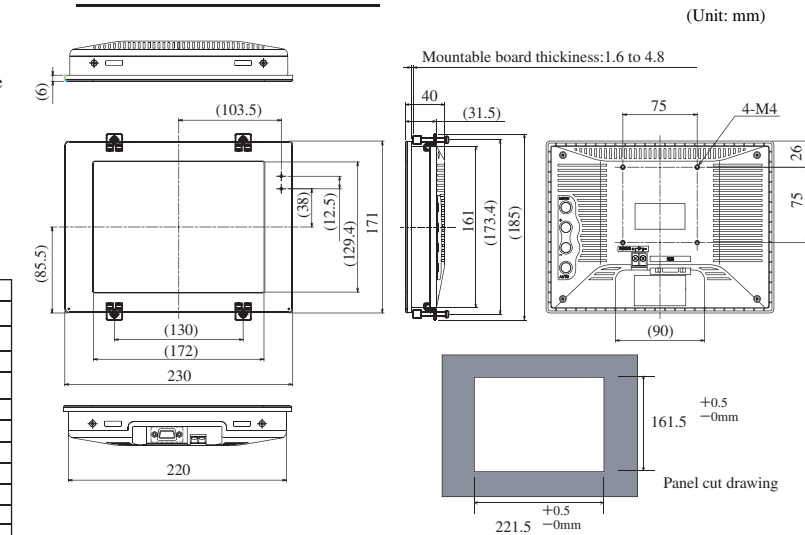
This product can be mounted on to the arms conforming to the VESA standard. Fix the unit using the VESA mounting holes (M4) of 75 mm x 75 mm pitch on the back of the main unit. For details about mounting, refer to the instruction manual of the arm.

6. Specifications

● General specifications

Item	Specifications
Power supply voltage	21.6 to 26.4 VDC
Current consumption	0.7 A maximum
Video input signal	1 channel of analog RGB video input
Screen size	Diagonal 21.3 cm, 8.4 type equivalent
Pixel count	1024 (vertical) x 768 (horizontal) pixels
Display colors	16,700,000 colors (8 bit/color)
Luminance	300 cd/m ²
Contrast ratio	400 : 1
Angle of visibility	Left and right: each 65° upward: 60° downward: 50° (Contrast ratio 10:1 minimum)
Back light	Edge light system, 2 CCFK lamps
Dielectric strength	Between the group of external DC terminals and the ground terminal: 840 VAC 50/60 Hz
Vibration resistance	10 to 150 Hz at a single-amplitude of 0.1 mm (maximum acceleration: 15 m/s ²), 10 times for 8 minutes each in 3 directions
Ambient temperature	Operating: 0 to 50°C, Storage: -20 to 60°C
Ambient humidity	Operating and storage: 20 to 85% RH (No condensation)
Degree of protection	IEC60529 IP20
Material	Front panel: PC, case: PC/PBT, buttons: ABS
Weight	Approx. 1.0 kg

9. External dimensions



Suitability for Use

THE PRODUCTS CONTAINED IN THIS SHEET ARE NOT SAFETY RATED. THEY ARE NOT DESIGNED OR RATED FOR ENSURING SAFETY OF PERSONS, AND SHOULD NOT BE RELIED UPON AS A SAFETY COMPONENT OR PROTECTIVE DEVICE FOR SUCH PURPOSES. Please refer to separate catalogs for OMRON's safety rated products.

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application or use of the product.

Take all necessary steps to determine the suitability of the product for the systems, machines, and equipment with which it will be used. Know and observe all prohibitions of use applicable to this product.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM. See also Product catalog for Warranty and Limitation of Liability.

■ EUROPE

OMRON EUROPE B.V. Sensor Business Unit
Carl-Benz Str.4, D-71154 Nufringen Germany
Phone:49-7032-811-0 Fax: 49-7032-811-199

■ NORTH AMERICA

OMRON ELECTRONICS LLC
One Commerce Drive Schaumburg, IL 60173-5302 U.S.A
Phone:1-847-843-7900 Telephone Consultation
1-800-55-OMRON Fax : 1-847-843-7787

■ ASIA-PACIFIC

OMRON ASIA PACIFIC PTE LTD
83 Clemenceau Avenue, #11-01 UE Square, Singapore 239920
Phone : 65-6-835-3011 /Fax :65-6-835-2711

OMRON Corporation