

**MV177**



**17.1" TFT LCD MONITOR**

**User's Manual**

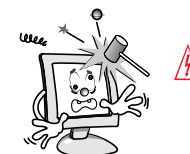
|   |    |
|---|----|
| ● Please read the cautions carefully before using this product... | 2  |
| ● Product features .....  | 3  |
| ● Installation of the product .....                               | 4  |
| ● Names and operation of control buttons .....                    | 5  |
| ● Selection and operation of the OSD menu .....                   | 6  |
| ● Menu .....  | 7  |
| ● Timing guide .....  | 10 |
| ● Product specifications .....                                    | 11 |
| ● Troubleshooting .....   | 12 |



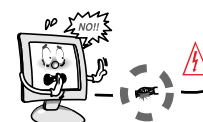
Do not scratch the screen of the LCD monitor with sharp materials such as nails and pens.



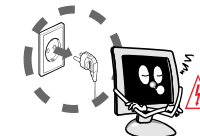
The interior part of the monitor is composed of electric elements. If the monitor is broken, do not try to disassemble it, because it is necessary to contact appropriate technical services in order to have the product repaired.



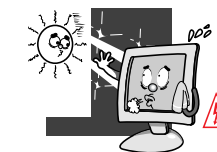
Take care of the LCD monitor so that it is not damaged by the external impact.



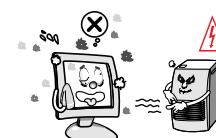
Take care not to use damaged cords and keep this product out of reach of children and persons who are not involved in using the product.



Disconnect the power cable when the monitor is not used during a long period of time while you are away from home.



Do not use this product near the windows receiving direct sunlight or direct natural light.



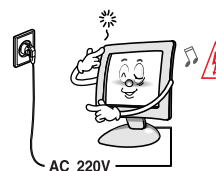
Choose a fresh and dry area and protect the monitor from extreme conditions of temperature and humidity, dust and smoke. Adequate temperature = 0-40°C. Adequate humidity = 30-80 RH



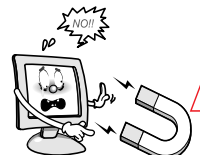
The LCD monitor screen can be damaged in the case that you clean the surface by using acetone, ethyl alcohol or acid detergent.



Do not install the monitor in a sloping place that is not safe due to the fact that the product can fall down and be broken, thus doing harm to other persons.



Check the power voltage before connecting to the AC power cable.



Take care so that the monitor is not in contact with magnetic materials, metals and inflammable substances.

## Note

This product uses the TFT LCD panel produced using state-of-the-art technology. The TFT LCD panel consists of millions of pixels and there is much probability of occurrence of bad pixels. Due to this reason, red, blue and green pixels may seem to shine and some black pixels may be visible. But this does not mean that the quality of this product is bad. You can use this product without worrying about the worsening of product performance.

## ► Introduction

Thank you for buying our TFT LCD monitor.

Our monitor is a high-resolution monitor that has features of electromagnetic wave blocking, reduction in electricity consumption, and efficient use of space. In view of the fact that this user's manual is prepared for helping you to adequately use the product, it is recommendable to read the user's manual before using the product.

## ► Product features

- 1) This product has a 17-inch flat surface (Color Active Matrix TFT LCD) with a pixel size of 0.264 mm (H) x 0.264 mm (V) for displaying an ultra-precision, high-resolution image.
- 2) This product uses 17"(Thin Film Transistor) LCD panel and supports a maximum of 1280 x 1024.
- 3) This product is a monitor whose deflection frequency is automatically transformed up to 30 - 80 kHz horizontally and up to 56 - 75 Hz vertically.
- 4) This product is compatible with IBM PC and Apple Macintosh (a different adapter is necessary for Apple Macintosh).
- 5) This product has a power-saving function less than 32 W in ON mode, less than 2 W in stand-by mode, less than 2 W in pause mode and less than 1 W in OFF mode in comparison with other monitors.
- 6) This product supports DDC and allows you to use 'Plug and Play'.



In the case of some system requirements, it may not be compatible with Plug and Play.

- Registered as a device whose electromagnetic wave-blocking capacity is adequate (B Class)  
This product is registered as a device whose electromagnetic wave-blocking capacity is adequate and can be used in all places (including homes).

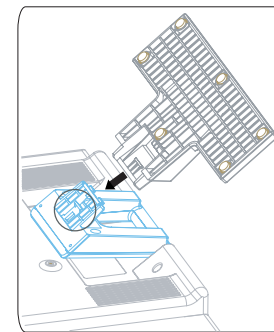
## ► Checking the product

Please check if the product contains the following items. If there are some items missing, please contact the technical services.

1. TFT LCD monitor
2. User's manual (including product warranty).
3. AC to DC adapter.
4. Power cable (the power cable can be different according to use environment).
5. Signal Cable ( Monitor Connection Cable )
6. Monitor Base
7. Audio Cable(Optional)

## ► How to connect Base part into Monitor Stand Part

1. Put down front surface of Monitor on cushion available float floor/desk
2. Unfold folded stand part of monitor and connect to the base part
3. Detaching way folds base part at No.1 condition and disconnect base part with pulling out rock button located at the bottom of base part.



## ► Installation

1. Turn off the power connected to the monitor before connecting to an external device.
2. Power connection  
Connect the adapter to the DC jack connected to the signal cable of the monitor and connect the power cable.
3. Signal connection  
This signal input terminal is a D-SUB connector. Connect the signal cable to the signal input of the computer.
4. Turn on the power of the monitor.
5. Turn on the power of the system that you want to use.
6. Continue with the operation when the screen appears. You can adjust the desired status of the screen using control buttons at the bottom of the monitor.
7. Up/Down Monitor Angle should not be over 15/20 degree.
8. If you want to finish the operation, turn off the system power and then turn off the power of the monitor.

## Names and operation of control buttons

This monitor has several control buttons. They can be used according to the user preference.

## Function of the buttons

### ◆ Power button ( )

If you press the power button, the indicator lamp is turned on, and the operation of the monitor is initiated. If you do not want to start the operation of the monitor, press the power button again.

### ◆ Power indicator lamp (green)

Considering that this product has a power-saving function, if the power cable is connected, the power indicator lamp is shown as follows.



| Mode                 | On     | Stand-by                    | Suspend | Off     |
|----------------------|--------|-----------------------------|---------|---------|
| Power indicator lamp | Green  | Green (blinks every second) |         | Dark    |
| Screen               | Active | Blanked                     | Blanked | Blanked |

### ◆ MENU

If you press the menu button, the OSD (On-Screen Display) menu window appears.

### ◆ SELECT

If you press SELECT button in the screen status, it is automatically adjusted for the optimal size and optimal position, and if you press the OSD button, it functions as a selection button.

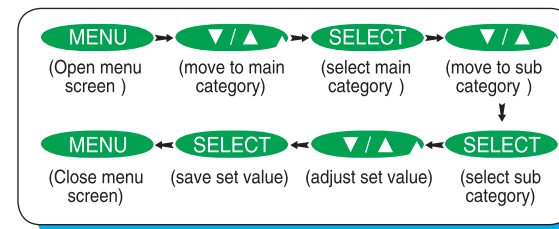
### ◆ (▲/▼)

You can choose the desired item using the button ▲(increase) / ▼(decrease) in the OSD menu, or you can modify the selected values. (In case of Speaker option, you can modify the sound using the button ▲(increase) / ▼(decrease). (0~100))

### ◆ VOLUME

Volume  50

You can select the OSD menu in the OSD window using all the control buttons at the bottom of the screen. To change the current settings or adjust them for the desired settings, follow the following steps.



1. Press the Menu button to open the OSD menu window.
2. Press the ▲ / ▼ button to move the item of desired main menu.
3. If you highlight the desired menu item, press the Select button.
4. Press the ▲ / ▼ button to move the desired submenu item.
5. If you highlight the submenu item, press the Select button.
6. Press the ▲ / ▼ button to modify the current value.
7. Press the Select button to save the modified value.
8. Push MENU button to exit to sub category, main category and menu screen in this order.



The OSD window will disappear within a few seconds if there is no input in the OSD window. It does not appear when there is no input signal.

Main menu is configured as follows.

1. Screen  
Factors in the brightness of the environment at the vicinity to automatically adjust the brightness of monitor, and also adjusts to the level desired by user  
Manually/automatically adjusts screen location, modulation and frequency.
2. Color  
Manually/automatically adjusts screen brightness, luminosity, color temperature and color proportion.
3. OSD  
Adjusts the language used, the position of the menu screen, the display time of the menu screen and the saturation of the menu screen.
4. Others  
Adjusts the language on the menu screen, and initializes menu value. User is able to select input signal, and adjust On/Off and value of audio function.

## Picture

| Picture     | 1280×1024 | 60 . 2Hz |
|-------------|-----------|----------|
| Brightness  | ↕ 70 ⤴    |          |
| Contrast    | ↕ 70 ⤴    |          |
| H Position  | ↕ 69 ⤴    |          |
| V Position  | ↕ 88 ⤴    |          |
| Phase       | ↕ 58 ⤴    |          |
| Clock       | ↕ 49 ⤴    |          |
| Auto Adjust | No        |          |

**Brightness**\_ Adjusts brightness. 0 ~ 100

**Contrast**\_ Adjusts contrast. 0 ~ 100

**Horizontal position**\_ Adjusts the horizontal position of the current screen. 0 ~ 100

**Vertical position**\_ Adjusts the vertical position of the current screen. 0 ~ 100

**Phase**\_ Adjusts the center of the current screen. 0 ~ 100

**Clock**\_ Increases or decreases the number of pixel to adjust the horizontal size.

**Auto-Adjust**\_ Configures Auto-Position, Auto-Phase, Auto-Clock and Auto-Color at the same time.

## Color

| Color      | 1280×1024 | 60 . 2Hz |
|------------|-----------|----------|
| Color Temp | User      |          |
| Red        | ↕ 50 ⤴    |          |
| Green      | ↕ 50 ⤴    |          |
| Blue       | ↕ 50 ⤴    |          |
| Auto Color | No        |          |

**Color template**\_ Adjusts the color desired by the user. 19300. 6500. 5000. User.

**Red**\_ Adjusts color saturation. 0 ~ 100

**Green**\_ Adjusts color saturation. 0 ~ 100

**Blue**\_ Adjusts color saturation. 0 ~ 100

**Auto-Color**\_ Adjusts the colors of the screen automatically.

## OSD

| OSD          | 1280×1024 | 60 . 2Hz |
|--------------|-----------|----------|
| OSD H Posi   | ↕ 50 ⤴    |          |
| OSD V Posi   | ↕ 50 ⤴    |          |
| OSD Timer    | 10 SEC    |          |
| Transparency | 25 %      |          |

### OSD horizontal position

Adjusts the horizontal position of the OSD menu screen. 0 ~ 100

### OSD vertical position

Adjusts the vertical position of the OSD menu screen. 0 ~ 100

### OSD timer

Adjusts OSD menu screen's marking time within the screen Possible to set the time for disappearance of OSD menu screen up to 40 seconds when OSD operation button is not pushed on. (10,20,30,40)

### Transparency

Adjusts transparency at the OSD menu screen background.(0~100)

## Misc

| Misc         | 1280×1024 | 60 . 2Hz |
|--------------|-----------|----------|
| Language     | English   |          |
| Recall       | No        |          |
| Input Select | RGB       |          |
| Audio        | ON        |          |
| volume       | ↕ 50 ⤴    |          |

### Language

Configures the language used in the OSD menu. The languages are as follows: English, German, French, Italian, Spanish, Chinese Simplified, Chinese Traditional and Japanese.

**Recall**\_ Resets all the functions.

**Input Select**\_ User can select input signal depending on installed device.(RGB,DVI)

**Audio**\_ Turns audio function On/Off.

**Volume**\_ Adjusts size of sound.(0-100)

} Option

Auto Adjust

◆ Auto Adjust

Appears when automatic screen adjustment is executed on RGB mode.

◆ No Signal

Appears when there is no PC input signal. Check cable connection.

No Signal

Video Mode Not Supported

◆ Video Mode Not Supported

Appears when Video Mode Not Supported the permissible range.

Power Saver Mode

◆ Power Saver Mode

Appears when PC input signal is absent. This message disappears automatically after five seconds. Check PC power

Volume  50

◆ Volume

► Timing guide

This product is a multi-frequency monitor. It functions in horizontal frequencies from 30 kHz to 80 kHz and vertical frequencies from 56 Hz to 75 Hz. Due to its design based on microprocessor, it offers the functions of automatic synchronization and automatic size. This monitor is equipped with 10 programmed configurations that are shown in the timing table. The followings are the ten configurations.

| Preset |     | Resolution |          | Frequency  |          | Clock [MHz] | Polarity (H/V) |
|--------|-----|------------|----------|------------|----------|-------------|----------------|
|        |     | Horizontal | Vertical | Horizontal | Vertical |             |                |
| VGA    | M1  | 720        | 400      | 31.5KHz    | 70Hz     | 28.322      | - / +          |
| VESA   | M2  | 640        | 480      | 31.5KHz    | 60Hz     | 25.175      | - / -          |
|        | M3  | 640        | 480      | 37.5KHz    | 75Hz     | 31.500      | - / -          |
|        | M4  | 800        | 600      | 37.9KHz    | 60Hz     | 40.000      | + / +          |
|        | M5  | 800        | 600      | 46.9KHz    | 75Hz     | 49.500      | + / +          |
|        | M6  | 1024       | 768      | 48.4KHz    | 60Hz     | 65.000      | - / -          |
|        | M7  | 1024       | 768      | 60.0KHz    | 75Hz     | 78.750      | + / +          |
|        | M8  | 1280       | 1024     | 64.0KHz    | 60Hz     | 108.000     | + / +          |
|        | M9  | 1280       | 1024     | 80.0KHz    | 75Hz     | 135.000     | + / +          |
| MAC    | M10 | 832        | 624      | 49.7KHz    | 75Hz     | 57.284      | - / -          |

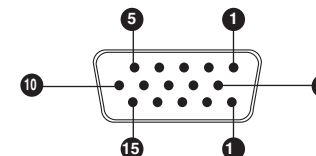
► Signal connection

This signal input terminal is a D-SUB connector. Connect the signal cable to the signal input of the computer.



Disconnect the power connected to the monitor before connecting the signal output of the system.

| Pin number | Description   | Pin number | Description       |
|------------|---------------|------------|-------------------|
| 1          | Red           | 9          | No connection     |
| 2          | Green         | 10         | Ground            |
| 3          | Blue          | 11         | Ground            |
| 4          | No connection | 12         | SDA               |
| 5          | Ground        | 13         | Horizontal - Sync |
| 6          | Red ground    | 14         | Vertical - Sync   |
| 7          | Green ground  | 15         | SCL               |
| 8          | Blue ground   |            |                   |



Product specifications

|                    |                    |  |
|--------------------|--------------------|--|
| LCD                | Type               | 17" diagonal viewable screen TFT (Thin Film Transistor). Active Matrix Panel 0.264 mm (H) x 0.264 (V). |
|                    | pixel pitch        | R. G. B. vertical stripe.  |
|                    | Surface Color      | 16,194,277 colors.   |
|                    | Display Condition  | anti-glare coating.  |
| Angle of view      | H/V                | 150°/135°  |
| Contrast ratio     | Type               | 700:1  |
| Brightness         | Type               | 300 cd/m <sup>2</sup>  |
| Response Time      | Type               | 8ms  |
| Compatibility      | PC                 | IBM XT, AT, 386, 486, Pentium or PS/2 and compatibles (from VGA up to 1280x768 @ 75Hz).                |
| Refresh rate       | Maximum            | 1280x1024 @ 75 Hz<br>(60 Hz for optimal display)   |
| Connectors         | Input signal       | 15-pin D-SUB, DVI (Option)   |
|                    | Power              | Jack type DC+12 V In   |
| Voltage/Power      | Input              | AC 100-240 V , 50-60 Hz  |
|                    | Output Consumption | DC 12 V<br>32W(MAX)  |
| Screen size        | Maximum            | 337.920 mm(H) x 270.336 mm(V)  |
| Features           | Temperature        | 33°F ~ 104°F (0°C ~ 40°C)  |
|                    | Humidity           | 20%RH-90%RH (no condensation) Up to 10,000 feet  |
| Storage conditions | Temperature        | -14°F ~ 104°F (-20°C ~ 40°C)   |
|                    | Humidity           | 5%RH-90%RH(no condensation)  |
| Dimension          |                    | 319.4 mm (width) x 272.7 mm (height) x 140.0 mm (depth)  |
| Weight             | unit/box           | 3.0 kg / 4.4 kg  |
| Option             | Speaker            | Built-in Type 2W x 2   |

★ The design and specifications of the product are subject to change without previous notice to improve the quality of the product.

- ▶ **No power.**
  - Flip the power switch ON. The Power LED turns on.
  - Make sure AC power cord is securely connected to the power jack and to a power outlet.
- ▶ **Power on but no screen image.**
  - Make sure the video cable attached with this monitor is tightly secured to the video output port on the back of the computer
  - Adjust the brightness and contrast.
- ▶ **Image is unstable, unfocused.**
  - Use AUTO-TUNE to adjust automatically.
  - If the image is still unstable after AUTO-TUNE processing, please adjust PHASE manually to get image focused.
  - Check whether the resolution or refresh rate in windows display setting is beyond supported range (please refer to the specification of supported mode.)
- ▶ **Flickering**
  - Not enough power is being supplied to the Monitor.  
Connect the Monitor to a different outlet. If a surge protector is being used, there may be too many devices plugged in.
  - See Timing Guide in this manual with a list of refresh rates and frequency settings showing the recommended setting for the Monitor.
- ▶ **Wrong or abnormal colors.**
  - If any colors (Red, Green, or Blue) are missing, check the video cable to make sure it is securely connected. Loose pins in the cable connector could cause a bad connection.
  - Connect the Monitor to another computer.
  - Check the graphics card for proper sync scheme (or sync polarities) to match the Monitor's specifications.
- ▶ **Double (split) screen image**
  - Make sure your graphics card is set to Non-Interlaced mode.
- ▶ **Entire screen image rolls (scrolls) vertically.**
  - Make sure the input signals are within the LCD monitor's specified frequency range. (Maximum : VESA, MAC 1280 X 1024 @ 75Hz)
  - Connect the video cable securely.
  - Try the Monitor with another power source.

- ▶ Control buttons do not work.
  - Press only one button at a time.

### ABOUT THE LCD

The LCD contains over 3,932,160 thin-film transistors (TFTs). A small number of missing, discolored, or lighted dots on the screen is an intrinsic characteristic of TFT LCD technology and is not an LCD defect.  
If you display a fixed pattern for more than 10 hours, its image may remain on the screen in overlap mode when you display something else.

## **FCC NOTE**

: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 UNDESIRE OPERATION**

**THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**