MV142AB

TFT LCD MONITOR
User's Manual
Manual del usuario

hyvision™

REV. 00

Table of Contents

Please read the cautions carefully before using this product

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.

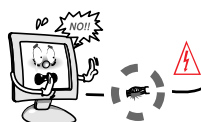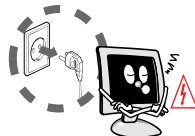Take care not to use damaged cords and keep this product out of reach of children and persons who are not involved in using the product.

Disconnect the power cable when the monitor is not used during a long period of time while you are away from home.
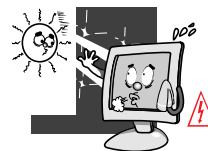
Do not use this product near the windows receiving direct sunlight or direct natural light.
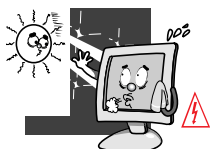
Choose a fresh and dry area and protect the monitor from extreme conditions of temperature and humidity, dust and smoke. Adequate temperature = 0-40°ΔC. Adequate humidity = 30-80 RH
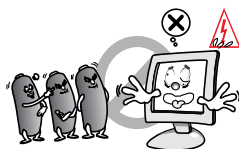
The LCD monitor screen can be damaged in the case that you clean the surface by using acetone, ethyl alcohol or acid detergent.

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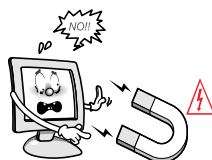
Take care so that the monitor is not in contact with magnetic materials, metals and inflammable substances.

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.

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▶ **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.
This user's manual is prepared to help you to adequately use the product.
It is recommended to read the user's manual before using the product.

Introduction

▶

1) This product has a 14.1-inch flat surface (Color Active Matrix TFT LCD) with
   a pixel size of 0.237 mm (H) x 0.237 mm (V) for displaying an ultra-
   precision, high-resolution image.

2) This product uses TFT (Thin Film Transistor) LCD panel and supports a
   maximum of 1280 x 800.

3) This product is a monitor whose deflection frequency is automatically
   transformed up to 30 - 59 kHz horizontally and up to 56 - 70 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 13W in ON mode,
   less than 2W in stand-by mode, and less than 1W in OFF mode in
   comparison with other monitors.

6) This product weighs just 1.1 kg.

7) This product supports DDC and allows you to use 'Plug and Play'.

Note | 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 missing items , please contact the technical services.

1. TFT LCD monitor
2. User's manual (including product warranty)
3. AC to DC adapter
4. Power cable (style may vary)

▶ Cautions when installing the product

1. Install the product in a safe place.
2. Install the product in a place without either moisture or dust.
3. Do not install the product near direct sunlight or heating devices.

▶ Installation

1. Turn off the power 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. To finish 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 it's functions.

MENU/EXIT   AUTO/SELECT   ▼   ▲   POWER
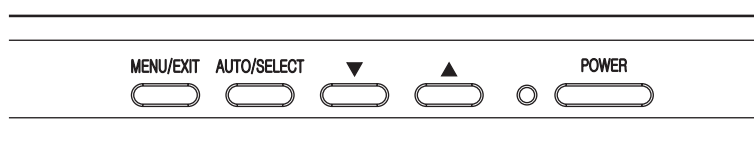
▶ **Function of the buttons**

◆ Power button (POWER)

If you press the power button, the indicator lamp is turned on, and the operation of the monitor is initiated. To turn off, 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)		
Screen	Active	Blank	Blank	Blank

◆ MENU

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

◆ (▼/▲)

You can choose the desired item using the button ▼(decrease)/▲(increase) in the OSD menu, or you can modify the selected values.
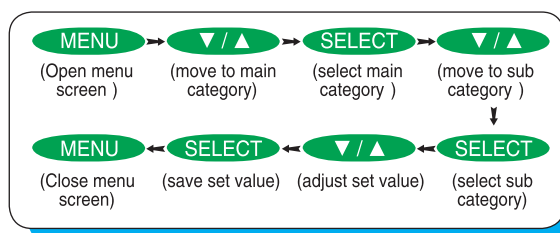
◆ AUTO/SELECT button

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

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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 below steps.

MENU	▼ / ▲	SELECT	▼ / ▲
(Open menu screen)	(move to main category)	(select main category)	(move to sub category)

MENU	SELECT	▼ / ▲	SELECT
(Close menu screen)	(save set value)	(adjust set value)	(select sub category)

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.

> Note　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. Picture
Factor in the brightness of the environment at the vicinity to adjust the brightness of monitor, and also adjusts to the level desired by user Manually adjusts screen location, modulation and frequency.

2. Color
Manually 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. Misc
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.

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● MENU Function

🔷 Picture

```
PICTURE     1280×800    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 positionof 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       1280×800    60.2Hz
  Color Temp       User
  Red              ≫ 50 ≫
  Green            ≫ 50 ≫
  Blue             ≫ 50 ≫
  Auto Color         NO
```

Color Temp_ Adjusts the color desired by the user. (Reddish, Bluish, 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.

● MENU Function

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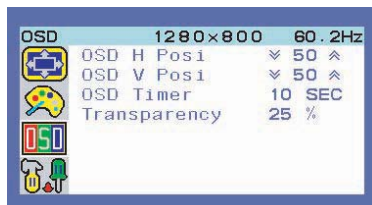
OSD horizontal position
  Adjusts the horizontal position of the OSD menu screen. 0 ~ 100

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 it is possible to set the time
  for disappearance of OSD menu screen up to 40 seconds when OSD operation button is
  not pushed. (10,20,30,40)

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

Misc

Language
Configures the language used in the OSD menu. The languages are as follows: English,
German, French, Spanish, **Korean** and Japanese.

Recall
Resets all the functions.

Auto Adjust

◈ **Auto Adjust**
  Appears when automatic screen adjustment
  is executed on RGB mode.

Auto Color

◈ **Auto Color**
  Appears when automatic screen color
  is executed on RGB mode.

No Signal

◈ **No Signal**
  Appears when there is no PC input signal
  Check cable connection.

OUT OF FREQUENCY

◈ **OUT OF FREQUENCY**
  Appears when Video Mode Not Supportd 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

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▶ Timing guide

This product is a multi-frequency monitor.
It functions in horizontal frequencies from 30 kHz to 59 kHz and vertical frequencies from 56 Hz to 70 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	Polarity
		Horizontal	Vertical	Horizontal	Vertical	(MHz)	(H/V)
VGA	M1	720	400	31.5 kHz	70 Hz	28.322	−/+
VESA	M2	640	480	31.5 kHz	60 Hz	25.175	−/−
	M3	640	480	35.0 kHz	70 Hz	28.000	−/−
	M4	800	600	37.9 kHz	60 Hz	40.000	+/+
	M5	800	600	43.8 kHz	70 Hz	45.500	+/+
	M6	1024	768	48.4 kHz	60 Hz	65.000	−/−
	M7	1024	768	56.0 kHz	70 Hz	75.250	+/+
MAC	M8	832	624	49.7 kHz	75 Hz	57.284	−/−
	M9	1280	800	49.7 kHz	60 Hz	83.500	−/−
	M10	1280	800	58.4 kHz	70 Hz	99.000	−/−

▶ Signal connection

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

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

PIN NO	DESCRIPTION	PIN NO	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		
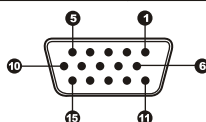
Product specifications

Product specifications

LCD	Type	14" diagonal viewable screen TFT (Thin Film Transistor) Active Matrix Panel
	Color filter	0.237mm(H) X 0.237mm(V) pixel pitch RGB vertical stripe
	Colors	262,144 colors
	Glass surface Screen status	Anti-glare coating
Angle of view	Left/Right	90° / 60°
Contrast ratio	Typ.	300 : 1
Brightness	Typ.	185cd/m^2
Compatibility	PC	IBM XT, AT, 386, 486, Pentium or PS/2 and compatibles (from VGA up to 1280 X 800 @70Hz)
Refresh rate	Maximum	1280x800 @ 70Hz (60Hz for optimal display)
Connectors	Input Signal Power	15-pin D-SUB Jack type DC+12V In
Voltage/Power	Input Output Consumption	AC 100-240 V, 50-60 Hz DC 12 V 13W(MAX)
Screen size	Maximum	303.3 mm(H) x189.6 mm(V)
Features	Temperature Humidity Altitude	32°F ~ 104°F (0°C ~ 40°C) 20% RH ~ 90% RH (no condensation) To 10,000 feet
Storage conditions	Temperature Humidity	-4°F ~ 140°F (-20°C ~ 60°C) 5% RH ~ 90% RH (no condensation)
Dimension		343mm(W) X 252mm(H) X 140mm(D)
Weight	Set / Packing	1.1kg / 2.0kg

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

▶ **No power.**
  - Push 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 recommended refresh
    rates and frequency settings.

▶ **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 : 1280 X 800 @ 70Hz)
  - Connect the video cable securely.
  - Try the monitor with another power source.

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

▶ **When the message of 'out of range' appears.**

1. Restart the computer and while it is restarting, press F8 until the Startup menu appears. Then enter to start the computer in 'safe mode'.
2. Right-click the desktop, click Properties, and click Settings.
3. Click Advanced, click Adapter, and then click Adapter Default from the Refresh Rate.
4. Click OK, Click OK again and then click Yes to restart the computer in Normal mode. You can set the colors and screen area to your preferences under Display Properties.

ABOUT THE LCD

The LCD contains over 3,072,000 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.
It is better to use PC screen saver or set power saving mode on PC.

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 UNDESIRED 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.