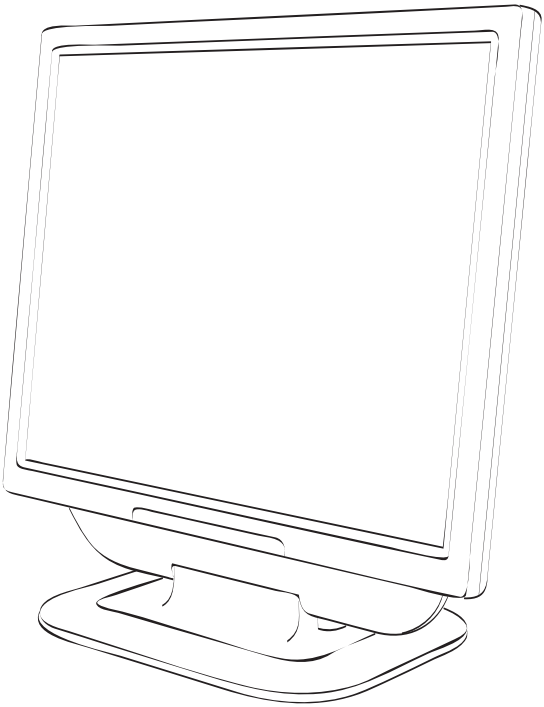

TFT LCD MONITOR

MV190

User's Manual

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ENG

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ENG

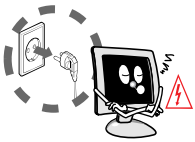
Please read the cautions carefully before using this product

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

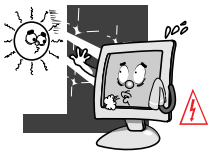
The interior part of the monitor is composed of electric elements. If the monitor is broken, do not try to disassemble it, because it is necessary to contact appropriate technical services in order to have the product repaired.

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

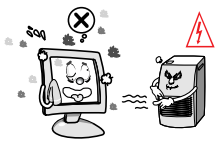
Take care not to use damaged cords and keep this product out of reach of children and persons who are not involved in using the product.



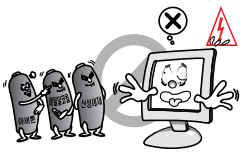
Disconnect the power cable when the monitor is not used during a long period of time while you are away from home.



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

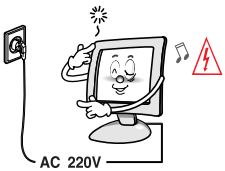


Choose a fresh and dry area and protect the monitor from extreme conditions of temperature and humidity, dust and smoke.
Adequate temperature = 0-40°C.
Adequate humidity = 30-80 RH

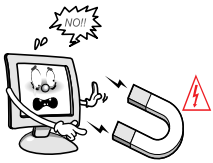


The LCD monitor screen can be damaged in the case that you clean the surface by using acetone, ethyl alcohol or acid detergent.

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.

Product features

ENG

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 19-inch flat surface (Color Active Matrix TFT LCD) with a pixel size of 0.294 mm (H) x 0.294 mm (V) for displaying an ultra-precision, high-resolution image.
2) This product uses 19"(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 40 W in ON mode, less than 3 W in stand-by mode, less than 3 W in pause mode and less than 3 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).

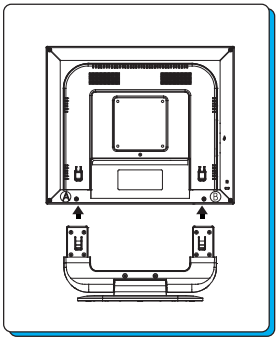
Installation of the product

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
8. USB cable

How to connect Base part into Monitor Stand Part



How to install the monitor stand

1. Lay the monitor on a flat surface.
2. Attach the monitor to the connecting parts as shown in the picture.
3. Push and pull A and B to detach and attach the monitor.

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 wan to finish the operation, turn off the system power and then turn off the power of the monitor.

USB installation (option)

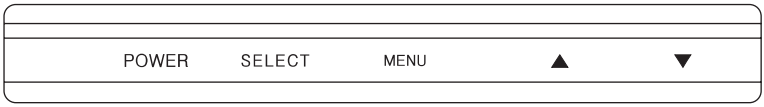
1. Connect the monitor to the PC with signal cable and turn on the PC.
2. Connect USB-compatible PC or other hub to the upstream port on the left of the monitor with USB cable.
3. When the USB cable is connected, the USB function is automatically set.
4. After setting, you can connect USB-compatible accessories to the downstream port on the monitor's USB hub.

Note

- USB hub function may not work correctly according to PC, OS or accessories. Consult the manufacturer for information on USB support.
- Use of USB Rev. 2.0-compatible PC and accessories is recommended.
- When the monitor is turned off, the accessories connected to the downstream port do not work.
- Even when the monitor is in power save mode, the device connected to the monitor’s USB will work.

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

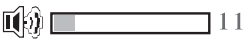
If you pres the menu button, the OSD (On-Screen Display) menu window appears.

◈ 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.

◈ (▼ / ▲)

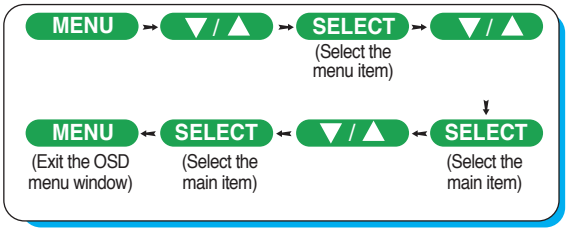
You can choose the desired item using the button ▼ (decrease) / ▲ (increase) in the OSD menu, or you can modify the selected values.



- Speaker volume adjustment (Option) Adjust the volume with ▼/▲ button (0-100).

Selection and operation of the OSD menu

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. To close the OSD menu window, press the Menu button or choose 'Exit (Salir) in the submenu window.

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.

The menu that can be configured by the user in this product uses the pull-down menu. The main menus are as follows.

1. Color
Adjusts brightness, contrast, sharpness and saturation.

2. Image
Adjusts the position and sharpness of the screen.

3. Function
Adjusts the position, sharpness and saturation of the screen.

4. OSD menu
Adjusts the language used, the position of the menu screen, the display time of the menu screen and the saturation of the menu screen.

5. Miscellaneous
Configures a certain screen status and initializes the menu value.

Note

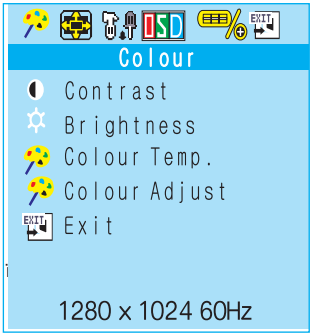
Each menu has its corresponding items.
You can modify the value after selecting the desired item according to the selection method and OSD menu operation in the previous chapter.
If you choose the menu, the icon corresponding to the chosen menu blinks, and the selected menu appears in the menu selection screen.

Menu

ENG

1. Color menu

If you press the menu button, the following screen appears.



- Main menu screen
- Menu selection screen
- Submenu screen
- Current screen status

Contrast
Adjusts contrast. (0 ~ 100)

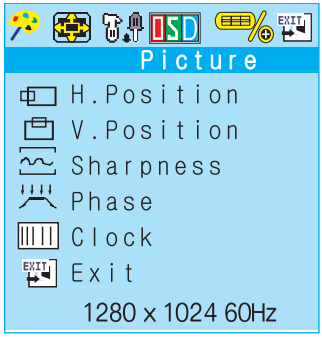
Brightness
Adjusts brightness. (0 ~ 100)

Color template
Adjusts the color desired by the user.
(19300. 6500. 5000. User)

Color adjustment
Adjusts colors (red, green and blue).
- Red: Adjusts color saturation. (0 ~ 100)
- Green: Adjusts color saturation. (0 ~ 100)
- Blue: Adjusts color saturation. (0 ~ 100)
- Exit: Exits the current setting.

Exit
Exits the current menu.

2. Image menu



Horizontal position
Adjusts the horizontal position of the current screen. (0 ~ 100)

Vertical position
Adjusts the vertical position of the current screen. (0 ~ 100)

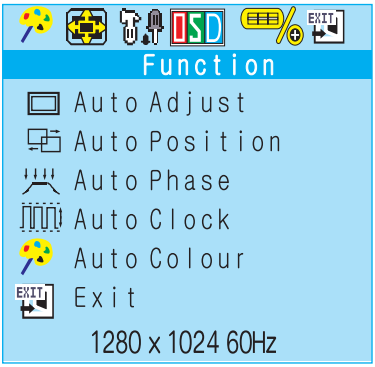
Sharpness
Modifies sharpness of the screen. (0 ~ 50)

Phase
Adjusts the center of the current screen. (0 ~ 30)

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

Exit
Exits the current menu.

3. Function menu



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

Auto-Position
Adjusts the position of the screen automatically.

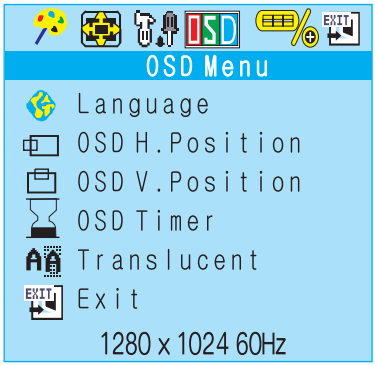
Auto-Phase
Adjusts the center of the screen automatically.

Auto-Clock
Adjusts the pixel size of the screen automatically.

Auto-Color
Adjusts the colors of the screen automatically.

Exit
Exits the current menu.

4. OSD menu



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.

OSD horizontal position
Adjusts the horizontal position of the OSD menu screen. (00 ~ 110)

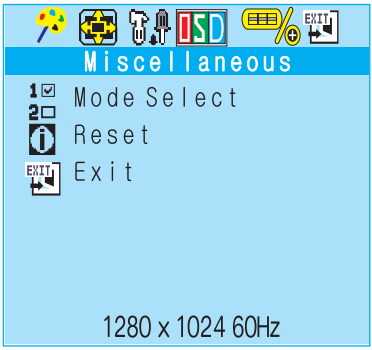
OSD vertical position
Adjusts the vertical position of the OSD menu screen. (00 ~ 110)

OSD timer
- On: The OSD menu screen disappears after a certain time period.
- Off: The OSD menu screen does not disappear even after a certain time period. Press the Menu button in order for the OSD menu screen to disappear.

Translucent
- On: Switches the OSD menu screen to the translucent mode.
- Off: Disables the translucent mode..

Exit
Exits the current menu.

5. Miscellaneous



1 ☑ 2 ☐ **Mode selection**
- 640 x 400: Optimizes the screen status for the status of 640 x 240.
- 720 x 400: Optimizes the screen status for the status of 720 x 400.

Reset
Resets all the functions.

EXIT **Exit**
Exits the current menu.

◈ Description of operation messages

Cable not connected

Cable not connected
It appears when there is no input signal from the computer.
If the message disappears, the monitor status is changed to energy-saving mode.

Signal out of range

Signal out of range
It appears when the input signal is out of range.

Mode changed automatically in case of DVI input

NO Signal

'NO Signal' is appeared in case of using MENU not used in OSD.

NOTE

-> TV Guidelines

TV-Y (ALL Children)
TV-Y7(Direct to Older Children)
TV-G(General Audience)
TV-PG(Parental Guidance Suggested)
TV-14(Parents Strongly Cautioned)
TV-MA(Mature Audience Only)

-> Content

FV(Fantasy Violence)
V(Violence)
S(Sexual Situation)
L(Adult Language)
D(Sexually Suggestive Dialog)

-> MPAA Rating

G	GENERAL AUDIENCES All ages admitted
PG	PARENTAL GUIDANCE SUGGESTED Some material may not be suitable for children
PG-13	PARENTAL STRONGLY CAUTIONED Some material may be inappropriate for children under 13
R	RESTEICTED Under 17 requires accompanying parent or adult guardian
NC-17	NO ONE 17 AND UNDER ADMITTED
X	X is older rating that is unified with NC-17 but may be encoded in the data of Older movies

```
Change Pin

New Pin : ----
```

Change Pin :To change the Pin number, select Change Pin and enter New Pin.

```
Change Pin

New Pin : ****
Confirm : ----
```

```
      Changed Pin


Exit
```

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.

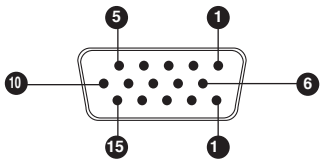
Preset		Resolution		Frequency		Clock [MHz]	Polarity (H/V)
		Horizontal	Vertical	Horizontal	Vertical		
VGA	M1	720	400	31.5KHz	70Hz	28.322	- / +
VESA	M2	640	480	31.5KHz	60Hz	25.175	- / -
	M3	640	480	37.5KHz	75Hz	31.500	- / -
	M4	800	600	37.9KHz	60Hz	40.000	+ / +
	M5	800	600	46.9KHz	75Hz	49.500	+ / +
	M6	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	CSL
8	Blue ground		



Product specifications

LCD	Type	19" diagonal viewable screen TFT (Thin Film Transistor). Active Matrix Panel 0.294 mm (H) x 0.294 (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/m²
Response Time	Type	8ms
Compatibility	PC	IBM XT, AT, 386, 486, Pentium or PS/2 and compatibles (from VGA up to 1280x768 @ 75Hz NI).
Refresh rate	Maximum	1280x1024 @ 75 Hz N (60 Hz for optimal display)
Connectors	Input signal	15-pin D-SUB, DVI-D
	Power	Jack type DC+12 V In
Voltage/Power	Input Output Consumption	AC 100-240 V , 50-60 Hz DC 12 V 40 watts
Screen size	Maximum	337.920 mm(H) x 270.336 mm(V)
Features	Temperature Humidity Altitude	33°F ~ 104°F (0°C ~ 40°C) 20%RH-90%RH (no condensation) Up to 10,000 feet
Storage conditions	Temperature Humidity	-14°F ~ 104°F (-20°C ~ 40°C) 5%RH-90%RH(no condensation)
Dimension		420 mm (width) x 408 mm (height) x 180 mm (depth)
Weight	unit/box	4.9 kg / 6.6 kg
Option	Speaker	Built-in type
	USB Hub	USB-Hub 2.0, 4-port Hub

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

Before asking for repair service, please check below

You can contact our technical services or selling agency if you want to ask for repair service. Check the following before you ask for repair service.

Screen shows no image.

- Check if the power cable is correctly connected.
- Check if the power of the monitor is turned off.
- Check if the system power is turned off.
- Check if the signal cable of the monitor is connected.

Screen is too dark or bright.

- See color menu (see page 7).

Screen is tilted left/right or upward/downward.

- Run Auto-Tune function.(7 page)
- See position menu.(8 page)
- Display trouble can be happened in the unique mode of unusual graphic card.

Displayed 'unknown monitor' mark after monitor connecting

- Download monitor driver from www.sjneotech.co.kr.
- Confirm whether Plug&Play function is supported through manual of video card.

Date of purchase	
Purchased from	
	Telephone:

hywis

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.