

Table of Contents

FCC Information	1
Energy Declaration	1
Important Safeguards	2
Technical Support	2
Installation	3
On-Screen Display Guide	3
OSD Operation	4
Specifications	7
Trouble-Shooting	8

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual 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:

- (1). Reorient the receiving antenna.
- (2). Increase the separation between the equipment and receiver.
- (3). Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- (4). Consult the dealer or an experienced radio TV technician for help.

Notice:

- (1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- (2) Shielded interference cables must be used in order to comply with the emission limits.

Energy Declaration

This monitor is equipped with a function for saving of energy which supports the VESA Display Power Management Signaling (DPMS) standard. This means that the monitor must be connected to a computer which supports VESA DPMS to fulfill the requirement in the NUTEK specification. Time settings are adjusted from the system unit by software. From indicated inactivity to Power Saving Position A2 the total time must not be set to more than 70 minutes.

NUTEK	VESA State	LED Indicator	Power Consumption
Normal operation	ON	Green	120W (Max.)
Power Saving Position A1	SUSPEND	Orange	15W (Max.)
Power Saving Position A2	OFF	Orange-Flash	5W (Max.)

We recommend you to switch off the monitor when it is not in use for quite a long time.

Important Safeguards

1. Follow all warnings and instructions marked on the video monitor.
2. Do not use attachments which is not recommended by the video monitor manufacturer as they may cause hazards.
3. Do not expose the monitor to rain, water, moisture or direct sunlight.
4. Do not place near or over a radiator or other heat-generating equipment.
5. Do not place this video monitor on an unstable cart, stand or table. The video monitor may fall and cause serious injury to child or adult.
6. Do not block or cover ventilation opening with any material. The openings & slots on the cabinet provide necessary air flow for heat dissipation. The unit should never be enclosed or built upon unless adequate ventilation is provided.
7. Do not insert any objects into the video monitor cabinet's slots as they may touch dangers voltage points or short out parts that could result in a fire or electric shock.
8. This video monitor is equipped with a 3-wire grounding type plug. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert plug into outlet, contact your electrician to replace your obsolete. Do not defeat the safety purpose of grounding type plug.
9. Do not overload wall outlets & extension cords as this can result in fire or electric shock.
10. Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
11. When the video monitor unused for a long time, please unplug it from the wall outlet.
12. Unplug this video monitor and refer servicing under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the video monitor.
 - c. If the video monitor is not normally operated according to instructions.
 - d. If the video monitor has been dropped or the cabinet has been damaged.
13. It is essential that only the attached power cord be used in order to meet TCO95 requirements.

Technical Support

If you encounter particular problems that cannot be resolved by you, please contact with your local dealer for the technical support. To avoid possible damages or hazards arising from improper operation, please do not attempt to service the monitor yourself.

TECO Electric & Machinery Co., Ltd.

1568 Chung Shan Rd., Sec.1, Kuang In, Taoyuan Hsien, Taiwan , R.O.C.

TEL. : +886-3-473-3111

FAX : +886-3-473-3126

Installation

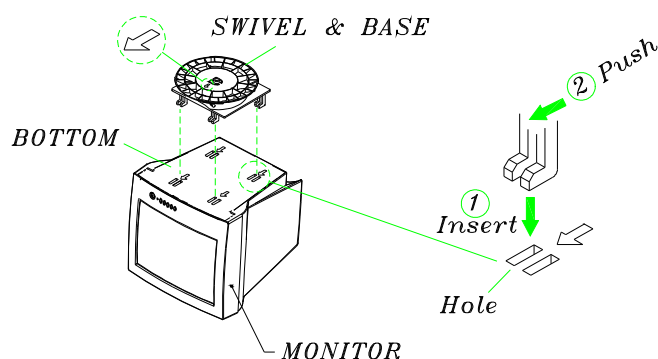


Figure 1

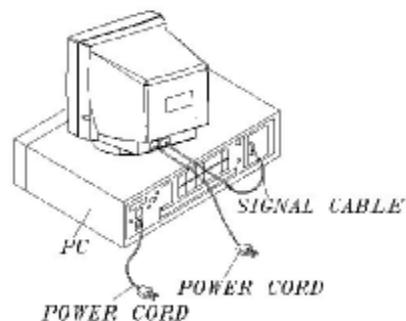


Figure 2

1. Tilt Swivel & Base (refer to figure 1)

- A. Turn the monitor upside down.
- B. Turn the base upside down. Insert its four hooks into the four slots on the bottom of the monitor. (Point the hooks on the base toward the front of the monitor)
- C. Push the tilt swivel and base in the direction of arrow as indicated in Figure 1 to lock the hooks.

2. Monitor Connection (refer to figure 2)

- A. Turn off the monitor and computer.
- B. Connect one end of the power cable to your monitor and the other end to the power outlet.
- C. Connect the 15-pin D-Sub signal cable to the video adapter output on your personal computer.
- D. Turn on the monitor and the computer. Wait about 30 seconds to adjust the picture with the adjustment controls to obtain optimum picture.
- E. If the signal cable is not connected to the PC, then the screen will display the Color Bar Pattern.

On-Screen Display Guide



Figure 3 : Contrast Adjustment Bar



Figure 4 : Brightness Adjustment Bar

1. **Contrast** Press "5" "6" to activate and make the contrast adjustment by the OSD bar.
2. **Brightness** Press "3" "4" to activate and make the brightness adjustment by the OSD bar.

Control Panel

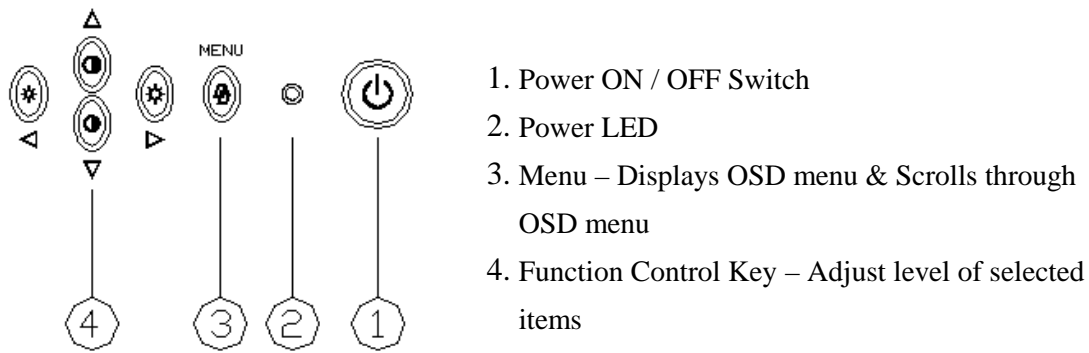


Figure 5 : shows the position of following operating units:

OSD Operation

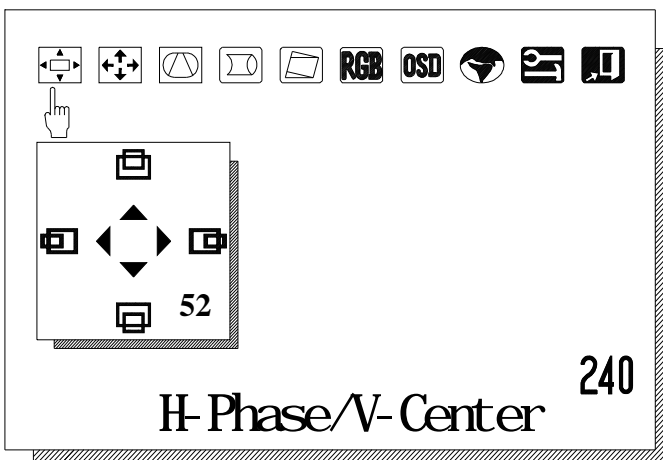


Figure 6 : Function Menu

- A. Press “Menu” key (Figure 5) to enter the OSD menu containing 10 functions as shown in Figure 6 .
- B. Select OSD function
 1. Press “MENU” key to select OSD function (Figure 6)
 2. Keep pressing the Menu key. You may return to the previous item.
- C. Adjustment Operation
 1. Make adjustment by using the four function control keys \uparrow \downarrow \leftarrow \rightarrow or 4 (Refer to Figure 5)
 2. Pressing the four control keys , there are four adjustments for each function.
The icon selected will turn into a different color.
 3. The setting value will appear on the MENU during adjustment.
 4. The bottom of OSD MENU will display the message of current function selected.
 5. The number in the right lower corner indicates how long the OSD will last for display.

OSD Icon



H-Phase & V-Center Position (Please refer to Figure 6)

Press 3 or 4 key to reposition the picture leftward or rightward.
press 5 or 6 key to reposition the picture upward or downward.



H-Size & V-Size adjustment

Press 3 key to reduce the H-size and press 4 key to enlarge the H-size.
Press 5 to enlarge the V-size and press 6 key to reduce the V-size.



Pincushion & Trapezoid adjustment

Press key 3 and 4 on the control panel to alter pincushion and barrel
Press key 5 and 6 on the control panel to alter trapezoid



Geometry Adjustment

Press 3 and 4 to adjust pin balance.
Press U and T to adjust corner distortion.



Parallelogram & Tilt adjustment

Press 3 and 4 to adjust parallelogram .
Press U and T to adjust tilt.



Color temperature adjustment

Using this function you can fine-tune the representation of the primary colors red, green, And blue ("User's mode) or select one of the preset color temperatures (6500⁰ K , 7500⁰ K, or 9300⁰ K).

Choose the desired color temperature by using the two function keys U and T then adjust the setting value by using another two function keys 3 and 4



OSD Position adjustment

Press 3 or 4 to move OSD , You may reposition OSD



Language adjustment

Press U and T to select your desired language, and then the OSD menu will be presented in the language selected.



Tool function

Use the U and T button to select the desired sub-function.
Then adjust / activate the function by using the 3 and 4 button

1. Factory setting recall.
2. Adjust OSD countdown timer whose duration ranges from 5 to 240 seconds.
3. Correct image color distortions. The color distortion may be due to interference from the earth's magnetic field, e.g. when the monitor is rotated or moved.
NOTE 1 : You have alternative of switching off the monitor, then
Switch on again, it will automatically perform degaussing function.
NOTE 2 : It's recommended to wait 15 minutes before user to make
next degaussing activity , no matter auto or manual
degaussing was performed last time.
4. Enable or disable power saving
5. Select the video input level
6. Adjust horizontal range from 0 to 255 units



Exit

- 1.This sub-menu allows you to close the OSD menu by pressing one of the OSD buttons.
- 2.Furthermore, this OSD sub-menu displays a summary of the current OSD settings and information on the current graphics mode.(horizontal and vertical frequency).

Specifications

CRT	SIZE	19" diagonal, 90° deflection
	Viewable area	18"
	Dot pitch	0.26mm
Input Signal	Video: Analog (0.7Vp-p/1.0 Vp-p, 75 ohm positive)	
	Selected by OSD Control	
	Sync : Separate sync, positive or negative TTL	
Input Connector	15-pin D-connector	
Scanning frequency	Horizontal:30KHz-95KHz Vertical: 50Hz-150Hz	
Active Display Area	Horizontal: 350 mm (adjustable) Vertical: 262 mm (adjustable)	
Resolution	1600x1200 1280x1024 1024x768 800x600 640x480	
Pixel Rate	202 MHz (maximum)	
Power Consumption	120 W (Max.)	
Power Supply	Line voltage: 100 VAC- 240 VAC Frequency: 50±3 Hz ,60±3Hz	
X-Radiation	Meets DHHS requirements	
Power Management	Meets EPA/NUTEK requirements	
Plug & Play	Satisfies DDC1 and DDC2B specifications	
Ambient Temperature	0 ~ 35 (operating) , -10 ~ 60 (storage)	
Humidity	10 - 80	
Regulations	UL , C-UL , TUV , GS , ERGONOMICS , MPRII , CE , TCO95 (option) , TCO99 (option)	
LED Indicators	Green (ON state), Orange (Stand-by and Suspend), Orange-flash (OFF state)	
Weight	N.W. 19.9 kgs (approx.) G.W. 22.9 kgs (approx.)	
Dimensions	470mm (H) x 470mm (W) x 463mm (D)	

NOTE:

This user's manual for TE988 series contains graphics and information which is subject to change without notice.

Trouble Shooting

? No picture

1. The VGA card should be completely seated in the slot.
2. Power switch of the monitor and the PC should be in the **ON** position.
1. The signal cable should be completely connected to the video card / computer.
2. Check if the pins of the connector are twisted or shrunk.

? Image is scrolling or unstable

1. The signal cable should be completely connected to computer.
2. Check the pin assignments and signal timings of the monitor and your video card.

? LED on the monitor is not lit

1. Power switch should be in the **ON** position and the power cord should be connected.
2. Check if the system is in the power saving mode. (Check by pressing any one of keys on the keyboard or moving the mouse.)

? Picture is fuzzy

1. Adjust the Contrast and Brightness Controls.

? Picture bounces or wave pattern is present in the picture

1. Move electrical devices that may be causing electrical interference away from the monitor.
2. Refer to the FCC information of this manual.

? Image edges distorted.

1. Using Geometry adjustment or parallelogram & tilt adjustment (see page 5)
2. Locate the monitor facing to east.

? Display image is not centered, too small, or too large

1. Adjust the image using Size and Position Controls in the OSD.

? Colors are distorted in some area.

1. Demagnetize your monitor (see page 6 – tool function)

? Color is off (e.g. white is not really displayed as white etc.)

1. adjust color temperature (see page 5 – Color temperature adjustment)