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Important Safety Instructions:

1. Read the manual carefully before using the monitor.
2. Save these user manual for later use.
3. Unplug the monitor from the power source when you clean the monitor. Don't use liquid cleaners or aerosol cleaners. Use cloth to clean it. If it can't be done, please use LCD screen cleaners.
4. Don't use attachments which are not recommended as they may cause hazards.
5. Please grasp the plug to unplug the connector from the wall outlet .Don't pull the power cord to unplug it.
6. Don't place anything on the power cord or step on it.
7. Don't place the monitor near water source such as bathtub, washbowl, sink, laundry tub, swimming pool etc.
8. The slots are designed for ventilation, simultaneously to keep the machinery workable and protect it from overheating. For the same reason,. please do not place the monitor on the bed, sofa, carpets or other similar surface. Don't place the monitor near or over heat source or place in built-in installation.
9. Keep 5 cm away from the wall or other goods.
10. This monitor can only be used the power source indicated on the label. If you have questions, please consult your dealer.

11. As safety measure, this monitor is equipped with a three-wire ground style plug. If you can't insert the plug into the outlet, please contact your electrician to replace your outlet. Don't defeat the safety purpose of the grounding-type plug.
12. Please make sure that the outlet and power cord can afford the total electricity of the products.
13. Place the monitors in safe place where the cord will not be abused by persons working on it.
14. Follow all the warning and instructions illustrated on the manual.
15. Don't overload the wall outlets and extend cords as it can result in fire or electric shocks.
16. Don't remove or open the cover to service this monitor by yourself. It may expose you to dangerous voltage or other hazards before all servicing to qualified service personnel.
17. Unplug this monitor from the outlets and refer servicing to qualified service personnel under the following conditions.
 - The power cord is frayed or damaged.
 - The monitor has been dropped or the cabinet has been damaged.
 - When the monitor displays a distinct change in performance, this indicates a need for service.
18. The power cord is the main device to disconnect the power.
19. Unplug the power cord when you do not use it for long time.

20. Place the monitor in good ventilation and protect it from strong light, overheating and damp environment.
21. This monitor must be stored in temperature -20°C – 55°C .Otherwise, it may cause permanent damage.

1. Introduction

General information

This monitor is a high-performance intelligent multi-scanning color monitor. It is with 20.1 inch TFT LCD panel and MCU digital control low radiation and glary with built-in power supply. The shape is tiny and thin adapting to small place, which can save your more places.

Features

- The best working mode: 1680* 1050@60 HZ
- Viewable angle: H: 160 V: 160
- Active area: 433.44 mm* 270.90 mm
- Pixel pitch : 0.258 mm *0.258 mm
- Max brightness: 300cd/m²
- Max contrast: 800:1
- Response time: 5MS

- Color : 16.7 M
- Power saving compliant with EPA ENERGY STAR and VESA DPMS.
- Auto color balance. When it is connected to different graphic adapter, the monitor can calibrate the white and black reference voltage.
- Plug & play, compatible with Windows 9* & ME&NT&2000&XP and VESA DDC1/2B.
Check the list

Please make sure that all of the following items are included before operating the monitor.

- LCD monitor(include base)
- Power cord, VGA signal cable ,DVI-D signal cable(optional), Audio cable(optional)
- User's manual

If any of the above listed items are missing. Please contact your dealer for technical support.

2. Installing the monitor

Please consider the following advice before you install the monitor.

Position

Choose a place that reflects less to place your monitor.

Generally, there is a suitable angle with a window.

Highness

The peak of the monitor should be a little lower than your eyes when you sit down.

Inclination

You will feel comfortable with the sloping screen.

2.1 Base installation (Fig 1, Fig 2)

1. After taking the monitor out of the carton, carefully turn the monitor on front side.
- 2 .Align the base with the knighthed of the monitor and push the base in the direction of arrows until the fastener both on the knighthed and the base are well connected.
3. Insert the plastic pin into the base in the direction of arrow, then use screwdriver to lock the bolt firmly.

Notice: remove the base by the contrary order above.

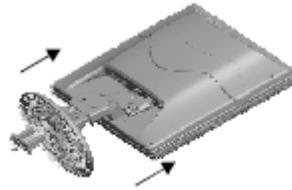


Fig.1

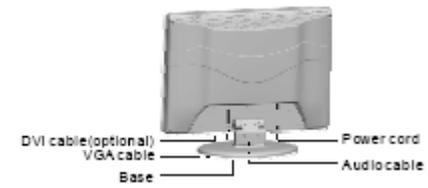


Fig.2

2.2 Signal cable connection

Insert the signal cable into VGA and DVI port of a computer. Then ,lock up the cover with screws to assure full connection to the earth. Insert another end of signal cable into the corresponding port (VGA or DVI port) and lock up with screws.

2.3 Audio cable connection

Plug one side of the audio cable into the PC audio port, then plug the other side into the audio port of the monitor

2.4 Power cord connection

Plug one end of the powder cord into port of the monitor's power supply and then insert the other end into the socket of the electrical source.

2.5 Power on

Switch on the power to both the monitor and your computer. After the monitor is power on, the LED lights up green or blue. If the LED becomes red and flashing, please check the video signal cable connection. If the LED is off, please press power switch slightly.

2.6 Self test pattern

If there is no horizontal or vertical sync signal, your monitor will display Fig 3 to indicate no signal input. After a few seconds, the monitors will come into waiting and saving power mode; if the monitor receives the video signal, it will return to the normal mode.



Fig.3



Fig.4

2.7 Adjust the picture

In order to obtain the best visual display, you need to adjust it; please refer to chapter 3 “operation of the monitor”

3. Operation

OSD control panel

Fig 4 is W2205S12 model elevation. Other models differ in key-press position and front panel.

3.1 Power on /off switch

This is a slight touch digital control key. it is used to turn the monitor on or off.

3.2 Power LED indicator

When the monitor is working, the power LED is green or blue. If the monitor is in saving power mode, the power LED will be red and flashing. If you turn off the monitor, the power LED will be off. When the LED off, the monitor is off; but the monitor is still electrified. In order to make security, you should unplug the power cord while you don't use the monitor.

3.3 OSD Control keys

3.3.1 Auto key

This key is used to complete auto-adjusting function, it make the monitor to be the best visual display status only in VGA mode. But in DVI mode, this key has no any function.

3.3.2 +/- key

These two keys will complete navigate right or left and choose the control of the menu function . The adjustment value can be set directly by +/- key.

3.3.3 ← key

Confirmation key can show the menu and complete the confirmation function.

3.4 OSD menu

3.4.1 The meaning of the menu in VGA mode (Fig 5):

1. Auto adjustment
2. Brightness
3. Contrast
4. H-position
5. V-position
6. Clock
7. Phase
8. Signal source
9. Color adjustment
10. Volume
11. Sharpness
12. OSD position/ transparence
13. Recall
14. Language
15. Exit
16. Selected function name
17. Resolution
18. H-frequency
19. V-frequency
20. Progressive bar of adjustment
21. Percentage of adjustment
22. Customer LOGO
23. OSD display time

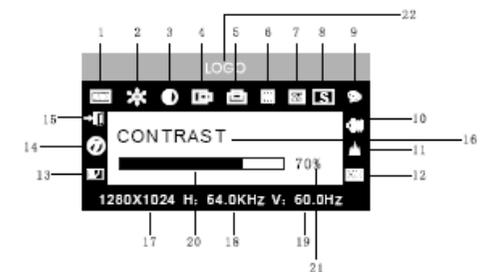


Fig.5 (DVI MODEL)

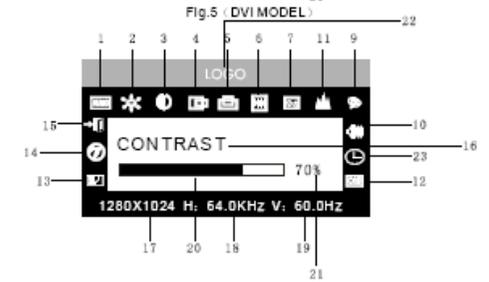


Fig.5 (VGA MODEL)

3.4.2 The meaning of the menu in DVI mode(Fig.6)

1. Brightness 2. Contrast 3. Sharpness 4. Volume 5. OSD menu display time
6. Transparence 7. OSD position 8. Signal source 9. 9300 K
10. 7800k
11. 6500 K 12.User 13. Recall 14. Language 15. Exit
16. Selected function name
17. Resolution 18. H-frequency 19. V-frequency
20. Progressive bar of adjustment 21. Percentage of adjustment
22. Customer LOGO

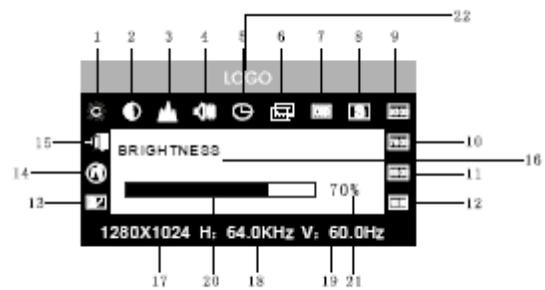


Fig.6

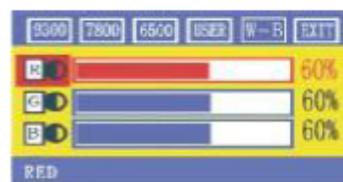


Fig.7



Fig.8

3.4.3 Function table

	Display contents	Function
	Auto adjustment	Automatically adjust to obtain the best setting
	Brightness	Adjust the brightness
	Contrast	Adjust the contrast
	H-position	Move the screen to ward left or right
	V-position	Move the screen to ward upward or downward
	Clock	Adjust the frequency of pixel
	Phase	Adjust the phase of pixel clock
	Sharpness	Adjust the sharpness of the picture
	Color	Adjust the color of the picture
9300	9300 k	Set 9300k color temperature
7800	7800k	Set 7800k color temperature

6500	6500k	Set 6500k color temperature
User	User mode	Set user mode
W-B	Auto color balance	Auto color balance
	Volume	Adjust the volume
	OSD display time	Adjust the OSD display time
	OSD adjustment	Adjust the parameter of OSD
	OSD H-position	Move the menu toward left or right
	OSD V-position	Move the menu toward upward or downward
	OSD transparency	Setting OSD transparency
	Signal source	Exchange signal mode between VGA and DVI
	Recall	Reset factory setting
	Language	Language selection
	Exit	Exit the menu

3.4.4 Special functions

1. color adjustment (): when the function is selected, the monitor will come into the sub-menu(Fig.7),there are five functions that can be selected: a, 9300 k; b, 7800K; C, 6500 k ; d: User; e: W-B Selecting User, you will enter user mode and you can make adjustment to R/G/B values to obtain your satisfying color; Selecting W-B, it will enter the color balance mode, and the monitor will automatically adjust the white-black color reference voltage to obtain optimal color balance.

2. R/G/B adjustment(): in “ USER” mode, monitor will automatically enter R/G/B adjustment mode, push “←” key ,the relative options will flash, then adjust it by“+/- “,then push “←” key again to



Fig.9 VGA

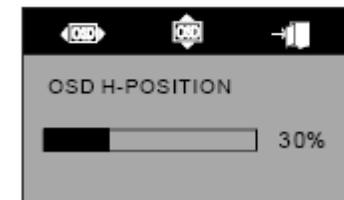


Fig.10 DVI

exit.

3. Language

There are six languages to select (Fig.8)

ENG: English

FRE: French

DEU: German

ITA: Italian

ESP: Spanish

PYC: Russian(TUR: Turkish or POR : Portuguese)

4. Position of OSD menu () when you select the item, you can adjust H-position and V-position of OSD menu and transparence (as Fig 9: VGA. Fig 10: DVI)
5. Sharpness adjustment () Adjust the sharpness of the picture on the screen.

3.5 Safety mode

When the video signal exceeds the frequency range of the monitor, the monitor MCU will stop horizontal and vertical scanning in order to protect the monitor.

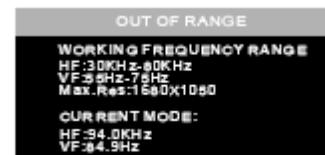


Fig.11

Fig 11 will be displayed on the screen. After a few seconds, the monitor will enter turn-off mode. You must restart the

computer and reset the frequency range.

3.6 Timing guide

S/N	Mode	Resolution	V-frequency	H-frequency	Available Input Signal
1	VGA	720* 400	70HZ	31.5 KHZ	Analog RGB
2	VGA	640* 480	60 HZ	31.5 KHZ	Analog RGB,DVI
3	VGA	640* 480	72 HZ	37.9KHZ	Analog RGB
4	VGA	640* 480	75HZ	37.5 KHZ	Analog RGB
5	SVGA	800* 600	60 HZ	37.9KHZ	Analog RGB,DVI
6	SVGA	800* 600	72 HZ	48.1 KHZ	Analog RGB
7	SVGA	800* 600	75HZ	46.9 KHZ	Analog RGB
8	XGA	1024* 768	60HZ	48.4 KHZ	Analog RGB,DVI
9	XGA	1024* 768	70HZ	56.5 KHZ	Analog RGB
10	XGA	1024* 768	75HZ	60KHZ	Analog RGB
11	XGA	1280*960	60HZ	60KHZ	Analog RGB

12	XGA	1152* 864	75HZ	67.5 KHZ	Analog RGB
13	SXGA	1280* 1024	60HZ	64KHZ	Analog RGB,DVI
14	SXGA	1280* 1024	75 HZ	80KHZ	Analog RGB
15	UXGA	1600* 1200	60HZ	75KHZ	Analog RGB,DVI
16	UXGA	1680* 1050	60HZ	65KHZ	Analog RGB,DVI

Recommended mode: 1680* 1050@ 60hz

3.7 Plug & play

This monitor meets the standards of VESA DDC. When using video card with VESA DDC1/2B, it will auto-scan video frequency, output power, function and other data to PC when computer is on. It will go to proper connector mode and proper resolution frequency.

3.8 Power management

This monitor complies with EPA energy star requirement and meets VESA DPMS standard. The following is the description of the power indicator for the power saving mode (Fig.12) .

Mode	Power indicator	Power consumption
On	Green or blue	< 50 w
Stand by /suspend	Red flashing	< 5w
off	off	< 3w

(Fig. 12)

3.9 Volume adjust

Adjust the volume by OSD menu and software of the PC.

4. Specification

Monitor type	TFT LCD
Surface disposal	Anti glary
Active area	433.44MM*270.90MM
Viewable angle :	
H:	160°
V:	160°

Max brightness	300cd/m ²
Max contrast	800:1
Response time	5ms
Max resolution	1680* 1050
Input resistance	75 \pm 3% Ω
H-frequency	30KHZ-80KHZ
V-frequency	55HZ-75 HZ
Power supply for monitor	100v-240 VAC 60hz/50hz
Max consumption	50 w
Input connector	15 pins D-sub or DVI-D
Power saving control	Yes
Comply with EPA energy star standards	Yes
Comply with European CE	Yes
Plug & play	Yes

Environment	
Atmosphere pressure	86kpa~104 kpa
Operating temperature and humidity	5°C ~ 40°C 10% ~85%
Storage temperature and humidity	--20°C 5~5°C 5% ~95%
Dimension (L* W* H)	
Unpacking	491* 80* 395 mm3
Packing	555* 165* 420 mm3
Weight	
Net weight	6.5 kg
Gross weight	8.0 kg

Note: This specification is subject to change without notices.

5. Simple troubleshooting

Symptom	Solution
1. No pictures / no LED	Check if the power cord and the power plug are well connected; check if the monitor is off.
2. No pictures/LED red flashing	Check if the PC video card and signal cable are well connected and check if the signal cable is well connected with monitor.
3. Picture faintness, too big or too small	In OSD menu, select "AUTO" to make the monitor adjust automatically.
4. Picture too dark	Push "+ /-" key to adjust contrast and brightness.
5. Overheating	Keep 5 cm away from other goods for ventilation. Don't put anything on the monitor.
6. Bright or dark spot	It is normal phenomena. Eliminate the bright or dark spot in 20 minutes after turning on the monitor.

7. Picture distortion and flicker	Check the PC setting, select the proper resolution and adjust refresh frequency.
8. Short of color	Check if the signal cable pins are twisting or broken.
9. Noise signals at turning off	There may be noise signals during turning off the monitor. This is caused by electrical release and so it is normal.