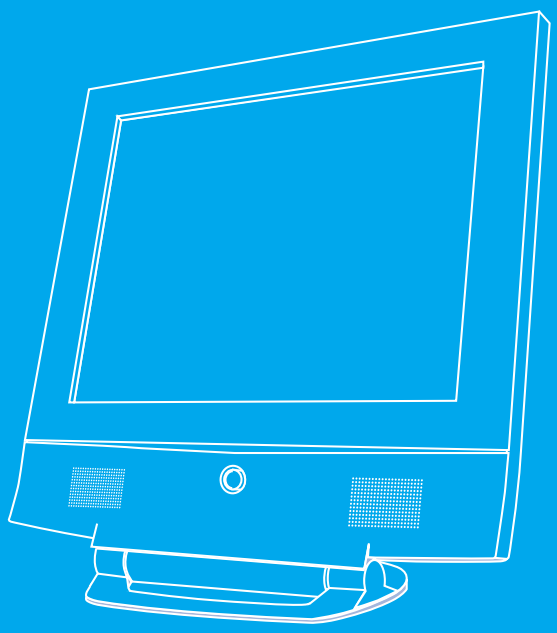
15″ TFT LCD MONITOR
NF-1500MA

USER GUIDE



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This equipment has been designed for normal use.
It is certified to comply with Electron Wave Suitable Registration. The user can use this equipment everywhere including residential areas.

Before using this equipment, the user should read and follow 'Safety Precautions'. It contains the 'Warranty Material' for this equipment.

15″ TFT LCD MONITOR

NF-1500MA

Notice

This equipment is of first class quality. The LCD Panel is composed of more than 2 Million pixels and may have some faulty pixels. LCD panels with a maximum of 10 faulty pixels are classified as products of good quality. This standard is accepted by other manufacturers of LCD panels. An LCD panel without any faulty pixels is too expensive for the average customer. Our "A" class panels have the least 5 faulty pixels. We guarantee that our panels will provide the user with high quality performance. Therefore, no product exchanges or refunds will be made in regards to this matter.

INFORMATION TO THE USER (Part 15.105(b))

INFORMATION TO THE USER

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 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.

WARNING (Part 15.21)

The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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1) Safety Precautions

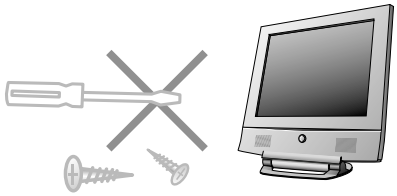
- Observe the following basic rules for installation, usage, and service in order not to defeat the safeguards incorporated into this monitor.
- Safety precautions are divided into Warning and Attention.

Warning : Breaking the basic rules can cause serious injury or death.

Attention : Breaking the basic rules can cause minor injury to yourself or damage to this equipment.

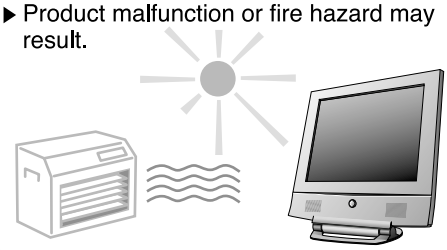
Save the manual near to future users after you read it.

Do not open the monitor. Contact your dealer if the monitor is not operating properly.



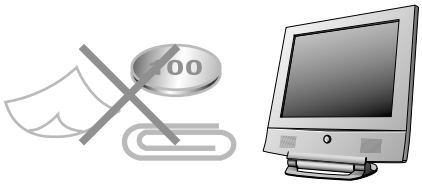
Do not place the monitor in direct sunlight or close to heaters.

▶ Product malfunction or fire hazard may result.



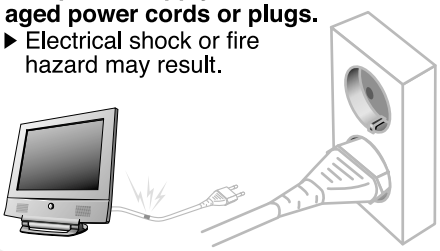
Do not drop metal objects like coins or hairpins into the monitor.

▶ Electrical shock or fire hazard may result.



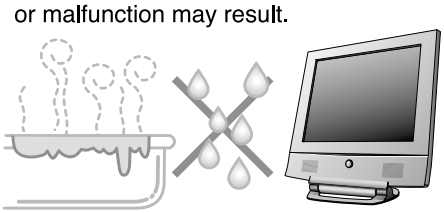
Provide a secure connection to the power supply and do not use damaged power cords or plugs.

▶ Electrical shock or fire hazard may result.



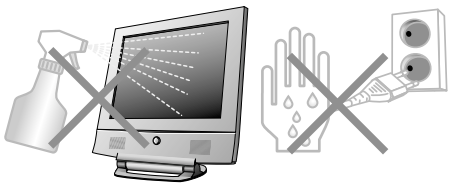
Do not place the monitor in exposed places and near water.

▶ Electrical shock, fire hazard, or malfunction may result.



Do not clean the monitor with water or touch it with wet hands.

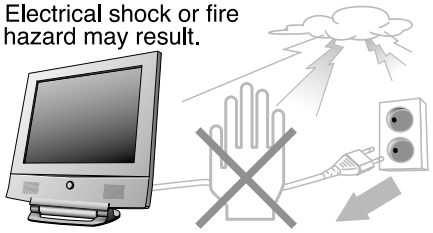
▶ Electrical shock or fire hazard may result.



Safety Precautions (cont)

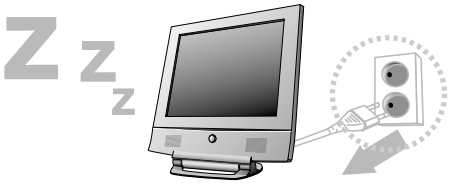
During lightening storms, unplug the monitor from the wall outlet and do not touch it.

▶ Electrical shock or fire hazard may result.



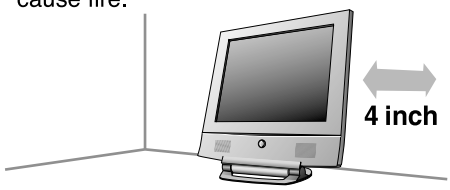
Not using the monitor for hours, unplug the monitor from the wall outlet.

▶ Dust may cause heat, fire, shock or short circuit.



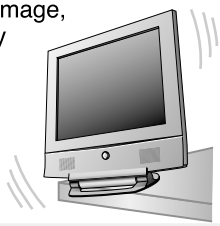
Install the monitor at the specified position from the wall to be well ventilated.

▶ A rise in temperature of monitor may cause fire.



Install the monitor in a stable place.

▶ An unstable monitor may crash or fall. Personal injury, damage, or malfunction may result.



When moving the monitor, turn it off and disconnect all cables and the plug.

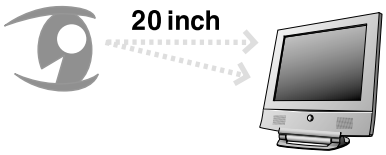
▶ Product damage, electric shock, or fire hazard may result.

When disconnecting from the wall outlet, grab the plug.

▶ Grabbing the cord may result in heat generation or fire hazard.

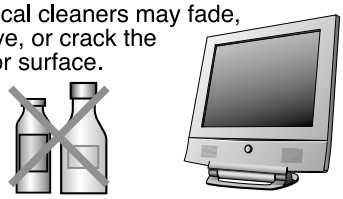
Keep your eyes 20 inch away from the screen and 0~15° down in relation to the screen.

▶ Viewing at too close a position and wrong posture can weaken your eyes..



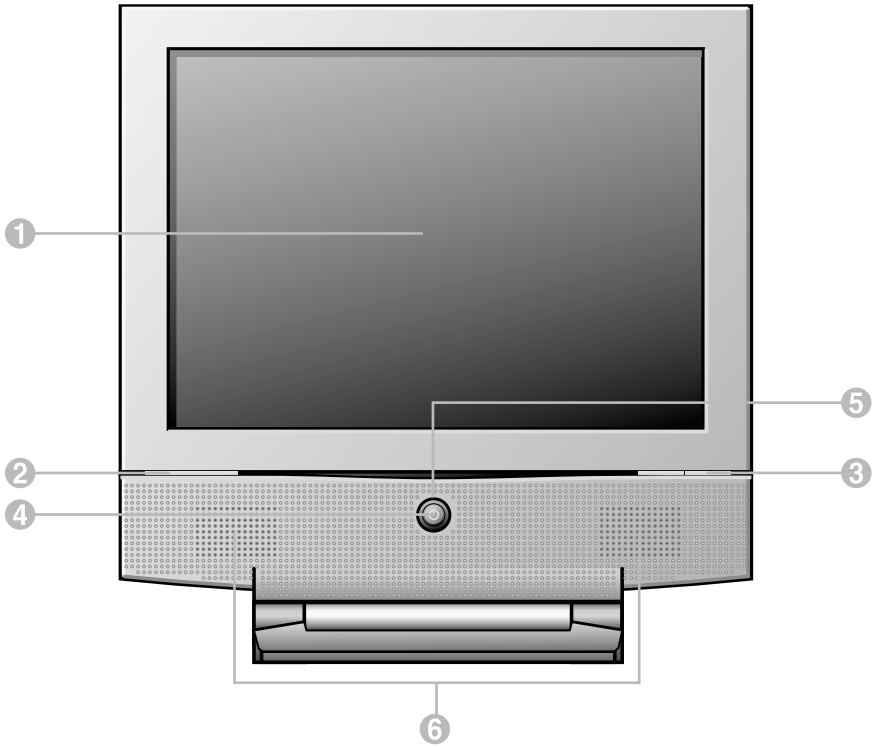
Before cleaning the monitor and LCD screen, disconnect it. Wipe it with a soft, clean cloth. Do not use liquid or aerosol cleaners.

▶ Chemical cleaners may fade, dissolve, or crack the monitor surface.



2) Operation and Controls

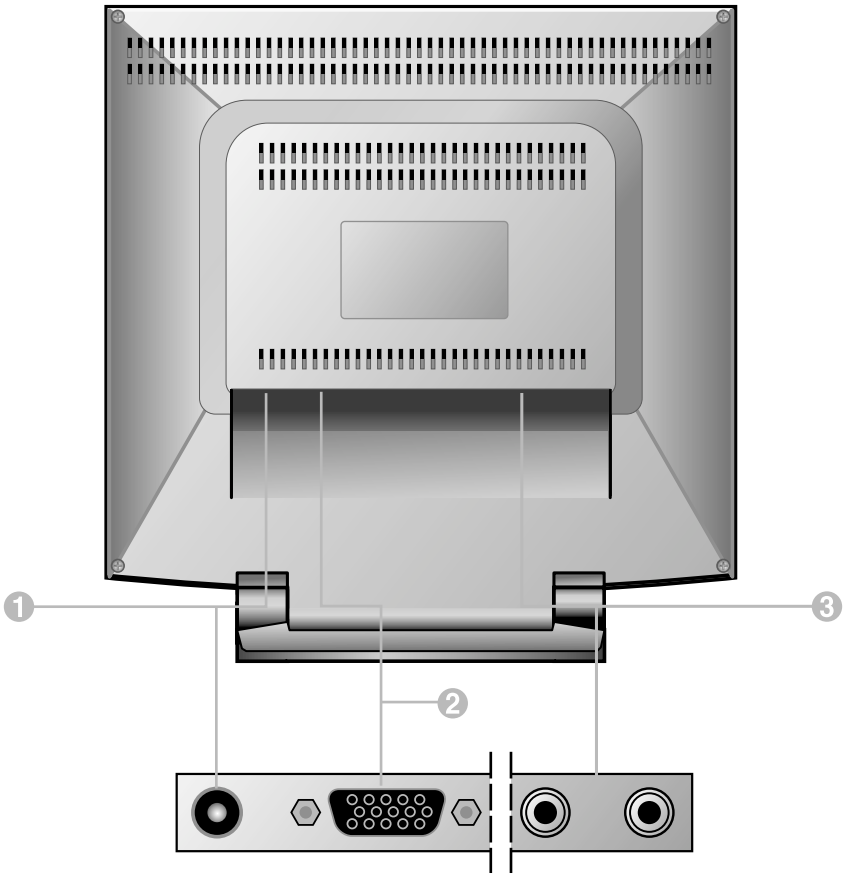
Front View



1. LCD Panel
2. Select Buttons : Pushing them, causes the Screen Adjusting Menu to appear. Use them to select menu items.
3. Adjust Buttons : Control the adjustment of menu items.
4. Power Button : Powers ON/OFF the monitor.
5. Power Indicator : Shows monitor status.
   - ▶ Green : Monitor operating normally.
   - ▶ Flickering : Monitor signal cable isn't connected (flickering at 3-second intervals)
6. Built-in Speaker

Operation and Controls

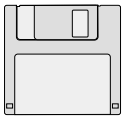
Rear View



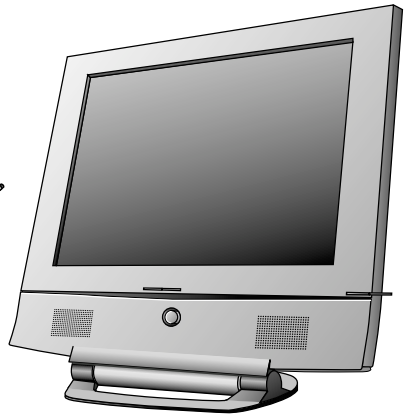
1. Power Connector: For connecting the power supply adaptor.
2. D-SUB Unit: For connecting the D-SUB signal cable.
3. AUDIO IN & OUT: For connecting speakers to the PC sound card.

3) Basic Accessories

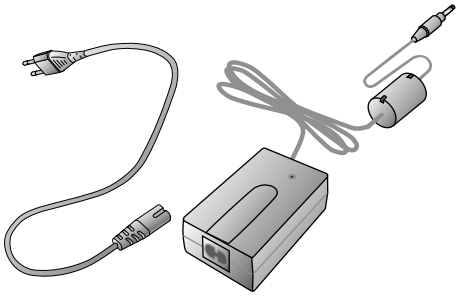
- Please make sure the following items are included with your monitor.
  If any items are missing, contact your dealer
- Do not use the enclosed Monitor Driver Install Diskette
  if your system is previous to Window NT version 4.0
  Please adjust your system configuration for your own system.



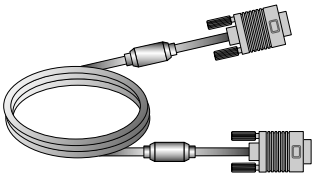
Monitor Driver Disket



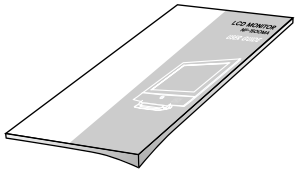
LCD Monitor



Adaptor



D-SUB Signal Cable



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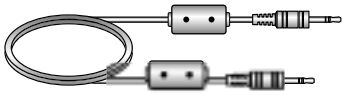
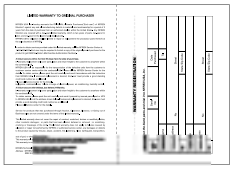


Audio Cable



Warranty card

Connecting to the PC

● Attention : Power OFF both the monitor and the PC before making any connections to the PC.

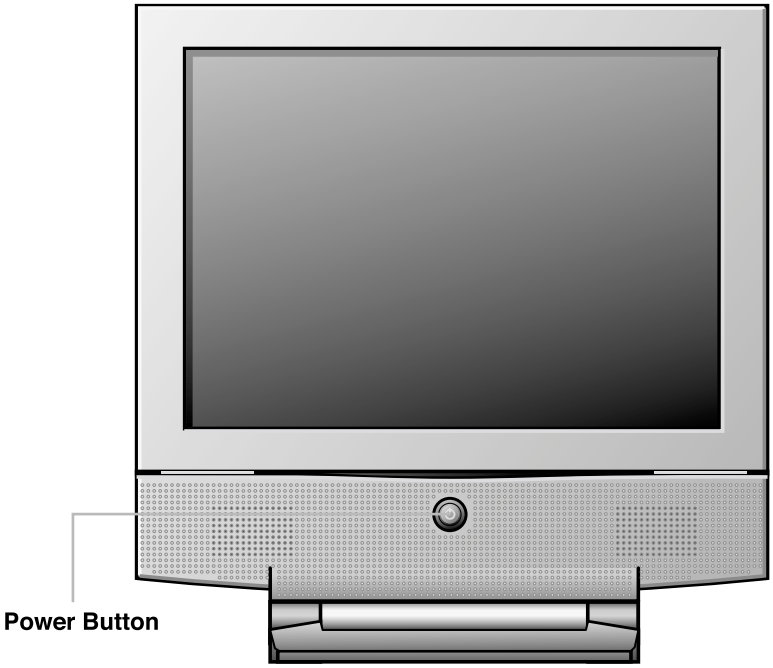
Power Connection : Connect the power plug into either a 220V or 110V wall outlet. (Free voltage) 110V will be used for U.S.A

PC Connection : Connect the monitor D-SUB connector and the PC using the D-SUB Signal Cable.

Audio in : Connect the "Audio in" of Monitor and the "Audio out" the PC using the Audio Cable.

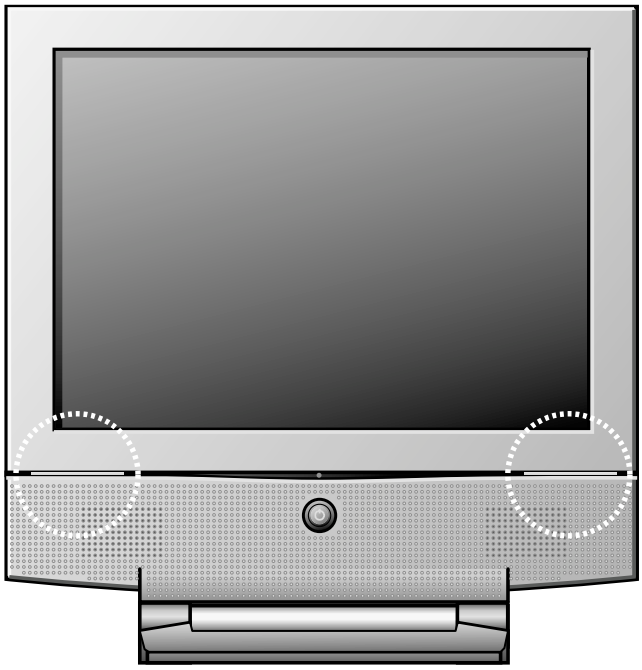
Audio out : Connect the "Audio out" of Monitor and the external speaker

Turning on the Monitor



After connecting the LCD Monitor to the PC as the instruction listed on Page 6, you can turn on the LCD monitor by pressing the power button as the picture showed. When you see the green light around the power botton, it means the LCD is on.

Description of Monitor Functions



Basic Description - Front View

The function adjustment buttons are divided into two on the left and two on the right.
Additional adjustments are not required because they have been factory adjusted.
If the user wants to change the default setup, follow the setting description below.

The two buttons on the left allow you to display the screen menu and to select items.
The two buttons on the right allow you to select individual items and adjust their levels.

Basic Directory

The front part of panel of this model consists of following function buttons and indicators. Description for each of function button and LED indicators is shown below.

POWER BUTTON

Use this button to switch ON or OFF
The indicator of green LED.
When power on, the green LED is to be ON
Power off, the green LED is to be OFF

MENU BUTTON

It has a function to bring up main menu to appear on the screen and to disappear from the screen. It has a function to select SUB-DIRECTORY.

SELECT BUTTON

With main menu appearing on the scree, it has a function to select the nemeric value of the item you want from the SUB-DIRECTORY for adjustment, and in case of pressing when main menu is net appeared on the screen, at the first select key, the picture of AUTO-CONFIG will appear on the screen.

Performs the function to reset the screen in optimal state automatically and in the state of initial screen (newly adjusted), a window adove the select button is displayed and the screen is sdjusted automatically in optimal state.

ADJUST (▼,▲) BUTTON

On the menu screen or sub menu screen.

▲ (Right direction) Button.
Use this button to move other function, move to right.

▼ (Left direction) button
Use this button to move other function, move to left.

Description About Indicator

SUSPEND MODE

If you don't use the PC for a long time, PC enter to SUSPEND MODE.
At that tirne the light green indicator will be flicker at certain interval.

About Adjustment Items and Menus

1. Adjustment Items on Top of 'OSD' screen

☼ **(DISPLAY ADJUST)** : These adjustment items are related to view of the screen that you can adjust brightness, contrast, time, and position.

RGB **(MISC ADJUST)** : This stands for Miscellaneous-Adjust. You can make fine adjustment for each colors such as red, green, and blue (RGB) as well as color temperature and white balance.

OSD **(OSD ADJUST)** : This stands for ON-SCREEN DISPLAY ADJUST. You can use this menu group to adjust items on the screen such as position of menu screen, transparency, and language.

EXIT **(EXIT)** : Use this item to exit from menu screen after you complete adjustment.

2. Menu Screen for Each Adjustment Items

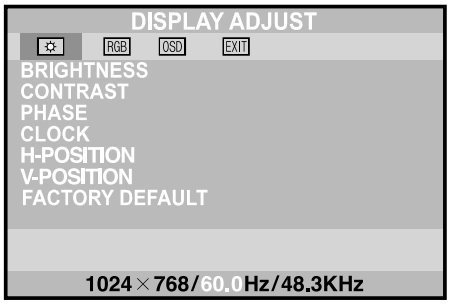


Figure 1. Menu Screen for DISPLAY ADJUST

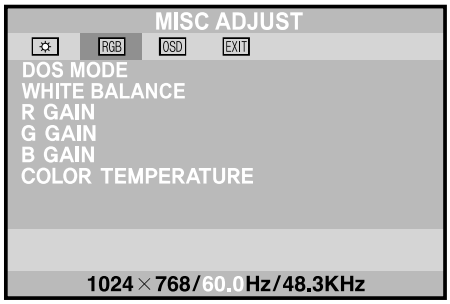


Figure 2. Menu Screen for MISC ADJUST

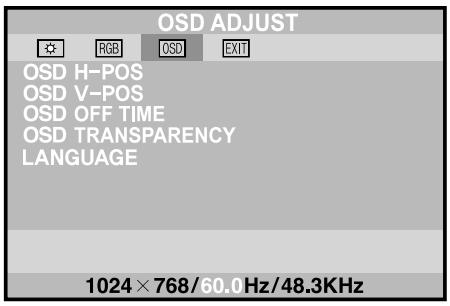


Figure 3. Menu Screen for OSD ADJUST

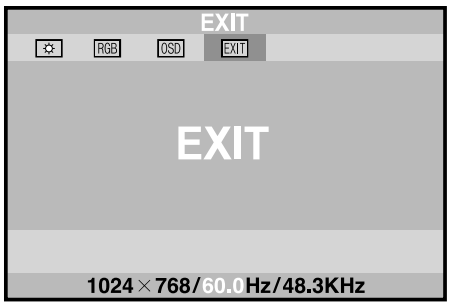


Figure 4. Menu Screen for EXIT

About Adjustment Items and Menus

1)DISPLAY ADJUST

- BRIGHTNESS : Use this menu to adjust brightness of the screen.
  You can set the value between 0 ~ 100.
- CONTRAST : Use this menu to adjust contrast of the screen.
  You can set the value between 0 ~ 100.
- PHASE : Use this menu to make fine adjustment.
  You can set the value between 0 ~ 31.
- CLOCK : Use this menu to adjust horizontal size of the whole screen.
  You can set the value between 0~100.(We recommend don't adjust the Clock)
- H-POSITION : Use this menu to move the whole screen to the left or right.
- V-POSITION : Use this menu to move the whole screen up or down.
- FACTORY DEFAULT : Use this menu to revert any changes of the screen to the factory default settings.

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2)MISC ADJUST

- DOS MODE : Use this menu to select either 640×400 or 720×400 of Dos mode.
  When you use DOS mode.
- WHITE BALANCE : Select this menu to use automatic color balance function.
- R GAIN : The user can adjust the Red Settings. Their changeable range is 0 to 100.
- G GAIN : The user can adjust the Green Settings. Their changeable range is 0 to 100.
- B GAIN : The user can adjust the Blue Settings. Their changeable range is 0 to 100.
- COLOR TEMPERATURE : Use this menu to adjust color temperature.
  The change may not be recognizable with your naked eyes.
  You can select one of 9300, 6500 or 5500 or USER.
  (Default setting value is a USER.)

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3)OSD ADJUST

- OSD H-POS : Use this menu to move OSD menu at the center to the left or right.
- OSD V-POS : Use this menu to move OSD menu at the center up or down.
- OSD OFF TIME : OFF TIME is the time for the menu to disappear when there is no menu selection after predefined time. You can adjust by 5 seconds between 5~15 seconds.
- OSD TRANSPARENCY : Use this menu to make OSD menu transparent.
  You can set the value between 0~100, the most value of 'O' transparent is the OSD menu.
- LANGUEGE : Use this menu to select one of eight the value of 'O' languages, such as English, Japanese, French, German, Korean, Spanish, Italy, and Chinese.

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4)EXIT : Use this menu to exit from OSD menu screen.

Product's Display Specification

RESOLUTION	REFRESH RATE	HORIZONTAL FREQUENCY	PIXEL FREQUENCY	STANDARD TYPE
640 x 480	60 Hz	31.5 KHz	25.175 MHz	Indurstry Standard
	72 Hz	37.9 KHz	31.500 MHz	VESA Standard
	75 Hz	37.5 KHz	31.500 MHz	VESA Standard
800 x 600	56 Hz	35.1 KHz	36.600 MHz	VESA Guidelines
	60 Hz	37.9 KHz	40.000 MHz	VESA Guidelines
	72 Hz	48.1 KHz	50.000 MHz	VESA Standard
	75 Hz	46.9 KHz	49.500 MHz	VESA Standard
1024 x 768	43 Hz	35.5 KHz	44.900 MHz	Indurstry Standard
	60 Hz	48.4 KHz	65.000 MHz	VESA Guidelines
	70 Hz	56.5 KHz	75.000 MHz	VESA Standard
	75 Hz	60.0 KHz	78.750 MHz	VESA Standard

※ Display Specification depends on the VGA Card of PC System.

Troubleshooting

In case of trouble, check these items before calling the service center.

Trouble	Suggested Action	Remedy
Screen is blank and power indicator is off.	▶ Check power cable connection. ▶ Check power button.	▶ Secure the connection. ▶ Push the power button.
Screen is blank but power indicator is in green mode.	▶ Check the monitor signal cable (D-SUB) connection.	▶ Secure the connection of monitor signal cable (D-SUB)
Display position and size is incorrect.	▶ Check for correct adjustment of display position and size.	▶ Start Auto adjustment in main menu.
Screen color isn't uniform and stable.	▶ Check video card resolution.	▶ Change the video card settings or resolution. ▶ Adjust color in SUB menu.
Display is too bright or too dark.	▶ Check monitor brightness.	▶ Adjust the brightness and contrast in SUB menu.
Any noise appearing in images or characters are not clearly portrayed.	▶ Check PHASE icon	▶ Decrease the noise using the PHASE icon in main menu.

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http://www.nfren.com

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