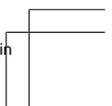
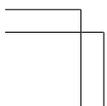
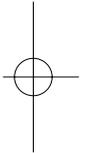
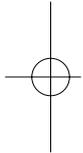
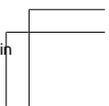
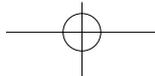
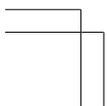
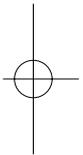
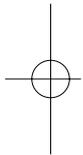
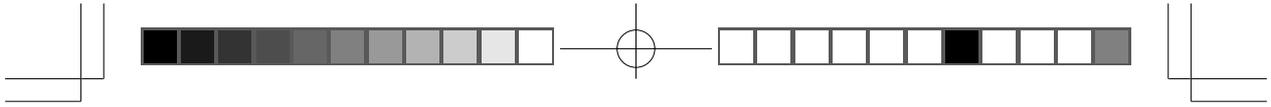


English

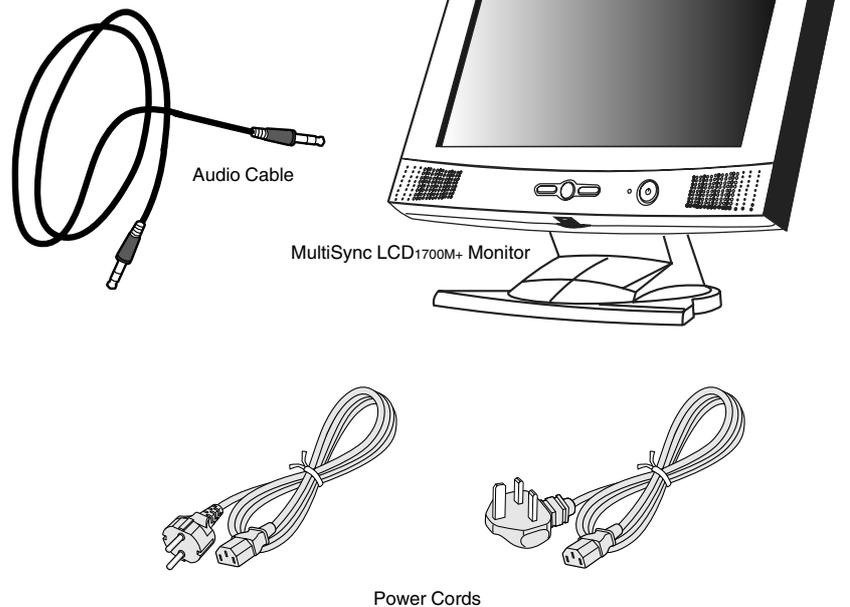




## Contents

Your new NEC MultiSync monitor box\* should contain the following:

- MultiSync LCD1700M+ Monitor.
- Power Cords.
- Audio Cable.
- User's Manual.
- Installation Disk.\*\*



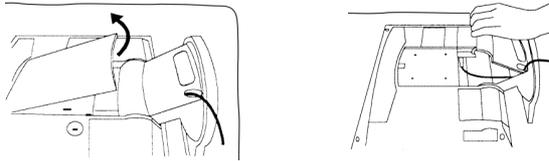
\* Remember to save your original box and packing material to transport or ship the monitor.

\*\* This diskette contains the Windows 95/98 INF file. This enables easy and correct configuration of the monitor with this operating system. To use the INF file, double-click on the display icon in the control panel, select the settings tab and follow the instructions to change the monitor type.

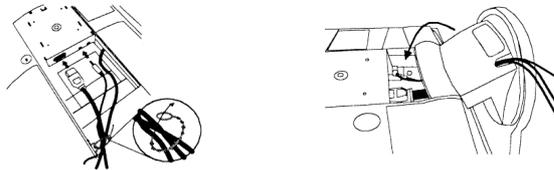
## Hardware Installation

To attach the MultiSync monitor to your system, follow these instructions:

1. Make sure that the computer and monitor's power are both turned off. Please follow the steps to install your LCD monitor.
  - a. Place monitor face down on a non-abrasive surface. Take off the rear cover, then the base cover.

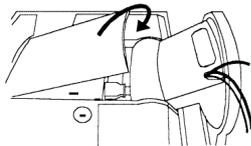


- b. Connect the power cord to your LCD monitor. Then connect the audio cable into the Audio Input of the monitor. Reattach base cover.

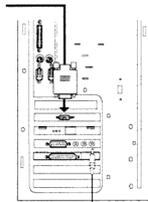


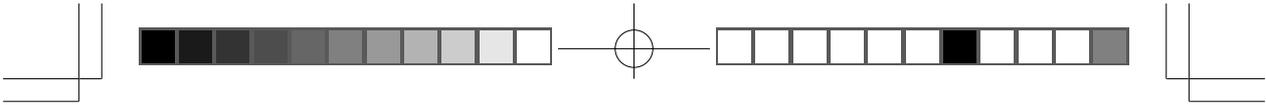
Bundle cables here.

- c. Put rear cover back.

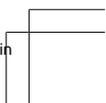
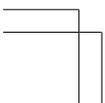
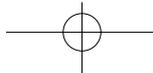
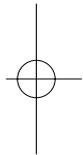
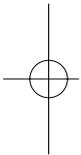
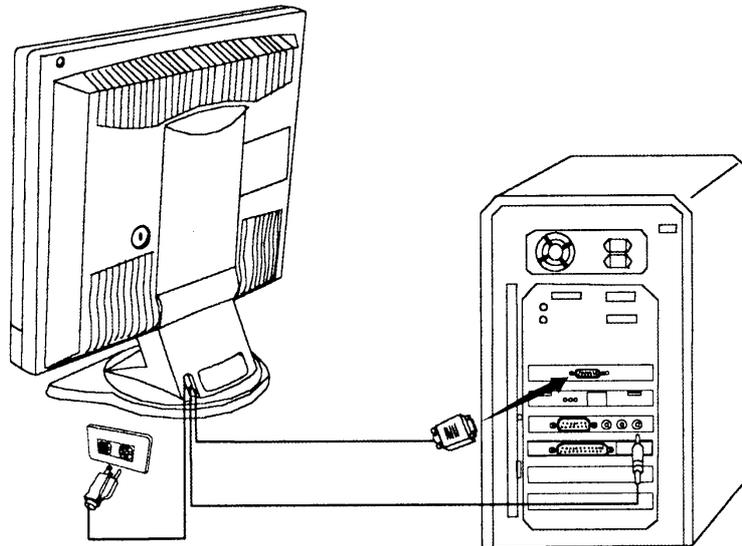


- d. Plug the 15-pin Mini D-SUB cable into the signal connector of the computer.





2. Connect the power cord at the back of the monitor to an AC power socket.  
Please make sure, that the socket is not blocked or covered, so you can disconnect the unit from AC supply if you need to. Your monitor is equipped with an automatic power supply for a voltage range from 100 to 240 Volt at a frequency of 50 to 60 Hz. Be sure that your local power is within the supported range. If you are unsure, ask your electricity supplier.



## Software Installation

### Choosing the best resolution

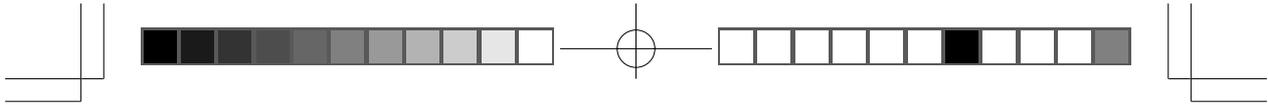
Due to the technology of a LCD monitor, it always provides a fixed resolution. For this monitor, it is a resolution of 1280x1024. This is called the native resolution, which also represents the maximum resolution. Lower resolutions are displayed on a full screen through an interpolation circuit. Flaws do occur with the interpolated resolution compared to the native resolution. If you want to have all the advantages of LCD technology you must use the native resolution. Using Windows 95/98/2000 you can change the resolution as follows:

1. Double-click the “Display” icon in the control panel.
2. From the “Display properties” window, select the “Settings” tab. There is a slider on the right-hand side in the middle of the window. There you can alter the resolution.
3. Set a resolution of 1280x1024.
4. In the subsequent window press: “Apply”, “OK” and “Yes”.
5. You can now close “Display Properties”.

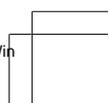
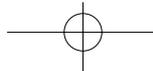
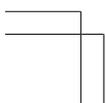
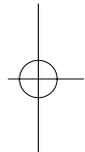
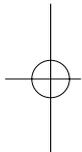
### Refresh Rate Selection

There is no need to choose the highest possible refresh rate on a LCD monitor. It is not technically possible for a LCD display to flicker. Even at a refresh rate of 60 Hz you will get an absolutely flicker-free image. More important is that you make sure that you use one of the factory modes. In contrast to a modern CRT monitor, which is a multi-scan monitor, this model is a multi-frequency monitor. This means, the best results are only obtained by using the factory modes. You will find a table with the factory modes in this user guide. For the native resolution of 1280x1024, these, for example, are 60, 70 and 75 Hz, not 72 Hz. In Windows 95/98/2000 you can change the refresh rate as follows:

1. Double click the “Display” icon in the control panel.
2. From the “Display properties” window, select the “Settings” tab. Click the “Advanced properties” button in the bottom right corner.



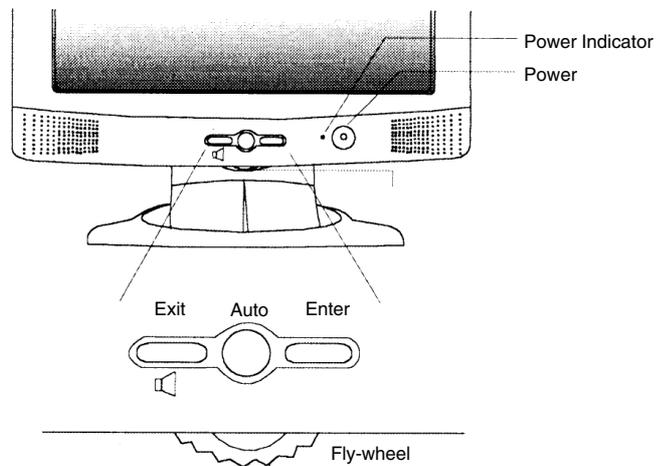
3. Select the “Adapter” tab. The refresh rate selection field is located in the center at the bottom of the window.
4. Choose a refresh rate from the table with the factory modes, which can be found in the user’s guide, and select this in the settings field.
5. In the subsequent window press: “Apply”, “OK” and “Yes”.
6. You can now close “Display Properties”.

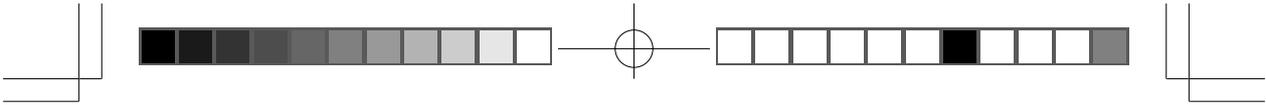


## Adjusting the Monitor

There are 4 keys & one wheel for user's control that includes Power, Auto, Exit, Enter and a wheel. The following descriptions are the introduction of these keys & fly wheel.

1. **Power:** Turn the power on or off.
2. **Auto:** Adjust vertical position, phase, horizontal position and pixel clock automatically.
3. **Exit:** Back to main menus ; Entering "save menu"; Exit OSD menu without saving. Hot key for Audio volume adjustment.
4. **Enter:** Enter main/sub menus ; select items ; save menu.
5. **Fly-wheel:** Left/right adjustment. Hot key for Brightness/Contrast adjustment.





### Adjustable Items



#### Luminance



#### Contrast

Adjusts the contrast.



#### Brightness

Adjusts the brightness.



#### Geometry



#### Hor. Position

Adjusts a displaying position in horizontal direction.



#### Ver. Position

Adjusts a displaying position in vertical direction.



#### Phase

Adjusts a phase when horizontal noise is displayed on the screen. Also used when characters are blurred or not sharply displayed.



#### Pixel Clock

Expands or contracts the screen.



#### Color Adjustment

##### C 1 (9300K)

Selects the pre-set colour (9300K).

##### C2 (6500K)

Selects the pre-set colour (6500K).

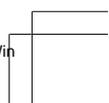
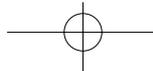
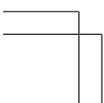
##### C3 (5800K)

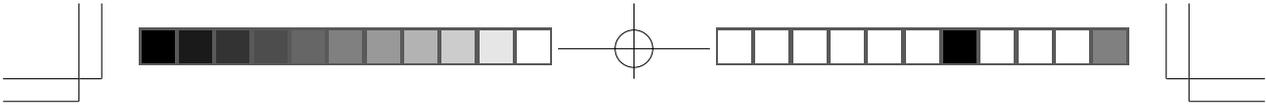
Selects the pre-set colour (5800K).



##### (User)

Adjusts the colour proportion for red, green and blue.





 **Recall (Display Mode)**

Displays information about the input signal.  
Returns a currently displayed set value for signal to factory set one when Enter key is pressed.  
(Only values adjusted at Geometry can be returned to factory set ones.)



 **Miscellaneous**

 **OSD Position**

Adjusts an OSD menu position.

 **Language Select**

Switches the current language displayed on OSD menu into another.

**T M OSD Time**

Set a time in which OSD menu disappears automatically.

 **Zoom**

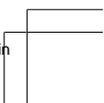
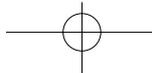
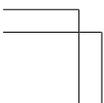
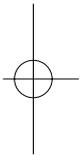
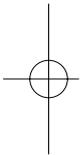
Selects whether or not display is expanded to 1280 x 1024.

**S P Volume**

Adjusts the speaker volume.

 **SN (Serial Number)**

Displays the serial number of this liquid crystal display (LCD).

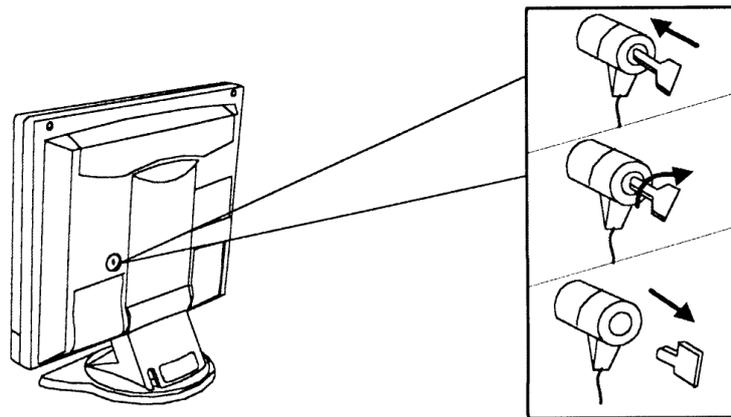


## Monitor Security Lock Installation

The monitor can be secured to your desk or any other fixed objects with Kensington lock security products. The cable can be attached to a slot located on the rear of your monitor.

1. Insert the lock in the slot located on the rear of the monitor.
2. Turn the key to lock the Security Lock.
3. Remove the key and store it in a safe place.

The Kensington lock is not NEC-Mitsubishi Electronics Display Accessory. It cannot be ordered from NEC-Mitsubishi Electronics Display. Contact your reseller for more information.

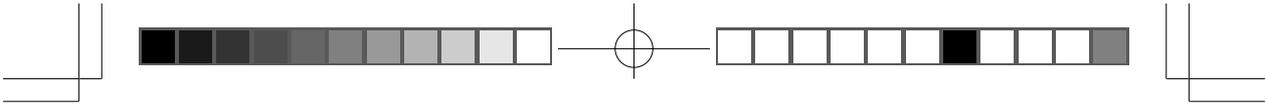


## Recommended Use

### Safety Precautions and Maintenance

FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE MULTISYNC LCD1700M+ COLOUR MONITOR:

- **DO NOT OPEN THE MONITOR.** There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified service personnel.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not insert objects of any kind into the cabinet slots, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- When operating the MultiSync LCD monitor with its AC 126-240V power supply, use a power supply cord that matches the power supply voltage of the AC power outlet being used. The power supply cord you use must have been approved by and comply with the safety standards of your country. (Type H05VV-F should be used in UK)
- Do not place any objects onto the monitor and do not use the monitor outdoors.
- The inside of the fluorescent tube located within the LCD monitor contains mercury.  
Please follow the bylaws or rules of your municipality to dispose of the tube properly.
- In UK, use a BS-approved power cord with molded plug having a black (5A) fuse installed for use with this monitor. If a power



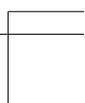
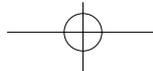
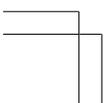
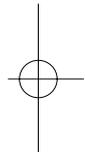
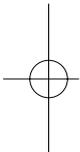
cord is not supplied with this monitor, please contact your supplier.

Immediately unplug your monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the monitor.
- If the monitor has been exposed to rain or water.
- If the monitor has been dropped or the cabinet damaged.
- If the monitor does not operate normally by following operating instructions.
- Do not bend power cord.
- Do not use monitor in high temperature, humid, dusty, or oily areas.
- Do not cover vent on monitor.
- If monitor or glass is broken, do not come in contact with the liquid crystal and handle with care.

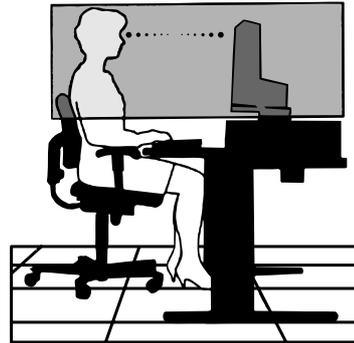
### CAUTION

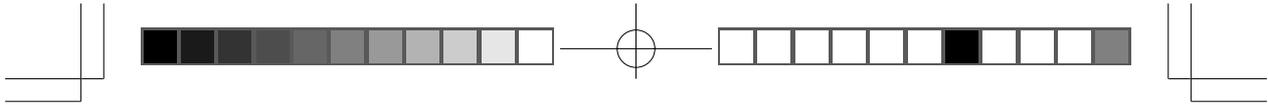
- Allow adequate ventilation around the monitor so that heat can properly dissipate. Do not block ventilated openings or place the monitor near a radiator or other heat sources. Do not put anything on top of monitor.
- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet which is easily accessible.
- Handle with care when transporting. Save packaging for transporting.



**CORRECT PLACEMENT AND ADJUSTMENT OF THE MONITOR CAN REDUCE EYE, SHOULDER AND NECK FATIGUE. CHECK THE FOLLOWING WHEN YOU POSITION THE MONITOR:**

- For optimum performance, allow 20 minutes for warm-up.
- Adjust the monitor height so that the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
- Position your monitor no closer than 16 inches and no further away than 28 inches from your eyes. The optimal distance is 21 inches.
- Rest your eyes periodically by focusing on an object at least 20 feet away. Blink often.
- Position the monitor at a 90° angle to windows and other light sources to minimize glare and reflections. Adjust the monitor tilt so that ceiling lights do not reflect on your screen.
- If reflected light makes it hard for you to see your screen, use an anti-glare filter.
- Clean the LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any cleaning solution or glass cleaner!
- Adjust the monitor's brightness and contrast controls to enhance readability.
- Use a document holder placed close to the screen.
- Position whatever you are looking at most of the time (the screen or reference material) directly in front of you to minimize turning your head while you are typing.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after-image effects).
- Get regular eye checkups.

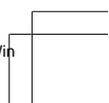
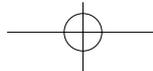
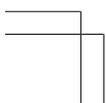
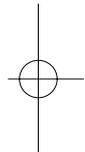
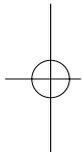




### Ergonomics

To realize the maximum ergonomics benefits, we recommend the following:

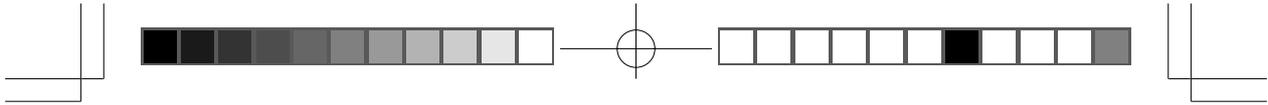
- Adjust the Brightness until the background raster disappears
- Do not position the Contrast control to its maximum setting
- Use the preset Size and Position controls with standard signals
- Use the preset Colour Setting
- Use non-interlaced signals with a vertical refresh rate between 60-75Hz
- Do not use primary colour blue on a dark background, as it is difficult to see and may produce eye fatigue to insufficient contrast



## Specifications

Monitor Specifications	MultiSync LCD1700M+ Monitor	Notes
Picture Tube Viewable Image Size: Native Resolution (Pixel Count):	Diagonal: 17.0 inch Viewable Image Size: 17.0 inch Native Resolution (Pixel Count): 1280x1024	Active Matrix; Thin Film Transistor (TFT), Liquid Crystal Display (LCD), 0.264mm dot pitch; 200cd/m <sup>2</sup> , white luminance; 350:1 contrast ratio, typical.
Input Signal	Video: ANALOG 0.7 Vp-p/75 Ohms Sync: Separate sync. TTL Level Horizontal sync. Positive/Negative Vertical sync. Positive/Negative	
Display Colors	Analog input: Over 16.7 Million Colours	Depends on display card used.
Synchronization Range	Horizontal: 31 kHz to 81.1 kHz Vertical: 56 Hz to 76.6 Hz	Automatically Automatically
Resolutions Supported Resolution based on horizontal and vertical frequencies only	720 x 400 @ 70 Hz 640 x 480 @ 60 to 75 Hz 800 x 600 @ 60 to 75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60 to 75 Hz 1152 x 870 @ 75 Hz 1280 x 1024 @ 60 to 76 Hz .....	Some systems may not support all modes listed.  NEC-Mitsubishi Electronics Display cites recommended resolution at 60 Hz for optimal display performance.
Active Display Area (Full Scan)	Horizontal: 338 mm/13.3 inches Vertical: 270 mm/10.6 inches	Dependent upon signal timing used, and does not include border area.
Power Supply	AC 100 - 240 V, 50-60 Hz	
Current Rating	1.2 A @ 100-120 V / 0.5 A @ 220-240 V	
Dimensions	422 mm (W) x 451 mm (H) x 208 mm (D) 16.6 inches (W) x 17.8 inches (H) x 8.2 inches (D)	
Weight	7.5 kg 16.5 lbs	
Environmental Considerations	Operating Temperature: 5° C to + 35° C Humidity: 20% to 80% Feet: 0 to 12,000 Feet Storage Temperature: -20° C to +60° C Humidity: 5% to 85% Feet: 0 to 40,000 Feet	
Speakers Practical Audio Output	1.0 W + 1.0 W	

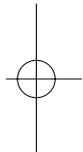
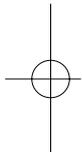
NOTE: Technical specifications are subject to change without notice.



## Troubleshooting

### The image is blurred

- Refer to the Installation/Adjustment chapter and then select the correct resolution, refresh rate and make adjustments based on these instructions.
- Do you use a VGA extension cable?  
Remove the extension cable for the test. Is the image now in focus? If not, optimize the image working on the description in the chapter, Installation/Adjustment. It is normal for blurring to occur due to conduction losses in extension cables. You can minimize these losses by using an extension cable with better conduction quality or with a built-in booster.
- Does the blurring only occur at resolutions lower than the native (maximum) resolution?  
Refer to the Installation/Adjustment chapter. Select the native resolution.

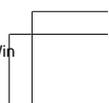
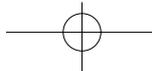
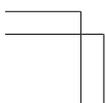


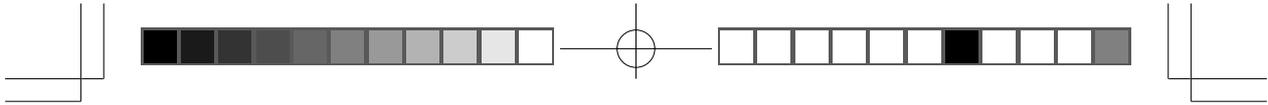
### The image has a faulty colour appearance

- It has a yellow, blue or pink appearance.  
On the monitor press the “Enter” button and using the Fly-wheel move to the “colour settings” menu. Select the “Recall” item and press “Enter”. If the image is still not correct and the OSD also has a fault colour appearance, then one of the three primary colours is missing in the signal input. Now check the VGA cable contacts. If any pins are bent or broken off, then contact your dealer or read the chapters for additional help and service.

### No image can be seen

- Is the prompt on the display illuminated in green?  
If the LED is illuminated in green, then press the “Exit” button on the monitor to access the On Screen Display. If the message “NON PRESET MODE” appears there, read the chapter Installation/Adjustment.





- Is the prompt on the display illuminated in orange?  
If the LED is illuminated in orange, then the power management mode is active.  
Press a button on the computer keyboard or move the mouse. If that does not help, then check the VGA cable contacts. If any pins are bent or broken off, then contact your dealer or read the chapters for additional help and service.
- Is the prompt on the display not illuminated at all?  
Check the power supply mains socket, the external power supply and the main switch.

#### **The image is or distorted, flashes or flickers**

- Refer to the Installation/Adjustment chapter and select the correct resolution, refresh rate and make adjustments based on these instructions.

#### **The image is displaced in one direction**

- Refer to the Installation/Adjustment chapter and then select the correct resolution, refresh rate and make adjustments based on these instructions.

#### **No Sound**

- Check to see if speaker cable is properly connected.
- Check to see if volume in OSM is set at minimum.

