Before you start

Thanks for purchasing Hyundai MultiCAV LCD Monitor.
This LCD Monitor has been engineered and manufactured based on state of the art technology and with sufficient quality control.

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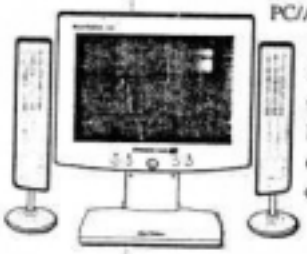

FCC Compliance statement

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 the 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:

Use only shielded signal cables to connect I/O devices to this equipment.
You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void you authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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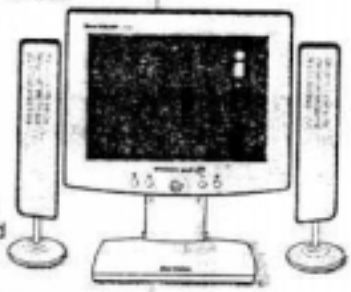
1. Unpacking your LCD Monitor

- After you unpack your LCD Monitor, make sure the following items are included in the box and in good condition. If you find that any of these items is missing or appears damaged, contact your dealer immediately.
- This user' s guide is based on HMM-L1500-M, and there are no Pivot function and USB Hub Terminal for the HMM-L1500

Diskettes for Device Driver

This user s Guide

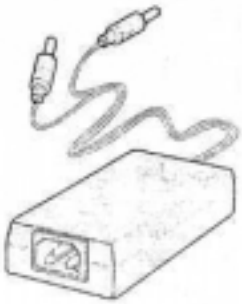
CD for pivot software and installation guide (HMM-L1500-M only)



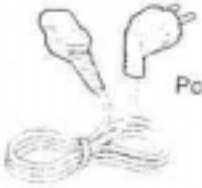
Speaker and Stand

Monitor

Monitor to PC Signal Cable



AC/DC Adaptor



Power Cord

Audio Cable

▶ *These contents are subject to change the model type without prior notice for product improvement.*

2. Product Features

15 inch LCD panel

using 15-inch LCD(Liquid Crystal Display) panel, it is designed as a slim-type and allows more room in your workspace for other peripherals.

Monitor Pivot features (HMM-L1500-M only)

Display screen can be rotated 90 degree to make easier work for word processing.

Ergonomic design

It has been designed to be versatile, ergonomic and easy to use.

Low Power consumption

Built-in VESA DMPS functions,
With its low power consumption the LCD Monitor helps you reduce your power bill.

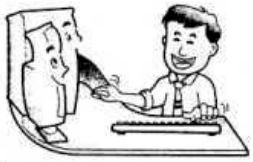
Hi-quality Sound function.

It contains the separated hi-quality speaker system that can be attached to the monitor or stand-alone.

USB function (HMM-L1500-M only)

Built-in USB connectors support Plug and Play features

3. Safety Instructions

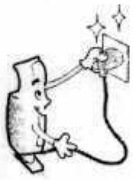


Precautions when install

High temperature can cause troubles. Avoid operating the monitor in extreme heat areas. Extreme temperature may cause discoloration or damages.

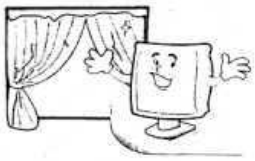
Avoid operating the monitor in extreme humidity or dusty areas. Extreme humidity may cause discoloration or damages.

Make sure to connect the power cord plug firmly to the wall outlet to prevent poor contact



Place the monitor on a flat surface to prevent it from falling.

Install it in a well-ventilated area or secure enough space for ventilation



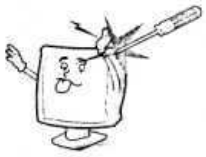
It allows the input voltage range 110v ~ 220v automatically

▶ *We always recommend you to utilize same input voltage for monitor and computer system. Otherwise, it can be damaged to your product.*

Precautions when using

▶ *Please read this manual and comply with the warnings and the procedures to avoid any serious electrical shock and other serious damage.*

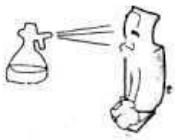
1. Do not remove the cover or attempt to service this unit by yourself. You may void the warranty. Servicing of any nature should be performed only by an authorized technician



2. Do not expose the monitor to fluid such as chemicals, water.

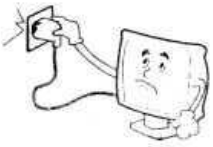
3. Do not apply any materials into the monitor such as metallic and flammable

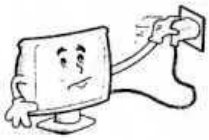
4. To clean the LCD Monitor screen, first, make sure the Monitor is in the power off mode. Unplug the Monitor from its power source before cleaning it. Do not spray liquid cleaners directly onto the unit. Stand away from the LCD Monitor and spray cleaning solution onto a rag. Without applying excessive pressure, clean the screen with the slightly dampened rag.



5. when you handle the plug, please do grip the plug not cord only.

6. Make sure that the AC power cord and the other cords are properly connected. Also, the frayed power cords and the broken plugs may cause electric shock or fire.



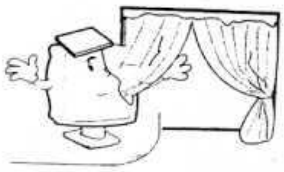


7 Do not touch the power plug with the wet hands. It may cause electric shock.

8 when you find some fumes or bad smell, immediately unplug your Monitor and call an authorized technician.

9 unplug the power cord, when you unattended for a long periods.

10 Do not use fine tools such as a pin or a pencil near the monitor to prevent any scratch to the LCD surface.

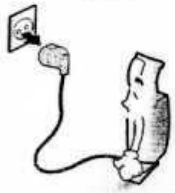


Do not place anything heavy, wet or magnetic on the LCD MONITOR or power cord. Do not cover the ventilation openings nor touch them with metallic or flammable material

- *Immediately call an authorized technician when you need A/S(After Service).*

Precautions when moving

1 Turn the monitor power off



2 Remove all the cables from the monitor

3 Be careful to prevent the scratch on the LCD surface and all kinds of shock.

4. Connecting to the Computer

1. Power off

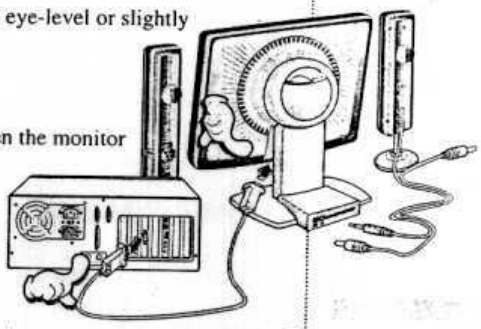
   Turn the monitor and Computer power off

2. Adjust the height (HMM-L1500-M only)

   Hold the stand and adjust the height of the screen to fit your convenience position.
   Top third of LCD screen should be eye-level or slightly below.

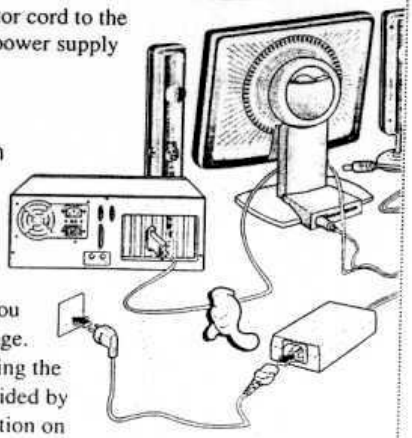
3. Connect the signal cable

   Connect D-sub signal cable between the monitor and the Computer.
   And make sure to tighten the screw.



4. Connect the power cord

   Connect the power adaptor cord to the monitor and then to the power supply also.



5. Confirm the connection

   After power on the computer and the monitor,
   Make sure cable connection status when you see "OFF MODE" message.
   And adjust the display using the various controls that provided by OSD. For further information on the installation procedure, please refer to the operating guide of the computer being used.

▶ *OFF MODE :*
It displayed when the connections between the monitor and the computer is not properly installed. Or when the computer power is "OFF" state.

5. Connecting to the Macintosh

1. Power off

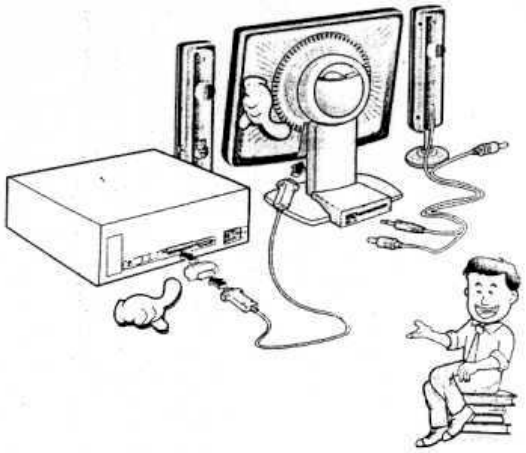
   Turn the monitor and Computer power off and also peripherals if available

2. Adjust the height (HMM-L1500-M only)

   Hold the stand and adjust the height of the screen to fit your convenience position.
   Top third of LCD screen should be eye-level or slightly below.

3. Connect the signal cable

   After confirm the specification of MAC connector,
   Connect D-sub signal cable between the monitor and the Computer.
   And make sure to tighten the screw.

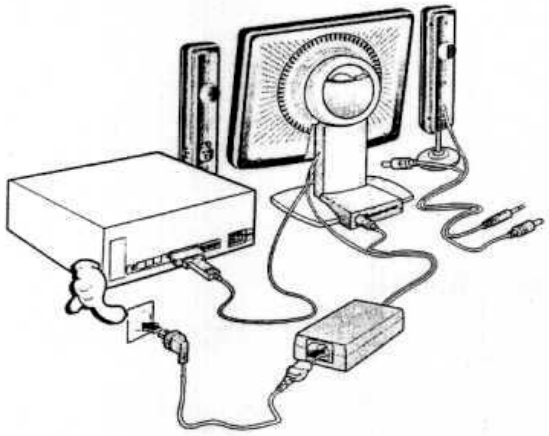


Notes

▶ *OFF MODE : It displayed when the connections between the monitor and the computer is not properly installed. Or when the computer power is "OFF" state.*

4. Connect the power cord

Connect the power adaptor cord to the monitor and then to the power supply also.



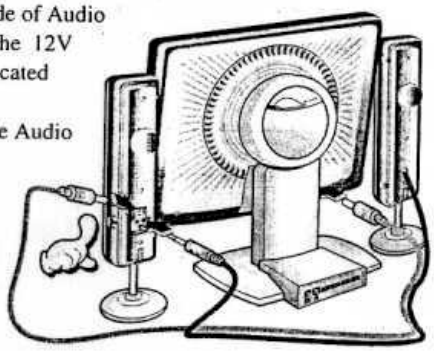
5. Confirm the connection

After power on the computer and the monitor,
Make sure cable connection status when you see "OFF MODE" message.
And adjust the display using the various controls that provided by OSD. For further information on the installation procedure, please refer to the operating guide of the computer being used.

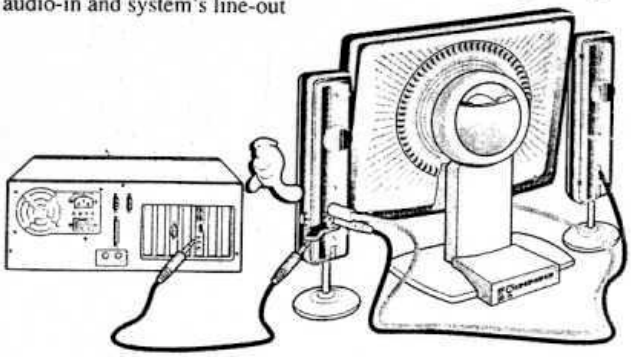
6. Connecting the speakers
(Option Item)

1. There are two ways to install the speakers. One is attach the speakers to the side of the LCD screen, the other one is use as stand-alone

2. Connect Audio DC power cable to the Audio DC out connecter that is located back-side of the LCD monitor and connect the other side of Audio DC power cable to the 12V DC-in jack that is located right side speaker.
And then connect the Audio cable to the Audio Out terminal.



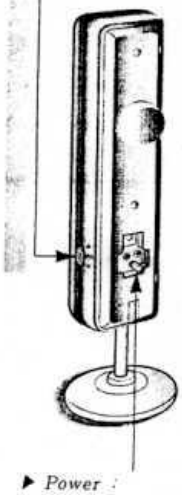
3. Connect audio cable that supplied separately between speaker's audio-in and system's line-out



4. After finish the installation, control the volume.

Notes

- *Volume : to control the sound volume*



- *Power : tune the speaker's power on and off*

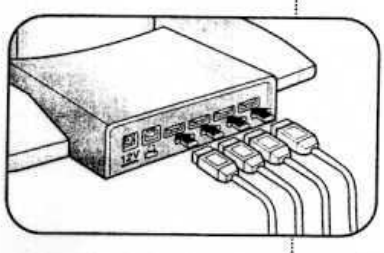
7. Connecting USB Cable

(HMM-L1500-M only)

you can connect the USB peripherals(printer, Key board, Mouse,..) to the USB connecters that located in the backside of monitor.

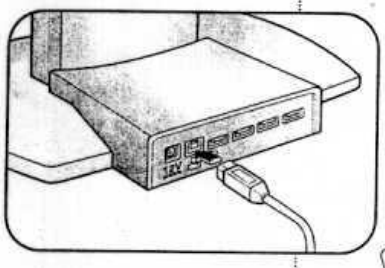
USB downstream port (4 each)

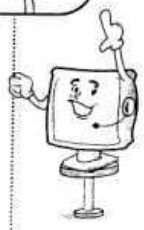
Connect the downstream terminal for USB peripheral devices(printer, key board, mouse). Peripherals should be supported USB specifications.



USB upstream port (1 each)

Connect the system's upstream terminal. Computer should support USB specifications and have its own USB port.





- Regardless of the USB connection, you can also operate your system.
- There are no limitations of the peripheral devices to connect to USB.
- It support plug & play specification. You can connect and disconnect whenever you want.
- USB functions are supported in the windows98 or later version.

8. Ergonomics

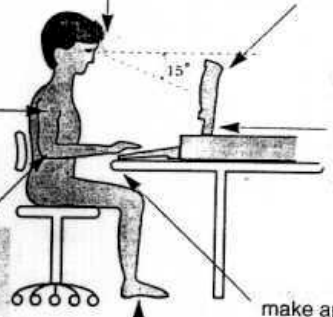
Notes

- *To make proper position, adjust the viewing angle to the comfortable views.*
- *Take a break from the computer. Get up, stretch, flex your wrists, walk about, and look at something else for about 10 minutes every hour.*

Top third of the LCD(screen) should be at your eye-level or slightly below.

Angle the LCD so that it does not reflect any light into your eye.

use a chair that offers good back support. And your neck and shoulder should also be relaxed

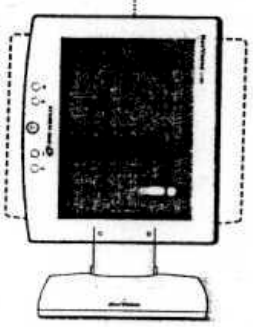


angle the LCD to place the appropriate position for you.

place the keyboard and mouse so that your arms are at your sides and your forearms arms are roughly parallel to the floor. Your wrist should flex slightly downward as you work.

make appropriate space below of the worktable.

The seat should allow your feet to rest flat on the floor or on a footrest directly in front of you.

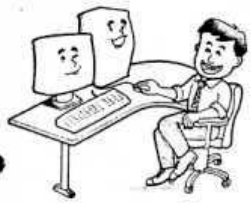


Rotate the LCD screen

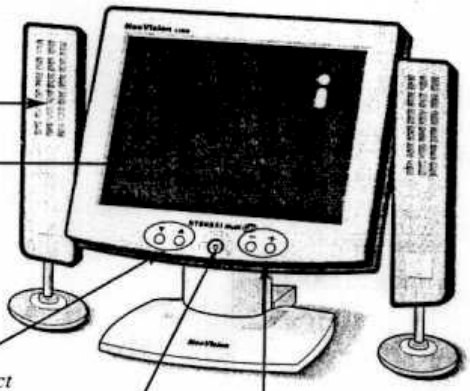
(HMM-L1500-M only)

Your monitor can be rotated 90 degree in clockwise. To rotate, grip the upper side of the LCD screen and rotate in clockwise as shown in diagram.

9. Taking a look at your Monitor

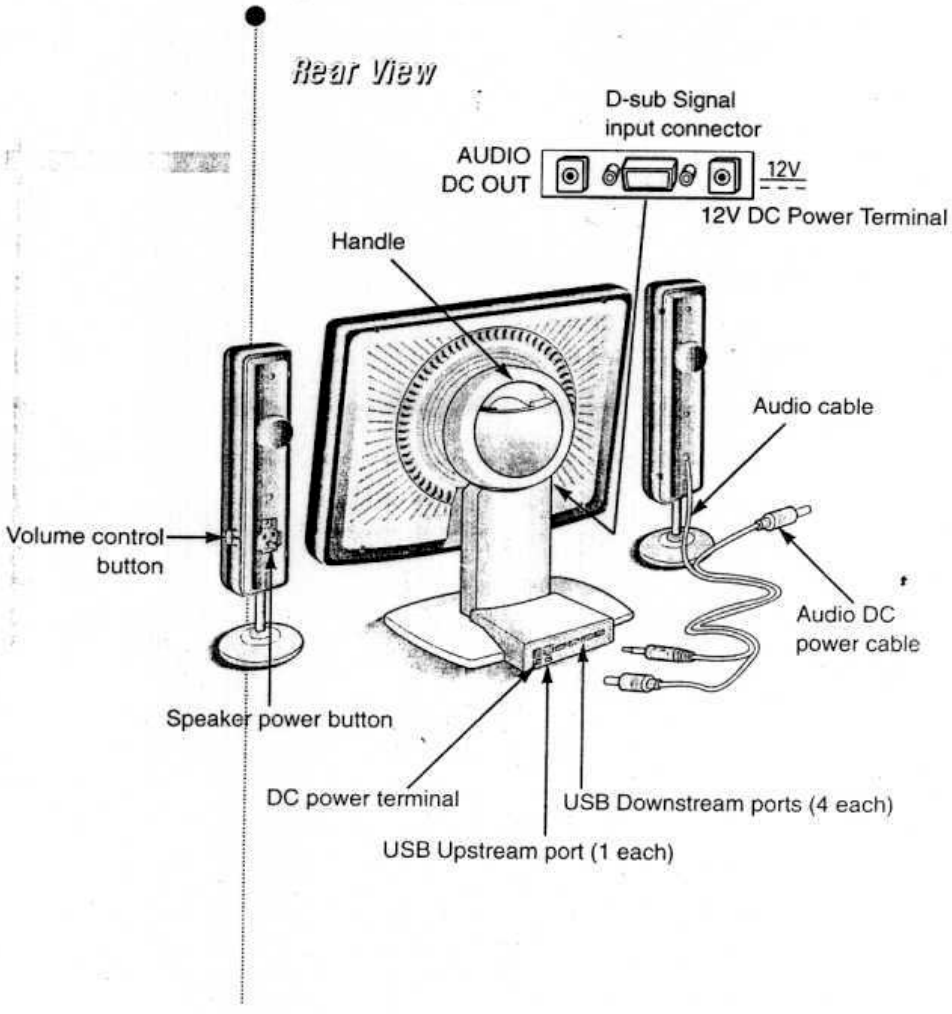


Front view



9. Taking a look at your Monitor

Rear View



10. OSD

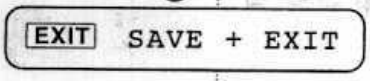
OSD(On Screen Display) Functions and Adjustment

To make ultimate screen setting, adjust various options using the front panel buttons.

OSD Screen Adjust procedure

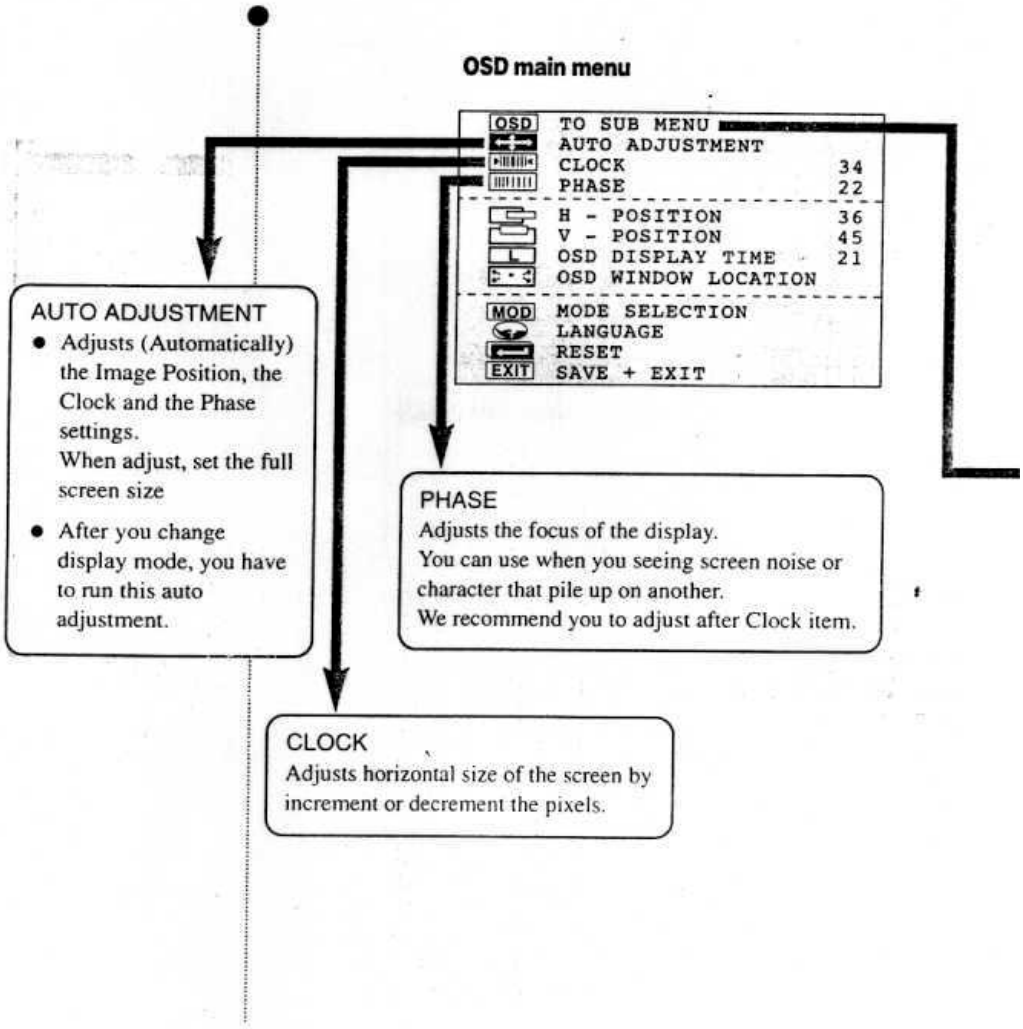
1 Press ▼/▲, -/+ button to display OSD control menu

2 to select the item you want to change, press ▼/▲ button



3 After you change the values, select "EXIT SAVE+EXIT" item and press to save your changes

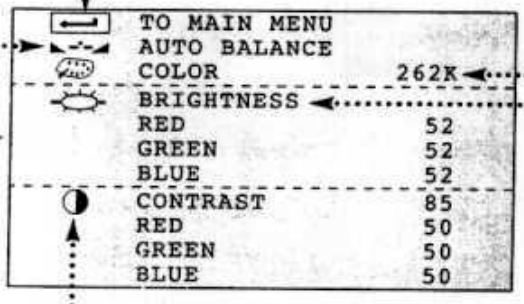
4 after a few second, OSD menu will be disappeared.


OSD main menu
OSD TO SUB MENU
AUTO ADJUSTMENT
CLOCK 34
PHASE 22
H - POSITION 36
V - POSITION 45
OSD DISPLAY TIME 21
OSD WINDOW LOCATION
MOD MODE SELECTION
LANGUAGE
RESET
EXIT SAVE + EXIT
AUTO ADJUSTMENT
• Adjusts (Automatically) the Image Position, the Clock and the Phase settings.
When adjust, set the full screen size
• After you change display mode, you have to run this auto adjustment.
PHASE
Adjusts the focus of the display.
You can use when you seeing screen noise or character that pile up on another.
We recommend you to adjust after Clock item.
CLOCK
Adjusts horizontal size of the screen by increment or decrement the pixels.

AUTO BALANCE
It adjust the color tone automatically.

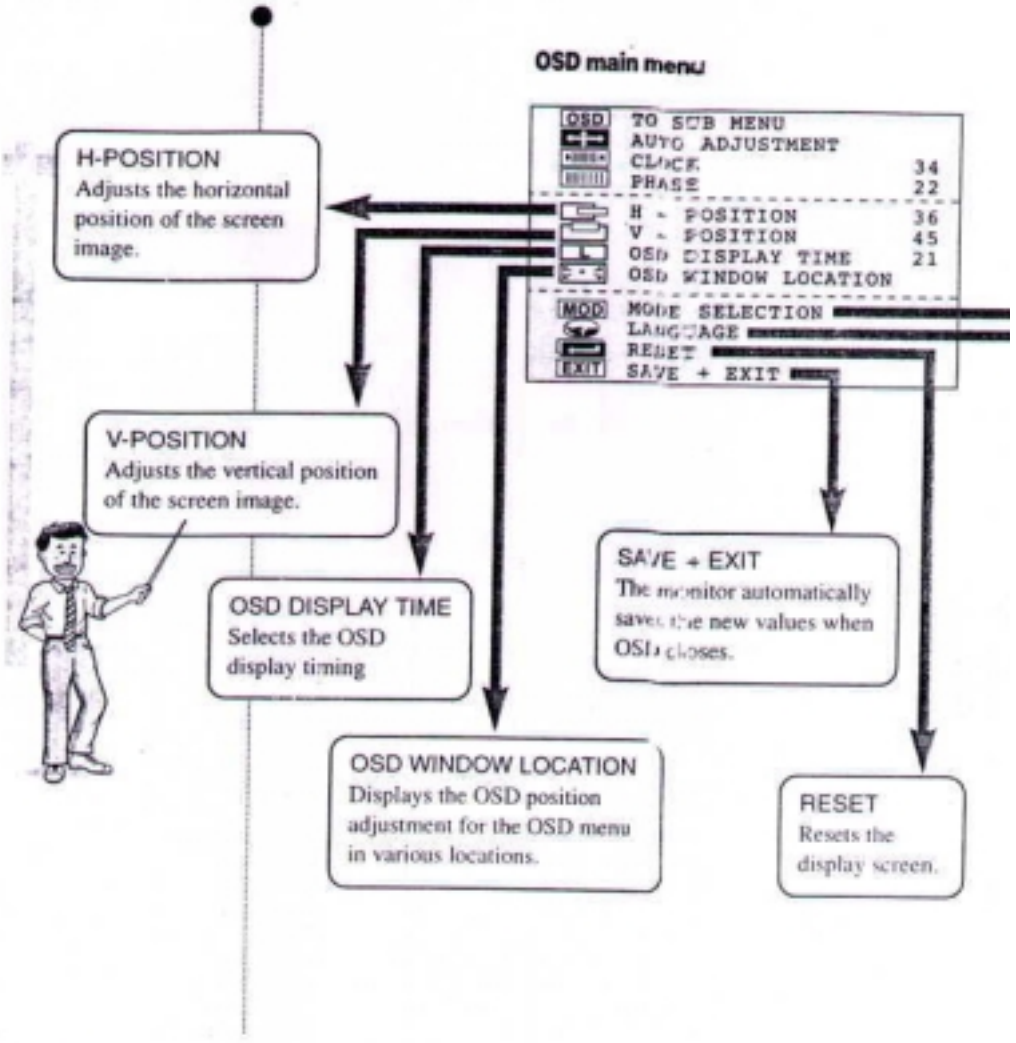
COLOR
Displays the color control menu.
And you can adjust each R(red), G(green), B(blue) values.

To return to main menu



CONTRAST
Adjusts the contrast of the screen image.

BRIGHTNESS
Adjusts the screen intensity.


OSD main menu
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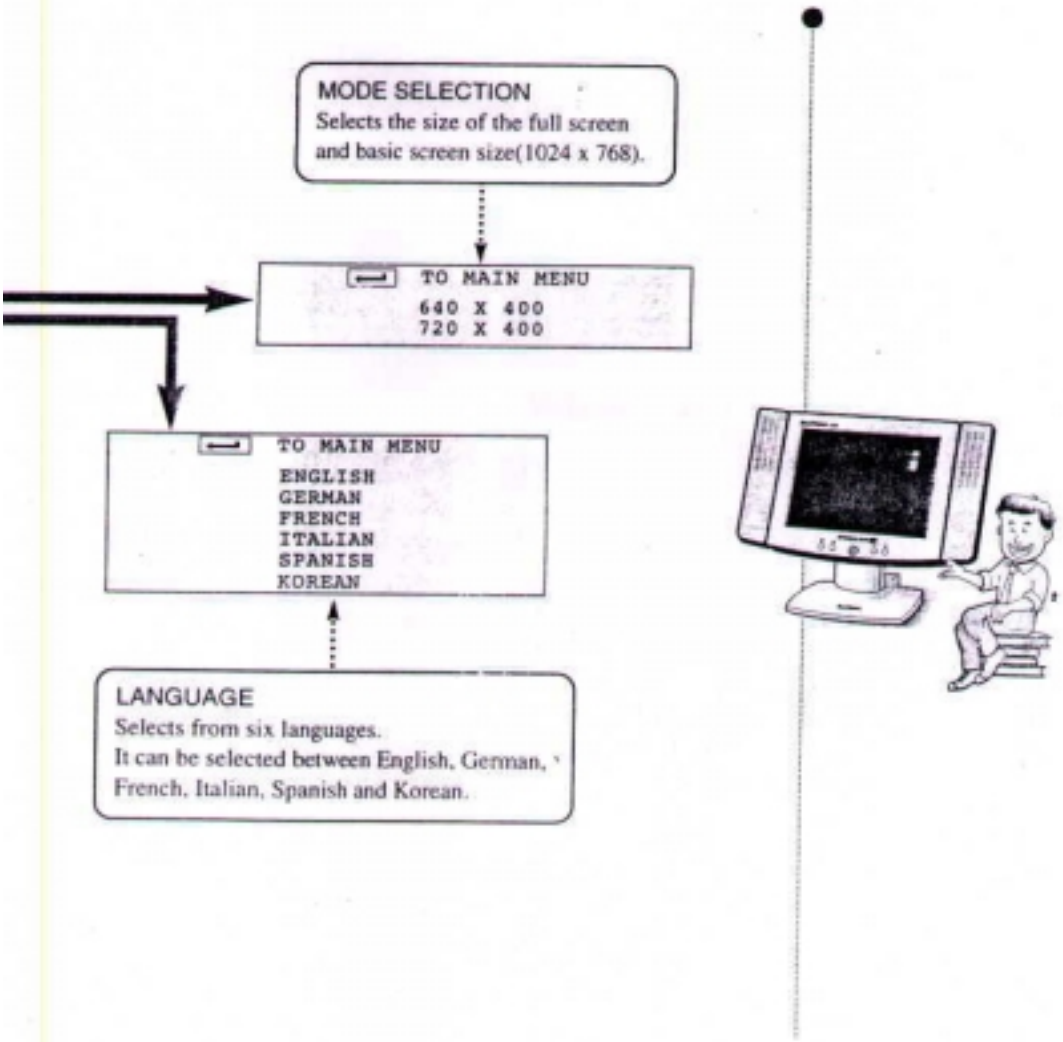
H - POSITION 36
V - POSITION 45
OSD DISPLAY TIME 21
OSD WINDOW LOCATION
MODE SELECTION
LANGUAGE
RESET
EXIT SAVE + EXIT
H-POSITION
Adjusts the horizontal position of the screen image.
V-POSITION
Adjusts the vertical position of the screen image.
OSD DISPLAY TIME
Selects the OSD display timing
OSD WINDOW LOCATION
Displays the OSD position adjustment for the OSD menu in various locations.
SAVE + EXIT
The monitor automatically saves the new values when OSD closes.
RESET
Resets the display screen.


MODE SELECTION
Selects the size of the full screen and basic screen size(1024 x 768).
TO MAIN MENU
640 X 400
720 X 400
TO MAIN MENU
ENGLISH
GERMAN
FRENCH
ITALIAN
SPANISH
KOREAN
LANGUAGE
Selects from six languages.
It can be selected between English, German, French, Italian, Spanish and Korean.

11. Troble Shooting

No Display

- ▶ check the main power cord → ▶ connect the power cord to the outlet firmly
- ▶ Check the power switch → ▶ push the power button,
- ▶ Display "Not recommend" ? → ▶ fter you check the video card specifications in the system, adjusts vertical and horizontal frequency. H:30~60kHz, V:56~75Hz
- ▶ Display "OFF MODE"? → ▶ check the D-sub signal Cable, and connect it firmly.
- ▶ LED on and is it green? → ▶ Adjusts Bright and Contrast
- ▶ LED on and is it Amber? → ▶ Monitor enters to the Power management. Move the mouse or press any key to resume.

Image is not centered

- ▶ adjust location correctly? → ▶ Adjust the Horizontal and Vertical position settings using the OSD.

After connect the Monitor, Display "Un known Monitor"

- ▶ Install Driver? → ▶ Install the device driver which is offered with diskette.

Display is not clear

- ▶ adjusts the phase? ▶ Adjusts Phase item in the OSD Menu
- ▶ Adjust the ultimate Screen setting? ▶ you can make ultimate screen settings when you set 1024x768 @60Hz. Otherwise, you may see the unclear display

Something strange in colors.

- ▶ Is it discoloration? ▶ Set the colors to 16bit or 32bit in windows control panel.
- ▶ Can see the defect dot. ▶ It is normal. LCD characteristic. Never affected to the system performance
- ▶ Color is unbalanced or Unique color? ▶ check the signal cable Make sure to connect firmly
- ▶ Picture appears to be ghosting ▶ Check the signal cable connection between computer and LCD Monitor

12. Specifications

The specifications are subject to change without prior notice for product improvement.

LCD panel

- Type : 15" TFT(Thin Film Transistor) LCD panel
- Pixel pitch : 0.297 x 0.297 (HxV)mm
- Viewing Angle : 60 degree (L/R) 35/55 degree (U/D)
- Number of colors : 16M color (Dithering)
- Number of Pixels : 1024 x 768 (HxV) @ 60 Hz

Input connector

- 15pin D-sub

Power

- Input voltage : DC +12V 3.0A
- Power Consumption : 36W

Video signal

- Horizontal Frequency : 30~61kHz
- Vertical Frequency : 56~75Hz

Sound signal

- Sound output : 6W(L/R)
- Impedance : 8ohm

Dimension

- 384 x 216 x 390(WxDxH) HMM-L1500-M
- 384 x 195 x 395(WxDxH) HMM-L1500

Weight

- 7.11Kg (HMM-L1500-M)
- 5.38Kg (HMM-L1500)

LCD viewing Angle

- -5~30 degree

Environment

- Operating Condition : Temperatures 10 ~ 35C
  Humidity 10~80 %
- Storage condition : Temperature -20 ~ 60C
  Humidity 5~95%

AC/DC adaptor

- Model : CHC-036-02S2F/PW160
- Input voltage : AC110~220V 50/60Hz
- Output : DC +12V, 3.0A
- Manufacturer : ChungHwa Electronics/Alt,Korea