



A Different Class Of Display

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DR-17 LCD Display
User Manual

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Precautions

Warning on installation

- Do not cover or block the ventilation holes in the case.
- Do not install the display near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Warning on power connection

- Use an appropriate power cord for your local power supply.
- The outlet should be installed near the display and be easily accessible.
- Do not allow anything to rest on the power cord.
- Disconnect the power plug from the power outlet under following conditions:

If you will not use it for an indefinite period time.

When the power cord or plug is damaged or frayed.

If the product has been dropped or the cabinet has been damaged.

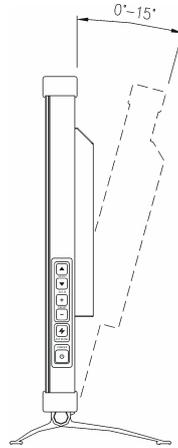
If the product exhibits a distinct change in performance, indicate a need for service.

Remark: Please be advised that IEC 60601-1 certification is only applicable when using DR-17 together with the 24V adapter that supplied by AG Neovo. If you use any adapter other than 24V adapter that was supplied with DR-17, then IEC 60601-1 certification will not be applicable.

Warning on tilt

Use the display's tilt capability to adjust its vertical orientation to an appropriate position. Grasp the top corners of the display with both hands and tilt to the desired angle.

DR-17



Warning on Maintenance

- Clean the cabinet, glass, and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzene.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a pen or screwdriver. This type of contact may result in a scratched glass.
- Do not insert sharp objects or spill liquid into the display through ventilation holes. They may cause accident fire, electric shock or failure.
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage potentials or other risks.

Warning on transportation

- When you transport this display for repair or shipment, use the original carton and packing materials.

Getting Started

Package Contents

Before using this display, check the following items are included in your carton box:

- Display (*1)
- X-ray film positioner (*1) with its rivets (*3)



- DC 24V Power adaptor (*1)
 1. Please use the power adapter which provided by the manufacturer.
 2. Must use one of the following adapters: Sinpro MPU63-108 or Adapter STD-2427M.



- Power cord (*1) (Above 0.75mm * 3C)



- D-sub 15-pin signal cable (*1)



- Digital DVI signal cable (*1)



- S- Video cable (*1)



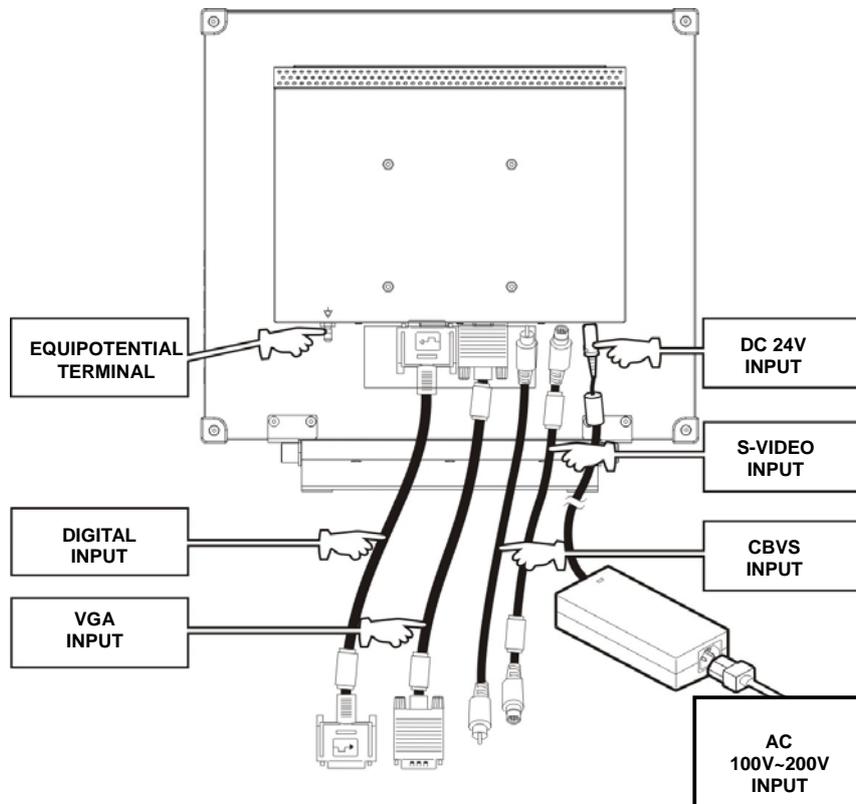
- CVBS cable (*1)



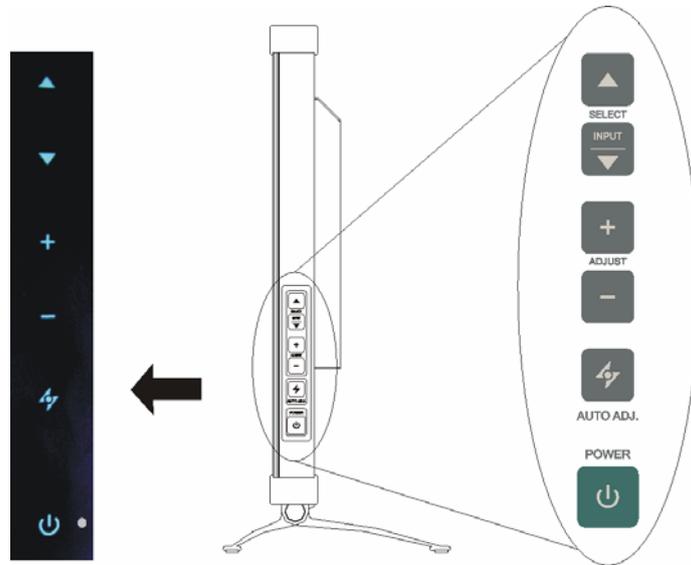
- CD-ROM (*1)
- Quick Guide (*1)



Identify the Parts and Controls



- Equipotential Terminal
Brings the various parts of a system to the same potential.
- Digital-In
DVI-D connector for digital signal input.
- VGA-In
D-sub 15-pin connector for VGA signal.
- CVBS-In
Connector for CVBS signal.
- S-VIDEO-In
Connector for S-Video signal.
- DC 24V Power in
Provides 24V DC power to the display.



▲ Up Button

1. Activate the On-Screen Display menu.
2. While the On-Screen Display menu appears, press ▲ to move the selected item clockwise or onward.

▼ INPUT / Down Button

1. While the On-Screen Display menu appears, press ▼ to move the selected item counterclockwise or backward.

+ Increase Button

1. When the On-Screen Display menu is activated, press + to confirm/ enter the selected items.
2. When the On-Screen Display menu is activated, press + to increase the adjustable value of the selected item.

— Decrease Button

1. When the On-Screen Display menu is activated, press — to confirm/ enter the selected item.
2. When the On-Screen Display menu is activated, press — to decrease the adjustable value of the selected item.



Auto Button / Video Mode

1. Press  to select the preferred video mode: User, Text, Movie, Game or Graphic. The option will toggle on the top right hand corner of the display.
2. Press  for 3 seconds to adjust the picture position and performance automatically for optimal settings. You are recommended to press the button the first time you use the display or every time you change the resolution and/or refresh rate of the input signal.
3. When the On-Screen Display menu is activated, press  to exit the menu at any time.



Power Switch

Turns the display on or off.



LED Indicator

Indicates the display's operational mode; green for regular operation, and amber for power saving mode.

Hot Key Input Select Hot key

Pressing  and  buttons at the same time for 5 seconds can switch between auto and manual input select.

When the input select is under manual mode, press  to choose the desired input signal: D-sub, DVI, CVBS or S-Video. The option will toggle on the top right hand corner of the display.

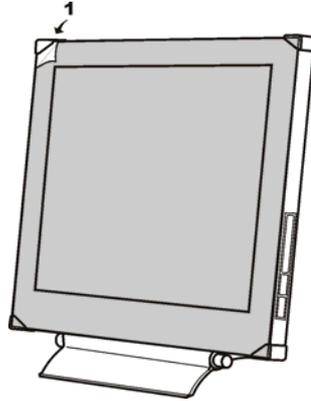
Illuminator Function Hot Key

Press and hold “” button for 3 seconds to turn the screen to completely white screen to enable you to use the screen as the light box for the x-ray film. To change the screen back to normal display mode, simply press and hold “” button again for 3 seconds.

Setup

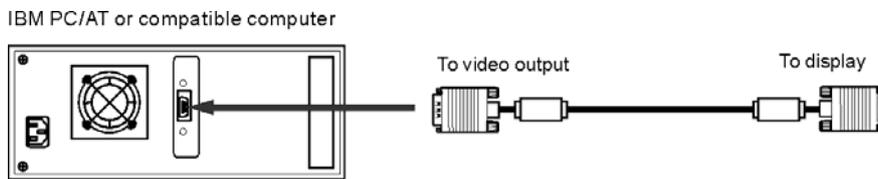
Please follow the following instructions to setup display.

Step 1: Remove all packing materials and wrapping from the display and then tear down the plastic dust cover from the screen surface.

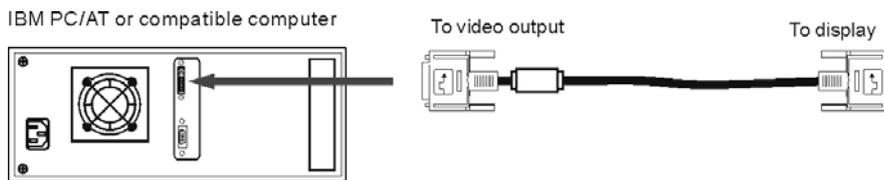


Step 2: With the computer or video equipment turned off, connect the enclosed VGA signal cable.

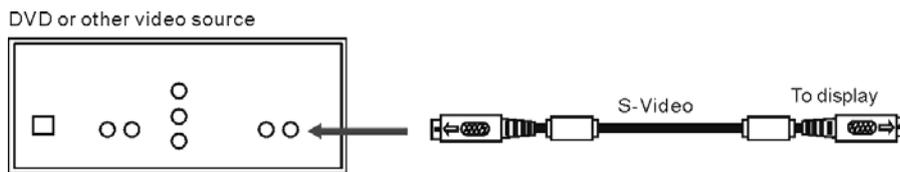
- Connecting to an IBM or IBM compatible computer



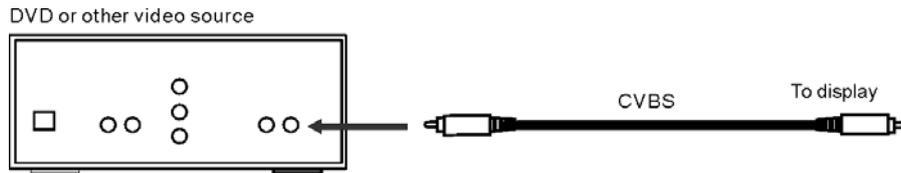
- Connecting to a video equipment with digital source



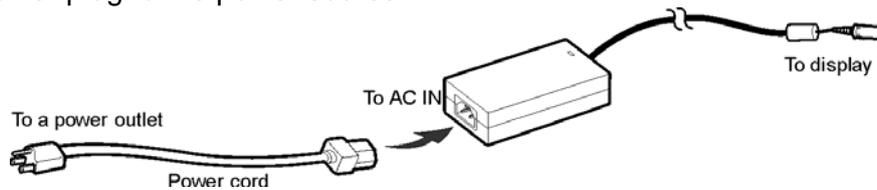
- Connecting to a video equipment with S-Video connector



- Connecting to a video equipment with CVBS jack



Step 3: With the display turned off, connect the display end power plug of adaptor to the power jack of the display. Then connect the power cord to the adaptor and the power plug to the power source.

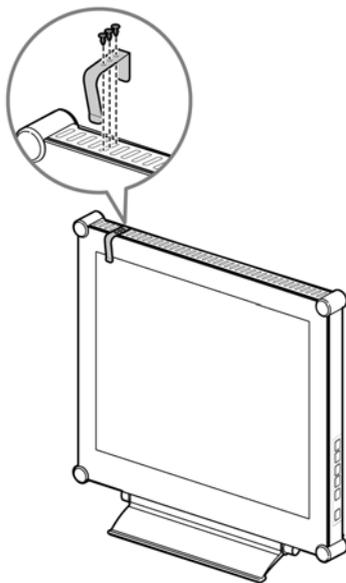


Step 4: Turn on your computer or video equipment. Press  power switch to turn on display.

Step 5: For best performance. (If the display is connected to a video equipment such as DVD or VCR player, please skip this step.)

For DR-17 LCD display, it will have the best performance at resolution 1280 x 1024. Ensure that your computer display is set at 1280 x 1024 pixels and 60Hz. Press the AUTO button. The display will optimise the display automatically.

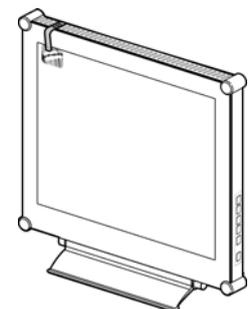
Installing the X-Ray Film Positioner on Your LCD Panel:



1. Place the x-ray film positioner on the top of the LCD panel. Align it so that the three positioner's holes are on the top of the LCD panel's ventilation holes as shown in the illustration.

Be sure that the longer edge of the positioner is placed at the front side of the LCD panel.

2. Insert the 3 rivets into the positioner's holes and pass through the LCD panel's ventilation holes to secure it.
3. To view the x-ray film image, attach the x-ray film on the positioner.



Customising Your Display

Adjusting Your LCD Panel

In the OSD menu, you will find all kinds of features to help you adjust your LCD panel to the optimal performance.

User Mode:

To allow preferable viewing images for different tasks, users are able to adjust each setting manually in User mode.

Text/ Movie/ Game/ Graphic Mode:

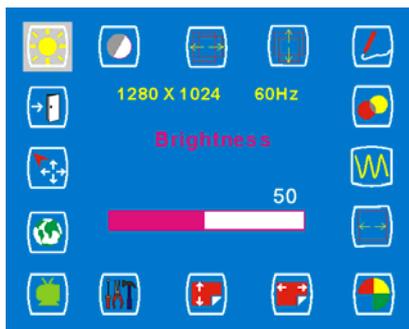
The four specialised modes have their own pre-arranged settings for optimal viewing within each application. To better suit users' needs and environments, Brightness Adjustment and Contrast Adjustment are available for further adjustment (Colour temperature is also adjustable in Text mode).

Important! Though manual adjustment of the LCD panel is available, we strongly recommend you to use the auto adjustment function of the panel. It will automatically tune your LCD panel to the optimal performance. Simply push the AUTO button for 3 seconds to enable the auto adjustment function. Additionally, we recommend you to use the auto adjustment function every time after you have changed the resolution or frequency of your display.

Selecting OSD Features

Step 1. Call Out the On-Screen Display Menu

Press ▲ to activate On-Screen Display menu.



DVI / D-SUB



CVBS / S-Video

Step 2. Adjust the Settings

Press ▲ to move the selected item clockwise or onward

Press ▼ to move the selected item counterclockwise or backward.

Press + , - to confirm/ enter the selected items.

Press + to increase the adjustable value of the selected item.

Press - to decrease the adjustable value of the selected item.

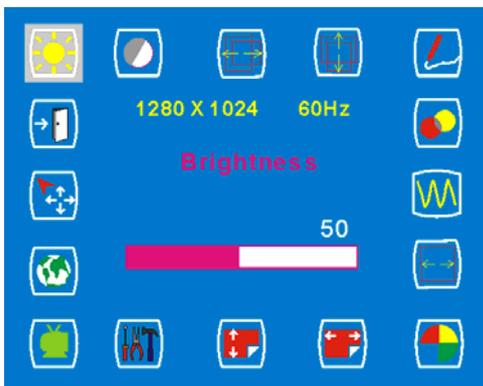
Step 3. Exit the On-Screen Display Menu

Press ↻ to exit the On-Screen Display menu at any time.

OSD Menu

VGA-Input

Brightness Adjustment



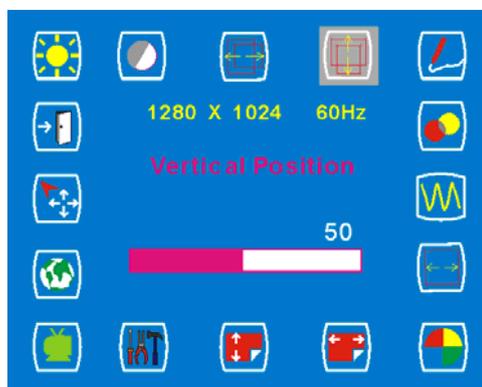
Contrast Adjustment



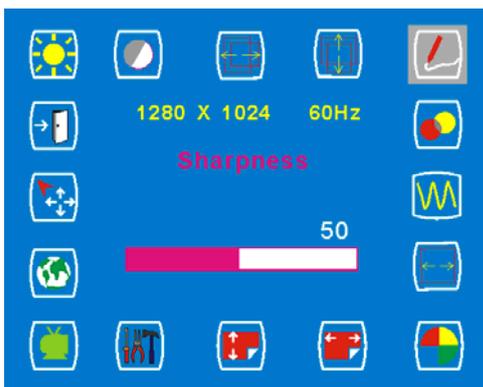
Horizontal Position Adjustment



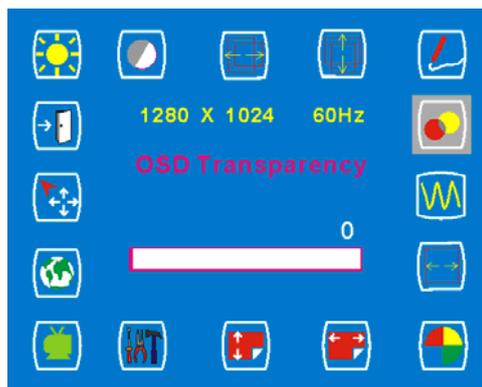
Vertical Position Adjustment



Sharpness Adjustment



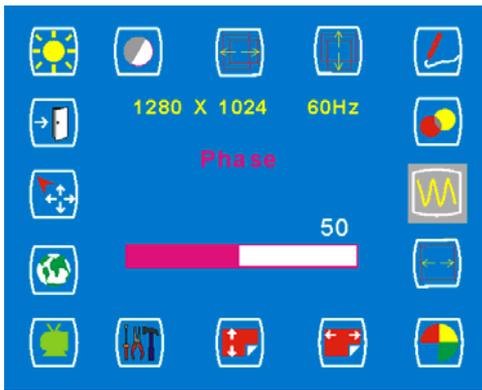
OSD Transparency Adjustment



Important! Sharpness adjustment is not available when:

1. the resolution is set as 1280*1024; or
2. the application is in Text, Movie, Game, or Graphic mode.

Phase Adjustment



Clock Adjustment



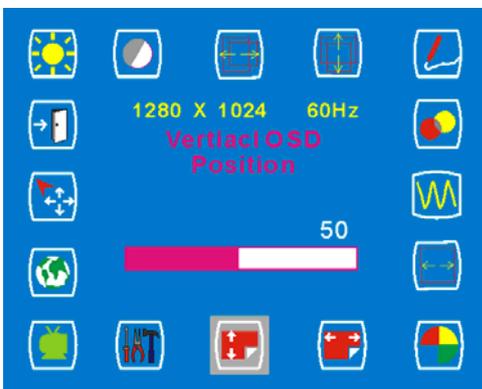
Color Temperature Selection



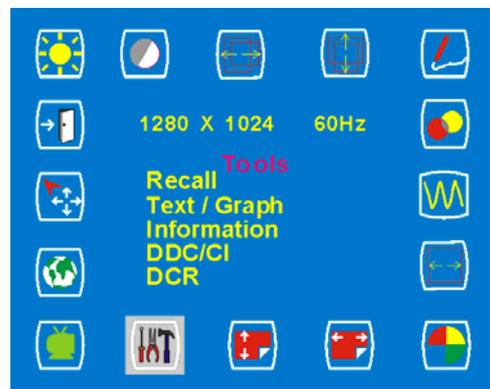
Horizontal OSD Position Adjustment



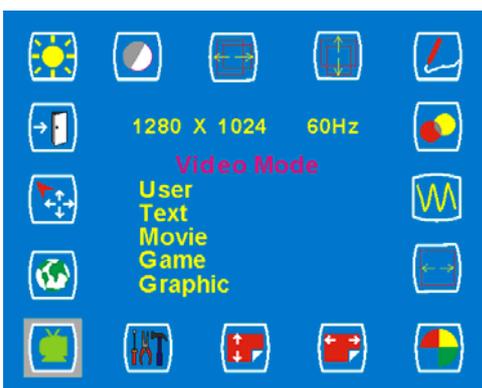
Vertical OSD Position Adjustment



Tools Adjustment



Video Mode selection



Language Selection



Auto and Input Select Selection



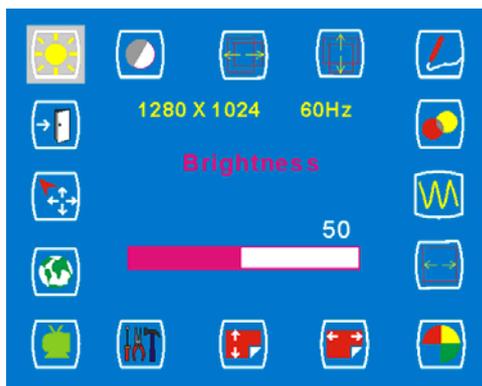
Exit Selection



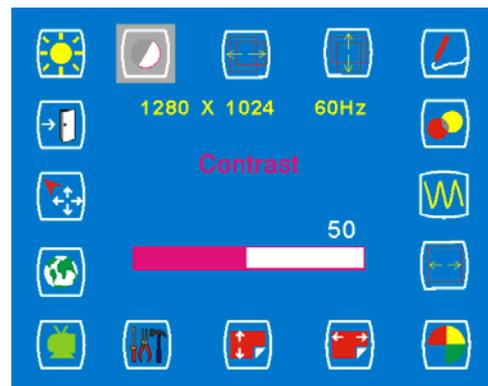
DVI-Input

Important! When DVI-Input is selected, the following adjustments are not available: horizontal position adjustment, vertical position adjustment, sharpness, phase adjustment and clock adjustment.

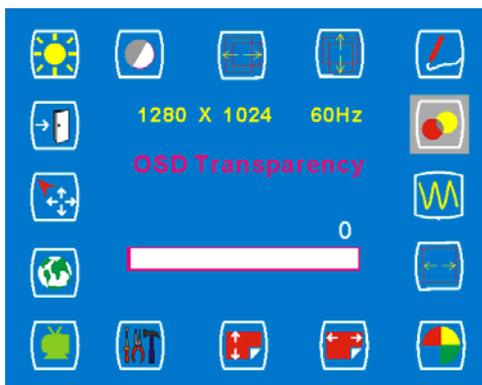
Brightness Adjustment



Contrast Adjustment



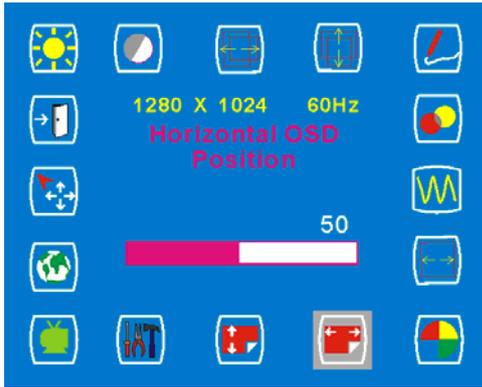
OSD Transparency Adjustment



Color Temperature Selection



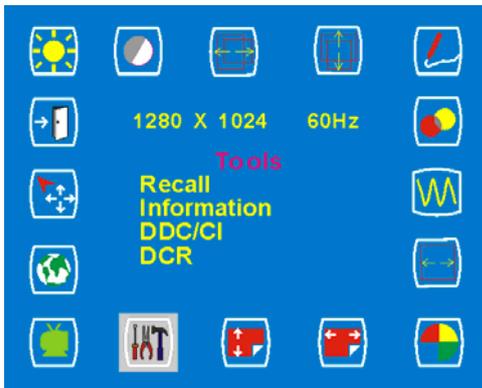
Horizontal OSD Position Adjustment



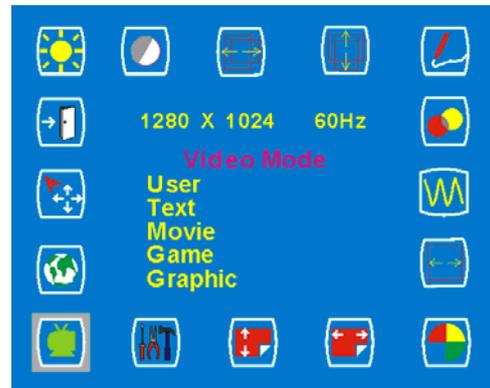
Vertical OSD Position Adjustment



Tools Selection



Video Mode selection



Language Selection



Auto and Input Select Selection

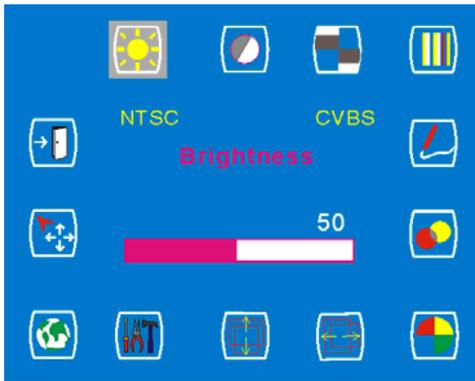


Exit Selection

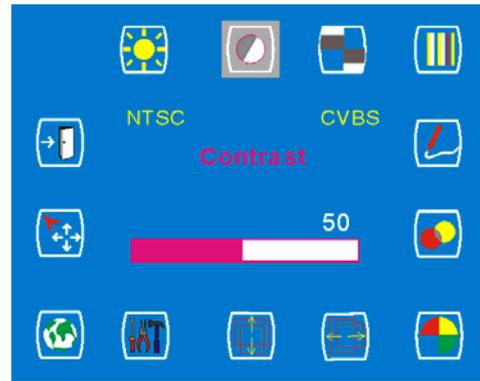


CVBS Input / S-VIDEO Input

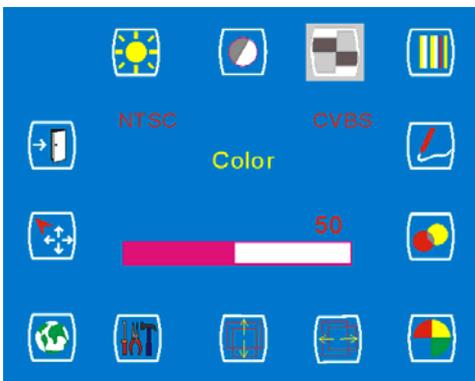
Brightness Adjustment



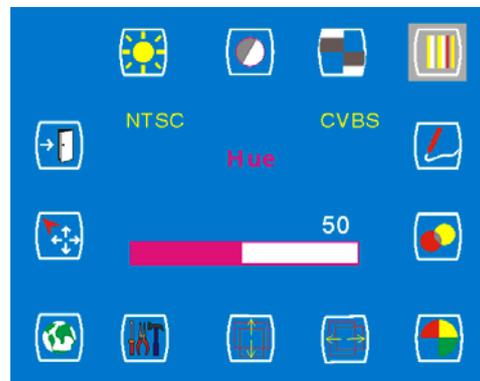
Contrast Adjustment



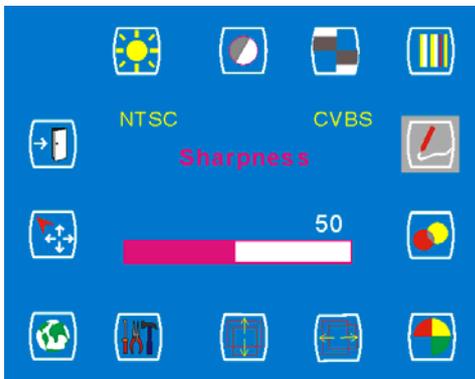
Color Adjustment



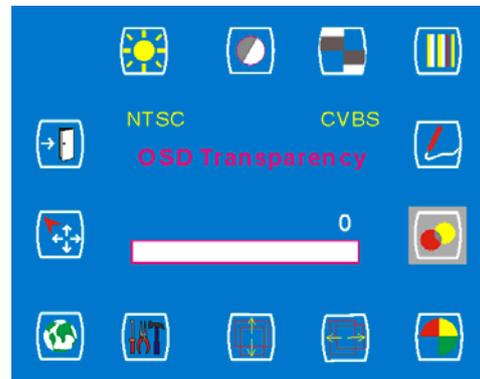
Hue Adjustment



Sharpness Adjustment



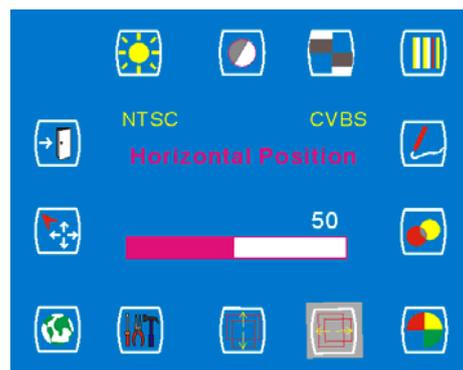
OSD Transparency Adjustment



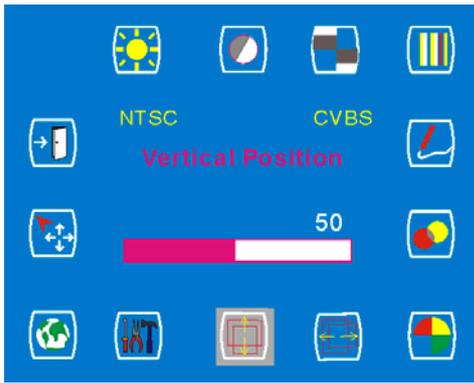
Color Temperature Selection



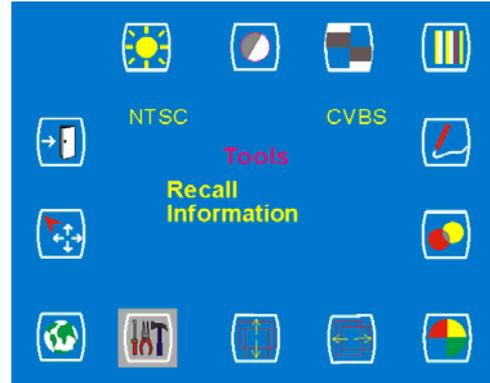
Horizontal Position Adjustment



Vertical Position Adjustment



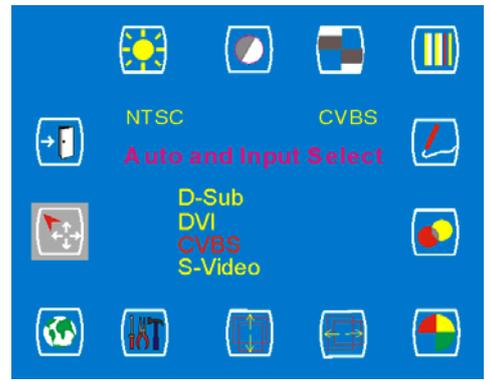
Tools Selection



Language Selection



Auto and Input Select Selection



Exit Selection



Warning Messages and Troubleshooting

Warning Messages

If the message appears on the screen	Check the items
CAN NOT DISPLAY THIS INPUT SIGNAL	<p>The input signal is not acceptable by the display.</p> <ul style="list-style-type: none">• Please check the video resolution and frequency range is within that specified for the display.• Please refer to the “Technical Specifications” section of this user manual for details.
NO SIGNAL INPUT	<p>No signal inputs are detected from any one of the input connectors.</p> <p>Check that the power switch of your computer or video source is in the “ON” position.</p> <ul style="list-style-type: none">• Check that the signal cable is connected properly.• Ensure that no pins are bent or pushed in the connectors of signal cable.
WAIT FOR AUTOMATIC ADJUSTMENT	<p>The display is detecting the input signal and then adjusting automatically the display parameters accordantly.</p> <ul style="list-style-type: none">• It takes around 5 seconds to finish the whole process.• You are recommended to run auto adjustment by pressing  button for 3 seconds every time you changed the resolution or refresh rate.

Troubleshooting

Symptom	Check Items
<ul style="list-style-type: none"> No picture Power LED is off. 	<ul style="list-style-type: none"> Check that the power switch of display is turned on. Check that the power adaptor is properly connected to the display. Check that the power cord is properly connected to the power adaptor. Check that the power cord is properly connected to power outlet. Check there is electrical power coming from the power outlet. Use another device to check for power.
<ul style="list-style-type: none"> No display Power LED is amber 	<ul style="list-style-type: none"> Check if your PC is in standby mode (move the mouse or push any key will wake up your PC). Check if your PC or video source is ON. Check if the signal cable is correctly connected.
<ul style="list-style-type: none"> The texts are not solid 	<ul style="list-style-type: none"> Change the resolution of the video signal to 1280*1024. Press  button for 3 seconds to run the automatic adjustment. Adjust Clock and Phase in the OSD menu to fine tune. (Please refer to the “Customizing Your Display” section of this user manual for details.)
<ul style="list-style-type: none"> Screen image is not centered properly. Some lines are missing 	<ul style="list-style-type: none"> Press  button for 3 seconds to run the automatic adjustment. Adjust H. Position and V. Position to fine tune. (Please refer to the “Customizing Your Display” section of this user manual for details.)
<ul style="list-style-type: none"> There are red, green, blue or black tiny dots on the screen. 	<ul style="list-style-type: none"> The TFT LCD panel is made of millions of small transistors. And each defect transistor will cause a missing red, green, or blue dot. It's guarantees maximum 3 missing dots in every single display. It's around the industrial standard.
<ul style="list-style-type: none"> If the display screen appear to be completely bright white 	<ul style="list-style-type: none"> There is a possibility that the display is in “Illuminator” mode. Try to change the “Illuminator” mode back to the normal display mode by press down “—” button and hold for 3 seconds.

Technical Specifications

Specifications

DR-17

Panel	Panel Type	17" TFT LCD
	Max. Resolution	SXGA 1280*1024
	Pixel Pitch	0.264mm
	Display color	16.2M
Frequency	(H)	30KHz~80KHz
	(V)	56Hz~75Hz
	Max. Pixel Clock	140MHz
Power	Rating	24V / 2.0A
	Consumption	<23W(on), <5W(stand-by), <2W(off)
	Adaptor	AC power cord 1.8 m DC power cord 5 m
Environmental	Operation condition	Temperature 0°~40° Humidity 10%~90%
	Storage condition	Temperature -20°~60° Humidity 5%~95%
	Transport	Temperature -20°~60° Humidity 5%~95%
Appearance	Tilt angle	0°~+15°
	VESA mounting	100mm
	Dimensions (Net)	408*398*175 mm (W*H*D)
	Weight (Net)	6.6 Kg (with base) / 5.9 Kg (w/o base)

*The above specifications are subject to change without notice.

FCC compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: 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 receiver.
- Connect the equipment to 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: Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment and void the product warranty.

WEEE

Information for users applicable in European Union countries



The symbol on the product or its packaging signifies that this product has to be disposed separately from ordinary household wastes at its end of life. Please kindly be aware that this is your responsibility to dispose electronic equipment at recycling centers so as to help conserve natural resources. Each country in the European Union should have its collection centers for electrical and electronic equipment recycling. For information about your recycling drop off area, please contact your local related electrical and electronic equipment waste management authority or the retailer where you bought the product.

Hg

Lamp Disposal



LAMP(S) inside this product contain mercury and must be recycled or disposed of according to local, state or federal laws. For more information, contact the electronic industries alliance at www.eiae.org for lamp specific disposal information check www.lamprecycle.org.

Vermont Hg directive

Title 10: Conservation and Development

Chapter 164: COMPREHENSIVE MERCURY MANAGEMENT

§ 7106. Labeling of mercury-added products

Contains Mercury, Dispose of Properly



Medical Product



- EQUIPMENT energized from an external class I power adapter.
- According to the degree of protection against electric shock: No applied part.
- According to the degree of protection against ingress of water as detailed in the current edition of IEC: IPX0.
- According to the degree of safety of application in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE: EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE.
- According to the mode of operation: CONTINUOUS OPERATION.
- The intended application of the LCD monitor is to display.
- This 17 inch LCD Monitor intended for using with medical electrical equipments as an image display.
- DR-17 meets to requirement device of the IEC 60601-1-2. If DR-17 is connected with other medical solutions that must be reevaluated.
- The device shall be only connected to IEC 60601-1 approved equipments within patient environments.
- The device shall be only connected to IEC 60950-1 approved equipments outside patient environments.
- The compliance according to IEC 60601-1-1 shall be evaluated for the final system.
- IEC 60601-1 certification is only applicable when using DR-17 together with the 24V adapter that supplied by AG Neovo. If you use any adapter other than 24V adapter that was supplied with DR-17, then IEC 60601-1 certification will not be applicable.