

AGM20TIG

USER MANUAL

ENGLISH

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We recommend that you take a few minutes to read carefully through this brief but comprehensive manual before installing and switching on the monitor. Please keep this manual in a safe place for your future reference.

FCC DECLARATION OF CONFORMITY

Model Number: AGM20TIG
Trade Name: Advan International Corporation
Responsible party: Advan International Corporation
Address: 47546 Fremont Blvd. Fremont, CA 94538 U.S.A.
Telephone number: 510-490-1005

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.

This device has been tested and found to comply with the limits for Class B Personal Computers and peripherals, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a residential environment. This device 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 you determine the device does cause harmful interference to radio or television reception (this may be determined by monitoring the interference while turning the device off and on), you are encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

To meet the FCC requirements, you should use a signal cable with ferrite core at both ends.

CAUTION

Changes or modifications not expressly approved by ADVAN could void the users authority to operate the device under FCC compliance regulations.

CANADIAN DEPARTMENT OF COMMUNICATIONS COMPLIANCE STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulation of the Canadian department of communications.

CE MARKING DECLARATION OF CONFORMITY

This LCD monitor complies with the requirements of the EC Directive 89/336/EEC "EMC Directive" and 73/23/EEC "Low Voltage Directive" as amended by Directive 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gives correct operation in residential areas, business and light industrial premises and small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

- We reserve the right to change specifications without notice.
- All trademarks used in this user manual are the property of their respective owners.

FOR YOUR SAFETY

SAFETY PRECAUTIONS

WARNING

STOP OPERATING THE MONITOR WHEN YOU SENSE TROUBLE

If you notice any abnormal phenomena such as smoke, strange sounds or fumes, unplug the monitor and contact your dealer or ADVAN immediately. Further use may be dangerous and can cause fire or electric shock.

NEVER REMOVE THE CABINET

High voltage circuits are inside the monitor. Removing the cabinet may expose you to the danger of fire or electric shock.

DO NOT PUT ANY OBJECT INTO THE MONITOR

Do not put any solid objects or liquids such as water into the monitor. In case of an accident, unplug your monitor immediately and contact your dealer or ADVAN. Using the monitor with any object inside may cause fire, electric shock or damage.

INSTALL THE MONITOR ON A FLAT, STABLE SURFACE

The monitor may cause an injury if it falls or is dropped.

DO NOT USE THE MONITOR NEAR WATER

Do not use where water may be splashed or spilt onto the monitor as it may cause fire or electric shock.

OPERATE UNDER THE SPECIFIED POWER SUPPLY

Be sure to operate the monitor only with the specified power supply. Use of an incorrect voltage will cause malfunction and may cause fire or electric shock.

PROTECT THE CABLES

Do not pull or bend the power cable and signal cable. Do not place the monitor or any other heavy objects on the cables. If damaged, the cables may cause fire or electric shock.

ADVERSE WEATHER CONDITIONS

It is advisable not to operate the monitor during a heavy thunder storm as the continual breaks in power may cause malfunction. It is also advised not to touch the plug in these circumstances as it may cause electric shock.

CAUTION

INSTALLATION LOCATION

Do not install the monitor where sudden temperature changes may occur, or in humid, dusty or smoky areas as it may cause fire, electric shock or damage. You should also avoid areas where the sun shines directly on the monitor.

DO NOT PLACE THE MONITOR IN A HAZARDOUS POSITION

The monitor may topple and cause injury if not suitably located. Please also ensure that you do not place any heavy objects on the monitor, and that all cables are routed such that children may not pull the cables and possibly cause injury.

MAINTAIN GOOD VENTILATION

Ventilation slots are provided to keep the monitor from overheating. Covering the slots may cause fire. To allow adequate air circulation, place the monitor at least 10 cm (or 4 inches) from any walls. Do not remove the tilt stand when operating the monitor. Ventilation slots on the back of the cabinet will be blocked and the monitor may overheat if the stand is removed. This may cause fire or damage. Operating the monitor on its back, side, upside down or on a carpet or any other soft material may also cause damage.

DISCONNECT THE CABLES WHEN YOU MOVE THE MONITOR

When you move the monitor, turn off the power switch, unplug the monitor and be sure the signal cable is disconnected. If you do not disconnect them, it may cause fire or electric shock.

UNPLUG THE MONITOR

If the monitor is not in use for a long period of time it is recommended that it is left unplugged to avoid accidents.

HOLD THE PLUG WHEN DISCONNECTING

To disconnect the power cable or signal cable, always pull it by the plug. Never pull on the cable itself as this may cause fire or electric shock.

DO NOT TOUCH THE PLUG WITH WET HANDS

Pulling or inserting the plug with wet hands may cause electric shock.

WHEN YOU INSTALL THE MONITOR ON YOUR COMPUTER

Be sure the computer is strong enough to hold the weight of the monitor, otherwise, you may damage your computer.

OTHERS

ERGONOMIC RECOMMENDATIONS

To eliminate eye fatigue, do not operate the monitor against a bright background or in a dark room. For optimal viewing comfort, the monitor should be just below eye level and 40-60 cm (16-24 inches) away from your eyes. When using the monitor over a prolonged time, a ten minute break every hour is recommended as looking at the screen continuously can cause eye strain.

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitors and do not indicate a problem.

NOTE

- When you first turn on the LCD monitor, the picture may not fit in the display area because of the type of computer that is used. In this case, adjust the picture position to the correct position.
- Due to the nature of the backlight, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours. There is the possibility that the previous screen has been fixed. Pay attention sufficient when you use LCD Monitor.
- Contact your dealer or ADVAN for the backlight replacement when the screen is dark, flickering or not lighting up. Never attempt to replace it by yourself.

CUSTOMER SERVICE

NOTE

- The fluorescent light used in the LCD monitor may have to be periodically replaced. For the warranty coverage on this component, please check with ADVAN.
- If you have to return your unit for service and the original packaging has been discarded, please contact your dealer or ADVAN for advice or replacement packaging.

CLEANING

WARNING

- If you drop any materials or liquids such as water into the monitor when cleaning, unplug the power cable immediately and contact your dealer or ADVAN.

CAUTION

- For safety reasons, turn off the power switch and unplug the monitor before you clean it.

NOTE

- To protect the LCD panel, do not scratch or rub the screen with a hard object.
- Never use any of the following strong solvents. These will damage the cabinet and the LCD screen.

Thinner	Spray-type cleaner
Benzine	Wax
Abrasive cleaner	Acid or Alkaline solvent

- Touching the cabinet with any product made from rubber or plastic for a long time may cause degeneration or loss of paint on the cabinet.

CABINET

Stains can be removed with a cloth lightly moistened with a mild detergent solvent. Then wipe the cabinet with a soft dry cloth.

LCD

Periodic cleaning with a soft dry cloth is recommended.

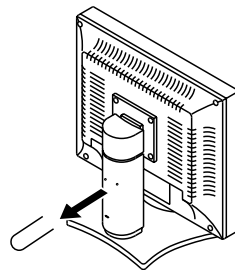
SCREEN

Don't use tissue paper etc. because these will damage the LCD screen.

BEFORE YOU OPERATE THE MONITOR

The monitor functions as a hub when connected to a USB compliant computer and USB peripherals. However, with older operating systems and/or BIOS settings in your computer, the USB hub may not operate. In this case, please contact your computer dealer first for advice.

Please remove the stopper pin on the back of the stand before you install the monitor. Careful attention is required as the monitor is sprung loaded and may expand quickly when removing it.



Stopper pin

FEATURES

- ◆ 51cm (20.1") TFT Monochrome LCD Monitor
- ◆ Supports Resolutions up to 1600 × 1200
- ◆ Super Wide Viewing Angle and High Contrast
- ◆ Economy Mode
 - Reduced Power Consumption
- ◆ Gamma Selection
- ◆ Digital Character Smoothing
- ◆ Automatic Set-up
- ◆ Plug & Play VESA DDC2B Compliant
 - Windows® 95/98/2000/Me/XP Compliant
- ◆ Power Management (ENERGY STAR® and VESA DPMS Compliant)
- ◆ Digital Input (DVI-I) for Clear Display
- ◆ USB2.0 Hi-speed Hub Function
- ◆ 90° Panel Rotation Design
- ◆ VESA Mounting Standard (100mm×100mm) Compliant
- ◆ Suitable for Medical Screen Diagnostic

CHECKING THE CONTENTS OF THE PACKAGE

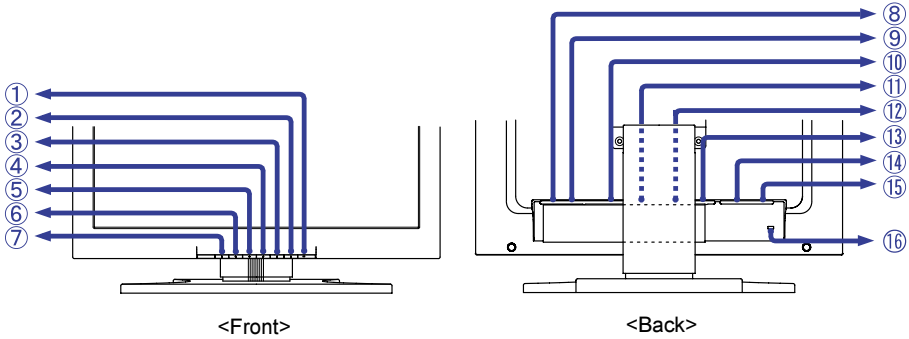
The following accessories are included in your package. Check to see if they are enclosed with the monitor. If anything is missing or damaged, please contact ADVAN.

- | | |
|---------------------------|---------------------------|
| ■ Power Cable* | ■ DVI-A Signal Cable DV63 |
| ■ DVI-D Signal Cable DV61 | ■ USB Cable SU43 |
| ■ Cable Cover | ■ User Manual |

CAUTION

* The rating of the Power Cable enclosed in 120V area is 10A/125V. If you are using a power supply higher than this rating, then a power cable with a rating of 10A/250V must be used.

However, all guarantees and warranties are void for any problems or damage caused by a power cable not supplied by ADVAN.



① Power Indicator

NOTE Blue: Normal operation

Orange: Power Management

The monitor enters into power management mode which reduces the power consumption to less than 3W when receiving no horizontal and/or vertical sync signal.

② Power Switch (POWER)

③ Auto Button (AUTO)

④ + / Brightness Button (+ / ☀)

⑤ - / Contrast Button (- / ●)

⑥ Menu Button (MENU)

⑦ Input Button (INPUT)

⑧ USB-UP

Connect with a USB compliant computer by the USB Cable attached to the monitor.

⑨ USB-DOWN

Connect any cables from USB compliant peripherals such as mouse, keyboard, etc.

⑩ DVI-I 29pin Connector (INPUT2)

⑪ DVI-I 29pin Connector (INPUT1)

⑫ Optional Video Adapter Slot (OPTIONAL VIDEO INPUT)

⑬ Optional Speaker Connector (DC OUT)

⑭ AC Connector (AC IN)

⑮ Main Power Switch

⑯ Keyhole for Security Lock

NOTE You can fasten a security lock and cable to prevent the monitor from being removed without your permission.

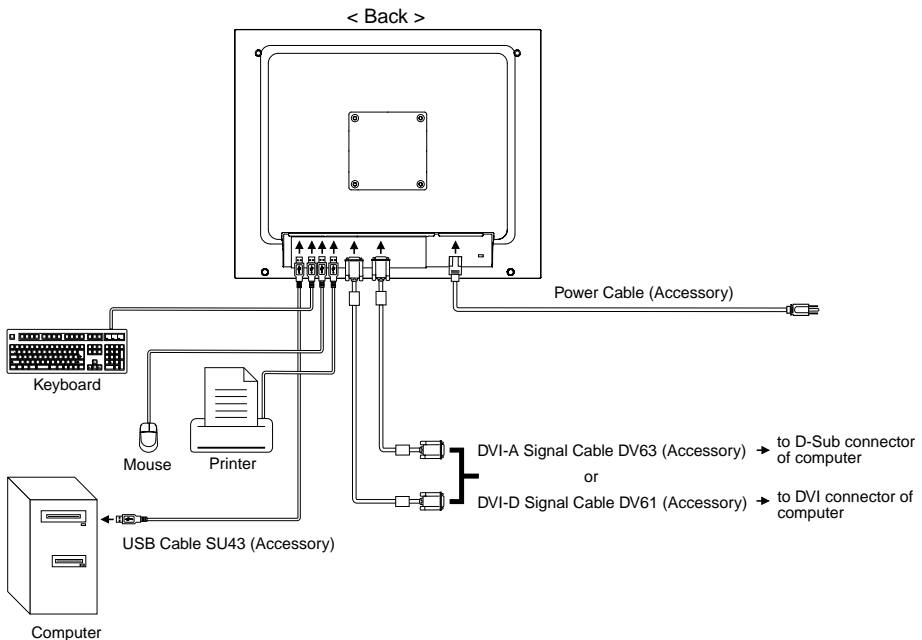
CONNECTING YOUR MONITOR

- ① Ensure that both the computer and the monitor are switched off.
- ② Connect the computer to the monitor with the signal cable. (See page 25 for CONNECTOR PIN ASSIGNMENT.)
- ③ Connect the monitor to the USB compliant computer with the USB Cable when using the USB hub features.
- ④ Connect the Power Cable to the monitor first and then to the power supply.

NOTE

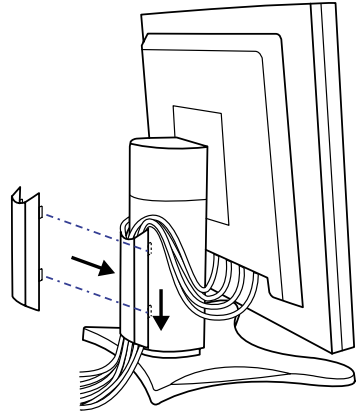
- The signal cables used for connecting the computer and monitor may vary with the type of computer used. An incorrect connection may cause serious damage to both the monitor and the computer. If a special cable is required please contact ADVAN.
- Make sure you tighten the finger screws at each end of the signal cable.
- In case your computer is not compatible with USB2.0, the USB hub is compatible with USB1.1.
- Cables are connected easily by rotating the panel 90 degrees. (See page 8 for PANEL ROTATION.)
- Cables can be bundled together inside the cover at the back of the stand. See next page for cable wiring.

[Example of Connection]



[Cable Wiring]

- ① Collect cables at the back of the stand.
- ② Place the cover by inserting the tabs into guide holes and then sliding the cover downward.



COMPUTER SETTING

■ Signal Timing

Change to the desired signal timings listed on page 24 : COMPLIANT TIMING.

■ Windows 95/98/2000/Me/XP Plug & Play

The LCD monitor complies with DDC2B of VESA standard. The Plug & Play function runs on Windows 95/98/2000/Me/XP by connecting the monitor to DDC2B compliant computer with the Signal Cable supplied. Windows 95/98/2000/Me/XP Monitor Information File for this monitors may be necessary for your computer and obtained via the Internet, using the address:

<http://www.advancorp.com> (U.S.A.)

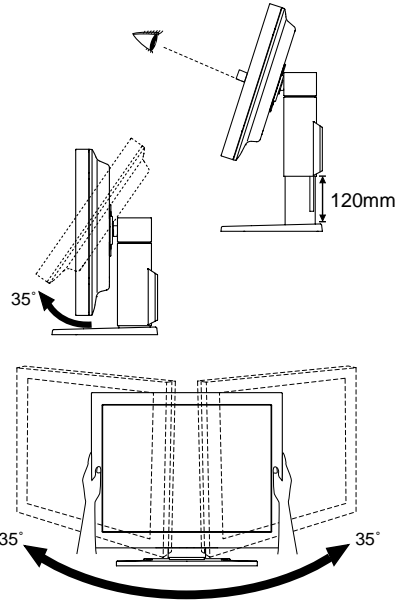
NOTE

- For additional information on how to download the driver for your monitor, please access one of the internet sites noted above.
- Monitor Drivers are not required in most cases for Macintosh or Unix operating systems. For further information, please contact your computer dealer first for advice.

ADJUSTING THE HEIGHT AND THE VIEWING ANGLE

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's height and angle to your own preference.
- Hold the panel so that the monitor does not topple when you change the monitor's height or angle.
- You are able to adjust the monitor's height up to 120 mm, angle up to 35 degrees right and left, 35 degrees upward.

- NOTE**
- Do not touch the LCD screen when you change the height or the angle. It may cause damage or break the LCD screen.
 - Careful attention is required not to catch your fingers or hands when you change the height or the angle.

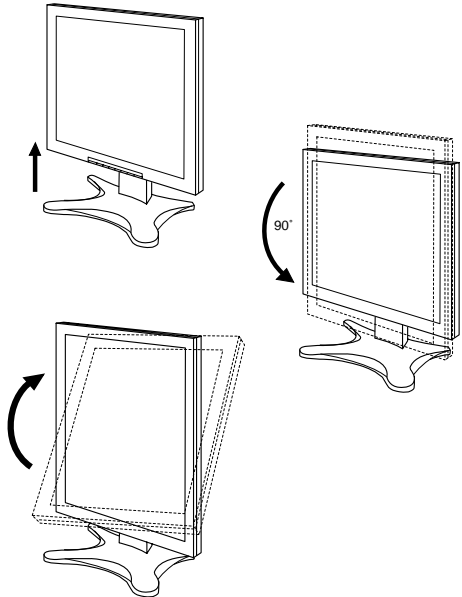


PANEL ROTATION

- ① Adjust the monitor's height to the maximum.
- ② Rotate the panel 90 degrees.
Portrait: Turn counter clockwise.
Landscape: Turn clockwise.

- NOTE** Attempting to rotate without fully extending upward may cause damage to stand.

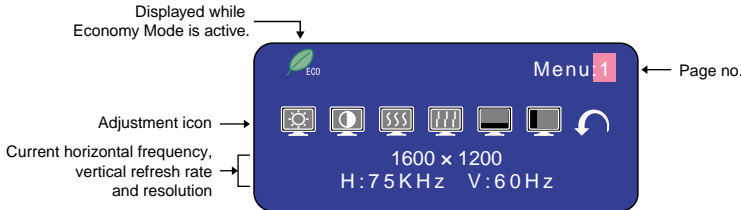
- ③ Adjust the monitor's angle to your preference.




OPERATING THE MONITOR

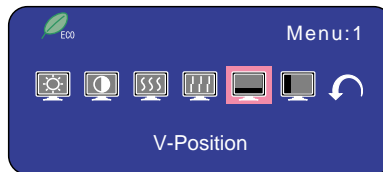
To create the best picture, your LCD monitor has been preset at the factory with the COMPLIANT TIMING shown on page 24. You are also able to adjust the picture by following the button operation shown below. For more detailed adjustments, see page 18 for SCREEN ADJUSTMENTS.

- ① **Press the Menu Button to start the On Screen Display feature. There are additional Menu pages which can be switched by using the +/- Buttons.**

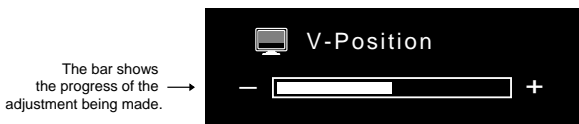


- ② **Select the Menu page which contains the adjustment icon relating to the adjustment you want to make. Press the Menu Button again. Then, use the +/- Buttons to highlight the desired adjustment icon. Press the Menu Button again.**
- ③ **Use the +/- Buttons to make the appropriate adjustment or setting.**

For example, to correct for vertical position, select Menu page number 1 and then press the Menu Button. Then, select  (V-Position) by using the +/- Buttons.



An adjustment scale appears after you press the Menu Button. Use the +/- Buttons to change the vertical position settings. The vertical position of the overall display should be changing accordingly while you are doing this.



NOTE

- The On Screen Display disappears several seconds after you stop pressing the buttons while performing an adjustment.
- Any changes are automatically saved in the memory when the On Screen Display disappears. Turning off the power should be avoided while using the Menu.
- Adjustments for Clock, Phase and Position are saved for each signal timing. Except for these adjustments, all other adjustments have only one setting which applies to all signal timings.

ADJUSTMENT MENU CONTENTS

Direct

You can skip the Menu pages and display an adjustment scale directly by using the following button operations.

- Brightness: Press the Brightness Button when the Menu is not displayed.
- Contrast: Press the Contrast Button when the Menu is not displayed.
- Auto Set-up: Press the Auto Set-up Button.
- Signal Select: Press the Input Button.

NOTE

SWITCHING BRIGHTNESS / CONTRAST ADJUSTMENT

To switch between Brightness and Contrast adjustments, press the Menu Button within 10 seconds after pressing the Brightness Button or the Contrast Button during the direct adjustments above.

SIGNAL SELECT (IN1 / IN2)

Select either IN1 or IN2 for the signal input when both of the signal inputs are connected to a signal source. Switch IN1 and IN2 whenever pressing the Input Button.

Analog Input

Adjustment Item		Problem / Option	Button to Press
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> Menu : 1 (Analog) </div> <div style="border: 1px solid black; background-color: #1a3d54; color: white; padding: 10px; border-radius: 10px; text-align: center;"> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p style="margin: 0;">Menu: 1</p> <p style="margin: 0;">1600 × 1200</p> <p style="margin: 0;">H: 75 KHz V: 60 Hz</p> </div> </div>			
Brightness *1	Direct	Too dark Too bright	<input type="button" value="+"/> <input type="button" value="-"/>
Contrast	Direct	Too dull Too intense	<input type="button" value="+"/> <input type="button" value="-"/>
Clock *2		To correct flickering text or lines	<input type="button" value="+"/> <input type="button" value="-"/>
Phase *2		To correct flickering text or lines	<input type="button" value="+"/> <input type="button" value="-"/>
V-Position		<input type="checkbox"/> Too low <input type="checkbox"/> Too high	<input type="button" value="+"/> <input type="button" value="-"/>
H-Position		<input type="checkbox"/> Too far to the left <input type="checkbox"/> Too far to the right	<input type="button" value="+"/> <input type="button" value="-"/>
Return to Menu		Highlight "Menu : 1" again.	






*1 Adjust the Brightness when you are using the monitor in a dark room and feel the screen is too bright.

*2 See page 18 for SCREENADJUSTMENTS.

Direct See page 10 for Direct.














**Menu : 2
(Analog)**



Adjustment Item	Problem / Option		Button to Press
 Gamma	Linear	Normal	
	DICOM14	DICOM14 gray scale	
	Custom	Customized	
 Sharpness	1 2 3 4 5  <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> <input data-bbox="955 451 1005 480" type="button" value="+"/> <input data-bbox="955 488 1005 517" type="button" value="-"/> </div> <p>You can change the picture quality from 1 to 5 (soft to sharp). Press the + Button to change the picture quality in numerical order. Press the – Button to change the picture quality in reverse numerical order.</p>		
 Economy Mode	Off	Normal	
	Mode 1	Brightness of back-light is reduced by Approx.10%.	
	Mode 2	Brightness of back-light is reduced by Approx.50%.	
 Return to Menu	Highlight "Menu : 2" again.		
















**Menu : 3
(Analog)**



Adjustment Item	Problem / Option		Button to Press
 OSD Position	1 2 3 4 5 You can move the OSD display area to any one of the following 5 positions within the overall display: 		  
 OSD Off Timer	You can set the OSD display time 5 to 60 seconds.		  
 Key Lock Mode	OFF	Return to Menu.	
	ON	All adjustment items are locked out.	
NOTE It can not be released when the Key Lock Mode is on. In the case that release is necessary, please contact your dealer.			
 H-Flipping	OFF	Return to Normal.	
	ON	The screen that reversed the light and left is displayed.	
 V-Flipping	OFF	Return to Normal.	
	ON	The screen that rotated 180 degrees is displayed.	
 Return to Menu	Highlight "Menu : 3" again.		

Menu : 4 (Analog)




















Adjustment Item	Problem / Option		Button to Press	
 Signal Select Direct	IN 1	Select the Analog input.		
	IN 2	Select the Digital input.		
 Auto Set-up * Direct	No	Return to Menu.		
	Yes	Adjust Clock, Phase, V-Position and H-Position automatically.		
NOTE The screen becomes dark for approximately five seconds during the adjustment.				
 Full Screen	1 to 1	The normal screen display of 4:3.		
	Wide	Expansion display to the wide screen of 16:9.		
	Full	Expansion display.		
NOTE When inputting UXGA (1600 × 1200 at 60Hz) signal, this function is not available.				
 Zoom	Zoom In	The screen is expanded.	 +	
	Zoom Out	The screen is returned.	 -	
	 MENU	To move the zoom point to the right.		 +
	H-Position	To move the zoom point to the left.	 -	
	 MENU	To move the zoom point downward.		 +
V-Position	To move the zoom point upward.	 -		
 Language	English	English	Italiano	Italian
	Deutsch	German	Español	Spanish
	Français	French	Русский	Russian
	Nederlands	Dutch	中文	Chinese
	Svenska	Swedish	日本語	Japanese
 Reset	No	Return to Menu.		
	Yes	Factory-preset data is restored.		
 Return to Menu	Highlight "Menu : 4" again.			

* For best results, use the Auto Set-up in conjunction with the adjustment pattern.
(See page 18 for SCREENADJUSTMENTS.)

Direct See page 10 for Direct.

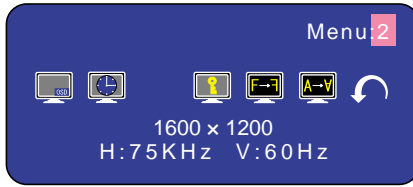
Digital Input


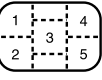











Adjustment Item		Problem / Option		Button to Press
<div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>Menu : 1 (Digital)</p> </div> <div style="border: 1px solid black; background-color: #1a3d54; color: white; padding: 10px; border-radius: 10px; width: 300px;"> <div style="display: flex; justify-content: space-around; align-items: center;">       </div> <div style="text-align: center; margin-top: 5px;"> <p>1600 × 1200 H:75KHz V:60Hz</p> </div> </div> <div style="text-align: right;"> <p>Menu: 1</p> </div> </div>				
 Brightness * Direct	Too dark Too bright	 <input type="button" value="+"/>  <input type="button" value="-"/>		
 Contrast Direct	Too dull Too intense	 <input type="button" value="+"/>  <input type="button" value="-"/>		
 Gamma	Linear	Normal		
	DICOM14	DICOM14 gray scale		
	Custom	Customized		
 Sharpness	1 2 3 4 5	 <input type="button" value="+"/> <input type="button" value="-"/>		
 Economy Mode	Off	Normal		
	Mode 1	Brightness of back-light is reduced by Approx.10%.		
	Mode 2	Brightness of back-light is reduced by Approx.50%.		
 Return to Menu	Highlight "Menu : 1" again.			

* Adjust the Brightness when you are using the monitor in a dark room and feel the screen is too bright.

Direct See page 10 for Direct.


















**Menu : 2
(Digital)**



Adjustment Item	Problem / Option		Button to Press
 OSD Position	1 2 3 4 5 You can move the OSD display area to any one of the following 5 positions within the overall display:  Press the + Button to move the OSD in numerical order. Press the – Button to move the OSD in reverse numerical order.		  
 OSD Off Timer	You can set the OSD display time 5 to 60 seconds.		  
 Key Lock Mode	OFF	Return to Menu.	
	ON	All adjustment items are locked out.	
<p>NOTE It can not be released when the Key Lock Mode is on. In the case that release is necessary, please contact your dealer.</p>			
 H-Flipping	OFF	Return to Normal.	
	ON	The screen that reversed the light and left is displayed.	
 V-Flipping	OFF	Return to Normal.	
	ON	The screen that rotated 180 degrees is displayed.	
 Return to Menu	Highlight "Menu : 2" again.		

**Menu : 3
(Digital)**



Adjustment Item	Problem / Option		Button to Press	
 Signal Select 	IN 1	Select the Analog input.		
	IN 2	Select the Digital input.		
 Full Screen	1 to 1	The normal screen display of 4:3.		
	Wide	Expansion display to the wide screen of 16:9.		
	Full	Expansion display.		
NOTE When inputting UXGA (1600 × 1200 at 60Hz) signal, this function is not available.				
 Zoom	Zoom In	The screen is expanded.	 	
	Zoom Out	The screen is returned.	 	
	 MENU	To move the zoom point to the right.	 	
	 MENU	To move the zoom point to the left.	 	
 Language	English	English	Italiano	Italian
	Deutsch	German	Español	Spanish
 Reset	No	Return to Menu.		
	Yes	Factory-preset data is restored.		
	 Return to Menu	Highlight "Menu : 4" again.		

Direct

See page 10 for Direct.

SCREEN ADJUSTMENTS

Adjust the image by following the procedure below to get the desired picture when selecting Analog input.

- The screen adjustments described in this manual are designed to set image position and minimize flicker or blur for the particular computer in use.
- The monitor is designed to provide the best performance at resolution of 1600 × 1200, but can not provide the best at resolutions of less than 1600 × 1200 because the picture is automatically stretched to fit the full screen or displayed at optimum resolution. It is recommended to operate at a resolution of 1600 × 1200 in normal use.
- Displayed text or lines will be blurred or irregular in thickness when the picture is stretched due to the screen enlargement process.
- It is preferable to adjust the image position and frequency with the monitor controls, rather than with computer software or utilities.
- Perform adjustments after a warm-up period of at least thirty minutes.
- Additional adjustments may be required after the Auto Set-up depending on the resolution or signal timing.
- The Auto Set-up may not work correctly when displaying the picture other than the Test.bmp (screen adjustment pattern). In this case, manual adjustments are required.

There are two ways to adjust the screen. One way is automatic adjustment for Clock, Phase and Position. The other way is performing each adjustment manually.

Perform the Auto Set-up first when the monitor is connected to a new computer, or resolution is changed. If the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up, manual adjustments are required. Both adjustments should be made by using the screen adjustment pattern (Test.bmp) obtained via the ADVAN web site (<http://www.advancorp.com>).

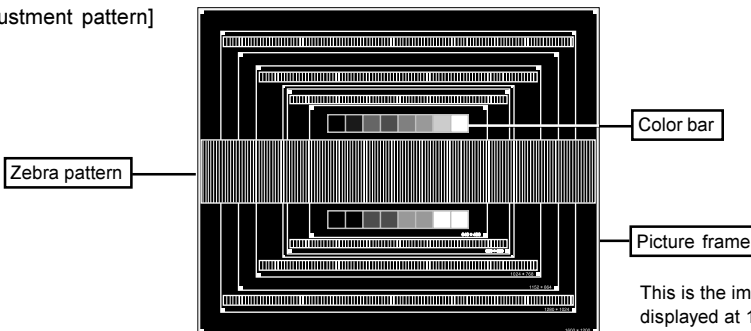
This manual explains adjustment under Windows 95/98/2000/Me/XP.

- ① Set the Full Screen feature to Off and display the picture at the optimum resolution.
- ② Enter the Test.bmp (screen adjustment pattern) to wallpaper.

NOTE

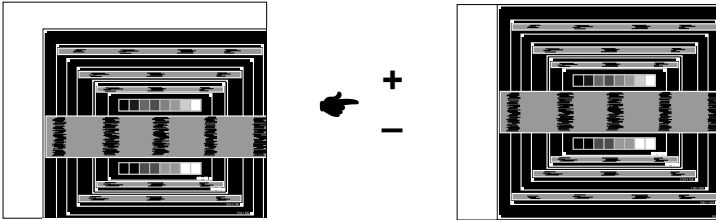
- Consult the appropriate documentation for doing this.
- Test.bmp is made at resolution of 2048 × 1536. Set the display position to center in the wallpaper setting dialogue box. If you use Microsoft® PLUS! 95/98 cancel the setting of "Stretch desktop wallpaper to fit the screen".

[Adjustment pattern]

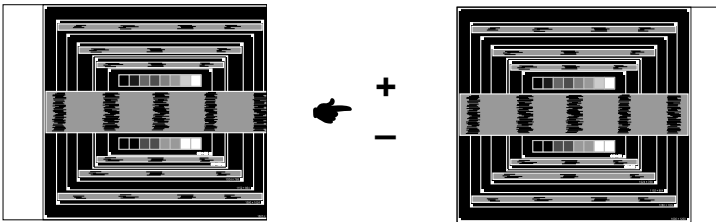


This is the image displayed at 1600 × 1200.

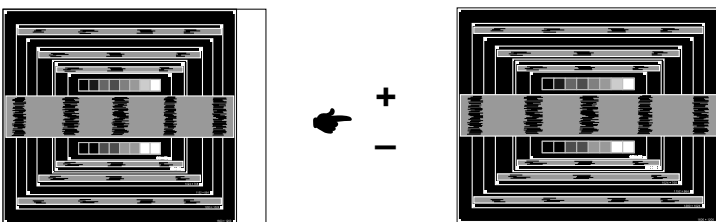
- ③ Press the Auto Button. (Direct adjustment)
Or perform the Auto Set-up.
- ④ Adjust the image manually by following procedure below when the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up.
- ⑤ Adjust the V-Position so that the top and bottom of the picture frame will fit to the display area.



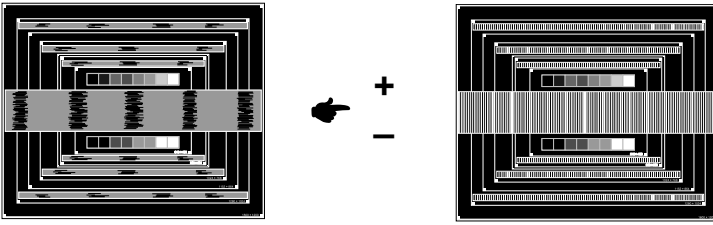
- ⑥ 1) Adjust the H-Position so that the left side of the picture frame will move to the left edge of the display area.



- 2) Stretch the right side of the picture frame to the right edge of the display area by adjusting the Clock.



- NOTE**
- When the left side of the picture frame moves apart from the left edge of the display area during the Clock adjustment, adjust steps 1) and 2).
 - Another way to make the Clock adjustment is to correct the vertical wavy lines in the zebra pattern.
 - The picture may flicker during the Clock, H-Position and V-Position adjustment.
 - In case the picture frame is bigger or smaller than the data display area after the Clock adjustment, repeat steps from ③.

**NOTE**

- In case the strong flicker or blurs remain on a part of the screen, repeat steps ⑥ and ⑦ because the Clock may not be adjusted correctly. If the flicker or blurs still remain, set the refresh rate of computer to low (60Hz) and repeat steps from ③ again.
- Adjust the H-Position after the Phase adjustment if the horizontal position moves during the adjustment.

- ⑧ **Adjust the Brightness to get the desired picture after you complete the Clock and Phase adjustments.**
Put back your favorite wallpaper.

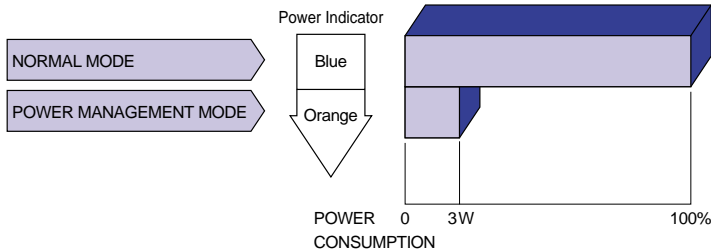
POWER MANAGEMENT FEATURE

The power management feature of this product complies with every power saving requirement of ENERGY STAR® and VESA DPMS. When activated, it automatically reduces unnecessary power consumption of the monitor when your computer is not in use.

To use the feature, the monitor needs to be connected to a VESA DPMS compliant computer. There is a power management step the monitor takes as described below. The power management function, including any timer settings is configured by the operating system. Check your operating system manual for information on how this can be configured.

Power Management Mode

When the H-sync signal / V-sync signal / H and V sync signals from the computer are off, the monitor enters into Power Management Mode which reduces the power consumption to less than 3W. The screen becomes dark, and the power indicator turns to orange. From Power Management Mode, the image reappears in several seconds when either the keyboard or the mouse are touched again.



NOTE

- Even when using the power management mode, the monitor consumes electricity. Turn off the Power Switch whenever the monitor is not in use, during the night and weekends, to avoid unnecessary power consumption.
- It is possible that the video signal from the computer may be on while the H or V sync signal is missing. In this instance, the POWER MANAGEMENT feature may not work properly.

TROUBLE SHOOTING

If the monitor fails to operate correctly, please follow the steps below for a possible solution.

1. Perform the adjustments described in OPERATING THE MONITOR, depending on the problem you have. If the monitor does not get a picture, skip to 2.
2. Consult the following items if you cannot find an appropriate adjustment item in OPERATING THE MONITOR or if the problem persists.
3. If you are experiencing a problem which is not described below or you cannot correct the problem, discontinue using the monitor and contact your dealer or ADVAN for further assistance.

Problem	Check
① The picture does not appear. (Power indicator does not light up.) (Power indicator is blue.) (Power indicator is orange.)	<input type="checkbox"/> The Power Cable is firmly seated in the socket. <input type="checkbox"/> The Power Switch is turned ON. <input type="checkbox"/> The AC socket is live. Please check with another piece of equipment. <input type="checkbox"/> If the blank screen saver is in active mode, touch the keyboard or the mouse. <input type="checkbox"/> Increase the Contrast and/or Brightness. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor. <input type="checkbox"/> If the monitor is in power management mode, touch the keyboard or the mouse. <input type="checkbox"/> If the input video signal selection is different, switch the Signal Select. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
② The screen is not synchronized.	<input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor. <input type="checkbox"/> The video output level of the computer is within the specification of the monitor.
③ The screen position is not in the center.	<input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
④ The screen is too bright or too dark.	<input type="checkbox"/> The video output level of the computer is within the specification of the monitor.
⑤ The screen is shaking.	<input type="checkbox"/> The power voltage is within the specification of the monitor. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.

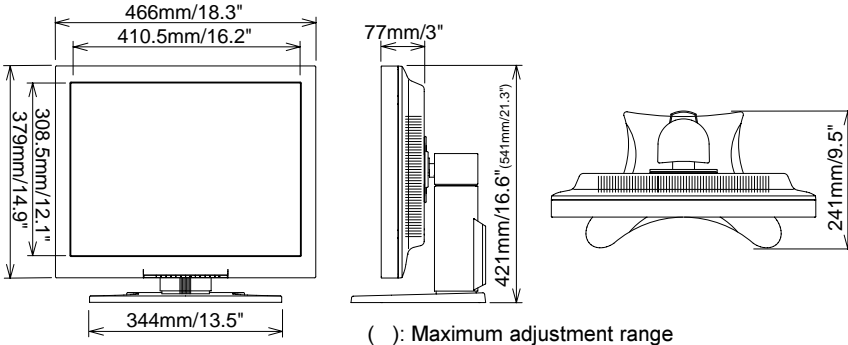
APPENDIX

SPECIFICATIONS

LCD Panel	Driving system	a-Si TFT Active Matrix
	Size	Diagonal: 51cm / 20.1"
	Pixel pitch	0.255mm H × 0.255mm V
	Brightness	550cd/m ² (Typical)
	Contrast ratio	1000 : 1 (Typical)
	Viewable angle	Right / Left / Up / Down: 85 degrees each (Typical)
	Response time	25ms (Black, white, black)
Display Colors	256-level monochrome / 766-level with AGC2RV video card / upto 3061-level with AGC2TC video card	
Sync Frequency	Horizontal 31.0-80.0kHz, Vertical 56-85Hz	
Dot Clock	162MHz maximum	
Maximum Resolution	1600 × 1200 maximum, 2 MegaPixels	
Input Connector	Dual DVI-I 29pin	
Plug & Play	VESA DDC2B™	
Input Sync Signal	Separate sync: TTL, Positive or Negative Composite sync: TTL, Positive or Negative Sync on green: 0.3Vp-p, Negative	
Input Video Signal	Analog: 0.7Vp-p (Standard), 75Ω, Positive Digital: DVI (Digital Visual Interface standard Rev.1.0) compliance	
Maximum Screen Size	408mm W × 306mm H / 16.1" W × 12.0" H	
USB Standard Connectors	Rev. 2.0 compliance Self-powered hub Upstream: Series B, Downstream: Series A	
Number of USB Ports	1 Upstream (For computer), 4 Downstream (For peripherals)	
Power Source	100-230VAC, 50/60Hz, 0.8-0.3A	
Power Consumption	70W maximum, Power management mode: 3W maximum*	
Dimensions	466 × 421-541 × 241mm / 18.3 × 16.6-21.3 × 9.5" (W×H×D)	
Net Weight	10kg / 22lbs	
Tilt Angle	Right / Left: 35 degrees each, Up: 35 degrees	
Environmental Considerations	Operative temperature: 5 to 35°C / 41 to 95°F Storage temperature: -20 to 60°C / -4 to 140°F Humidity (-20 to under 50°C / -4 to under 122°F) : 20 to 85% (No condensation) Humidity (50 to 60°C / 122 to 140°F) : 20 to 55% (No condensation)	
Approvals	CE, TÜV-GS, FCC-B, UL / C-UL, VCCI-B, FDA510(k), CCC	

NOTE * Condition: USB peripherals, optional speakers or audio equipment are not connected.

DIMENSIONS



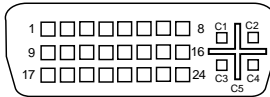
COMPLIANT TIMING

Video Mode		Horizontal Frequency	Vertical Frequency	Dot Clock	
VESA	VGA 640 × 480	31.469kHz	59.940Hz	25.175MHz	
		37.861kHz	72.809Hz	31.500MHz	
		37.500kHz	75.000Hz	31.500MHz	
		43.269kHz	85.008Hz	36.000MHz	
	SVGA 800 × 600	35.156kHz	56.250Hz	36.000MHz	
		37.879kHz	60.317Hz	40.000MHz	
		48.077kHz	72.188Hz	50.000MHz	
		46.875kHz	75.000Hz	49.500MHz	
		53.674kHz	85.061Hz	56.249MHz	
	XGA 1024 × 768	48.363kHz	60.004Hz	65.000MHz	
		56.476kHz	70.069Hz	75.000MHz	
		60.023kHz	75.029Hz	78.750MHz	
		68.677kHz	84.997Hz	94.500MHz	
	SXGA	1152 × 864	67.500kHz	75.000Hz	108.000MHz *
		1280 × 1024	63.981kHz	60.020Hz	108.000MHz
79.976kHz			75.025Hz	135.000MHz *	
UXGA 1600 × 1200	61.750kHz	50.000Hz	132.390MHz		
	75.000kHz	60.000Hz	162.000MHz		
VGA TEXT	720 × 400	31.469kHz	70.087Hz	28.322MHz *	
		37.927kHz	85.039Hz	35.500MHz *	
Macintosh	640 × 480	35.000kHz	66.667Hz	30.240MHz *	
	832 × 624	49.725kHz	74.500Hz	57.283MHz *	
	1024 × 768	60.150kHz	74.720Hz	80.000MHz *	
PC9801	640 × 400	24.827kHz	56.424Hz	21.053MHz *	
SUN66	1152 × 900	61.846kHz	66.004Hz	94.500MHz *	

NOTE * DVI input is not compliant.

CONNECTOR PIN ASSIGNMENT

■ DVI-I 29pin Connector



DVI-I

Pin	Input Signal	Pin	Input Signal
1	T.M.D.S Data 2-	16	Hot Plug Detect
2	T.M.D.S Data 2+	17	T.M.D.S Data 0-
3	T.M.D.S Data 2/4 Ground	18	T.M.D.S Data 0+
4	NC	19	T.M.D.S Data 0/5 Ground
5	NC	20	NC
6	Clock line (SCL) *	21	NC
7	Data line (SDA) *	22	T.M.D.S Clock Ground
8	Analog V-Sync	23	T.M.D.S Clock +
9	T.M.D.S Data 1-	24	T.M.D.S Clock -
10	T.M.D.S Data 1+	C1	Analog Red
11	T.M.D.S Data 1/3 Ground	C2	Analog Green
12	NC	C3	Analog Blue
13	NC	C4	Analog H-Sync
14	+5V Power	C5	Analog Ground
15	Ground		

* Compliant to VESA DDC.

Advan International Corporation

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