

**APD-7211**

Close Frame  
Industrial LCD Display

## Copyright Notice

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## **Packing List**

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The LCD monitor comes with the following standard parts shown as below. Check and make sure they are included and in good condition. If anything is missing or damaged, contact the dealer immediately.

1. Industrial Display Panel x 1 pc
2. Industrial Display Panel User's Manual CD-ROM x 1 pc
3. VGA Cable 1.8 M x 1 pc
4. Panel Mounting Kits
5. Screws bag

It is better for you to keep the carton and the packing materials in case you might need them for packing or moving in the future.

## Safety & Warranty

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1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
14. If any of the following situations arises, get the equipment checked by service personnel:
  - a. The power cord or plug is damaged.
  - b. Liquid has penetrated into the equipment.
  - c. The equipment has been exposed to moisture.

- d. The equipment does not work well, or you cannot get it to work according to the users manual.
  - e. The equipment has been dropped and damaged.
  - f. The equipment has obvious signs of breakage.
15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.

## FCC Safety

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### **Warning!**



This device complies with Part 15 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.

### *Caution:*

*It may cause danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.*

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**Chapter**

**1**

**General  
Information**



## **Introduction**

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Congratulations on your purchase of the Industry Display Panel TFT LCD monitor - a marvelous contribution of cutting edge technology.

The LCD monitor has been designed with serious thoughts to present the best performance for most applications. Symbol of elegance, its compact and slim profile is well suited in working locations where space is at a premium.

The TFT LCD monitor displays sharper, more brilliant, crisper and flicker-free images. Complying with the power management regulations of VESA DPMS, the LCD monitor is extremely energy efficient and a power saver. Plus, the LCD monitor has extremely low radiation emissions and near zero electromagnetic fields which are supreme benefits.

Fully compatible with PC system, the LCD monitor provides full interface for all sorts of related standards. Supported by “Plug & Play” complying with DDC1/DDC2B, installing the LCD monitor is absolutely trouble free.

The On Screen Display menu provides user a convenient interface to make right adjustment for optimum display performance.

## Features

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The model provides broad range of 21.3" (UXGA) analog interface LCD panels, long lifetime TFT LCD monitors.

- 21.3" UXGA (1600 x 1200 resolution) color TFT LCD display
- Input sources: RS-232 (optional for touch screen), DVI, VGA
- OSD (On Screen Display) function for display adjustment
- 3M capacitive Touch screen (Optional)
- Swivel ARM: VESA 100 Standard
- Aluminum front bezel

## Specifications

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### System

- **Construction:** Heavy-duty stainless steel chassis
- **Mounting:** Panel mount or Swivel ARM
- **Input signal:** RGB, DVI
- **Control:** OSD (On Screen Display) on the front panel
- **Power Supply:** Internal AC power supply
- **Dimension:** 535(W) x 386(H) x 66(D) mm
- **Net Weight:** 9.9 Kg

### Touch screen (Optional)

- **Type:** 8-wire. Analog capacitive
- **Controller resolution:** 4096 x 4096
- **Light transmission:** 80% or higher
- **Activation force:** When activated by a standard finger, the activation force is typically less than 4 ounces (113grams).
- **Controller:** RS-232 interface
- **OS support:** MS DOS, Windows 98, Windows NT, Windows ME, Windows 2000, Win XP, Linux Red Head.

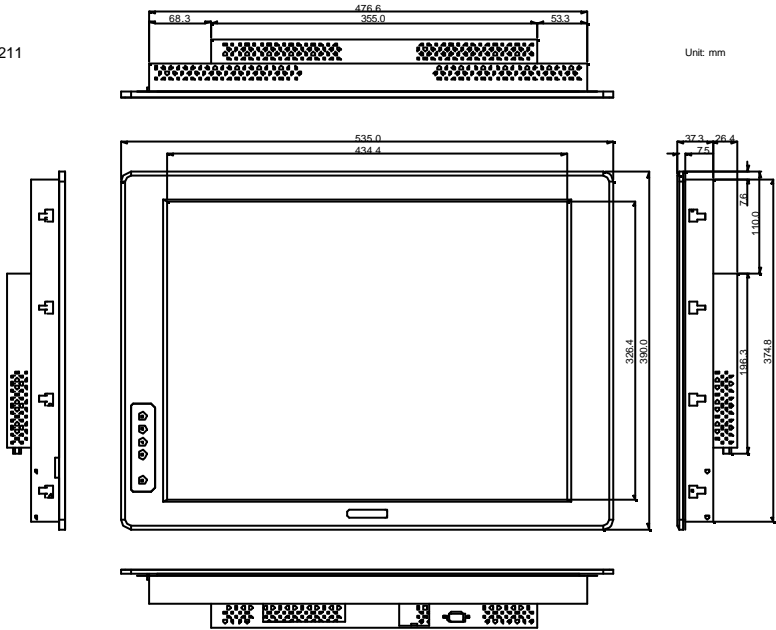
### Environmental Specifications

- **Operating temperature:** 0°C to 45°C (32~113°F)
- **Vibration:** 5~500Hz, 1G acceleration.
- **Shock:** 10G peak acceleration (11 msec.  
Duration)
- **EMI:** FCC / CE Class B

## Dimensions

### APD-7211

APD-7211



**Chapter**

**2**

**Hardware  
Installation**

## Before Unpacking

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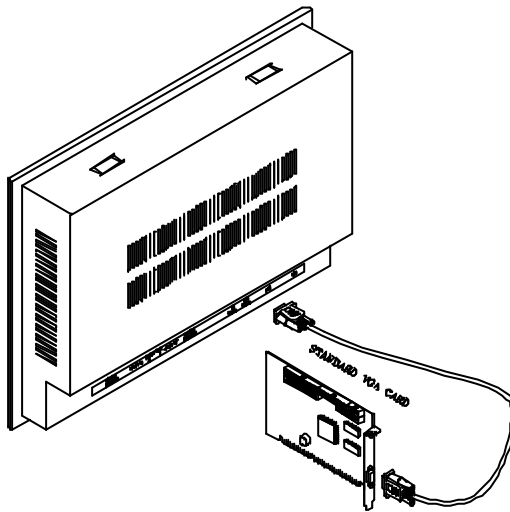
It is very important to locate the LCD monitor in a suitable environment.

- The surface for placing the LCD monitor should be stable and level.
- Make sure the place has good ventilation, and out of direct sunlight; away from sources of excessive dust, dirt, heat, water, moisture and vibration.
- Convenience for connecting the LCD monitor to the related facilities should be well considered too.

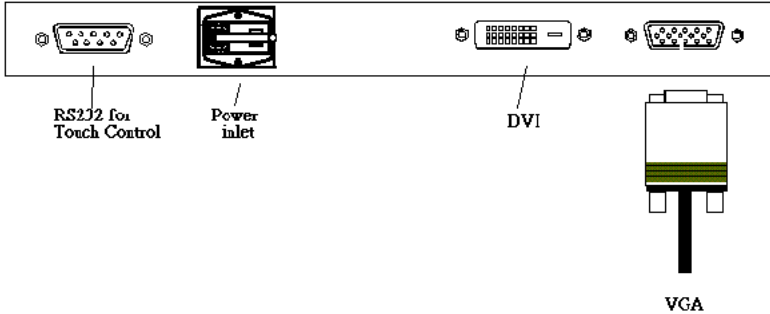
## Connecting to the Computer

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- Turn off the computer and the LCD monitor before the connection
- Use the Monitor-to-PC VGA cable to connect the LCD monitor to your computer. The cable heads are the same on either side.
- Fasten the connections securely.





**Source input diagram**

*Important!* Select <Input Source> Before You Start the System

After connecting the display to the system unit, make sure that appropriate signal input source is selected before you starting computer system.

Follows the steps below:

**Step 1:** Power on the display.

**Step 2:** Use the  button to select to enter **Signal select** function.

**Step 3:** Press Menu button to exit. And now you can start up the system.

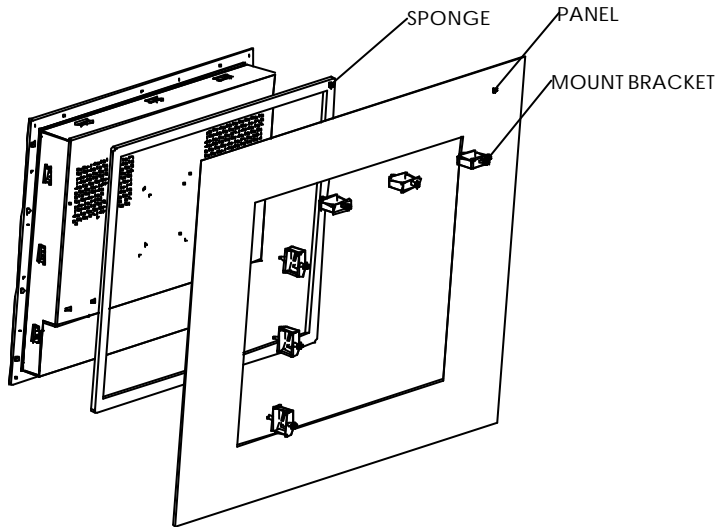
**The backlights of sunlight readable display will graduate reach the maximum brightness after power on 10 minutes.**

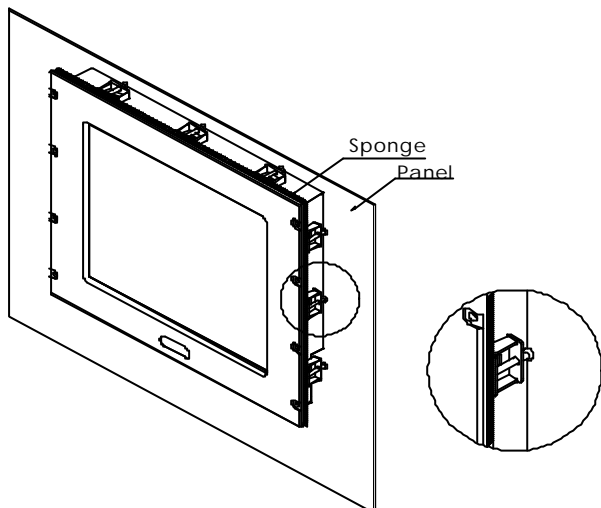
## Panel Mounting

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These display panels can be placed on a shelf or table, or mounted onto the wall. To mount them onto the wall, you need the mounting brackets, which you will find in the accessory box. Follow the steps described below:

- Slide the display panel into cutout on the wall.
- Tighten the brackets until the display panel is firmly secured to the wall.





**Chapter**

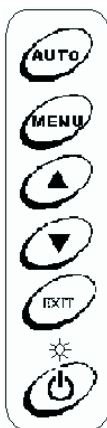
**3**

**On Screen  
Display Control**

## On Screen Display (OSD) Controller

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The LCD monitor is very easy and simple to operate. There are five controls below on the rear panel. You can see their respective indicators.



### **AUTO**

To auto adjust image position, pixel clock and phase. Whenever there is flicker happens, always press the AUTO button first.

The setting value will be automatically adjusted and saved.

### **MENU**

#### **Menu**

To activate the OSD Menu, press the Button. When locating an item you like to adjust in the OSD Menu, press to bring up the corresponding sub-menu for options.



#### **Increase / Moving UP Button**

To move the locating cursor forward in the

OSD Menu, press UP button. To increase the value while adjusting a parameter, press the ▲ button.



### **Decrease / Moving DOWN Button**

To move the locating cursor backward in the OSD Menu, press the ▼ button. To decrease the value while adjusting a parameter, press ▼ button.



### **Exit/Signal select**

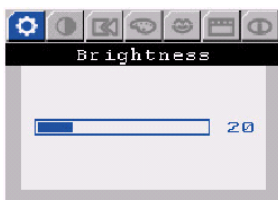
Exit the Menu. Select analogy RGB or DVI signal.



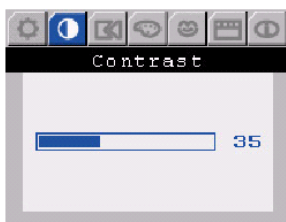
### **Power Switch**

Push up the Power Switch to turn on/off the LCD backlight.

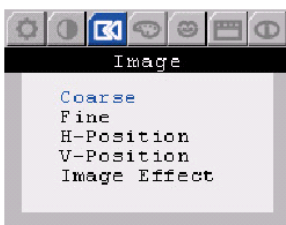
## OSD Control Menu

**Brightness**

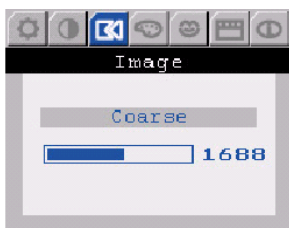
1. Push the *Menu* button.
2. Push the *Menu* button to open the *Brightness* adjustment screen.
3. Use the ▲ button to increase the brightness or ▼ button to decrease the brightness.

**Contrast**

1. Push the *Menu* button.
2. Push the ▲ button or ▼ button until the *Contrast* screen is displayed.
3. Push the *Menu* button to open the *Contrast* adjustment screen.
4. Use the ▲ button to increase the contrast or ▼ button to decrease the contrast.

**Image [Coarse]**

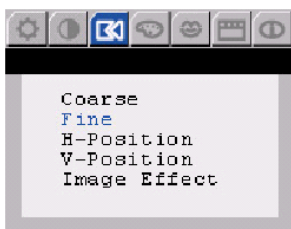
- Removes noise such as vertical stripes.
- Coarse adjustment may move the screen image area. You may relocate it to the center using the Horizontal Control menu.



1. Push the *Menu* button.
2. Push the ▲ button or ▼ button until the *Image* screen is displayed.
3. Push the *Menu* button to open the sub-menu selection screen.
4. Push the ▲ button or ▼ button to select the *Coarse*.

5. Push the Menu button to open the Coarse adjustment screen.
6. Use the ▲ or ▼ buttons to adjust the coarse.





### Image [Fine]

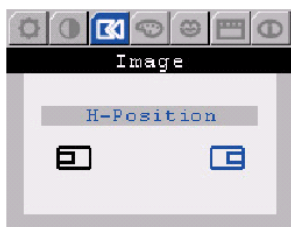
- Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).

1. Push the Menu button.
2. Push the ▲ button or ▼ button until the Image screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▲ button or ▼ button to select the Fine.
5. Push the Menu button to open the Fine adjustment screen.
6. Use the ▲ or ▼ buttons to adjust the fine.

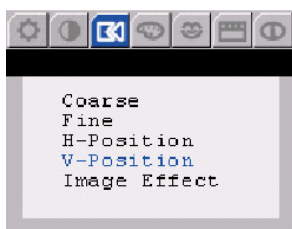


### Image [H-Position]

- Follow these instructions to change the horizontal position of the monitor's entire display.



1. Push the Menu button.
2. Push the ▲ button or ▼ button until the Image screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▲ button or ▼ button to select the H-Position.
5. Push the Menu button to open the H-Position adjustment screen.
6. Use the ▲ or ▼ buttons to change the horizontal position of the monitor's viewing area.



### Image [V-Position]

- Follow these instructions to change the vertical position of the monitor's entire display.

1. Push the Menu button.
2. Push the ▲ button or ▼ button until the Image screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▲ button or ▼ button to select the V-Position.
5. Push the Menu button to open the V-Position adjustment screen.
6. Use the ▲ or ▼ buttons to change the vertical position of the monitor's viewing area.

### Image [Image Effect]

- Image being displayed can be made Sharpen, Medium or Soften.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Image screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Image Effect.
5. Push the Menu button to open the Image Effect selection screen.
6. Use the ▼ or ▲ buttons to select Sharpen or Medium or Soften.

### Color Control [Bluish]

- Bluish white.



1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Color Control screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Bluish.
5. Push the Menu button to adjust Bluish white.

### Color Control [Reddish]

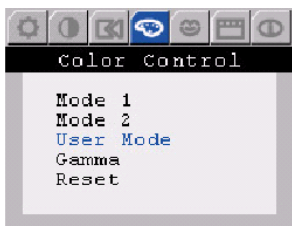
- Reddish white.



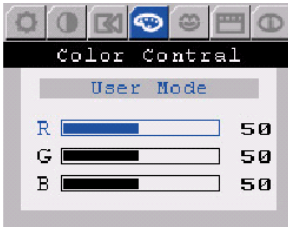
1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Color Control screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Reddish.
5. Push the Menu button to adjust Reddish white.

### Color Control [User Mode]

- Follow these steps to adjust individual R, G, B color control.



1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Color Control screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the User Mode.
5. Push the Menu button to open the



User Mode adjustment screen.

6. Use the ▼ or ▲ button to select R(ed), G(reen) or B(lue) and Push the Menu button.
7. Press the ▼ or ▲ button to adjust the color setting.



### Color Control [Gamma]

- Adjust the gamma value.

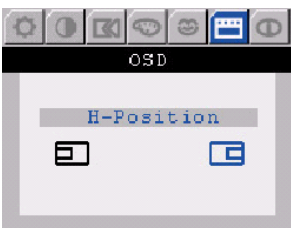
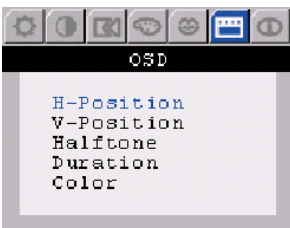
1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Color Control screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Gamma.
5. Push the Menu button to open the Gamma selection screen.
6. Use the ▼ or ▲ button to select 1, 2, 3 to change the gamma value.



### Color Control [Reset]

- Color parameters are replaced with the factory default values.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Color Control screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Reset.
5. Push the Menu button to open the Reset screen.
6. Push the ▼ button or ▲ button to select Yes.  
If you don't want to reset the monitor, use the ▼ button or ▲ button to select No.



## Language

- Follow these steps to change the language used in the menu. You can choose one of seven languages. (English, German, Spanish, French, Italian, Swedish, Russian)

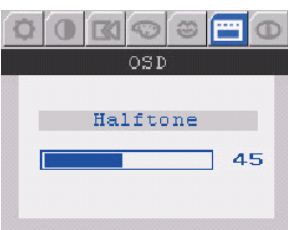
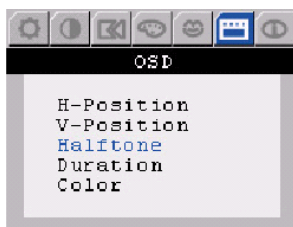
Note: The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the Language screen is displayed.
3. Push the Menu button to open the Language selection screen.
4. Use the ▼ button or ▲ button to select the language you would like to use.

## OSD [H-Position]

- You can change the horizontal position where the OSD menu appears on your monitor.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the OSD screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the H-Position.
5. Push the Menu button to open the H-Position adjustment screen.
6. Use the ▼ or ▲ button to change the horizontal position of the OSD menu.



## OSD [V-Position]

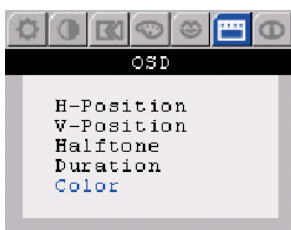
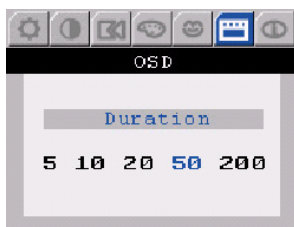
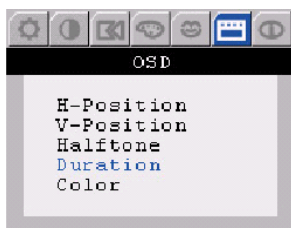
- You can change the vertical position where the OSD menu appears on your monitor.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the OSD screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the V-Position.
5. Push the Menu button to open the V-Position adjustment screen.
6. Use the ▼ or ▲ button to change the vertical position of the OSD menu.

## OSD [Halftone]

- Change the opaqueness of the background of the OSD.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the OSD screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Halftone.
5. Push the Menu button to open the Halftone adjustment screen.
6. Use the ▼ or ▲ button to adjust the opaqueness of the background of the OSD menu.



## OSD [Duration]

- The menu will automatically turn off if no adjustments are made for a certain time period.

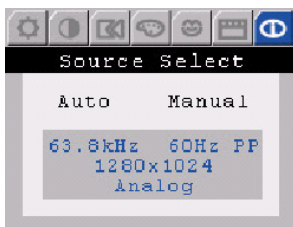
1. Push the Menu button.
2. Push the ▼ button or ▲ button until the OSD screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Duration.
5. Push the Menu button to open the Duration adjustment screen.
6. Use the ▼ or ▲ button to select the duration of the OSD menu.

## OSD [Color]

- You can change the color of the OSD menu.

1. Push the Menu button.
2. Push the ▼ button or ▲ button until the OSD screen is displayed.
3. Push the Menu button to open the sub-menu selection screen.
4. Push the ▼ button or ▲ button to select the Color.
5. Push the Menu button to open the Color selection screen.
6. Use the ▼ or ▲ button to change the color of the OSD menu.





## Source Select

- Select Auto Source Select for the monitor to automatically select the signal source.

Select Manual Source Select to manually select the signal source using the Source button.

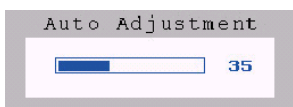
1. Push the Menu button.
2. Push the [-] button or [+] button until the Source Select screen is displayed.
3. Push the Menu button to open the Source Select screen.
4. Push the [-] button or [+] button to select the Auto or Manual..



## Auto Adjustment

- Auto adjustment allows the monitor to self-adjust to the incoming video signal.

The values of fine, coarse and position are adjusted automatically.



1. Push the Auto button.

To make the automatic adjustment function sharper, execute the 'AUTO' function while the AUTO PATTERN is on.

**Chapter**

**4**

**Drivers  
Installation**

APD-7211 comply with DDC1/DDCB2 standard, therefore the system will automatically detect the display. No driver's installation is needed.

## **Touch screen Driver Installation (Optional)**

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The Touch screen driver is included in the supporting CD-ROM. Look for the **EX II-7020** driver's folder and click on set up function install.

## Specifications

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### APD-7211

<b>Panel</b>	
Type	Color TFT
Size	Diagonal 21.3"
Brightness	350 cd/m <sup>2</sup>
Contrast Ratio	500 : 1
Pixel Pitch	0.27(H) x 0.27(V) mm
Viewing Angle (Horizontal)	170°
Viewing Angle (Vertical)	170°
Resolution	1600 x 1200
Display Modes	Full Screen in 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200
Color	Mode 16.7M
<b>Power Consumption</b>	
On- Working	75 Watts (Max.)
Input Voltage	AC 100-240V~0.8A, 60/50Hz
Output	DC 12V / 5A(Max)

## Troubleshooting

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### 1. Problem: Unclear or Unsteady Display

#### Actions:

- Activate the **AUTO** button. You might need to repeat to find balanced values for a good quality.
- If you still have problem to fine-tune the image, call your local technical support for assistance.

### 2. Problem: No Display is shown on the LCD monitor.

#### Actions:

- Make sure the LCD monitor is powered on by checking if the Power LED is lit. Check if all the connections are secure and the system is running correctly.
- If the power LED lights up green, but there is still nothing displayed; connect your PC with another external monitor. If your PC works properly with that monitor, then it is possible that the VGA card timing of the system may be outside the LCD monitor's synchronous range. You may need a qualified technician for help.

### 3. Problem: “No signal” is shown on the display after you connect to the system.

#### Action:

This could be a mistake you made in the OSD menu while choosing the INPUT SOURCE: VGA or DVI.