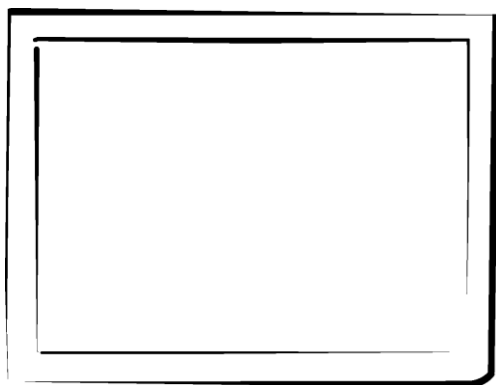


12.1" TFT LCD MONITOR

User's Manual



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SAFETY INSTRUCTION

1. The main plug isolates this equipment from the main supply.
2. Unplug this product from the wall outlet before cleaning.
3. Never push objects of any kind, or spill liquid of any kind into this product.
4. Do not attempt to service this product yourself. As opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
5. The power supply cord serves as a power disconnect device for pluggable equipment, the socket outlet should be installed near the equipment and should be easily accessible.

Federal Communications Commission (FCC Statement)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed in accordance with the instructions in this manual, harmful interference to radio communication may occur. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and 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 :

- Re-orient or relocate the receiving antenna.
- Increase the space between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the one which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

WARNING

- Use only shielded cables to connect I/O devices to this equipment.

CAUTION

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Use only RF shielded cable to connect this monitor to a computer device.

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CHAPTER 1 INTRODUCTION

1.1 Before Installing Your Monitor

- Read this manual cover to cover.
- Pay attention to all warnings and cautions.
- Do not use computer components not recommended by the manufacturer.
- Do not attempt to service the monitor by yourself. If a problem occurs, contact the manufacturer's authorized service center.

1.2 Unpacking

Open the shipping carton and check the contents. If any items are missing or damaged, contact your dealer immediately.

The package should include the following items :

1. 12.1" LCD Monitor.
2. Power Cord.
3. Signal Cable.
4. Adapter.
5. User's Manual.
6. Touch Parts Parcel. (CD, Signal Cable) 【Option】

1.3 About Your Monitor

- This is a microprocessor-controlled, color monitor that uses a 12.1" TFT LCD panel.
- Touch screen and anti-reflection strength glass is optional.

1.4 Precautions

● HANDLING

- The monitor must be treated with caution and not be exposed to impact or shock.
- The monitor has a fragile glass screen. Never rub it with a hard, stiff object or tool for the panel is easily scratched. Your monitor is protected by one glass filter.
- Every effort has been made to protect the screen, however the monitor is an extremely fragile product.

● **CLEANING**

- The display area is highly prone to scratching. Do not use ketone type material (ex. Acetone), ethyl alcohol, toluene, ethyl acid or methyl chloride to clean the screen. It might permanently damage the screen. Desirable cleaners are water, IPA (Iso Propyl Alcohol) or Hexane.
- Don't let water or oil penetrate into the monitor. Even if drops are spilled and left for a long time, staining and discoloration may occur.
- Keep food particles and fingerprints away from the display area.

● **STORAGE**

- Do not store the monitor in temperatures higher than 60°C (140°F) or humidity higher than 85%.
- Store in a dark place, keep away from sunlight and ultra violet (UV) radiation.
- Air bubbles may develop within the glass screen, if this is not observed.

1.5 ISO-13406-2 CLASS III USING INSTRUCTION

(For touch screen monitor)

● **ENGLISH**

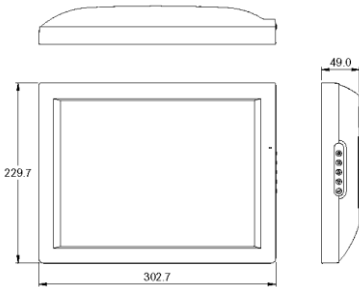
The application of this monitor is restricted to special controlled luminous environments. The screen surface tends to reflect annoying-light of lamp and sunlight. To avoid these reflections the monitor should not be positioned in front of a window or directed to luminaries. The monitor is in compliance with Reflection CLASS III according to ISO-13406-2.

● **GERMAN**

Die Anwendung dieses Bildschirms auf speziell Kontrollierte Umgebungsbeleuchtungen eingeschränkt. Die Bildschirmoberfläche neigt zu störenden Spiegelungen von Lampen und Sonnenlicht. Um diese Reflexionen zu vermeiden sollte der Monitor erfüllt nur die Reflexionsklasse III nach ISO-13406-2.

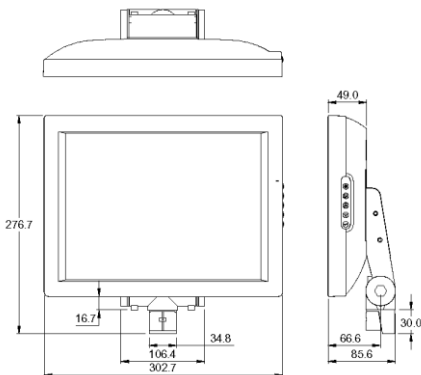
CHAPTER 2 TECHNICAL SPECIFICATION

2.1 Specification



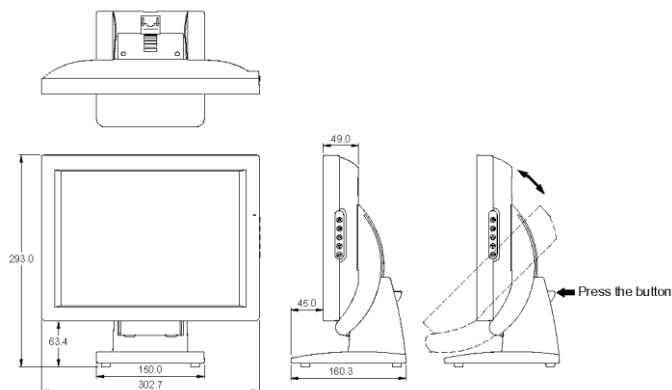
Overall Dimension (H x W x D) : 229.7 x 302.7 x 49.0 mm.

Net Weight :	1.6 kgs.
	2.0 kgs. (W/H touch screen)
Shipping Weight :	3.1 kgs.
	3.7 kgs. (W/H touch screen)



Overall Dimension (H x W x D) : 276.7 x 302.7 x 85.6 mm.

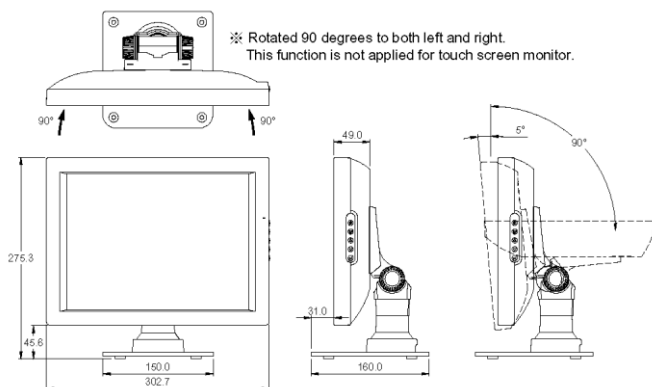
Net Weight :	2.1 kgs.
	2.5 kgs. (W/H touch screen)
Shipping Weight :	3.6 kgs.
	4.2 kgs. (W/H touch screen)



Overall Dimension (H x W x D) : 293.0 x 302.7 x 160.3 mm.

Net Weight : 2.9 kgs.
3.4 kgs. (W/H touch screen)

Shipping Weight : 3.9 kgs.
4.5 kgs. (W/H touch screen)



Overall Dimension (H x W x D) : 275.3 x 302.7 x 160.0 mm.

Net Weight : 3.1 kgs.
3.6 kgs. (W/H touch screen)

Shipping Weight : 4.1 kgs.
4.7 kgs. (W/H touch screen)

Scan Frequencies :

Horizontal	31.5 KHz to 48 KHz.
Vertical	56 Hz to 72 Hz.

LCD Display : 12.1" TFT LCD panel.

Power :

Input	100 ~ 240 VAC. (Auto-Sensing) Frequency : 50 Hz / 60 Hz.
Consumption	18 Watts Maximum. (On) 3 Watts Maximum. (Without Adapter) (Power Saving And Power Off)
Video Connector	15-Pin Mini D-Sub.

Video Signals :

Video	Analog R.G.B 0.7Vp-p / 75 Ω .
Sync	Separate, Positive Or Negative TTL.

Display Data Channel :

Compatibility	VESA DDC 1/2 B. 【Option】
---------------	--------------------------

Operations :

User Controls	On / Off Power Button, Menu, Up, Down, Enter.
On Screen Display	Brightness, Contrast, Auto Adjust, Phase, Clock, H-position, V-position, Sharpness, Color Temperature, Language, OSD Adjust, Recall.
Control Type	Digital.

Environmental Limits :

Operating Temp.	0°C to 40°C. (32°F to 104°F)
Storage Temp.	-20°C to 60°C. (-4°F to 140°F)
Operating Humidity	10% to 85% Without Condensation.
Storage Humidity	10% to 85% Without Condensation.

Agency Approval :

EMI	FCC-B and CE (EMC), BCIQ.
Safety	ETL, ETLc, TUV-GS, CE (LVD), CB, CCC.

※ Design and specifications are subject to change without prior notice.

Touch Screen :

● CHILIN Touch

Style	4 Wires Analog Resistance. (the PET is coated with printed spacers)
Surface Hardness	PET \geq 3H.
Active Area	245 x 183.5 mm.
Keystroke Durability	① Stylus hitting : No damage on film surface after 1,000,000 times or over. ② Pen touch sliding durability : No damage on film surface after 100,000 times or over. Writing with R0.8mm plastic stylus pen; writing force 150g in active area. Speed is 60mm / sec.
Driver CD	DOS / Windows 3.1, 95, 98, 2000, XP, NT platform support.

● ELO Touch

Style	5 Wires Analog Resistance.
Surface Hardness	PET \geq 3H.
Active Area	248.87 x 187.4 mm.
Keystroke Durability	Meets Taber Abrasion Test (ASTH D1044) CS-10F wheel, 500g.
Driver CD	DOS / WIN 9X, 2000, XP, NT / LINUX / I-MAC.

- 3M Touch

Style	8 Wires Analog Resistance.
Surface Hardness	4H Per ASTM D3363-92.
Active Area	246 x 185 mm.
Keystroke Durability	1,000,000 activations (Typical) at a single point with a 5/8" diameter silicone finger with a 350g load at 2 touches per second, using a 3M Touch systems SC4 controller.
Driver CD	Windows 95, 98, ME, NT4, 2000, XP / XP Tablet PC / Edition / Windows CE2.12, 3.0,.net / RedHat / Mandrak / IMac.OS9 / MS-DOS.

- TRANS Touch

Style	4 Wires Analog Resistance.
Surface Hardness	PET \geq 3H.
Active Area	256.27 x 195.74 mm.
Keystroke Durability	① Finger : Max 50gf 2,000,000 times. Freq 5Hz. ② Pen touch writing with R0.8mm plastic stylus pan, writing 150g.
Driver CD	Windows 3.1, 95, 98, ME, NT4, 2000, XP, MS-DOS, CE, LINUX For RS-232. (Windows 98, ME, 2000, CE, LINUX For USB.)

2.2 Factory-Preset Modes

Table 1 shows standard settings that have been pre-adjusted at the factory for accurate display. These setting are stored in the monitor's memory.

Table 1

Mode	Resolution	H-Freq (KHz)	V-Freq (Hz)
VGA	640 x 480	31.469	59.940
	640 x 480	37.861	72.809
SVGA	800 x 600	35.156	56.250
	800 x 600	37.879	60.317
	800 x 600	48.077	72.188

2.3 Signal Connector Pin Assignments

R.G.B Signal Connector

Pin 1	Analog Red Input
Pin 2	Analog Green Input
Pin 3	Analog Blue Input
Pin 4	Ground
Pin 5	Digital Ground
Pin 6	Analog Red Ground
Pin 7	Analog Green Ground
Pin 8	Analog Blue Ground
Pin 9	NC
Pin 10	Sync Ground
Pin 11	Ground
Pin 12	SDA (DDC Data)
Pin 13	H. Sync
Pin 14	V. Sync
Pin 15	SCL (DDC CLK)

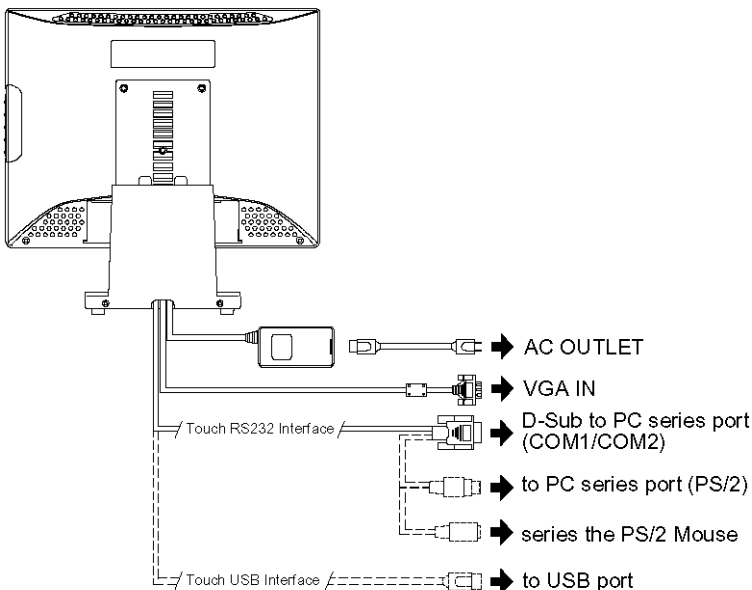
CHAPTER 3 INSTALLATION

3.1 Installing The Monitor

The monitor is equipped with an auto-sensing power supply for voltage ranges from 100 ~ 240 VAC, 50 / 60 Hz. Conforming the line voltage designation on the rear panel of the monitor.

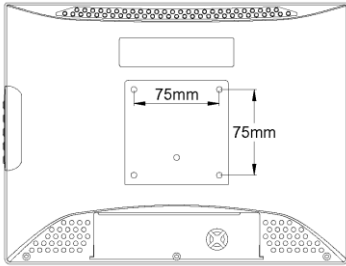
● Follow These Steps To Install The Monitor :

1. Before you connect the cables, make sure that the monitor and the systems power switches are OFF.
2. Plug one end of the 15-pin signal cable to the monitor and the other end to the video signal connector in the back of the system. Tighten the two screws of the cable connector on both ends. (Otherwise the screen will be abnormal and the LED light will be orange instead of green)
3. Connect the power to the monitor through the AC / DC adapter.
4. Connect the power cord on the AC outlet.
5. Connect the 9-pin signal cable of monitor to the PC series port. (COM1 / COM2 for RS-232) (For touch screen only)
6. Connect the USB signal cable of monitor to the PC USB port. (For USB touch screen only)



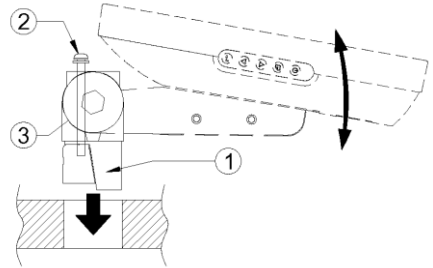
7. Install the VESA stand :

The rear cover is suitable for other stand or arm if they meet VESA standard 75 x 75 mm VESA Holes.



8. Install the T-Joint to platforms :

- ① Insert the T-joint into the footed stand or the tubular stand of the POS machine.
- ② Fasten the screw into place.
- ③ Use hands to loosen the adjusting nut and adjust the display to a suitable view angle. Then fasten the adjusting nut.



The angle of the screen can be adjusted from a horizontal position to a vertical position, without any tools.

3.2 Touch Screen Software Installation (For windows platform)

● CHILIN Touch

1. Place the driving CD into CD-ROM driver.
2. Search for the directory named " DRIVER " and open it.
3. Find the sub-directory that is suitable for the system and open it.
4. Execute " SETUP ".
5. Execute " TOUCH KIT " on desktop.
6. Execute " ADD ".
7. Execute " 4 PTS CAL " to make position correction.

(PS) : Start that from the left-lower side anti-clockwise, press button in each point for 2 ~ 3 seconds and loosen it then.

8. Execute " DRAW TEST " to confirm the correction.

- ELO Touch

1. Place the driving CD into CD-ROM driver.
2. Select an appropriate installation. (For Win 95, 98, 2000, XP or NT4.0, etc.)
3. Execute " SETUP ".
4. Select " COM 1 " or " COM 2 ". (Com 1 or Com 2 cannot be detected automatically)
5. Re-Start PC after the installation.
6. Execute " 3 PTS CAL " to make position correction. Press button in each point 2 ~ 3 seconds and loosen it then.

- 3M Touch

1. Place the driving CD into CD-ROM driver.
2. Select an appropriate installation. (For Win 95, 98, 2000, XP or NT4.0, etc.)
3. Execute " SETUP ".
4. Re-Start PC after the installation.
5. Execute " TOUCH KIT " on desktop.
6. Execute " ADD ".
7. Execute " 4 PTS CAL " to make position correction.
(PS) : Start that from the left-lower side anti-clockwise, press button in each point for 2 ~ 3 seconds and loosen it then.
8. Advance adjustment : To ensure the alignment accuracy and store into driving memories. (For 25 PTS CAL only)
9. Execute " DRAW TEST " to confirm the correction.

- TRANS Touch

For RS-232

1. Place the driving CD into CD-ROM driver.
2. Select an appropriate driver. (For Serial, PS/2, USB)
3. Execute " SETUP ".
4. Re-Start PC after the installation.
5. Start → Setting → Control Panel → Select " TOUCH PANEL " and Execute.
6. Select " CALIBRATION ".
7. Select 9 or 12 or 20 point calibration → Select " Apply ".
8. Execute " calibrate " now.

9. Execute " 9 or 12 or 20 PTS CAL " to make position correction. Press button in each point 2 ~ 3 seconds and loosen it then.
10. Select " up date ".

For USB

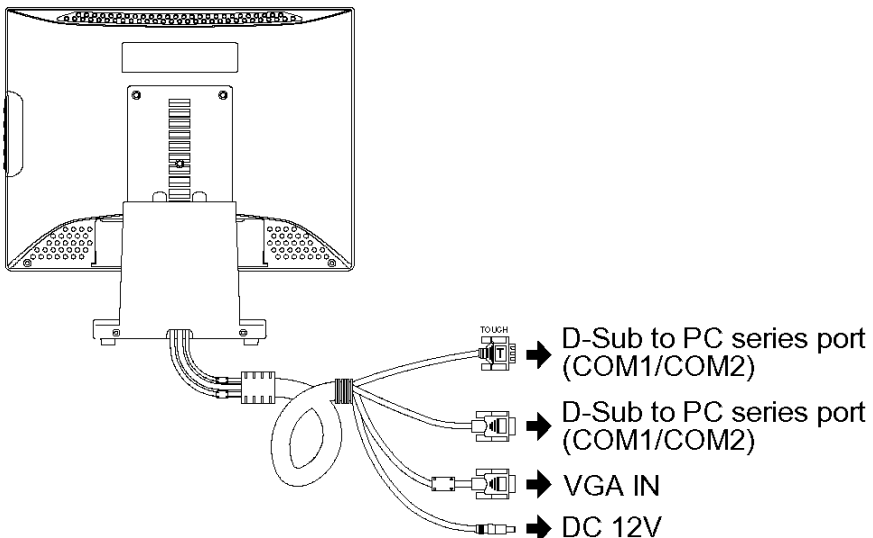
1. Place the driving CD into CD-ROM driver.
2. Select an appropriate driver. (For Serial, PS/2, USB)
3. Execute " SETUP ".
4. Re-Start PC after the installation.
5. Execute programs → Fujitsu Touch Panel. (USB)
6. Execute " 12 PTS CAL " to make position correction. Press button in each point 2 ~ 3 seconds and loosen it then.
7. Using keyboard " ENTER ".
8. Select " save & exit ".

For Cable Management Monitor Only

Cable Management Installation For RS-232

Please use DC 12V / 3A power supply for monitors with cable management feature. The monitor is equipped with an auto-sensing power supply for voltage ranges from 100 ~ 240 VAC, 50 / 60 Hz. Conforming the line voltage designation on the rear panel of the monitor.

- Follow These Steps To Install The Monitor :
 1. Before you connect the cables, make sure that the monitor and the systems power switches are OFF.
 2. Plug one end of the 15-pin male signal cable to the monitor and the other end to the female video signal connector in the back of the system. Tighten the two screws of the cable connector on both ends. (Otherwise the screen will be abnormal and the LED light will be orange instead of green)
 3. Plug one end of the 15-pin female signal cable to the monitor and the other end to the male video signal connector in the back of the system. Tighten the two screws of the cable connector on both ends.
 4. Connect the power cord on the DC outlet.
 5. Connect cable connectors to the PC series port. (COM1 / COM2)
(RS-232 Connector with " T " mark is for touch screen; another RS-232 connector is for card reader)

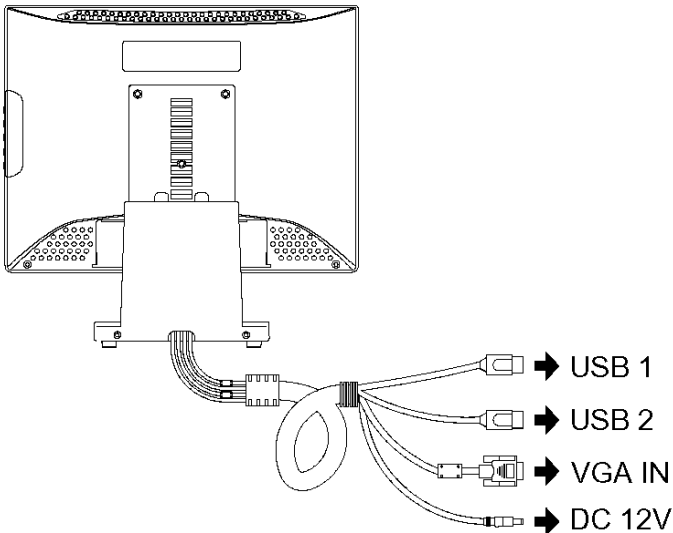


For Cable Management Monitor Only

Cable Management Installation For USB

Please use DC 12V / 3A power supply for monitors with cable management feature. The monitor is equipped with an auto-sensing power supply for voltage ranges from 100 ~ 240 VAC, 50 / 60 Hz. Conforming the line voltage designation on the rear panel of the monitor.






- Follow These Steps To Install The Monitor :
 1. Before you connect the cables, make sure that the monitor and the systems power switches are OFF.
 2. Plug one end of the 15-pin male signal cable to the monitor and the other end to the female video signal connector in the back of the system. Tighten the two screws of the cable connector on both ends. (Otherwise the screen will be abnormal and the LED light will be orange instead of green)
 3. Plug one end of the mini USB1 / USB2 male signal cable to the monitor and the other end to the USB1 / USB2 male signal connector in the back of the system.
 4. Connect the power cord on the DC outlet.

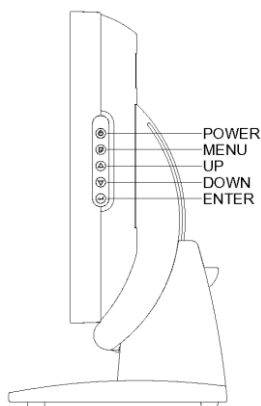


3.3 Control Functions

The monitor control functions are located on the right side of the screen. They are shown in the figure below and described in the following paragraphs.

- The Control Key Description :


1.  : Power Switch.
2.  : Active the on-screen-display function / Return menu / Exit.
3.  : Move / Adjust up.
4.  : Move / Adjust down.
5.  : Enter.





- Description :

1.  : Power Switch.

Use the power switch to turn the power ON or OFF. We recommend turning your system power on first, then the LCD monitor.


2.  : Menu.

Press the Menu key to activate the On Screen Display mode. (It is a toggle key.) Press twice to turn off the OSD. After 20 sec idle time, the OSD screen will automatically turn off.

3.  &  : Select Key.

The two keys have two sets of functions :

- ① When OSD mode is activated (When " MENU " key is pressed), the two keys are used to select the adjustment items.
- ② When adjustment item is selected, the two keys are defined to decrease or increase the values of each selected item.

4.  : Enter.


- ① When the light-bar move to the item, the key can be used to select it, and ready to adjust.
- ② At non-OSD mode pressing to execute Auto-Adjusting function, this function will set the monitor display area to the optimal position.

CHAPTER 4 ADJUSTMENT



4.1 Adjusting The Monitor

The LCD monitor is designed to work with a range of compatible adapters on the market. Due to the possible deviations between these adapters, you may need to make some adjustments to fit the monitor to the adapter used.


4.2 Adjustment Procedure

1. First, you must activate the OSD mode through pressing the MENU ()key, the symbols will show in the center of screen as below.

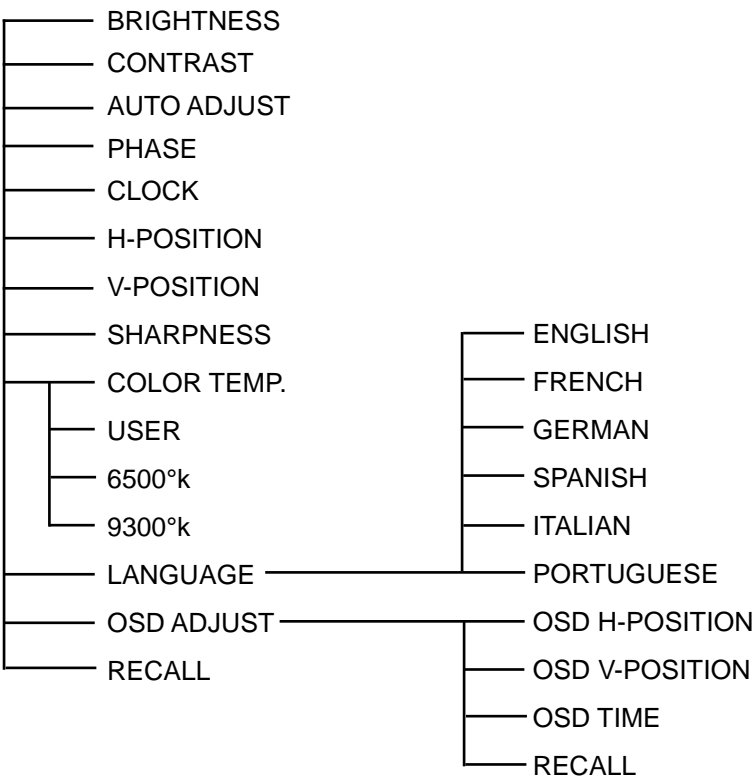
Note : In the last paragraph, we will assume that you had already done this procedure and you only need an explanation on how to change the settings.

2. Use the Δ & ∇ key to select the required adjustment item up or down.
3. Use Enter ()key to select the item.
4. Use the Δ & ∇ key to change the control value for optimum viewing.
5. After finishing all the settings, please press the Menu key, and then you'll be back to Main Menu. If you press Menu key again, the setting will be saved into the monitor memory. If you want to discard the settings, just move to the " RECALL " then press the "  " key. (It will restore to the pre-defined values)

4.3 Auto-Adjustment

1. When OSD is not activated, using "  " key to auto-adjust the display area to optimal display effects.
2. Sometimes this function can't achieve the optimal effect, please follow the " ADJUSTMENT PROCEDURE " mentioned above.

4.4 On-Screen-Display Mode

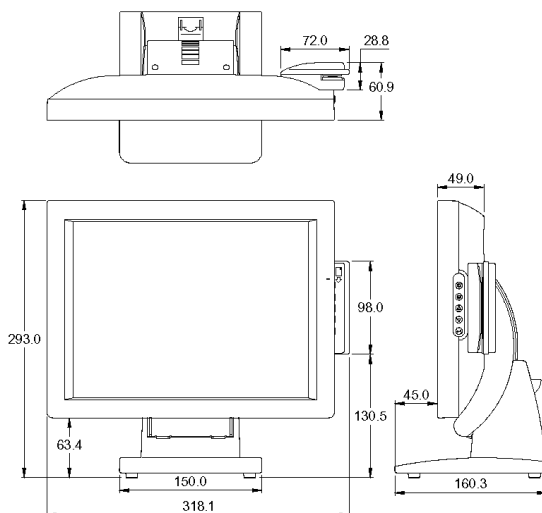


● Description :

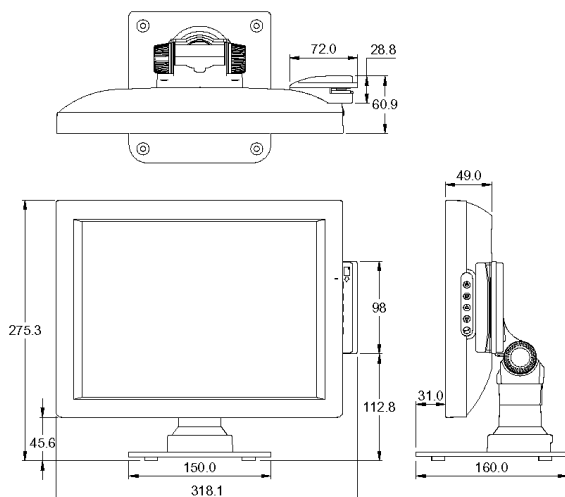
1. BRIGHTNESS ——— This field allows you to fine-tune the display brightness level.
2. CONTRAST ——— This field allows you to adjust the display contrast level to accommodate the ambient lighting conditions of your working environment.
3. AUTO ADJUST ——— This field allows you to adjust Phase and H-position & V-position & Clock automatically.
4. PHASE ——— This field allows you to fine-tune the sampling phase according to the signal pixel.
5. CLOCK ——— This field fine-tunes the sampling frequency, it will stretch or squeeze the display area horizontally.
6. H-POSITION ——— This field allows you to adjust the display to the right or left.
7. V-POSITION ——— This field allows you to adjust the display up or down on the screen.
8. SHARPNESS ——— This field allows you to fine-tune the display sharpness level.
9. COLOR TEMP. ——— This field allows you to choose three types of color temperature 9300°K, 6500°K & user. If you chose the type of user, then you can adjust R. G. B. for your needs.
10. LANGUAGE ——— This field allows you to choose six different languages. (English, French, German, Spanish, Italian and Portuguese.)
11. OSD ADJUST ——— This field allows you to adjust OSD frame location, timeout, and reset OSD.
12. RECALL ——— Recall the default value.

CHARTER 5 CARD READER 【OPTIONAL】

5.1 Dimensions



Overall Dimension (H x W x D) : 293.0 x 318.1 x 160.3 mm



Overall Dimension (H x W x D) : 275.3 x 318.1 x 160.0 mm

5.2 Card Reader Function

- Install Card Reader (Plug & Play)

- **PS/2 Connector**

1. Before you connect the cables, make sure that the monitor and the systems power switches are OFF.
2. If your Keyboard is PS/2 connector, pull it out first. If not, skip this step.
3. Plug the card reader's PS/2 connector to your PC keyboard port.
4. Plug the keyboard's connector to another card reader's connector.

- **RS-232 Connector**

1. Before you connect the cables, make sure that the monitor and the system's power switches are OFF.
2. If your Keyboard is PS/2 connector, pull it out first. If not, skip this step.
3. Plug the card reader's RS-232 connector to the power cable enclosed, then plug PS/2 connector to PC keyboard port.
4. Plug the keyboard's connector to another card reader's connector.
5. Plug RS-232 connector to PC RS-232 port.

- **USB Connector**

1. Before you connect the cables, make sure that the monitor and the system's power switches are OFF.
2. Plug USB connector to PC USB port.

