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19″ TFT LCD MONITOR with Sharpening Style   *USER′S MANUAL*

SX1900

- With Touch Screen (Optional)

1.   Introduction

With an LCD Panel Monitor using a TFT Color LCD, you can use SX1900 a substitution of general PC Monitor because it can receive the R.G.B input of PC VGA Signal. SX1900 has OSD Function in order to display the best quality of the screen according to VGA Cards' features. Besides, Touch Screen is available by customer's request, it can be usable simultaneously with PS/2 Mouse.

Safety Precautions

The safety recommendations outlined in this section are to be read, understood and followed before operating the product. Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious hazard.

A. Do not operate product for any purposes other than its intended use.
B. This product is intended for indoor use only.
C. Do not operate product if power cord is damaged in any way.
D. Do not insert object into openings.
E. Do not immerse product in water or permit liquids to spill inside.
F. Turn off power when attended or not in use unplug product before moving it or when it is not
   in use for an extended period of time.

Note : These specifications are subject to change for up-date without notification

2. Specification

2.1 LCD Monitor Specifications

- Screen Size : 19.0" TFT Color LCD
- Active Area (H x V) : 376.32 $\times$ 301.056 mm
- Supporting Resolutions : Full display by zooming out on VGA/SVGA/XGA/SXGA
- Driver Element : a-SI TFT active matrix
- Pixel Arrangement : RGB vertical stripe
- Display Mode : Normally Black
- Surface treatment : Haze 44%, Hard – Coating (3H)
- Resolution : 1280 x 1024 dots
- Aspect Ratio : 5:4
- Max .Colors : 16,7M(true 8-bit) color
- Pixel Pitch (H x V) : 0.294 x 0.294 mm
- Luminance(cd/m^2) : Typ. 250
- Contrast Ratio : Typ. 1,000 : 1
- Backlight Lifetime : Typ.35,000Hrs
- Viewing Angle :   Horizontal ; Typ. 89°/89°, Vertical ; Typ. 89°/89°
- Response Time(ms) : Typ. 15(R)/10(F)
- Screen Adjustment : OSD (On Screen Display) include Auto Adjustment compliant
- Mount Type : Panel Mount & Wall Mount & Stand Type & VESA Standard ARM Mount
- Supporting Analog R.G.B signal (Analog VGA) input
- Chassis Material : Front - Aluminum, Rear – Steel
- RGB Input : 0.7Vpp±10%, 75 Ohms
- Input Rating : AC 100-240V @ 1.4-0.7A, 50/60Hz or DC 12V @ 4.3A
- Ampere requirement : AC 100V @ 1.4A, AC 200V @ 0.7A, DC 12V @ 4.3A
- Power requirement : 51.6W
- Power Consumption : Max. 51.6W
- Power Saving Mode : Less than 3W
- Storage Temperature : -20 ~ 60°C
- Operating Temperature : 0 ~ 50℃
- Dimensions(W x H x D) : Power Type ; 438 x 363 x 69.5 mm,
- Weight : Net ; 7.4 kg, Gross ; 9.9kg
- Refresh Rate : Max. 1280 x 1024 @ 75Hz (60Hz for optimal display)
- Main Frequency : Max. 157.5MHz
- Frequency : Hor. 31.5~80 KHz, Ver. 56~75Hz
- Compatibility of Vertical Frequency

| PC	MODE	Vertical Frequency (Hz)
IBM	640 x 480	60 / 72 / 75
	800 x 600	56 / 60 / 72 / 75
	1024 x 768	60 / 70 / 75
	1280 x 1024	60 / 75
	DOS 640 x 350	70
	DOS 640 x 400	70
	DOS 720 x 400	70

2.2   Touch Screen Specifications

- Touch Screen Type : Analog Resistive 4-Wire Type

- Touch Screen Controller Interface : Serial (RS-232)

- Touch Screen Drivers : MS-DOS, Windows 3.1/95/98/ME/NT/2000/XP/2003

- Drift compensation for fluctuations in the temperature and humidity

- Antiglare scratch resistant finish

- Gloved or Ungloved finger or Stylus activation

- Chemically strengthened glass backing panel

- Optically bonded buffer layer

- Transmittance : Typ. >80%

- Durability : Point Activation   Typ. 1,000,000

    Gouge Hardness 3H

3. OSD Functions

3.1 OSD function

Selected Menu Button :
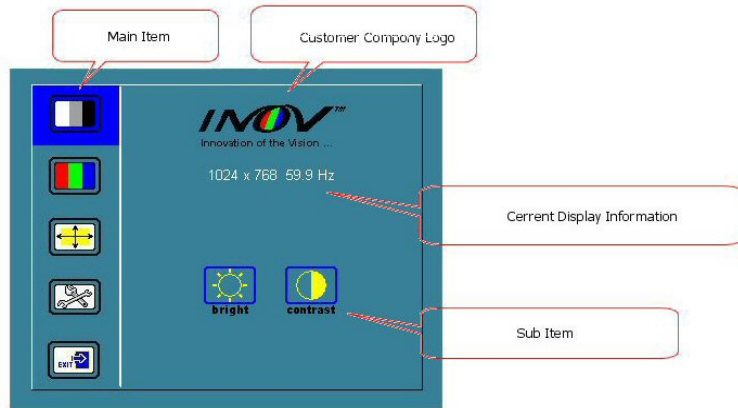
Selected SEL Button: Selected Sub item:
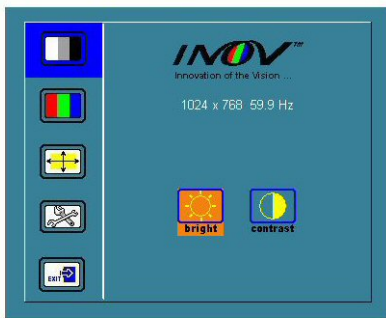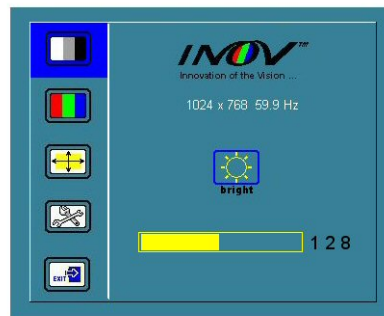
3.1.1 Brightness & Contrast

![Brightness icon]	Brightness Item	`1 2 8` Adjust Panel Brightness Level.	
	Contrast Item	`1 2 8` Adjust Panel Contrast Level.	

3.1.2 Color Control

	Color Adjust Item	OK / Cancle	Adjust Color Level automatically. If the image adjusted is good, select "ok" or not, select "cancel" and adjust it again.
	Super RGB Item	OK / Cancle	Setting up s-RGB mode. Automatic adjustment for Color Level.
	Color Temperature Item	UserColor	`1 2 8` `1 2 8` `1 2 8` User can adjust warmness as users please.
		4200K	Adjust the warmness of the image displayed. The higher temperature the coolest image looks like.

		5000K	The lower temperature the warmest image looks like.
		6500K	
		7500K	
		9300K	

3.1.3 Image Control

|			
	Image Auto Adjust Item	OK / Cancle	Auto adjustment H,V Position of image and Clock & Phase. If the result adjusted is good, select "ok" or not, select "cancel" and adjust it again
	H-Total Adjust Item	128	Adjust increase/decrease image of horizontal size
	Phase Adjust Item	128	Adjust data sampling position of image.
	H-Position Adjust Item	128	Move the image horizontally.
	V-Position Adjust Item	128	Move the image horizontally.

3.1.4 OSD utility

	OSD Adjust Item	OSD Display Time Adjust Item	Adjust OSD display time.
		OSD H-Position Adjust Item	Move the OSD menu horizontally.
		OSD V-Position Adjust Item	Move the OSD menu vertically.
	User Value Initial Item	Reset user's value	
	Image Sharpness Adjust Item	128	Adjust sharpness of the image.
	DOS Mode Select Item	Adjust Dos screen resolution to 640 x 400 or 720 x 400	

	Menu Exit Item	OSD Exit

3.1.5 Warning Message

◫⊶**No Cable**	No Cable	In case of not connected PC VGA Cable with A/D Controller, the message "No Cable " is displayed.
‖⌐**No Signal**	No signal	If there is no PC VGA Signal(R,G,B H-SYNC, V-SYNC), the message "No Signal " is displayed.
☑ **Out of Range**	Out of Range	Result of using LCD do not identify with resolution of VGA Card in PC In order to remove the phenomenon, The VGA mode in PC should be adjusted into the mode (resolution) that can be supported by LCD.

4. Connectors
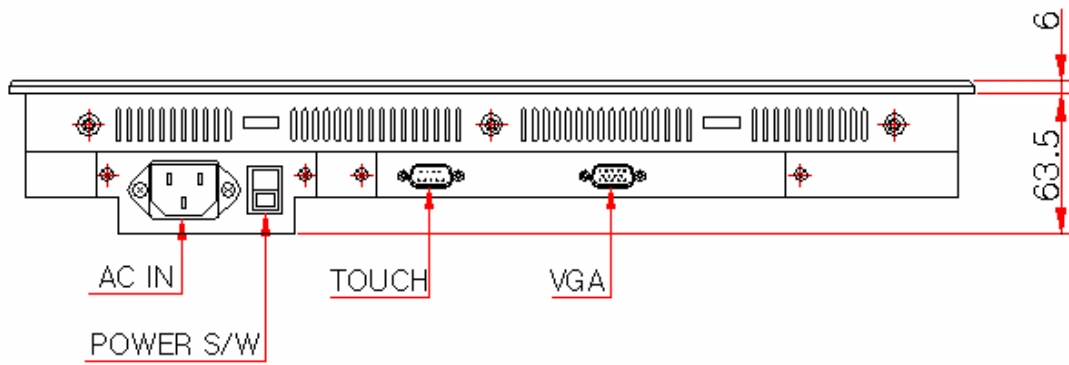
※ Touch is optional.

5. Dimensions
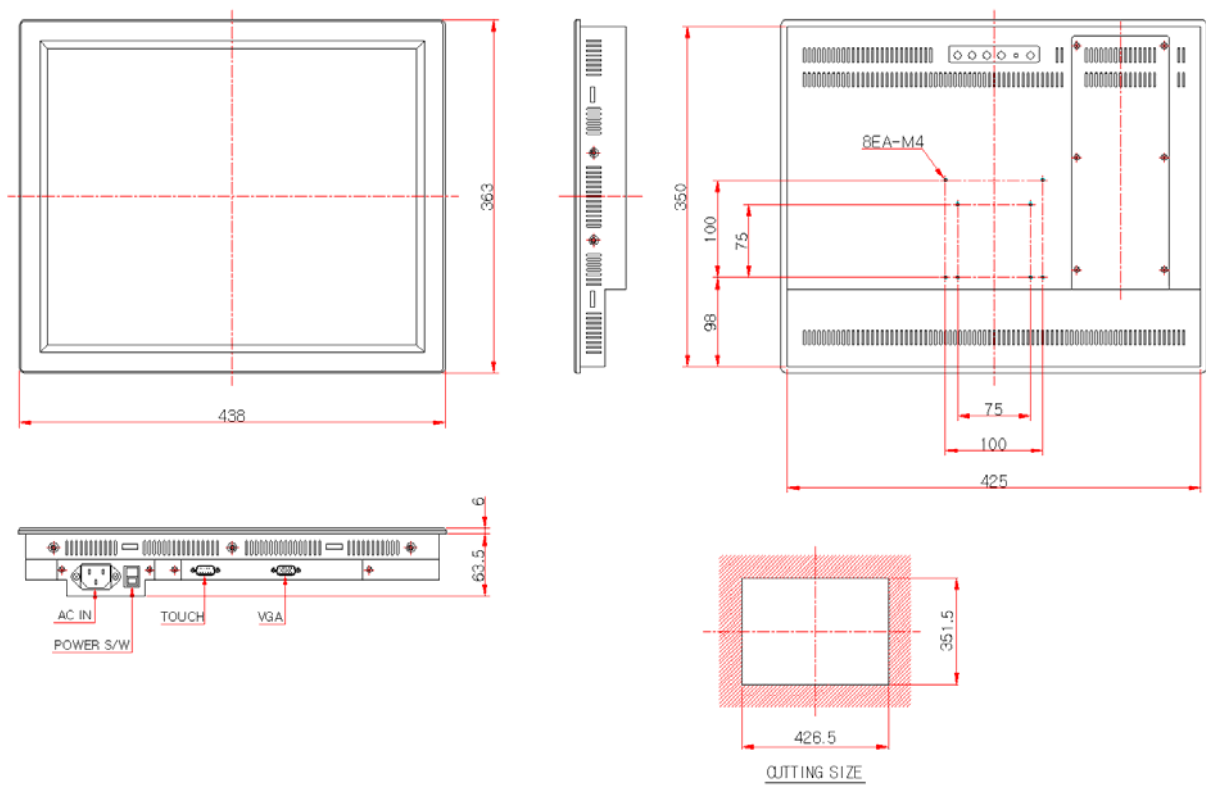
Monitor Dimensions

VESA Standard ARM Mount.

Appendix

1. Packing List

- LCD Monitor
- LCD Monitor Manual
- AC Power Cord
- VGA Cable
- Supporters, 8PCS
- Touch Cable (Optional)
- Touch Screen Install CD (Optional)
- Touch Screen User's Manual (Optional)