

USER'S MANUAL

AOD 320 metal case monitor





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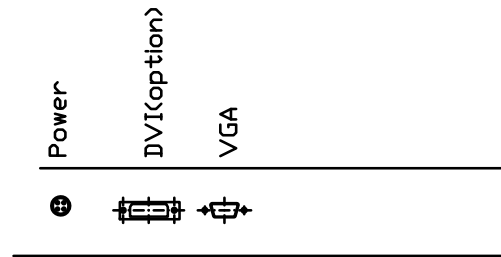


All In One



All In One

1.0. Connection To the Monitor



1.1. Installation

- Connect the signal(VGA) cable to the VGA port of computer. Tighten the two thumbscrews by turning clockwise.
- You can adjust the connection for your PC environment.
- Connect AC cord to the monitor..

1.2. Features

- AOD320 is 32" Full HD LCD monitor and support up to 60Hz.
- You can adjust brightness, contrast, horizontal & vertical positions by OSD menus and use auto adjust function for instant adjustment.
- High-qualified LCD Controller inside
- Compact space saving design and power saving mode
- 100% compatible with Windows PC environment without the installation of driver CD or software program.



1.3. Plug and Play Function

AOD320 can be installed and connected automatically to any computer systems without driver CD or software programs. Monitor will recognize the optimized value of video mode by DDC(Display Data Channel) method that makes the graphic card of computer to communicate with the monitor.

AOD320 supports VESA DDC 1/2B.

1.4. Safety Precaution

We strongly recommend that you carefully read this User's Manual before operating your LCD monitor. FOLLOW INSTRUCTIONS in this manual. Please read and comprehend all using directives before use this machine.

● Power

— Use the type of power indicated on the marking label.

● Adapter

— Only use an adapter designed of the LCD monitor.

● Plug

— Do not remove any of the prongs of the monitor's three-pronged power plug.

— Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.

● Power and extension cord

— Use the proper power cord with ground conductor

— Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 7 amperes.

— Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

● Care and maintenance

— Slots and openings in the cabinet are provided for ventilation. Do not block or cover these openings.

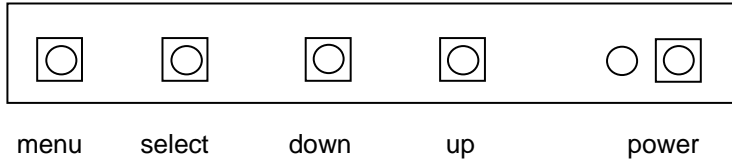
— Do not push objects of any kind into cabinet slots or openings. The screen surface is easily scratched.

— Do not use paper towels to clean the display. Avoid touching it with your fingers, pens, or pencils.

— Turn off the AC adapter and the monitor over long periods when not in use.



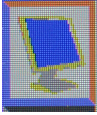
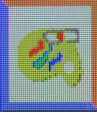
1.5. OSD (On-Screen-Menu)



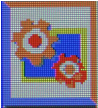

Button	Function	Status
POWER	Power ON or OFF	ON/OFF
LED	Indicate working status	Green : On Red : Stand-by Orange : No signal
UP	Launch OSD Menu or Add Value	Move to OSD Menu
DOWN	Launch OSD Menu or Down value	Move to OSD Menu
SELECT	Select OSD Menu	
MENU	On / Off OSD Menu	



1.6. OSD Menu

OSD Menu		Description	Remarks
 Picture	Brightness	Adjust the brightness of the screen	
	Contrast	Adjust the contrast of the screen	
	H.Position	Adjust the horizontal position of the screen's image	Only usable on Analog Mode
	V.Position	Adjust the vertical position of the screen's image	
	Phase	Adjust the focus of the screen's image	
	Clock	Adjust the horizontal size of the screen's image	
	Auto Adjust	Automatically adjust the Horizontal position, Vertical position, Horizontal size, and Phase Window's background or characters should be displayed on your Full screen prior to proceed this function	
Color Temp	User Reddish Bluish	Control the temperature of the color	
 Color	Red	Control the intensity of the color of the screen's image (Usable when Color temperature is USER mode.)	
	Green		
	Blue		
	Auto Color	Adjust the color balance of the screen	



 OSD	Language	English French German Spanish Italian Korean Japanese	Select one of the seven language	Usable on all Mode.	
	OSD H.Posi.	Select OSD MENU horizontal position			
	OSD V.Posi.	Select OSD MENU vertical position			
	OSD Timer	OSD MENU disappear from over the screen after setting time			
	Transparency	Adjust the transparency of the OSD menu			
 Misc.	Language	English German French Spanish Korean	Select one of the seven language		
	Recall	Initialize the current mode & setting value			
	Input Select	Analog	Analog signal(RGB)		
		Digital	DVI digital signal		
	Audio	Audio ON/OFF select			
Volume	Adjust volume level				

1.7. Specifications

AOD320 VGA, 32 inch metal case monitor

Black powdered cover.

Model:	32 inch XGA TFT LCD Monitor
Type:	32" Color Active Matrix TFT LCD
Resolution (max):	1920 x 1080 (16:9) FULL HD
Color:	16,7 miljoen
Pixel:	0.170 x 0.510 mm
Brightness:	500 cd/m2
Contrast ratio:	1000:1
Viewing angle:	88°/88°&88°/88°
Response time	18 ms
Active area:	697,6 (H) x 392,2 (V) mm
VGA input	Analog RGB (D-Sub 15-pins)
Plug and play:	Yes DDC1 /DDC2B
Power:	24 Volts. included adapter
Power consumption:	<140 watt max.
Power consumption stand by:	<10 watt max.
Temperature operation mode:	0 °C - 50 °C
Humidity operation mode:	10% ~ 85% R.H.
Size	785x475x88mm (wxhxd)
Weight	21 Kg
Mounting:	VESA 200x100mm
Users Mode:	OSD Key Menu / Select / Power / Down / Up
Compatibility:	VESA / IBM / MAC

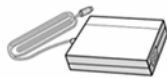
1.8. Contents Of the Retail Package



Monitor



User's Manual



AC/DC Adaptor



Power Cord



VGA Cable



Audio Cable
(Option)



Touch Driver (Option)



Composite
Cable (Option)



S-video Cable
(Option)

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER.

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The monitor does not respond after you turn on the system.

Make sure that the monitor is turned on.

Turn off the power and check the monitor's power cord, AC adaptor, and signal cable for proper connection.

Appear the "No Input the Signal"

Check the connecting of the audio cable between the monitor and the computer.

Appear the "Input Not the Supported"

Input signal are insuperable, reset the video mode.

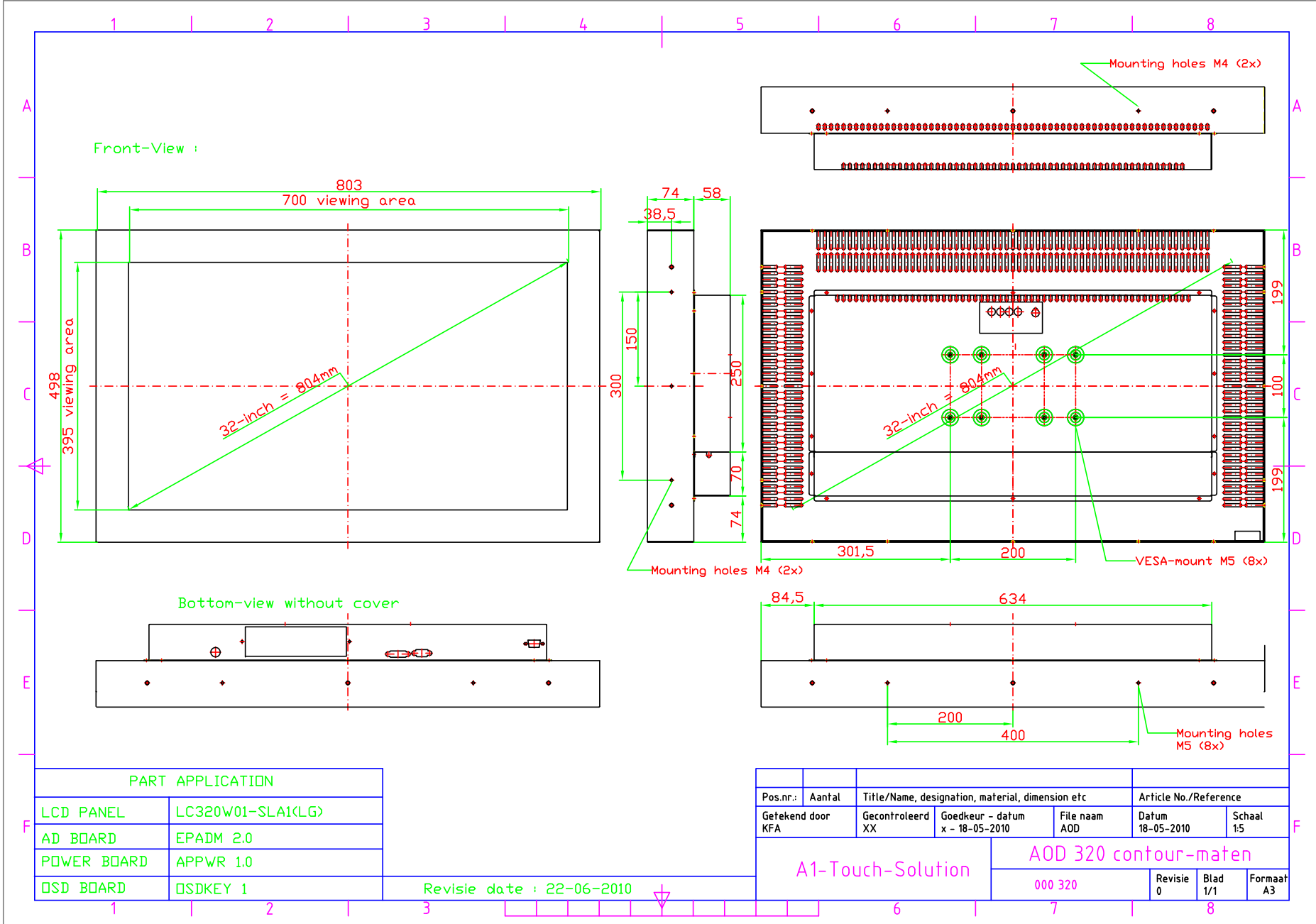
The appearance is not at the screen center.

Use "AUTO ADJUST", refer to the Controls section.

The characters on the screen are too dim or too bright

Choose fit color temperature, use "AUTO COLOUR ADJUST or manually adjust "RGB ADJUSTMENT", refer to the Control section.

1.10. Drawings



PART APPLICATION	
LCD PANEL	LC320W01-SLA1(LG)
AD BOARD	EPADM 2.0
POWER BOARD	APPWR 1.0
OSD BOARD	OSDKEY 1

Revisie date : 22-06-2010

Pos.nr.:	Aantal	Title/Name, designation, material, dimension etc			Article No./Reference		
Getekend door KFA		Gecontroleerd XX	Goedkeur - datum x - 18-05-2010	File naam AOD	Datum 18-05-2010	Schaal 1:5	
A1-Touch-Solution				AOD 320 contour-maten			
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2 Touch Options

2.1 Touch-options related to monitor size

	4Wire	5wire	SAW			CAP		IR	Optical Touch
			3mm	6mm	protected	3mm	6mm		
064	O	X	X	X	X	X	X	X	X
070w	O	S	S	X	X	X	X	X	X
104	O	O	O	O	X	O	O	S	X
121	O	O	O	O	X	O	O	S	X
150	O	O	O	O	O	O	O	O	X
170	O	O	O	O	O	O	O	O	X
190	O	O	O	O	X	O	O	S	X
220W	X	X	X	X	X	X	X	X	O
230	X	X	X	O	X	X	X	X	X
320	X	X	X	O	X	X	X	O	O
420	X	X	X	O	X	X	X	O	O

O	Aviable
X	not aviable
S	On demand

2.2 Option: 4-Wire-touchscreen

4 wire-touchscreen sensor	non glare is standard, glare is option
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone
Contact bounce	less then 10ms
Activation force	less then 40gr
Input modus	Finger, glove hand, pen or stilus
Surface hardness	Meets pencil hardness 3H (per ASTM D3363)
Position accuracy (linearity)	less then 1,5mm
Resolution	4096x4096 Based on controller resolution
Operating life 1	>3.000.000 (250gr, 2 activations/sec)
Operating life 2	>200.000 (250gr, 4.5mm/sec)
Light transmission	75~85% non glare (standard) and 90% glare (option) (per ASTM D1003)
4 wire-controller	USB is standard, RS232 with PS/2 of RS232 internal powered is option
Power requirement	+5V DC(±10%)
Power consumption	Operating 80mA ~ Max.current 140mA
Interface standard option option	USB 'plug-and-play' compatible is standard RS232 with PS/2 connector is optie RS232 internal powered controller. is option
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Touch resolution	4096x4096
Conversion time	~ 10 ms per coordinate set
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Mac OS 9.X, 10.X, Mac Intel Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora Corel &II &III, Yellow Dog 3.x, Kernel 2.4.X, Kernel 2.6.X: 32 en 64 bits

Interface



USB (standard)



RS232 with PS/2

2.3 Option: 5-Wire-touchscreen

5 wire-touchscreen	non glare is standard, glare is option
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone
Vibration	Withstand 0.01 inches amplitude, at a frequency of 5 to 455 Hz, for a period of 15 minutes in each of the three axes
Contact bounce	less than 10ms
Electrostatic discharge protection	withstands 20 discharges of 15kV (pr EN 61000-4-2, 1995)
Activation force	less than 40gr
Input modus	Finger, glove hand, pen or stylus
Surface hardness	Meets pencil hardness 3H (per ASTM D3363)
Resolution	4096x4096 Based on controller resolution
Position accuracy (linearity)	less than 1%
Operating life 1	>3.000.000 (250gr, 2 activations/sec)
Operating life 2	>200.000 (250gr, 4.5mm/sec)
Light transmission	75~85% non glare (standard) en 90% glare (option) (per ASTM D1003)
5 wire-controller	USB is standard, RS232 with PS/2 of RS232 internal powered is option
Power requirement	+5V DC(±10%)
Power consumption	Operating 80mA ~ Max.current 140mA
Interface standard option	USB 'plug-and-play' compatible is standard RS232 with PS/2 connector is option
Electrostatic protection option	RS232 internal powered controller. is option prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Touch resolution	4096x4096
Conversion time	~10ms per coordinate set
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2.4 Option: SAW-touchscreen

SAW-touchscreen standard	3mm glass with beveled edge
tempered option	Break resistance, meets UL-1950, by 6mm heat tempered glass (is option)
protected option	break resistance, dustproof, waterproof (is option)
Chemical resistance	Acetone, ammonia-based glass cleaners, isopropyl alcohol, turpentine, methyl alcohol, methyl ethyl ketone, toluene, gasoline, kerosine, vinegar
Electrostatic discharge protection	pr EN 61000-4-2, 1995: meets level 4 (15 kV air /8kV contact discharges)
Activation force	less than 85gr
Position accuracy	Standard deviation of error is less than ±1%
Life performance	>50.000.000 (finger)
Input modus	Finger or glove hand (rubber, cloth, leather)
Surface durability	Optical glass surface, Mohs' hardness rating : 7
Light transmission	90% (per ASTM D1003)
SAW-controller	
Supply voltage	+5V DC(±5%)
Supply current	Min 85mA ~ Max 150mA
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Interface standard option	USB 'plug-and-play' compatible
option	RS232 with PS/2 connector, is option
option	RS232 internal powered. is option
Touch resolution	4096x4096
Conversion time	~15ms per coordinate set
Reliability	MTBF greater than 300.000 hours
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Mac OS 9.X, 10.X, Mac Intel Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora CoreI &II &III, Yellow Dog 3.x, Kernel 2.4.X, Kernel 2.6.X: 32 en 64 bits

2.5 Option: CAP-touchscreen

CAP-touchscreen standard tempered version (option)	3mm glass, glare is standard, non glare is option Break resistance, meets UL-1950, by 6mm heat tempered glass (is option)
Chemical resistance	Water, ammonia, isopropyl-alcohol, and similar non-abrasive cleaners <u>do not use chemical solvent,acidic or alkali solutions</u>
Input method	Finger
Active force	<10 gr
Response time	Max. 200ms
Ball impact	13,0Ø steel ball 9 gr height=30 cm
Surface hardness	Surface hardcoat cannot be scratched using any stylus with Mohs rating ≤6
Linearity	±1,5%
Surface durability	>160.000.000 touches without noticeable degradation
Light transmission	≥85% (accordance with ASTM D1003)
Supply voltage	5V DC
Supply current	Min 85mA ~ Max 150mA
Interface standard	USB 'plug-and-play' compatible
option	RS232 with PS/2 connector is option
option	RS232 internal powered controller. is option
Touch resolution	based on controller resolutionb 4096x4096
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Macintosh OS9, OSX Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora CoreI &II &III, Yellow Dog 3.x, Kernel2.4.2+, With GUI, Xfree86 4.3+, Kernel 2,3 and above, Command Line Only, Xfree86 3.3 and 4.2

2.6 Option: IR touchscreen

IR-touchscreen

Chemical resistance	Acetone, ammonia-based glass cleaners, isopropyl alcohol, turpentine, methy alcohol, methyl ethyl ketone, toluene, gasoline, kerosine, vinegar
Touch activation force	no minimum touch activation is required
Input modus	everything bigger than 6,5 (W) x 6,5 (H)
Life performance	∞
Supply voltage	+5V DC(±5%)
Supply current	~ 150mA
Interface standard	RS232 baud rate: 9600, 8 data bits, 1 stop bit, no parity, full duplex
Electrostatic discharge protection	prEN 61000-4-2, 1995: meets Level 4 (15kV air / 8kV contact discharges)
Touchpoint density	Based on controller resolution, up to 4096x4096
Light transmission	Over 90% (per ASTM1003)
Conversion time	less than20 ms
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Linux: Red Hat 9.0, Mandrake 9.1

2.7 Option: Optical-Touch

Touch technology	NextWindow optical imaging
Touch method	Finger, gloved hand, stylus or any pointer
Touch activation force	No pressure required
Glass	Recommended tempered clear glass for maximum clarity
Luminous transmission	>92% for clear glass
Touch accuracy	± 2mm (for 40" screen) over 90% of the screen USB reported touch resolution 32767x32767
Responding speed	10ms per coordinate set (max) Typical 15ms (60 updates per second)
Power supply	1900 model is USB powered Other models +12VDC, nominal(+11,5V to +12,5V) power adaptor
Calibration	Simple four-point calibration. No drift
Interfaces	USB: 1.1 (full speed), HID-compliant, plug-and-play compatible Serial: RS232 DB9 straight through cable to PC. 4,800 Baud to 115,200 Baud
Operating systems	Windows XP and Vista, Mac OS, Win 2000, Linux.
Software	No software required for USB-works with Windows native HID mouse driver NextWindow Serial Runtime software required for serial interface NextWindow Touch+ software available for additional utilities
Warrenty	1 Year parts and labour



3 Software

3.1 Touchkit

Features for **Touchkit** software

Features	
Calibration	Fast full oriental 4 points position
Compensation	Accuracy 25 points linearity compensation.
Draw Test	Position and linearity verification
Extend Feature	<ol style="list-style-type: none">1. Support monitor / display rotation2. Support multiple monitor / display3. Support QVGA and Half-VGA function4. Support edge compensation
Controller Setting	<ol style="list-style-type: none">1. Support multiple controllers2. Dynamical add / remove controllers3. Change Controller interface without reboot.
Language	Support 10 languages for Windows
Mouse Emulator	<ol style="list-style-type: none">1. Right / Left button emulation2. Normal / Click on touch / Click on release mode3. Auto right button
Sound Notification	<ol style="list-style-type: none">1. Sound Option (No Sound / Touch Down / Lift Up)2. Frequency adjustment3. Duration adjustment
Double Click	<ol style="list-style-type: none">1. Configurable double click speed2. Configurable double click area
OS support	<ol style="list-style-type: none">1. Windows 95 / 98 / ME / NT4 / 2000 / XP / Vista Windows XP Tablet PC Edition2. Windows CE 2.12, 3.0, 5.0, 6.0 .NET3. Linux (X Window Version: 3, 4 Red Hat 6.0 ~ 9.0 Mandrake 5.0 ~ 9.1 , Kernel 2.4.X Kernel 2.6.X, 32 en 64 bits)4. iMac. OSX, OS9.X, OS10.X, Intel5. MS-DOS: Support display resolution: 320x200, 640x200, 640x350, 640x480, 800x600, 1024x768 and 1280x1024
COM port support	<ol style="list-style-type: none">1. Support COM 1 ~ COM 256 for Windows and Linux2. Support COM 1 ~ COM 8 for DOS

3.2 ELO

By adding a jumper to the A-Touch controller, the whole system becomes ELO-compatible.

The touch registration will be realised by ELO-drivers.

There are several reasons for doing this:

- You are already using application software with “build-in” ELO-drivers.
- You are using clients with pre-installed ELO-drivers.
- You replace an original ELO-touchscreen with an A1-touchscreen.

Then benefit is; you don't have to install new software in the above mentioned situation.

Remark:

If you want to change your driver software from touchkit to ELO, or the other way around, you have to de-install the old software completely before installing the new software.

4 Mounting

- 4.1 Plain
- 4.2 Brackets
- 4.3 Panel mounting
- 4.4 Wall mounting

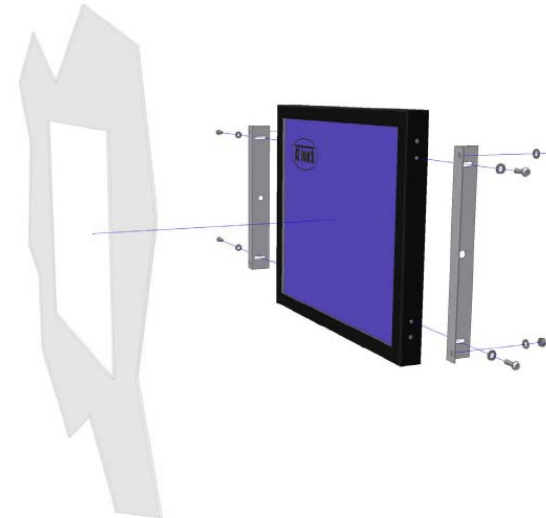
4.1 Plain



Metal case monitor

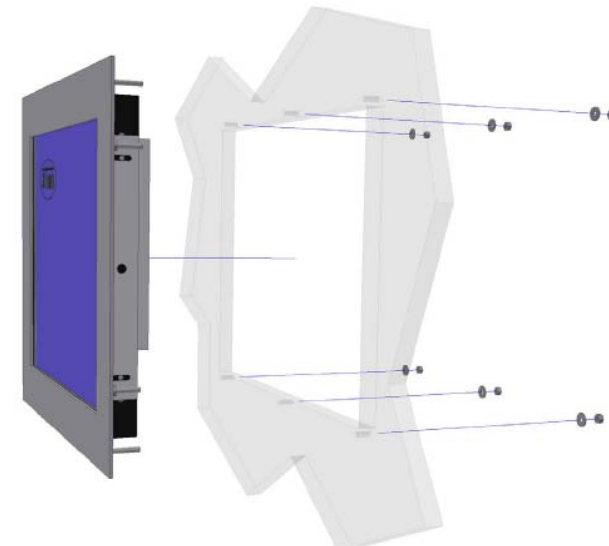


4.2 Brackets



Metal case monitor + 2x brackets

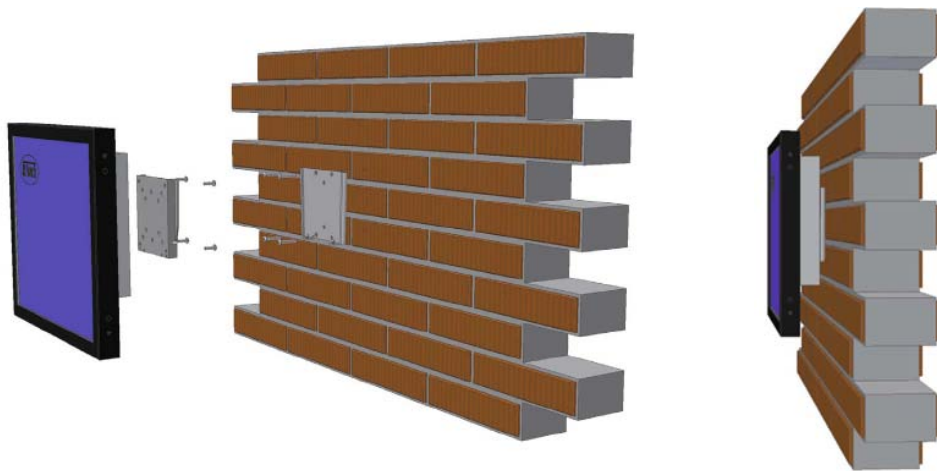
4.3 Panel-mounting



Metal case monitor + bezel + 2x brackets



4.4 Wall mounting



Metal case monitor + New Star TV Wallmount (FPMA-W100)