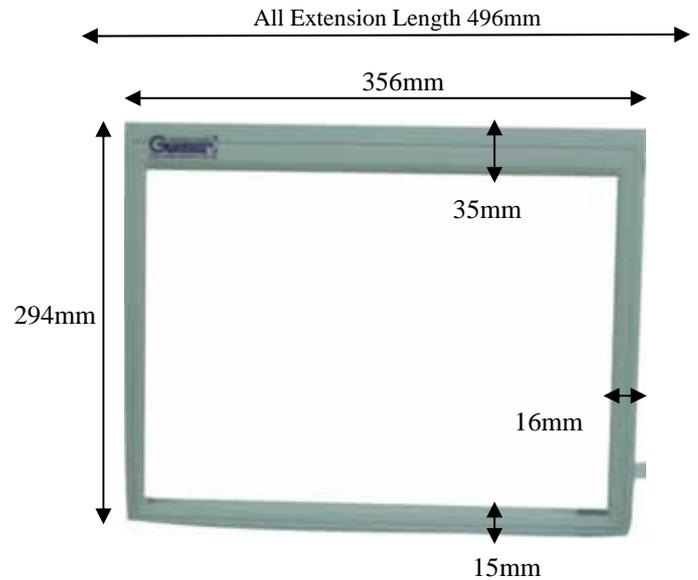




Groovy Technology Corp.

External Touch Screen Specification

Specification	GP-150EL-4Y-03
Model	4-Wire Analog Resistive
Input Mode	Stylus or Finger
Connector	FPC
Structure	Film/Glass
Frame Size	337*257mm
View Area	326*245mm
Active Area	323*242mm
Total Thickness	2.1mm
Tail Length	179.5mm
Operation	0°C ~ +50°C 20%RH~85%RH
Storage	-20°C ~ +60°C 20%RH~80%RH
Transparency	79%
Terminal Resistance	X:260~1040Ω, Y:160~640Ω
Linearity	X 1.5%, Y 1.5%
Response Time	15ms
Insulation	20 MΩ/25V(DC)
Voltage Endurance	No acting damage at DC50V/60sec.
Operating Force	50g
Hardness	3H
Hitting Durability	5,000,000 times
Enhance the sensing Film	The surface is oil-proof, water-proof and dirt-proof
Glass	Normal Glass Interface



For 15" LCD and CRT Monitor



Groovy Technology Corp.

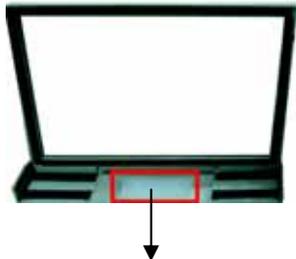
Controller Specification

Specification	ET-1232C	ET-1255C	
Resolution	Above 4096 X 4096	Above 4096 X 4096	 <p>ET-1232C</p>
Touch Panel	4-Wire Resistive	4-Wire Resistive	
Panel Impedance	200Ω ~ 1KΩ	200Ω ~ 1KΩ	
Interface	Serial RS-232 Support Plug & Play	USB	
LED	Touched / Untouched Indication	Touched/ Untouched Indication	
Power	Serial RS-232 Port DC 5V Input	Use USB DC 5V Input	
Power Consumption	Idle: 10mA / Active: 12mA	Active: 22mA	
Dimension	CASE: 3.11" X 1.50" (79mm x 38mm)	CASE:3.11" X 1.50" (79mm x 38mm)	
Operation Temperature	0 ~ 70	0 ~ 70	
Storage Temperature	-30 ~ 85	-30 ~ 85	
Regulatory Approvals	FCC-B, CE, BSMI	FCC-B, CE, BCIQ	
Platform	Win95/98/ME/2000/XP,NT4.0, MS-DOS, Linux8.0 & 9.0, Wince4.0	Win95/98/ME/2000/XP, Linux8.0 & 9.0, Wince4.0	



Hardware Installation Technique

1. Stick a bonded mat on the back of the upper region of GP-150EL-4Y-03 and the top region of the monitor.



Stick a bonded mat

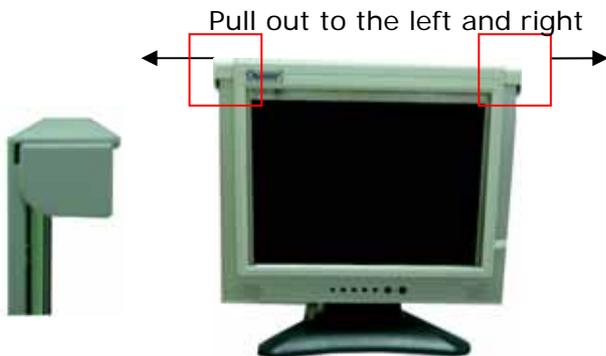


Stick a bonded mat

3. Pull straight the tail of the external screen to the back of the monitor and connect to the controller that is fixed on the back of monitor by a bonded mat. After connecting the black line of ground connection to a screw behind the monitor then the USB or COM joint connected to the PC, and run the driver. (Please refer to the Driver Install Manual)



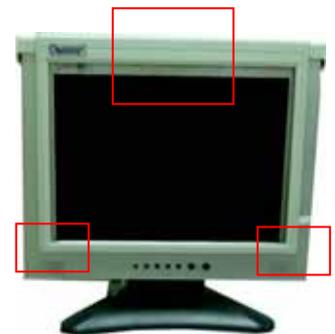
2. Pull out the elastic case of the external screen to the left and right and put the screen onto the LCD monitor.



Pull out to the left and right

4. Depending on the frame size of the monitor, stick some bonded mats on other region of the external screen to enhance the stability between the external screen and LCD monitor.

Depending on the frame size of the monitor, stick some bonded mats to increase



➤ **Note:**

1. The hardness of the touch screen is about 3H (the hardness of nail is about 2H). Do not use hard material (for example, glass or iron) to brush the surface of the screen which may lead to the damage of the product.
2. Do not wrap the tail of the touch screen. Using the bonded mat to completely fix the line and controller behind the monitor. Serious shaking may cause the tail fall off that may lead to the malfunction of the product.
3. In order to have the best clicking function of the touch screen, the resolution of 800*600 is recommended.
4. After using for a period, the position is not exact. Please Re-run the driver of Correction function.
5. The surface prevents oil, water, and dirt. Even the dirt on the surface will not affect the function of product, it will influence the image. The cleaning method is using volatile neutral substance (such as alcohol) to clean the surface. Do not use the acid or alkaline liquid (e.g. cleaning and soap water etc.) to clean the surface which may lead to the damage of the touch screen.

6. After installing the driver, if the cursor is vibrated or uncontrolled, please remove the driver first, and check whether any other drivers exist (such as mouse or Handwriting board) have been installed. If so, please remove it and install the driver again.
7. Touch screen is pressure sensing. Do not touch more than 2 positions. This touch screen can only recognize one position.
8. Please touch the screen with the attached Touch Pen. Do not use other sharp material, such as pen or pencil.

➤ **Product Attachment:**

- (1) Driver x1
(including the detailed installation specification and note)
- (2) Software Installation Manual x1
- (3) Bonded Mat x3
- (4) Touch Pen x1
- (5) Controller x1
- (6) External Touch Screen x1
- (7) Other application program (selected)



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