ACD-515D

15.6" WXGA Infotainment Touch Display
On Screen Display Control
IP-65 Front Bezel
Projected Capacitive Multi-Touch Screen

ACD-515D Manual 3rd Ed June 10, 2015

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Packing List

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 ACD-515D
- Utility CD-ROM
 Contains User's Manual (in PDF format), Drivers and Utilities
- 1 VGA Cable
- 1 USB Cable
- 1 AC/DC 12V Power Adapter with Lock

If any of these items are missing or damaged, you should contact your distributor or sales representative immediately.

Safety & Warranty

- Read these safety instructions carefully.
- 2. Keep this user's manual for later reference.
- 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.
- Put this equipment on a reliable surface during installation.Dropping it or letting it fall could cause damage.
- 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.
- 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 UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.

FCC



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 the danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte.

Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

LCD Display

Below Table for China RoHS Requirements 产品中有毒有害物质或元素名称及含量 AAEON Display

	有毒有害物质或元素					
部件名称	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
	(Pb)	(Hg)	(Cd)	(Cr(VI))	(PBB)	(PBDE)
印刷电路板	×	0	0	0		0
及其电子组件					0	
外部信号	×	0	0	0	0	0
连接器及线材	^					
外壳	×	0	0	0	0	0
液晶模块	×	0	0	0	0	0
触控模块	×	0	0	0	0	0
电源	×	0	0	0	0	0

- O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。
- X:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求。

备注:

- 一、此产品所标示之环保使用期限,系指在一般正常使用状况下。
- 二、上述部件物质触控模块为选购品。

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LCD Display

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Chapter

General Information

1.1 Introduction

Thank you for purchasing 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 are 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.

1.2 Features

- 15.6" WXGA (1366 x 768) TFT LED Type LCD Display
- Easy-To-Clean: Multi-Touch Window Design (Two-Point)
- Easy To Maintain: USB Ports On Two Sides
- IPx1 Water-proof Design For Whole System
- Anti-Scratch Surface (7H Hardness)

1.3 General Specification

• **Type** Color TFT

• **Size** 15.6"

Construction Plastic front bezel and steel back chassis

Mounting VESA/ Wallmount

Input signal VGA, DVI

• Control OSD (On Screen Display) on the panel

Power Supply External power adapter

• **Dimension** 15.51" (W) x 10.71"(H) x 2.36"(D) (394mm x

272mm x 59mm

• Gross Weight 11 lb (5 Kg)

• **Net Weight** 6.6 lb (3 Kg)

• Power Input 12V DC, 5A

Brightness 300 cd/m² (TYP.)

• MTBF 50,000 hrs

• Contrast Ratio 1000:1

• Viewing Angle 170°(H)/ 160°(V)

• **Resolution** 1366 x 768

• **Display Modes** Full Screen in 640x480, 800x600,

1024x768, 1280x1024 Modes

• Color 16.7M colors

Touchscreen

Type Projected Capacitive

• **Resolution** 2048 x 2048

• **Light** >90% (Pure)

transmission

Controller USB interface

Environmental

• **Operating** 32°F~ 104°F (0°C to 40°C)

temperature

• **Storage** -4°F~ 158°F (-20°C to 70°C)

Temperature

• Storage 5~90% @ 40°C, non-condensing

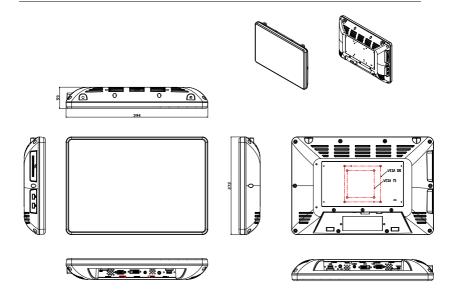
Humidity

• **Vibration** 1g rms/5-500Hz/random operation

• Shock 20 G peak acceleration (11 msec. duration)

EMC CE/FCC Class A

1.4 Dimension



Chapter

Hardware Installation

2.1 Before Unpacking

It is very important to place the LCD Display in a suitable environment.

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

2.2 Connecting Power

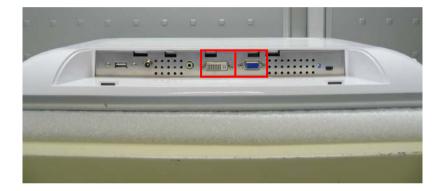
To power on the LCD Display, use the provided AC-DC adapter and the power cord to connect to the power output socket of the monitor. Fasten the connector securely.



2.3 Connecting to the Computer

Turn off the computer and the LCD Display before connecting.

- Use the Monitor-to-PC VGA \ DVI cable to connect the LCD Display to your computer. The cable heads are the same on either side.
- Fasten the connectors securely.



2.4 VGA Port Connector

This DB-15 connector can be connected to the system via the external 15-pin DB-15 connector through the I/O from this unit.



Pin	Signal	Pin	Signal
1	Red	2	Green
3	Blue	4	N.C.
5	GND	6	GND
7	GND	8	GND
9	N.C.	10	GND
11	N.C.	12	SDA
13	HSYNC	14	VSYNC
15	SCL		

2.5 DVI Port Connector

Connecting a standard DVI-D connector through I/O port of this unit.

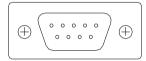
This connector supports digital signals only



Pin	Signal	Pin	Signal
1	N.C.	2	TMDS Data 2+
3	TMDS Data 2/4 shield	4	TMDS Data 4-
5	TMDS Data 4+	6	DDC clock
7	DDC data	8	N.C.
9	TMDS Data 1-	10	TMDS Data 1
11	TMDS Data 1/3 shield	12	TMDS Data 3-
13	TMDS Data 3+	14	+5V
15	Ground	16	Hot plug detect
17	TMDS data 0-	18	TMDS data 0+
19	TMDS data 0/5 shield	20	TMDS data 5-
21	TMDS data 5+	22	TMDS clock shield
23	TMDS clock+	24	TMDS clock-
C1	N.C.	C2	N.C.
C3	N.C.	C4	N.C.
C5	N.C.		

2.6 Serial Port Connector For Touch Screen

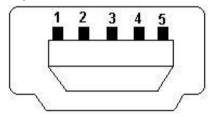
This pin definition of the connector will be referred when a touch screen has been installed. It must be connected to the RS-232 port of the PC. The touch screen cable is included with all orders which include the optional RS-232 Touch Screen.



Pin	Signal	Pin	Signal
1	Not Used	2	RXD, Receive Data
3	TXD, Transmit Data	4	Not Used
5	GND, Ground	6	Not Used
7	Not Used	8	Not Used
9	Not Used	10	Not Used

2.7 Mini USB Connector For Touch Screen

This pin definition of the connector will be referred when a touch screen has been installed. It must be connected to the Mini USB port of the PC. The touch screen cable is included with all orders which include the optional Mini USB Touch Screen.



Pin	Signal	Pin	Signal
1	+5V	2	DATA (-)
3	DATA (+)	4	N.C.
5	GND, Ground		

2.8 VESA Wall Mounting

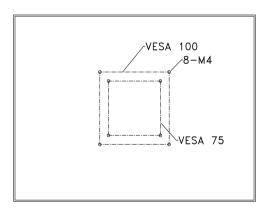
Mounting the LCD Display with UL Listed Wallmount Bracket only. The LCD Display can be mounted on a monitor arm or wallmount plate.

Caution:

When mounting the LCD Display, take care to tighten the retention screws or bolts until fully secured, but do not over tighten. Over tighting the retention screws or bolts may cause them to become stripped, rendering them useless.

Monitor Arm or Wallmount Plate Installation

The LCD Display has Video Electronics Standards Association (VESA) standard mounting holes tapped into the rear panel. The standard holes are M4 set at 75mm x 75mm apart.



VESA Mounting Holes

To mount the LCD Display onto a monitor arm or wallmount plate, please follow the steps below.

- Step 1: Line up the threaded holes on the monitor rear panel with the screw holes on the monitor arm or wallmount plate.
- Step 2: Secure the monitor to the arm or stand with the retention screws supplied with the monitor arm or stand.

Chapter

On Screen **Display Control**

3.1 On Screen Display (OSD) Board Description

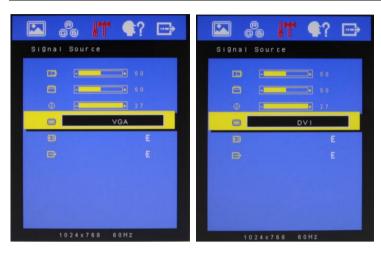
Buttons		Description					
Power	>	Turn the monitor power ON or OFF.					
Menu / Enter	>	Activate the OSD menu.					
Menu / Enter	>	Enter/confirm the selected option.					
	>	Move the selector to the next option.					
UP / Right / Increase	/>	Increase the gauge value of the					
Input select		selected option.					
	>	Change input source.					
	>	Move the selector to the previous					
Down/ Left / Decrease		option.					
Down/ Lent / Decrease	>	Decrease the gauge value of the					
		selected option.					
	>	Automatically adjust the clock,					
		phase, H-position and V-position.					
Auto	>	Value to the most optimal settings.					
		Use full screen when enabling this					
		function.					

3.2 OSD Main Menu: Push The MENU Keys



ICD			Power On/Off the LCD Monitor
□ □ 1))	or	Δ	Increase the gaguge value of the selected option
□)	or	∇	Decrease the gaguge value of the selected option
-×-	or	AUTO	Slected to confirm
*	or	MENU	Return to last menu

3.3 Select Input Source



ICD			Power On/Off the LCD Monitor
□ □ 1))	or	Δ	Increase the gaguge value of the selected option
□)	or	∇	Decrease the gaguge value of the selected option
-×-	or	AUTO	Slected to confirm
*	or	MENU	Return to last menu

3.4 Contrast/ Brightness- Submenu

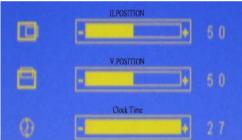




rco P			Power On/Off the LCD Monitor
□)	or	Δ	Increase the gaguge value of the selected option
□)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
茶	or	MENU	Return to last menu

3.5 Geometry Menu





95			Power On/Off the LCD Monitor
□ □ 1)	or	Δ	Increase the gaguge value of the selected option
⊲)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
※	or	MENU	Return to last menu

3.6 Color Temperature- Submenu

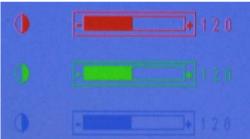




- CB			Power On/Off the LCD Monitor
□)	or	Δ	Increase the gaguge value of the selected option
□(1)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
※	or	MENU	Return to last menu

3.7 RGB Color- Submenu

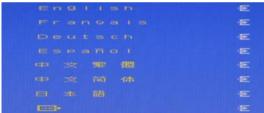




95			Power On/Off the LCD Monitor
□ □ 1)	or	Δ	Increase the gaguge value of the selected option
⊲)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
*	or	MENU	Return to last menu

3.8 Language- Submenu





Ç.			Power On/Off the LCD Monitor
□)	or	Δ	Increase the gaguge value of the selected option
□(1)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
*	or	MENU	Return to last menu

3.9 Auto Config- Submenu





р Ф			Power On/Off the LCD Monitor
4)	or	Δ	Increase the gaguge value of the selected option
⊲)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
茶	or	MENU	Return to last menu

3.10 Mode Resolution- Submenu

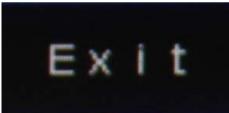




P			Power On/Off the LCD Monitor
□(1))	or	Δ	Increase the gaguge value of the selected option
□)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
茶	or	MENU	Return to last menu

3.11 Exit Menu- Submenu





Available Key Functions

Ç.			Power On/Off the LCD Monitor
□)	or	Δ	Increase the gaguge value of the selected option
□(1)	or	∇	Decrease the gaguge value of the selected option
*	or	AUTO	Slected to confirm
※	or	MENU	Return to last menu

Chapter

Touch Screen Driver Installation

4.1 Introduction

The optional ACD-515D Series touch screen uses Projected Capacitive Multi-Touch technology to provide more accurate sensing capacity than other technologies. The touch screen is specially designed for infotainment environments, and has been approved by FCC Class A standards.

4.2 Installing Driver for Windows® XP/ Windows® 7 / Linux

The touch screen has drivers for Windows® XP、 Windows® 7 and Linux . You should read the instructions in this chapter carefully before you attempt installation.

<u>Note 1</u>: We don't install driver for Windows®7 since Windows® 7 has been built in multi-touch driver

<u>Note 2</u>: ACD series just support single touch on Windows® XP, and need to install the driver.

For Linux Fedora 14 kernel 2.6.35-45.fc14 OS:

CD-ROM:

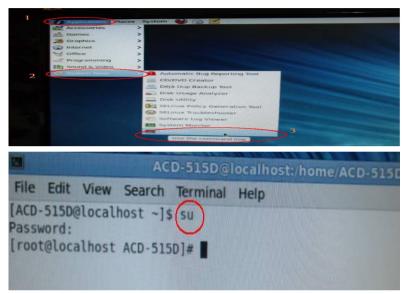
\\TouchScreen-DRV\eGalax Touch \ Linux\ eGTouch_v1.00.0726.L-x32

1. Open System

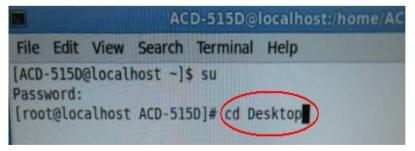
- 1-1. Select Applications
- 1-2. Select System Tools

1-3 Select Terminal

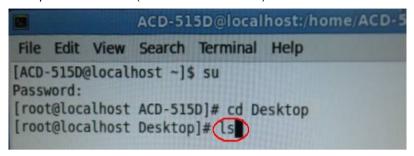
1-4. Input Command→su and System Password



2. Input command → cd Desktop



2-1 Input command → Is (This is the lowercase L)



2-2 all files of desktop will appear in window.

(Please copy the driver on desktop first.)

```
ACD-515D@localhost:/home/ACD-515D@localhost:/home/ACD-515D@localhost Terminal Help

[ACD-515D@localhost ~]$ su
Password:

[root@localhost ACD-515D]# cd Desktop/

[root@localhost Desktop]# ls

Glouch_v1.00.0726.L-x1D gnome-terminal.desktop

[root@localhost Desktop]#
```

2-3 Input command→cd eGTouch v1.00.0726.L-x32

```
ACD-515D@localhost:/home/ACD-515D/Deskt

File Edit View Search Terminal Help

[ACD-515D@localhost ~]$ su

Password:

[root@localhost ACD-515D]# cd Desktop

[root@localhost Desktop]# ls

eGTouch_v1.00.0726.L-x32 gnome_terminal_desktop

[root@localhost Desktop]# cd eGTouch_v1.00.0726.L-x32
```

2-4 Input command → Is (This is the lowercase L)

```
ACD-515D@localhost:/home/ACD-515D/Desktop/eGTouch
File Edit
            View
                  Search
                           Terminal Help
[ACD-515D@localhost ~]$ su
Password:
[root@localhost ACD-515D]# cd Desktop/
[root@localhost Desktop]# ls
eGTouch_v1.00.0726.L-x32 gnome-terminal.desktop
[root@localhost Desktop]# cd eGTouch v1.00.0726.L-x32/
[root@localhost eGTouch v1.00.0726.L-x32]# ls
```

2-5 The information of the folder, "eGTouch v1.00 0726.L-x32", would appear in the window.

```
File Edit View Search
                       Terminal
                                Help
[ACD-515D@localhost ~]$ su
Password:
[root@localhost ACD-515D]# cd Desktop/
[root@localhost Desktop]# ls
eGTouch v1.00.0726.L-x32 gnome-terminal.desktop
[root@localhost Desktop]# cd eGTouch v1.00.0726.L-x32/
[root@localhost_eGTouch_v1_00_0726.L-x32]# ls
eGTouch32 eGTouch32.tar.gz setup.sh
[root@localhost eGTouch v1.00.0726.L-x32]#
```

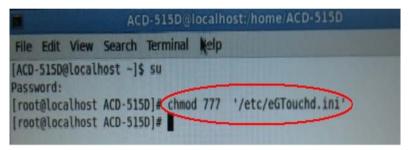
2-6 Input command → Execute Touch Driver

```
ACD-515D@localhost:/home/ACD-515D/Desktop/eGTouch
File Edit View Search Terminal Help
[ACD-515D@localhost ~1$ su
Password:
[root@localhost ACD-515D]# cd Desktop/
[root@localhost Desktop]# ls
eGTouch v1.00.0726.L-x32 gnome-terminal.desktop
[root@localhost Desktop]# cd eGTouch v1.00.0726.L-x32/
[root@localhost eGTouch v1.00.0726.L-x32]# ls
eGTouch32 eGTouch32.tar.gz setup.sh
[root@localhost eGTouch v1.00.0726.L-x32]#(sh setup.sh
```

3. Reboot

4. Change the permission

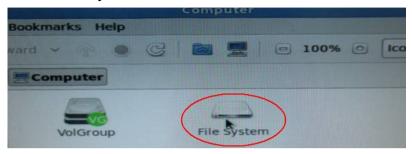
Input command→chmod_△777_△/etc/eGTouchd.ini



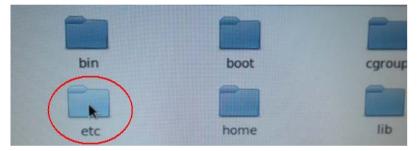
5. Select Computer (You can modify the value of the Y axis to reverse action principle.)



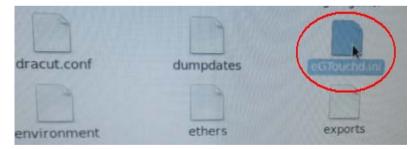
6. Select "File System"



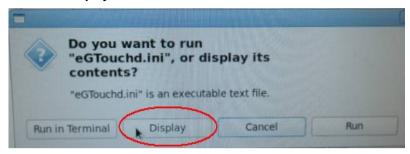
7. Select the "etc" folder



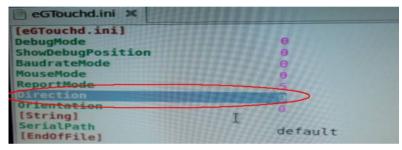
8. Select the "eGTouchd.ini" file

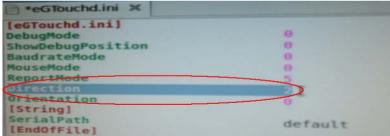


9. Select "Display"

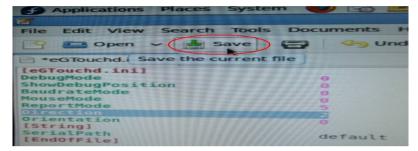


10. Modify the value of "Direction" from 0(default)→2(setting)

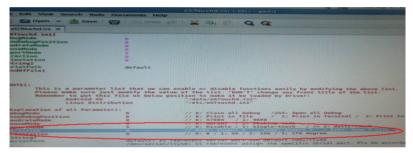




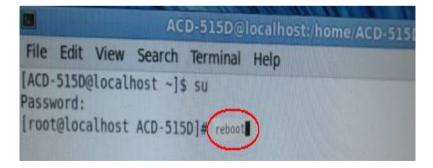
11. Execute "Save"



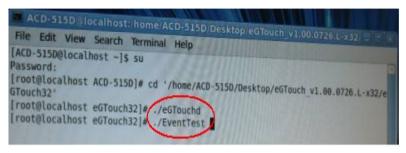
Note: If you want to change X or Y axis, please refer to the description of "Direction" as red circle below.



12. Reboot



- 13 . Input command → ./eGTouch (Execute Driver) and select the file of "eGTouch32".
- 13-1. Input command → ./EventTest (Execute AP)



14. Draw and test (Drawing . Writing)



15. If you want to replace the Interface, please remove the Touchd Driver

Input command→sh setup.sh uninstall (Must Under eGTouch_v1.00.0726.L-x32 folder under)

16. Reboot

