# User's Manual

## Gladius Smart
### 15" All in one POS PC

Version 1.5

# Copyright Notice

# Safety and Warranty

1. Read these safety instructions carefully.

2. Keep this user's manual for later reference.

3. 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.

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.

7. 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.

9. 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 user 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 EQUIPME

# *Table of Content*

# About this Manual

This manual contains all the information you need to set up and use Gladius Smart.

**Chapter 1**     Provides an introduction to Gladius Smart and this manual.

**Chapter 2**     Provides all necessary information for all hardware setup.

**Chapter 3**     Provides the necessary information for installing for chipset and its accessories.

**Chapter 4**     Lists all Gladius Smart specifications includes the information of Second I/O Optional Specifications

**Chapter 5**     Troubleshooting of Gladius Smart

# Chapter 1

# *Introduction*

## Gladius Smart Characteristics

Gladius Smart is a dual core mobile POS and all-in-one fan-less POS system of FIRICH ENTERPRISES CO., LTD. The extensible, robust and fan-less design makes it a perfect solution for retail and hospitality market.

- **System:** A high speed fan-less processor enables to process a high capacity of data efficiently.

- **Housing:** The solid aluminum housing dissipates the heat inside the system and makes it a perfect fan-less solution; additionally it also assures the compliance to EMI radiation testing.

- **Display**: The LCD display can be tilted at multiple angles for operator ease of use.

- **Extensibility:** There are five optional second I/O that customer can choose by their requirement. In addition to, the VESA mount can be others transforming of this system.
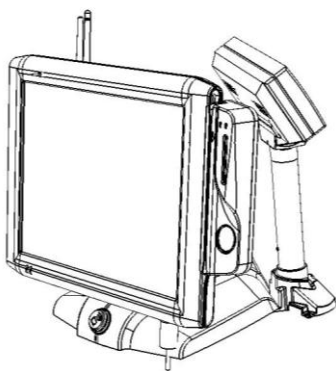


**Gladius Smart with VFD**
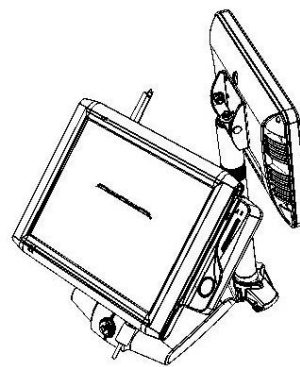
**Gladius Smart with 2nd Display**
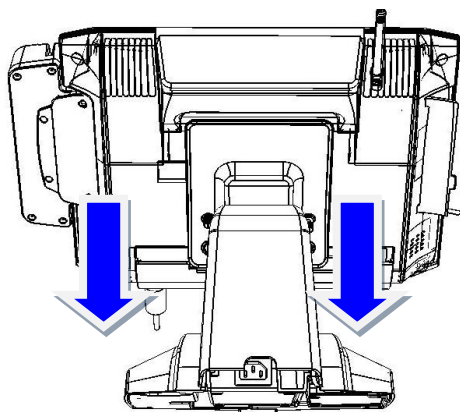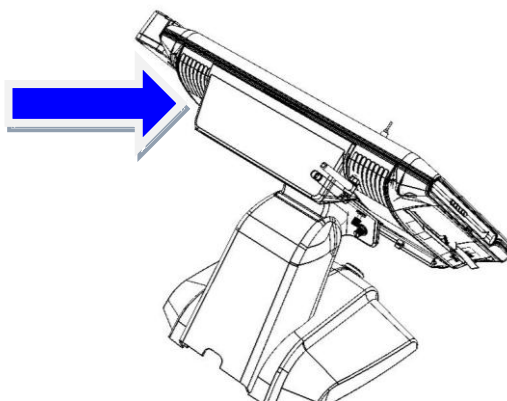
**Detachable Stand**          **Optional LCM**

# A Quick Tour of Gladius Smart

1<sup>st</sup> Display

Wireless Module

Power LED

Identification Devices

VFD or Monitor pole stand

LCM

HDD

Back I/O
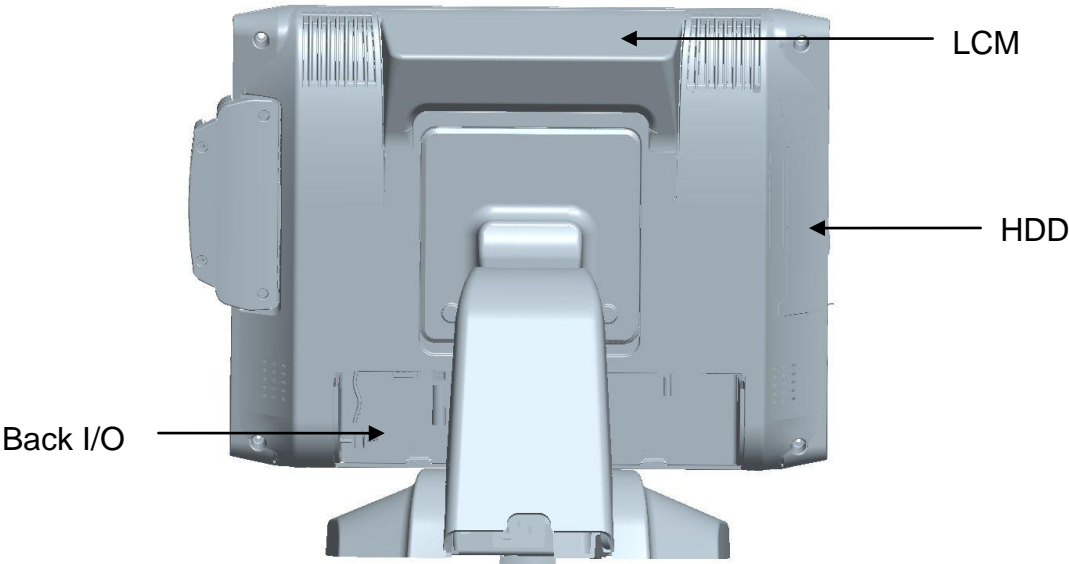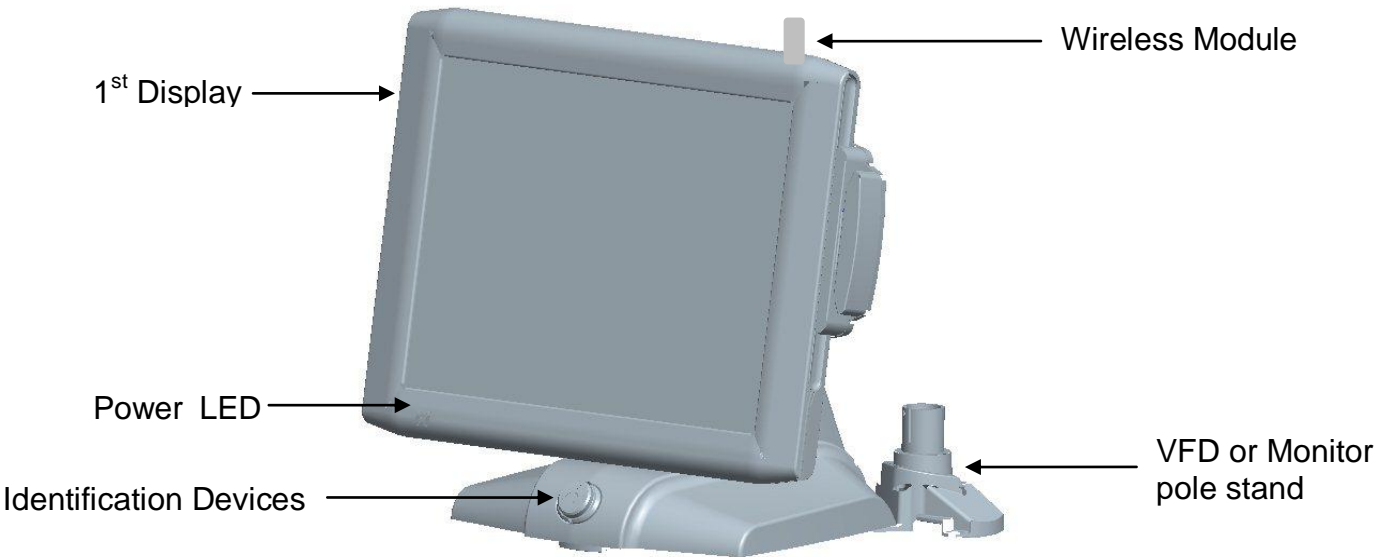
# Gladius Smart Dimension

258mm
381mm

359mm
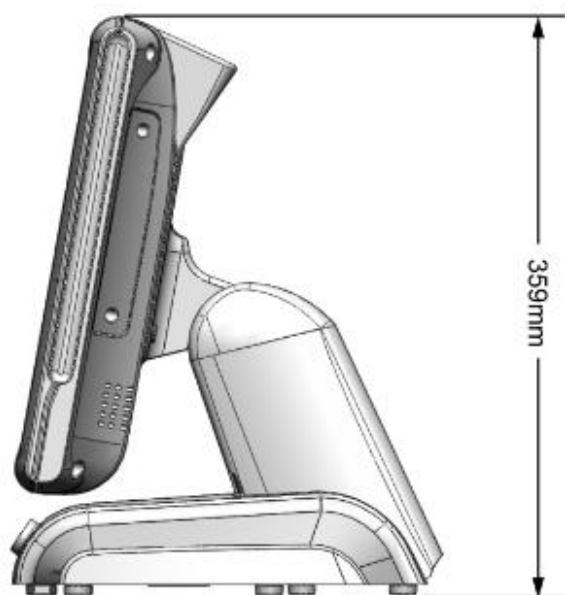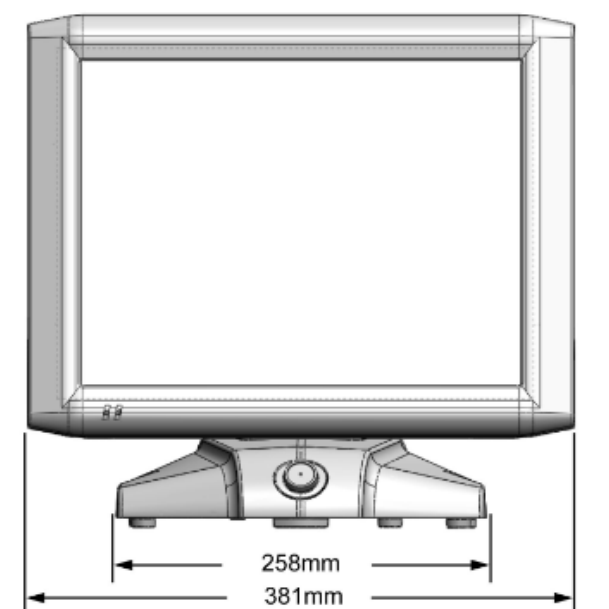
## Rear I/O Panel (with 5 types of Second IO board)
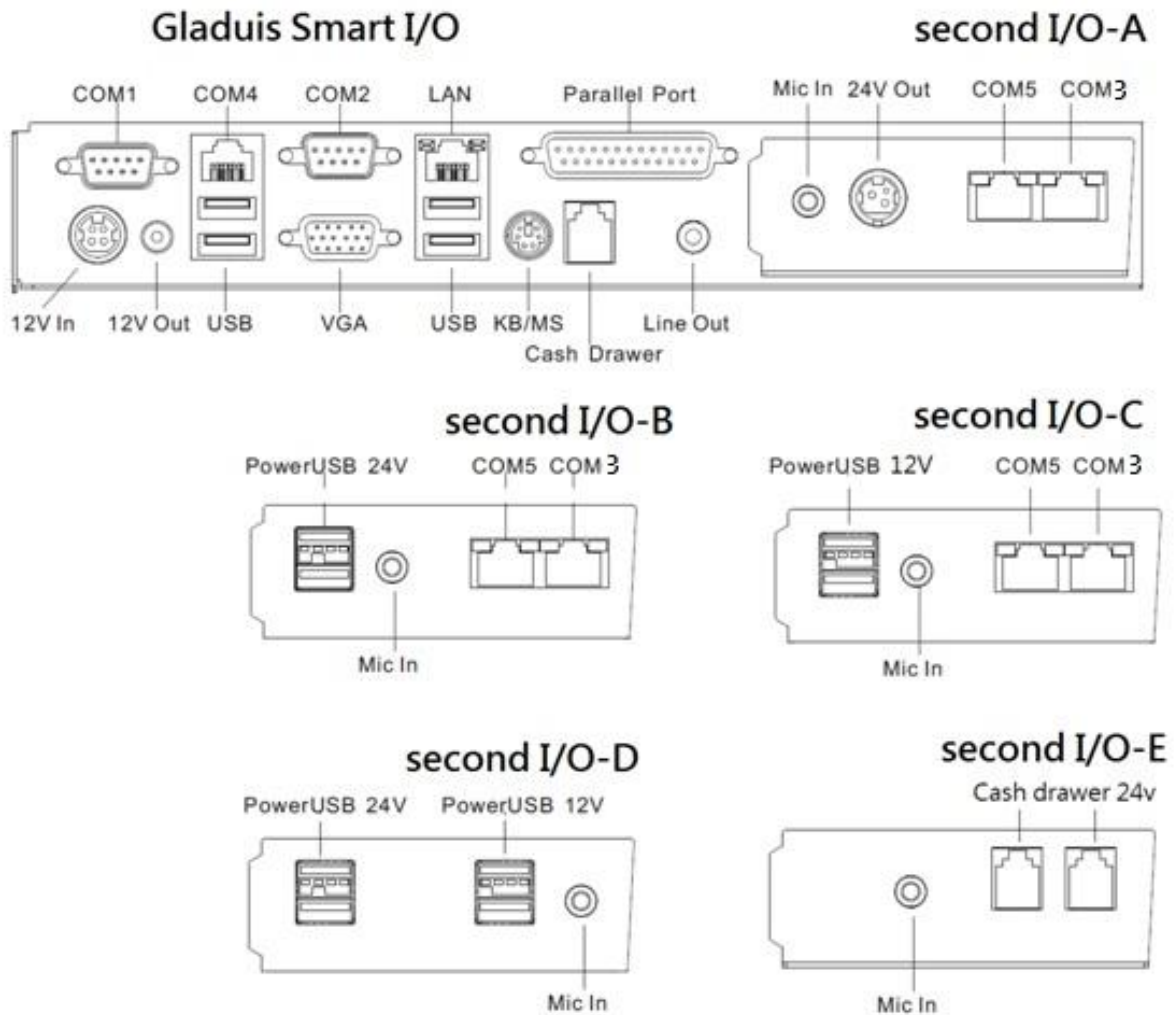


## Type A

| I/O Port | Connector Type | Description |
|---|---|---|
| **COM3** **COM5** | RJ45 Connector | COM3/COM5 are optional to connect to other devices. |
| **DC 24V OUT** | 3 PIN Socket | 24V power out support. |
| **Mic In** | Microphone Connector | This is used for allowing usage of microphone. |

# Type B

| I/O Port | Connector Type | Description |
|---|---|---|
| COM3 COM5 | RJ45 Connector | COM3/COM5 are optional to connect to other devices. |
| Power USB 24V | Power DIN 4P | The power 24V out is for printer. |
| Mic In | Microphone Connector | This is used for allowing usage of microphone. |

# Type C

| I/O Port | Connector Type | Description |
|---|---|---|
| COM3/COM5 | RJ45 Connector | COM3/COM5 are optional to connect to other devices. |
| Power USB 12V | Power DIN 4P | The power 12V out is for printer. |
| Mic In | Microphone Connector | This is used for allowing usage of microphone. |

# Type D

| I/O Port | Connector Type | Description |
|---|---|---|
| Power USB 12V/24V | Power DIN 4P | The power 24V out is for printer. |
| Mic In | Microphone Connector | This is used for allowing usage of microphone. |

# Type E

| I/O Port | Connector Type | Description |
|---|---|---|
| Cash Drawer 24V | RJ11 Connector X 2 | Cash Drawer connector, 24V as default |
| Mic In | Microphone Connector | This is used for allowing usage of microphone. |

# Packaging List

- Gladius Smart Main System and pedestal integrated with 12V-150w adaptor



- AC power cord



- RJ45-DB9

# Chapter 2

# *Hardware Setup*

## Gladius Smart Assembly

Please make sure that the system power is turned off and the power supply is disconnected when making any hardware changes to Gladius Smart.

1. Turn off system power

2. It's not necessary for detach the base and the main system,

   just for your convenience.
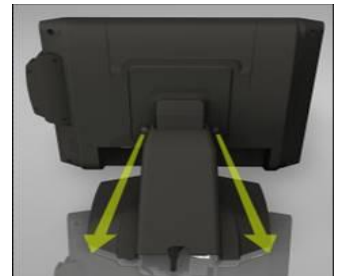


Suggestion ：It's not required to detach the base from the main system. To detach them will be more helpful for your convenience.

Remove the back cover and access to the M/B (Please refer to the Jumper Setting in the 4th chapter.)





RAM

Jumper Setting

12
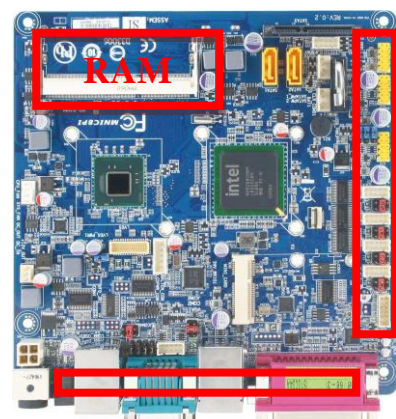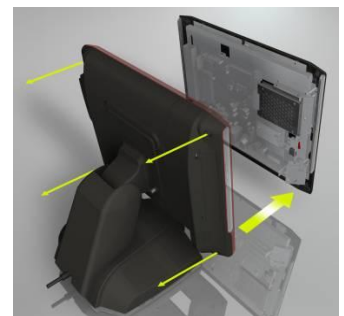
## Adapter Installation

1. Turn off system power and unplug the cable

2. Release the bracket with one screw

3. Beware of the direction when replacing the adapter
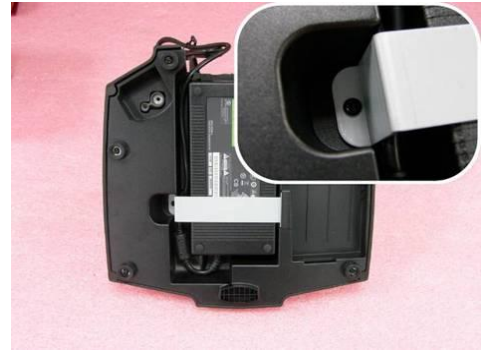


## 2.5" Hard Disk Drive Installation

1. Turn off system power

2. Open the HDD door on the left of terminal



3. Release HDD carrier with one screw

4. Pull out whole HDD carrier with finger

5. Fix HDD with 4 screws

6. Slide in the HDD carrier to the system and lock back the screw



Pull Out
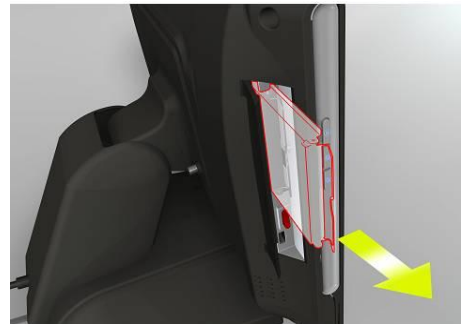
**Note:** If the HDD does not work normally, please refer to **troubleshooting**

# Magnetic Card Reader Installation

1. Turn off system power.

2. The socket to connect Identification Devices can be found on the right side of terminal

3. Attach the MCR module to terminal and connect the MCR cable to the MCR socket.

4. Lock MCR module to terminal with 2 screws.

**Note:** If the MCR does not work normally, please refer to **troubleshooting**.

# VFD Customer Display Installation

1. Turn off system power.

2. Important, make sure that the jumpers on the M/B are set correctly.
   It's important to note that COM4 supplies voltage for the VFD customer display is set to +12V. If a LCM customer display is chosen, please change it to +5V.

3. Please refer to jumper setting in the 4<sup>th</sup> chapter.

4. Attach the VFD Mounting stand to the terminal and lock with one screw.

5. Connect the VFD RJ45 cable to COM4 on the I/O board.

6. Turn on VFD power switch and turn on system power.



# Second Display Installation

1. Turn off system power.

2. Connect the VGA cable to VGA connector and the DC in cable connect to 12V out.

3. Turn on OSD switch power on and turn on system power.

**Note:** If the VFD does not display correctly after an application is loaded, please refer to **troubleshooting**.
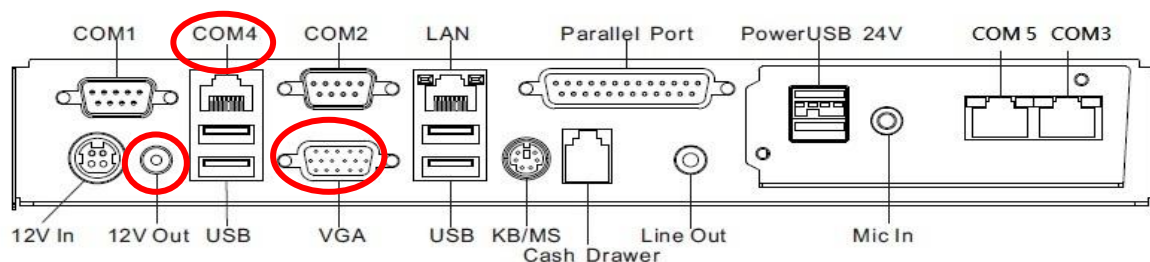
# Cash Drawer Installation

Before connecting the cash drawer to the **Gladius Smart**, please make sure the driving voltage and cable pin assignment of the cash drawer matches the definition of the cash drawer port of **Gladius Smart**.

Plug cash drawer cable into cash drawer port.
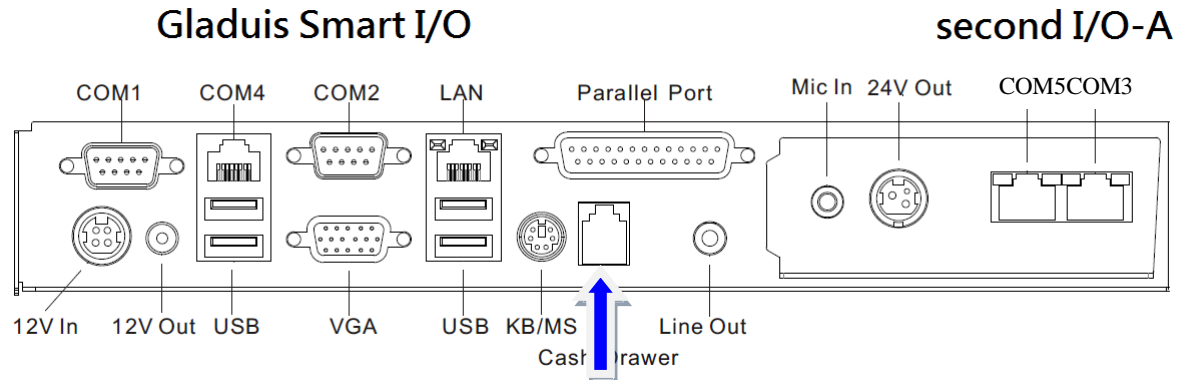


**Note:** If the cash drawer cannot be detected by the system, please refer to **troubleshooting.**

Up to two cash drawers may be driven from this port. Driving voltage of the solenoid is DC+12V. I/O port 284 is used for drawer operation. A test program is supplied, for Linux and Windows, source code of which is available on request by software developers.

| Value | Description |
|---|---|
| 0x284 | Output address. |
| 0x284 read 8bit | Bit 2 => 0: low 1: high |
| 0x200 | Sleep 200ms |
| 0x01 | Open cashdrawer1 value. |
| 0x02 | Open cashdrawer2 value. |
| 0x04 | Close cash-drawer value. |
| 0x04 | Cash-drawer status mask. |

# *Software Installation*

A.  Please go to FEC website and download AL-7435 driver.
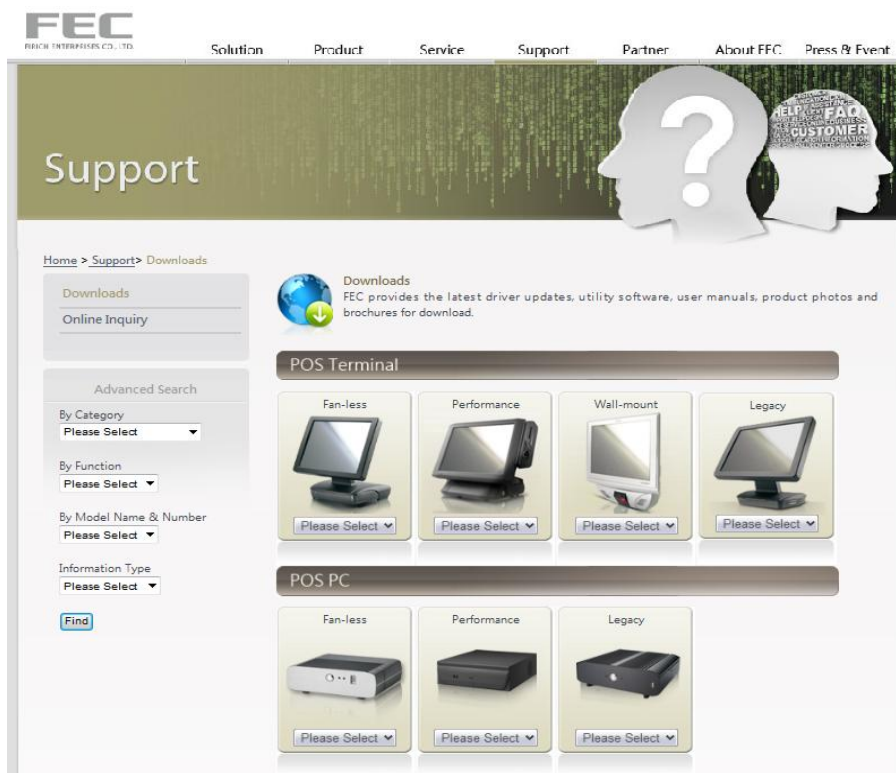


B.  The installation sequence:    Chipset Driver -> VGA Driver -> LAN Driver -> Audio

Driver ->Touch Driver ->Other Driver(optional)

C.  Then, you can start to install.

*Please follow this installation sequence accordingly.*

# Intel Chipset Driver Installation for Windows XP

**Step 1.** Please double confirm the Intel chipset driver from website.

**Step 2.** Click Next



**Step 3.** Read the License Agreement and click "Yes" to continue
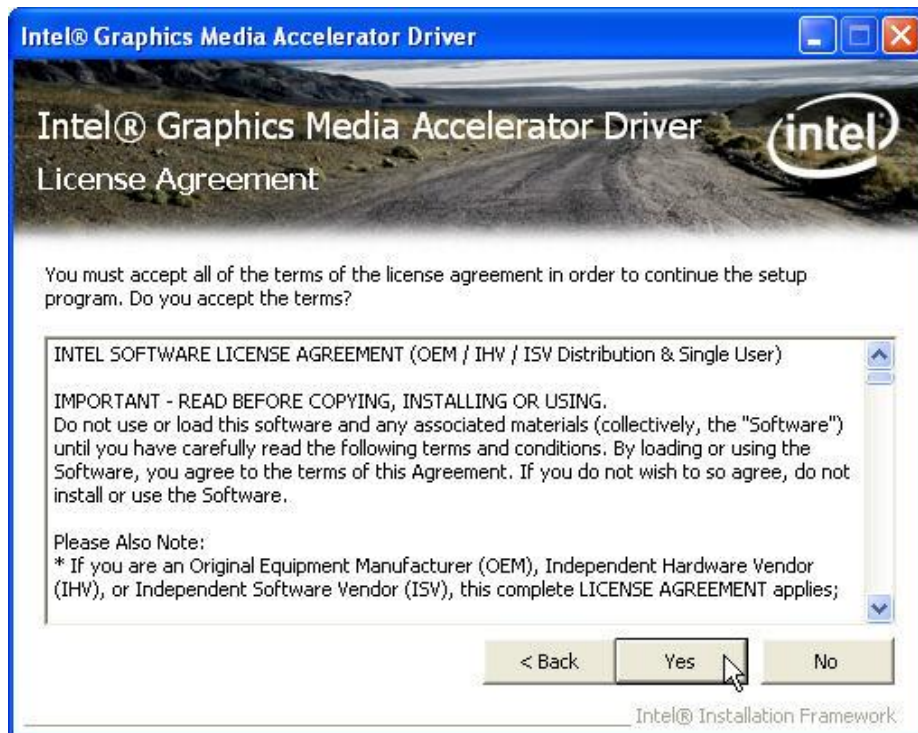
Step 4. Click "Next" to continue
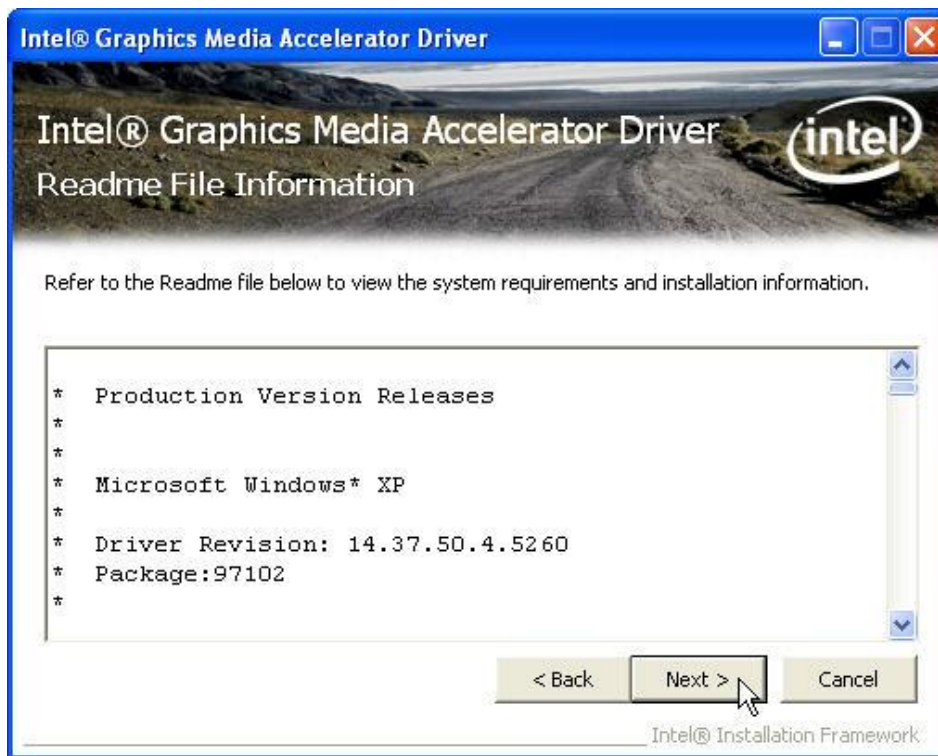


**Step 5.** Click "Next" to continue
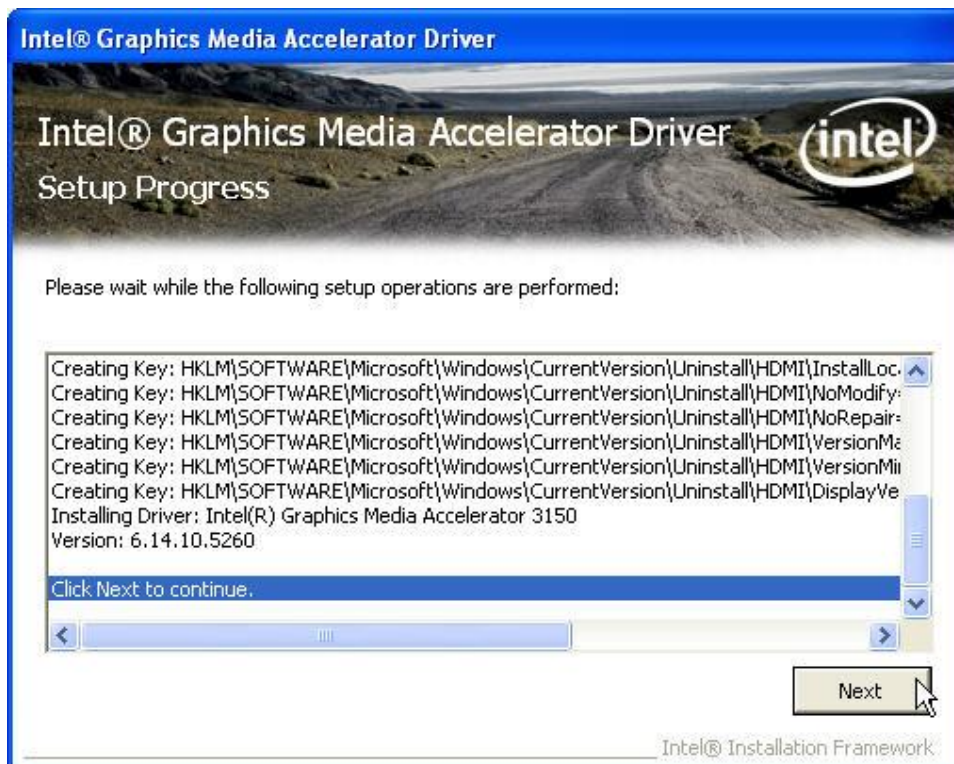
**Step 6.** Click "Finish" to complete setup
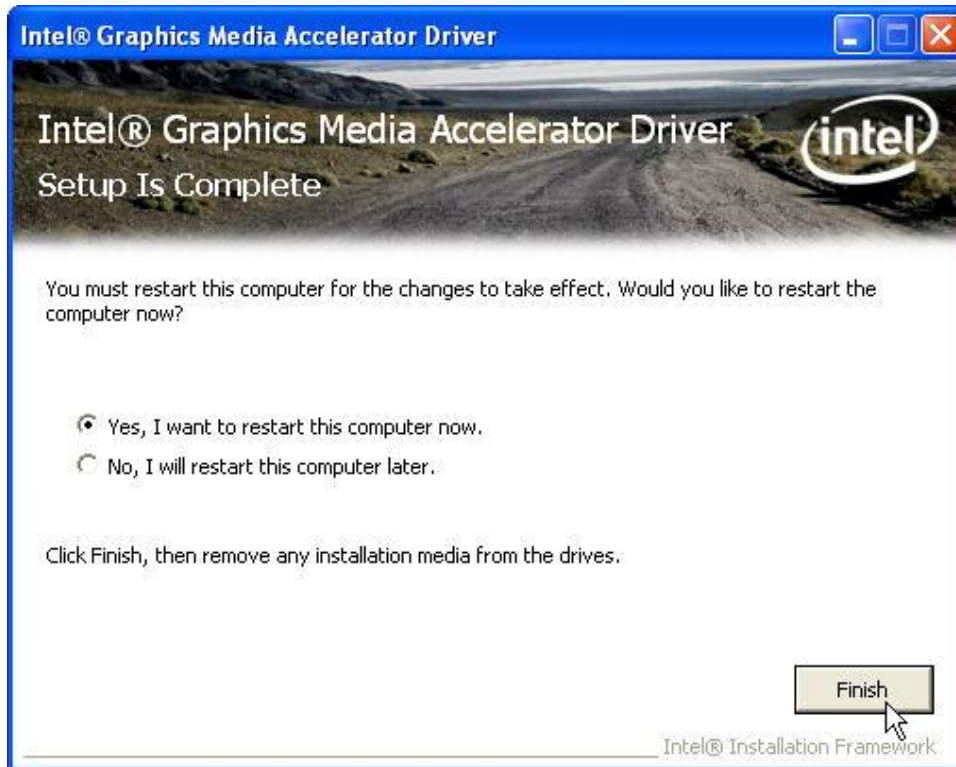


# VGA Driver Installation

**Step 1.** Please double confirm the VGA driver from website

**Step 2.** Click "Next" to continue

**Step 3.** Read the License Agreement and click "Yes" to continue
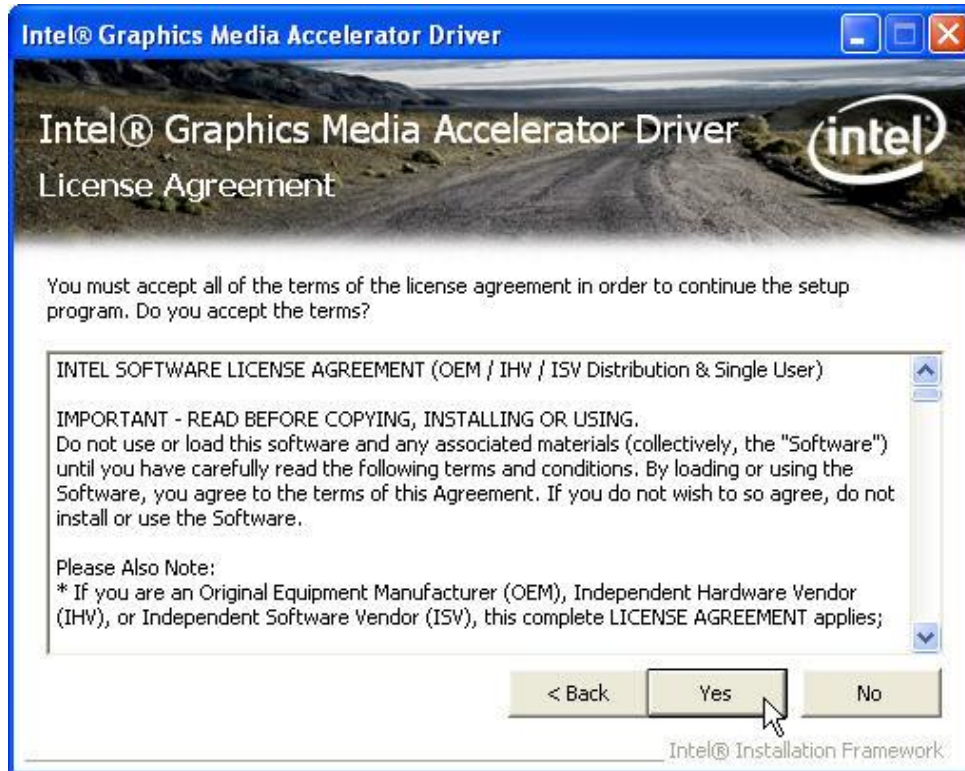


**Step 4.** Click "Next" to continue
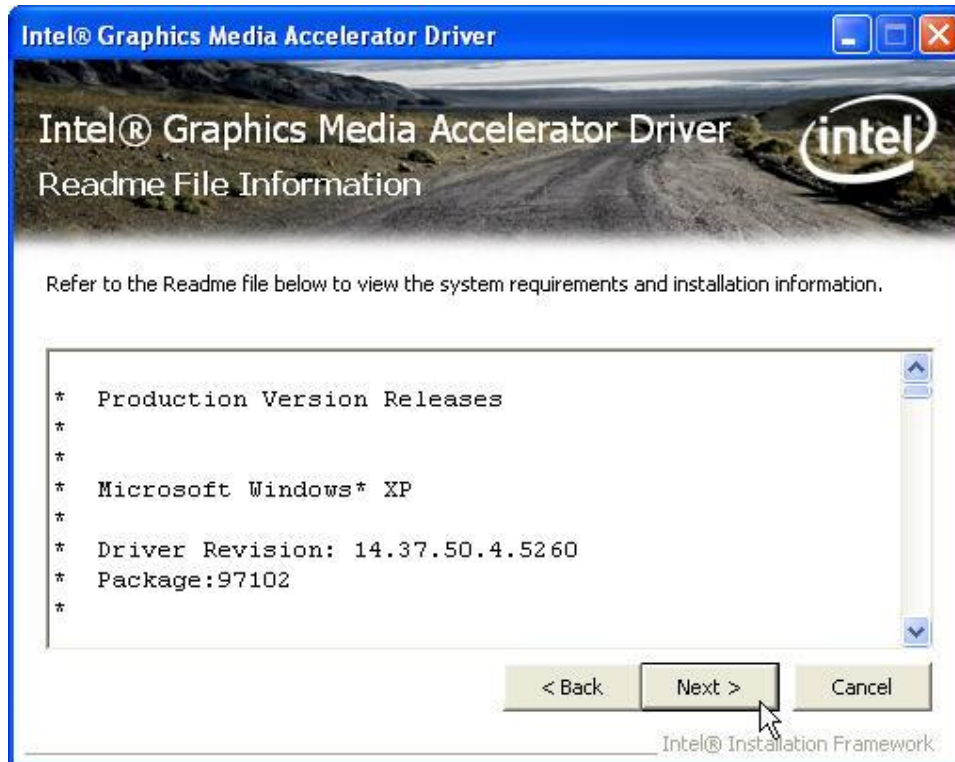
**Step 5.** Click "Next" to continue
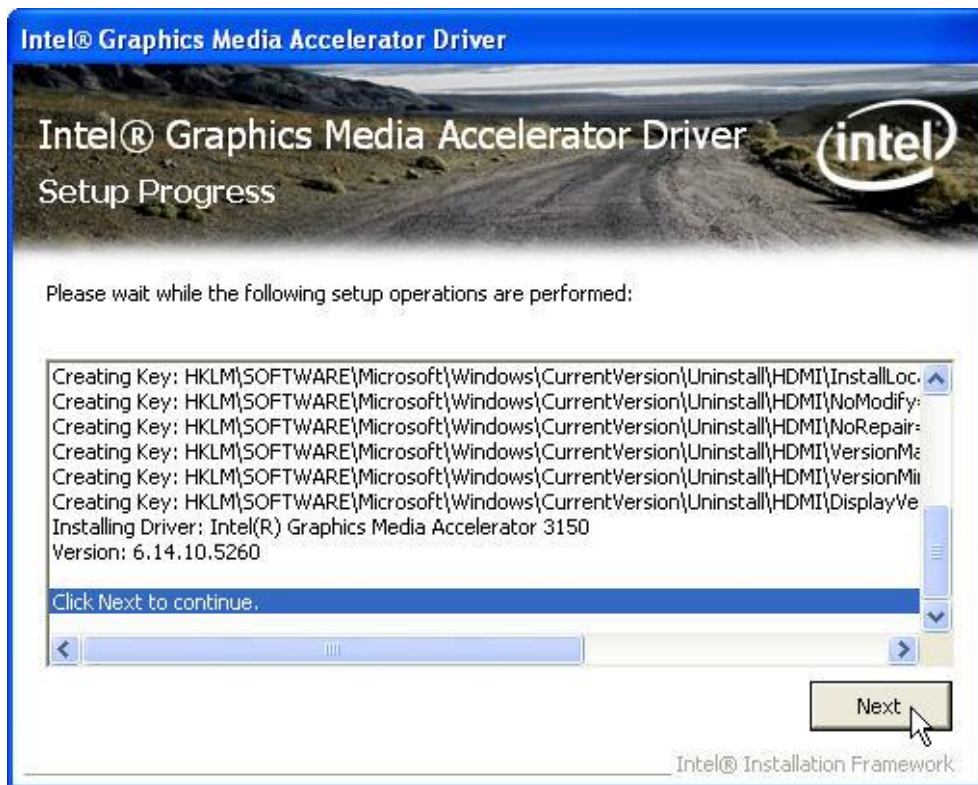


**Step 6.** Click "Finish" to complete setup

# Audio Driver Installation

**Step 1.** Please double confirm the Audio driver from website.

**Step 2.** Click "Next" to continue
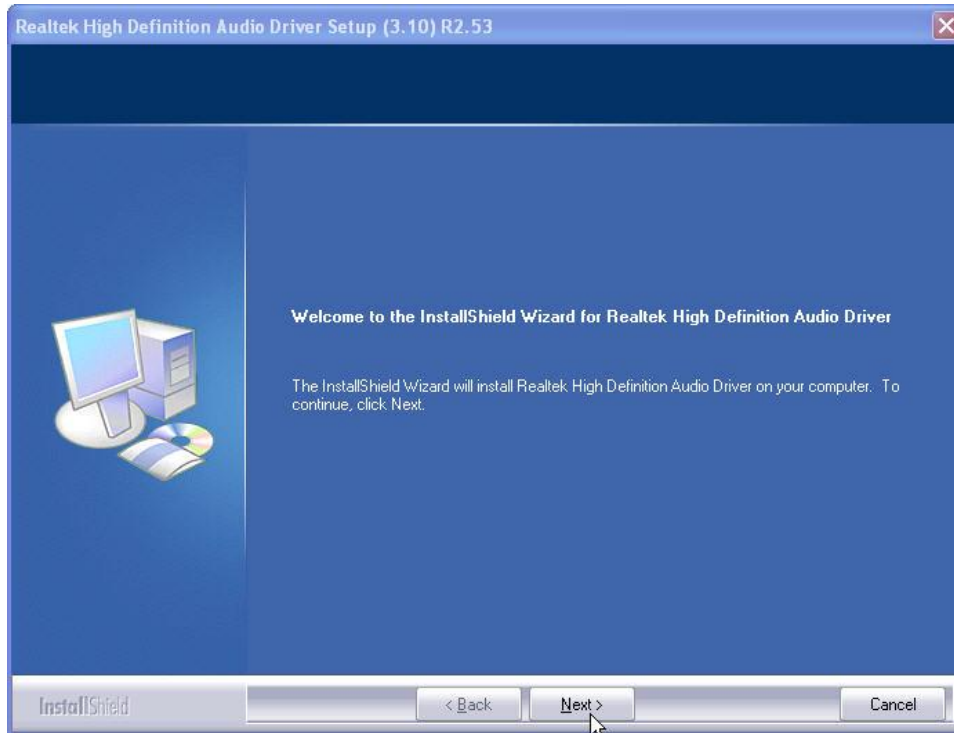


**Step 3.** Click "Finish" to complete setup
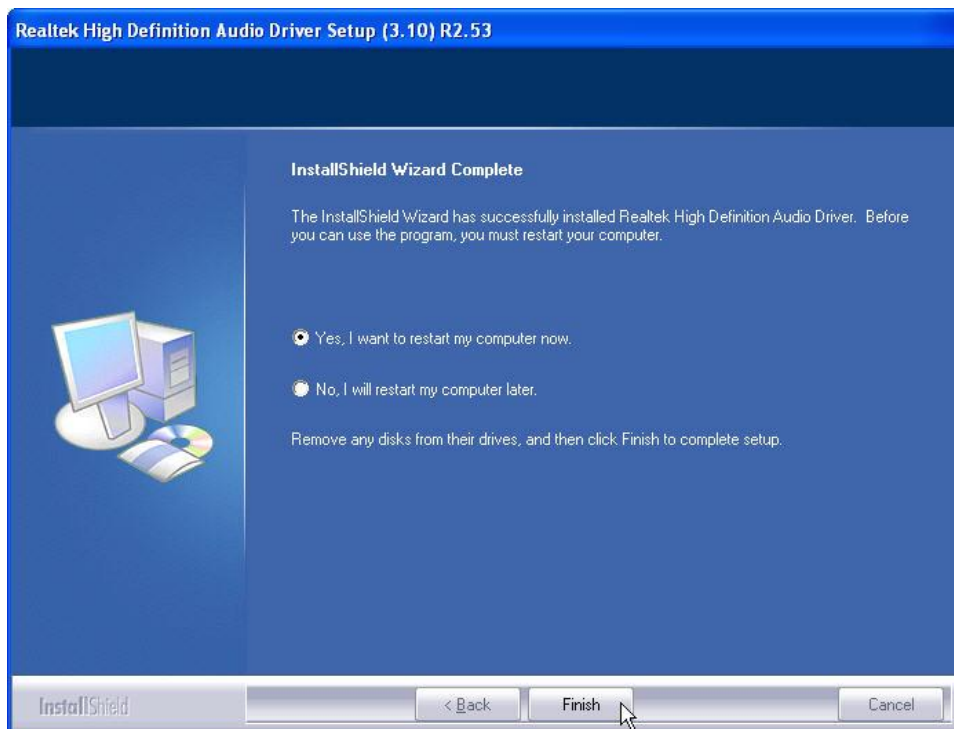
# Lan Driver Installation

**Step 1.** Please double confirm the LAN driver from website.

**Step 2.** Click "Next" to continue
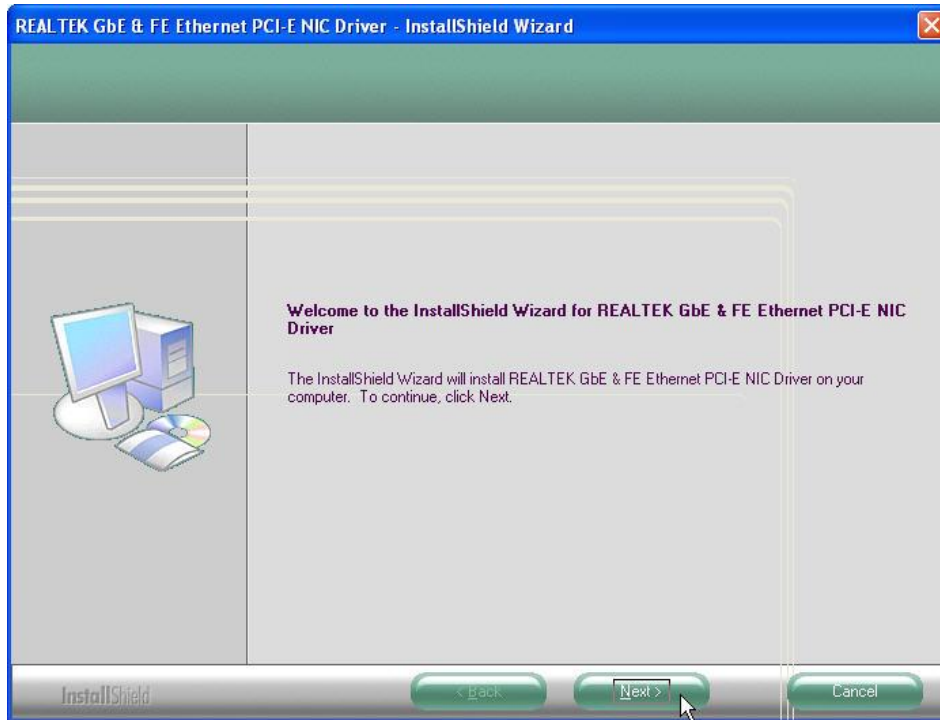


**Step 3.** Click "Next" to continue
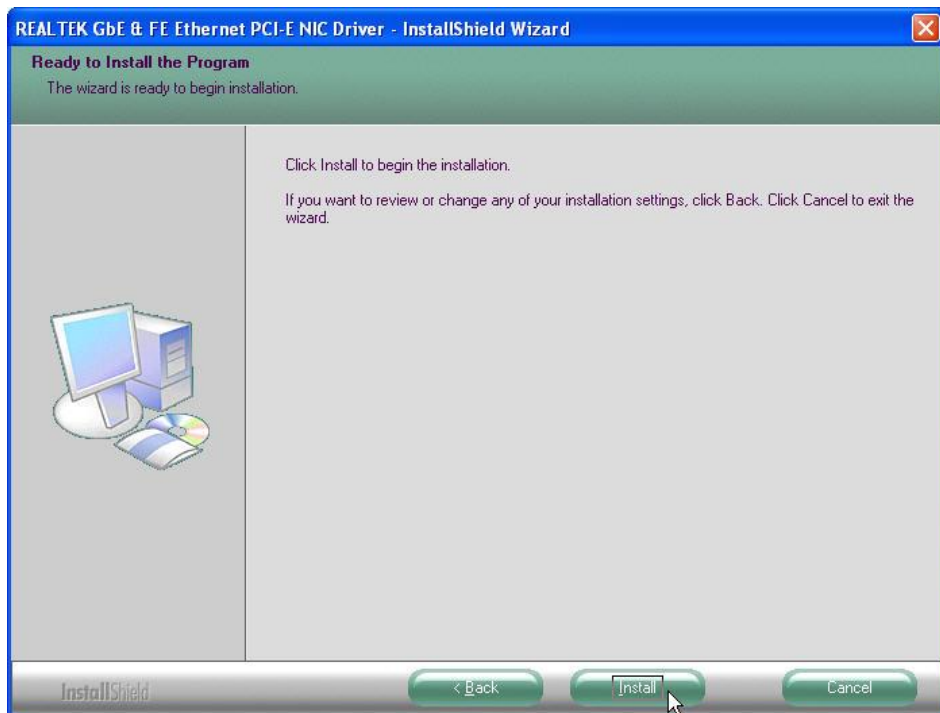
**Step 4.** Click "Finish" to complete setup
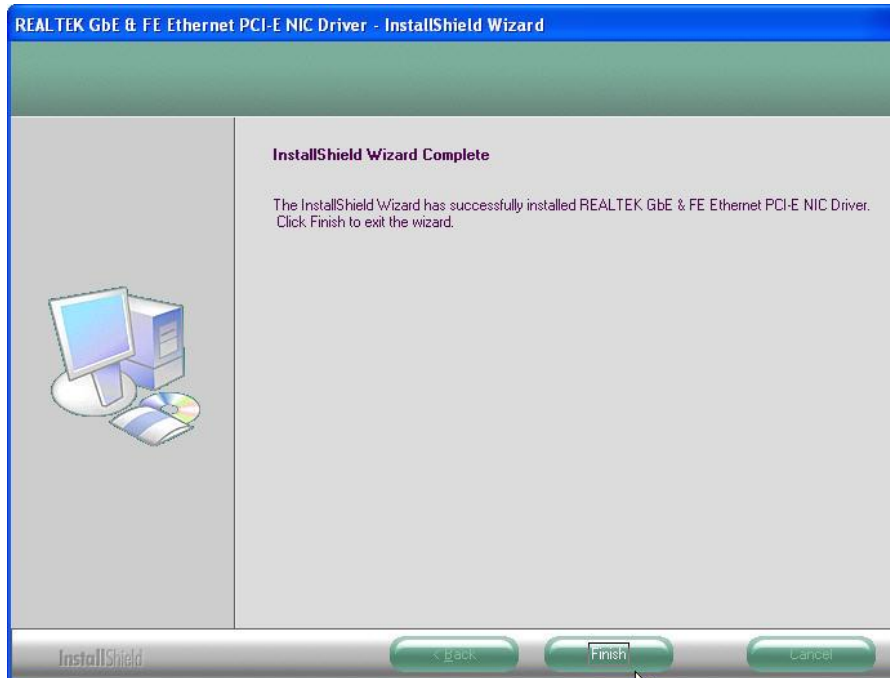


# ELO Touch Tools Installation

## ELO Touch Tools Installation for Windows XP/ Windows Vista/ Windows 7

**Step 1.** Please double confirm the ELO driver from website

**Step 2.** Click "Next" to continue

1.  Install Elo Touch drivers and utilities.
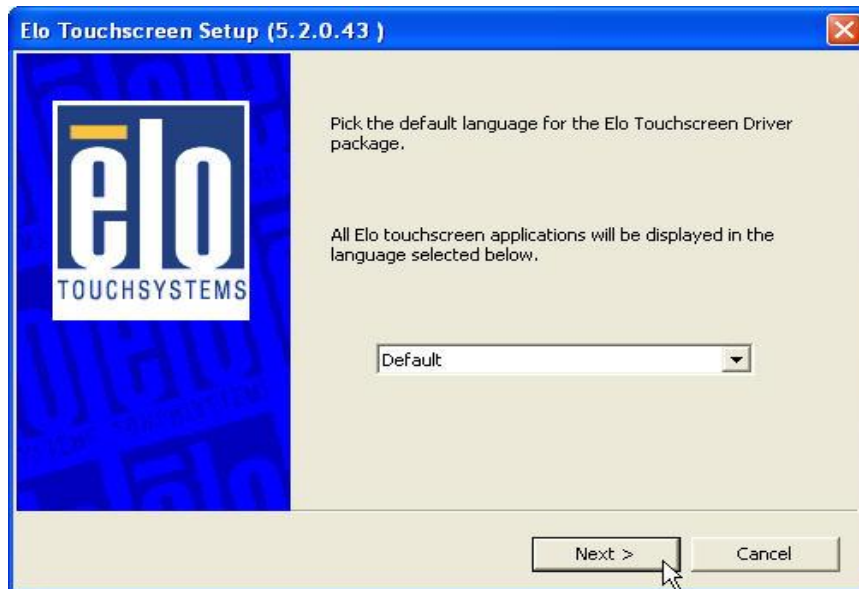


2.  Tick the **Install USB Touchscreen Drivers** and click **Next** to continue

3. Read the **"License Agreement"** and click **Yes** if you accept it.
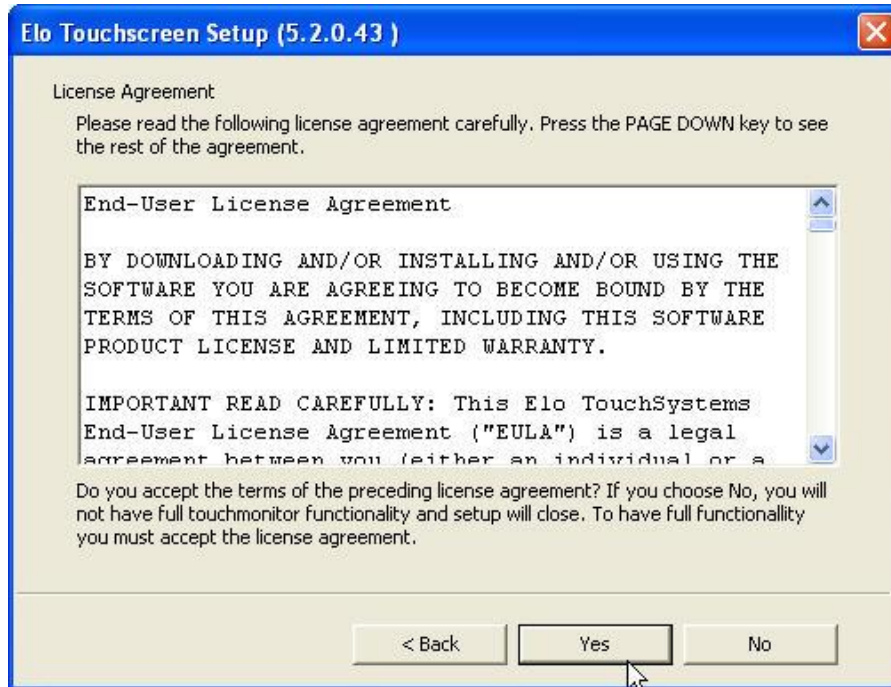


4. Select **"Auto-detect Elo devices."** and click **Next.**
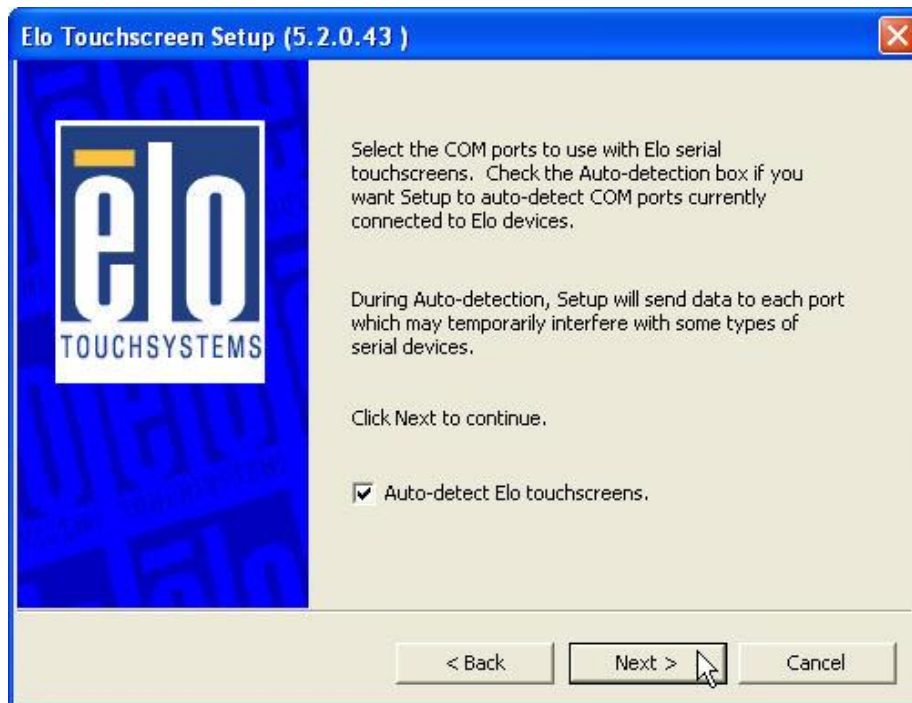
**5.** Click **Calibrate Elo Touchscreen monitors**



6. Using a soft tip object such as finger to calibrate the touch screen (Red bull's eye will pop up three time on different position)
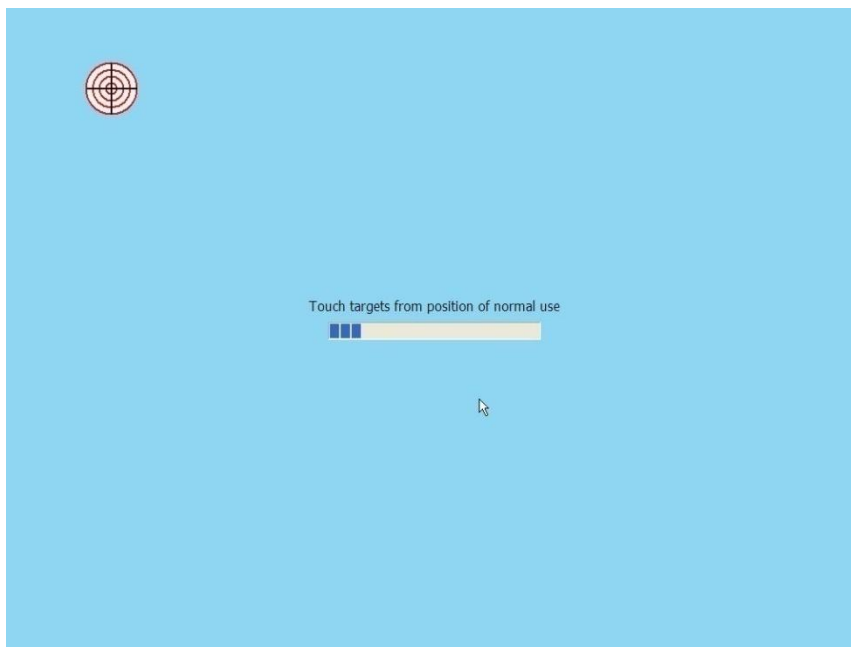


# ELO Control Panel

This section explains the different options in the ELO control Panel.

**General tab**

The General tab allows you to calibrate the touch screen with the **Align** button.

**Mode tab**

The Mode tab allows you to:

- Adjust all mouse emulation controls.

- Change cursor properties

- Enable or disable right mouse button utility.
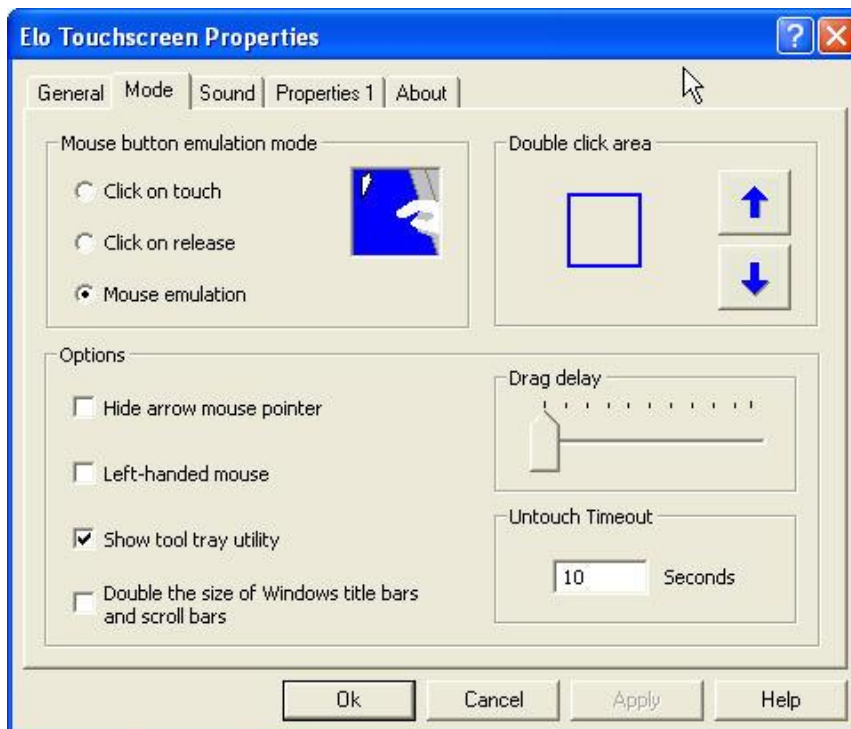
**Sound tab**

The Sound tab allows you to:

- To change sound properties for ELO touch tools.
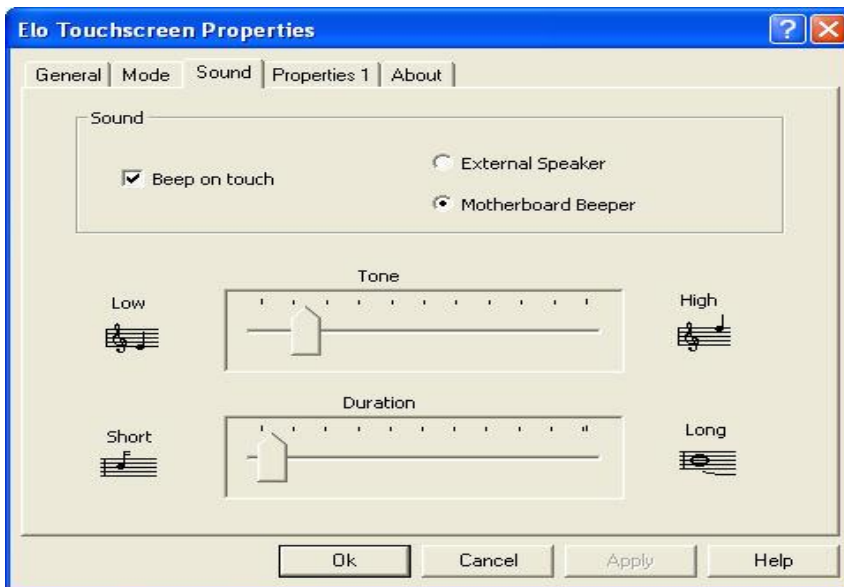


**Properties tab**

The Properties tab allows you to:

- View Controller Information.
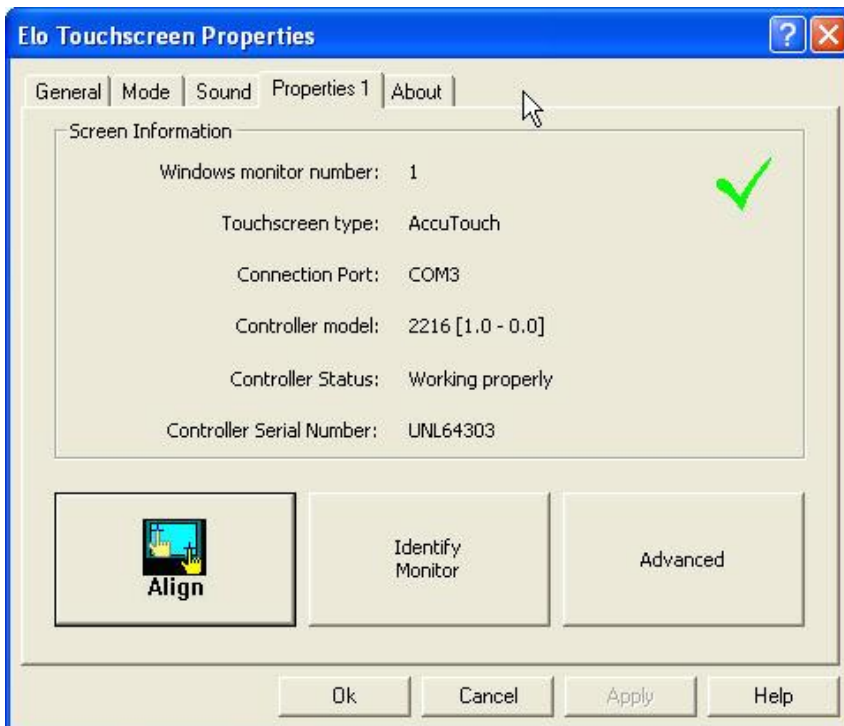


**About tab**

The About tab displays Information about ELO Touch systems
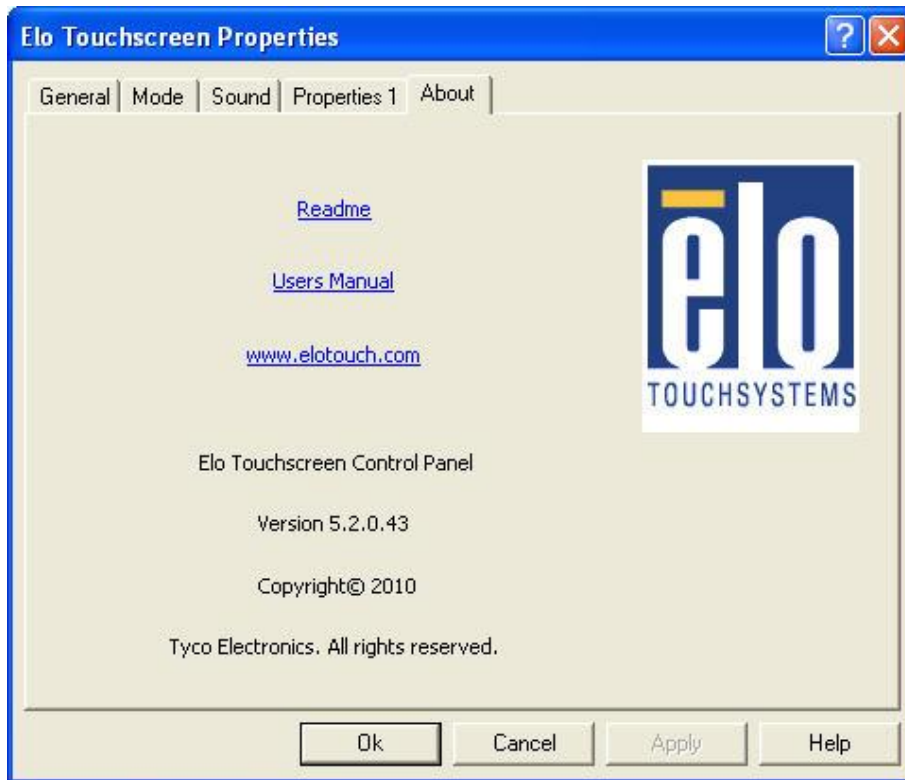
# Wireless LAN Driver Installation

**Step 1.** Please double confirm the Wireless LAN driver from website.

**Step 2.** Click "Next" to continue
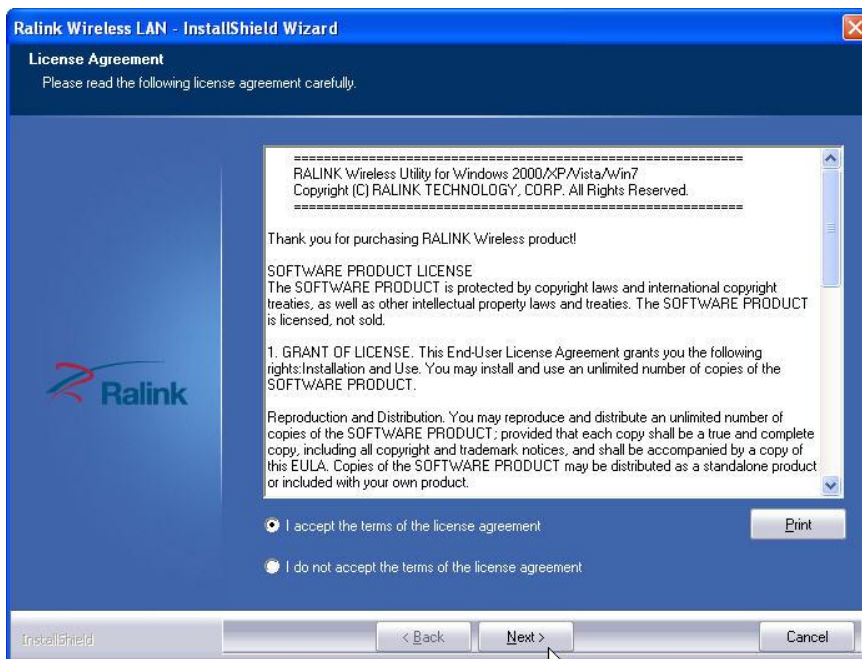
1. Select **"Install driver and Ralink WLAN Utility"**
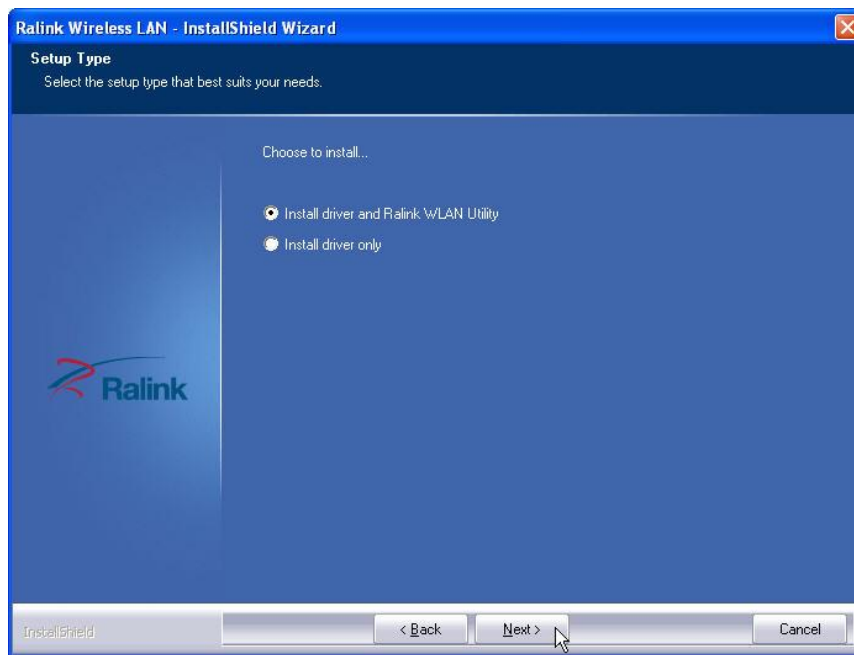


2. Select **"Ralink Configuration Tool"** Select **"Optimize for WiFi mode"**
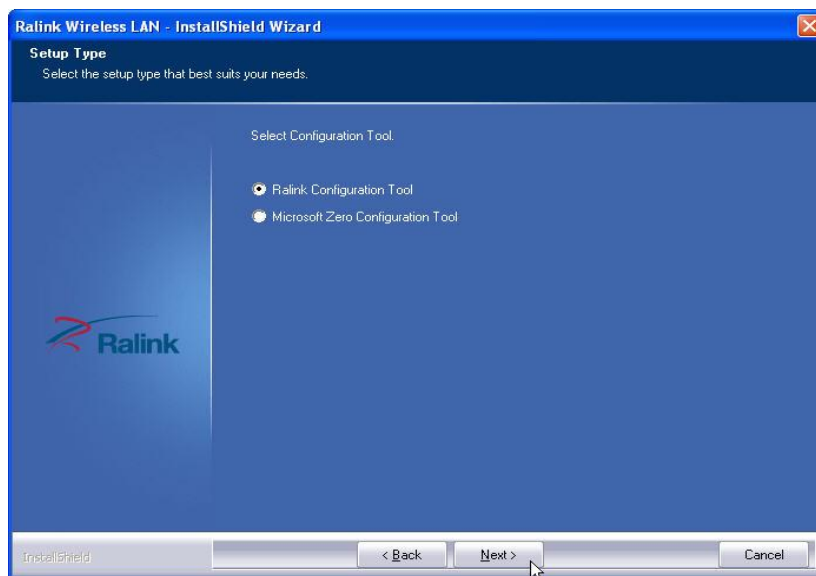
3. Select **"Install"**
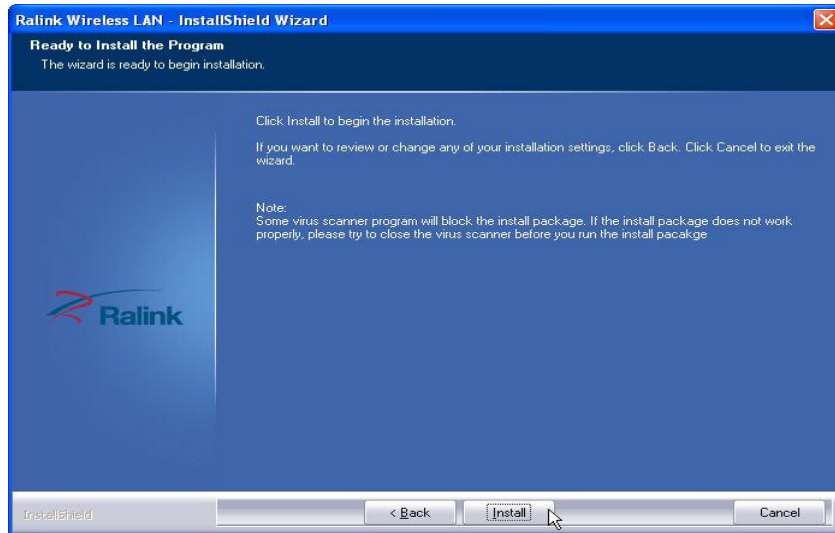


4. Click **"Finish"**
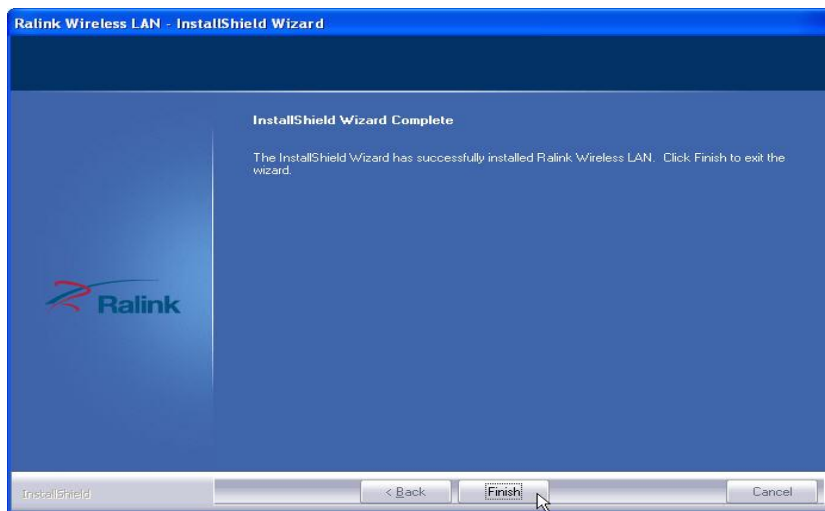
# *Specifications*

## Gladius Smart Specifications

| System Configuration (Default) | |
|---|---|
| **Processor** | Intel D525 1.8GHz (Dual Core, L2 cache 1MB) |
| **Chipset** | D525+ICH8M |
| **Memory** | 1 x DDRIII 800MHz SO-DIMM (Up to 4GB) |
| **Size / Resolution** | 15" / 1024 x 768 |
| **Brightness** | 450 nits (Option:250 nits) |
| **Touch Screen** | 5W Resistive touch |
| **Serial Port** | 2 x COM ports (DB-9 male)<br>1 x COM port (RJ-45) for 12V Customer display |
| **Parallel Port** | 1 x Parallel port |
| **Standard USB Port** | 5 x USB 2.0 |
| **Keyboard / Mouse Port** | 1 x PS/2 port |
| **VGA Port** | 1 x VGA port for 2nd LCD Display |
| **Audio Port** | 1 x Line-out |
| **Hard Disk Drive** | 1 x 2.5" SATA type |
| **Speaker** | Integrated 2W x 2 stereo speakers |
| **Power Supply** | 150W 12V External Power Adaptor |
| **Construction** | Aluminum |
| **Housing Color / ID** | Black |

| Optional LCM | Use COM6 with 5V as default |
|---|---|
| Thermal Conditions | Fanless Thermal Design |
| Operating Temperature | 0℃ ~ 40℃ |
| O/S Supported | Windows XP (Pro, Embedded), WEPOS, POS Ready2009, Windows 7 |
| Dimensions (W x H xD) | 258.61mm x 358.11mm x 269.31mm |
| EMI/Safety | CE, FCC, RoHS |

## Second I/O Optional Specifications

| I/O Optional-Type A | |
|---|---|
| COM3/COM5 | 2XCOM Port (RJ45) |
| Mic In | 1X Line in |
| Power Supply | 150W 12V External Power Adaptor |

| I/O Optional-Type B | |
|---|---|
| COM3/COM5 | 2XCOM Port (RJ45) |
| Powered USB Port | 24V supported |
| Mic In | 1X Line in |

| I/O Optional-Type C | |
|---|---|
| COM3/COM5 | 2XCOM Port (RJ45) |
| Powered USB Port | 12V supported |
| Mic In | 1X Line in |

| I/O Optional-Type D | |
|---|---|
| **Powered USB Port** | 24supported |
| **Powered USB Port** | 12V supported |
| **Mic In** | 1X Line in |

| I/O Optional-Type E | |
|---|---|
| **Cash Drawer Port** | 1 x 12V RJ11 port (Option: 24V x 2) |
| **Mic In** | 1X Line in |

# I/O Pin Definition

A. **DC_IN   (DC Adapter 12V in)**

DC_IN
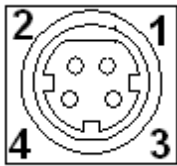
| Pin | Definition |
|---|---|
| 1 | 12V |
| 2 | GND |
| 3 | 12V |
| 4 | GND |

B. **+12V_OUT (12V OUT)**

+12V_OUT
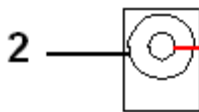
| Pin | Definition |
|---|---|
| 1 | 12V |
| 2 | GND |

C. **COM4_USB1 (VFD & RS-232 port + USB 2.0/1.1 port)**

COM4_USB1
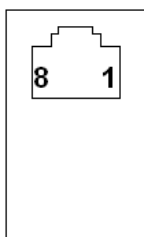
| Pin | Definition |
|---|---|
| 1 | RI/ 5V /12V |
| 2 | CTS & RTS |
| 3 | GND |
| 4 | RTS & GND |
| 5 | DTR |
| 6 | DSR |
| 7 | TXD |
| 8 | RXD |

## D.  USB 2.0/1.1 Port

COM4_USB1     USB_LAN1

| Pin | Definition |
|-----|-----------|
| 1 | USB 5V |
| 2 | D- |
| 3 | D+ |
| 4 | GND |

## E. COM2

COM2

| Pin | Definition |
|-----|-----------|
| 1 | DCD |
| 2 | RXD |
| 3 | TXD |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI/ 5V /12V |

## F. VGA

VGA

| Pin | Definition |
|-----|-----------|
| 1 | RED |
| 2 | GREEN |
| 3 | BLUE |
| 4 | NC |
| 5 | GND |
| 6 | GND |
| 7 | GND |
| 8 | GND |
| 9 | VCC 5V |
| 10 | GND |
| 11 | NC |
| 12 | DDC Data |
| 13 | H-SYNC |
| 14 | V-SYNC |
| 15 | DDC Clock |

37
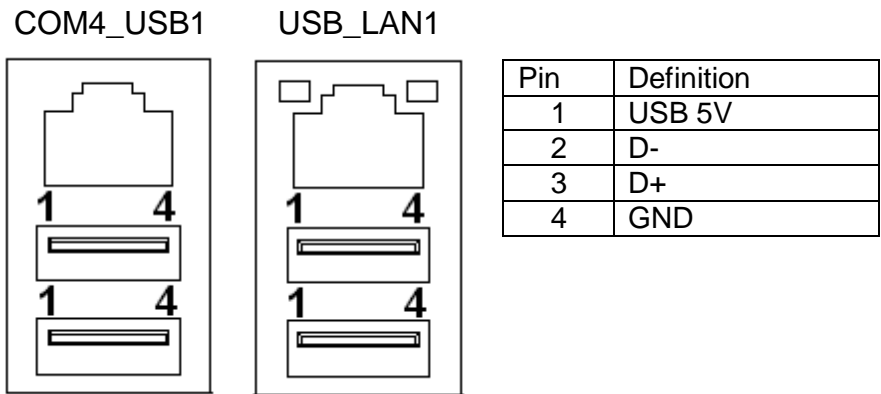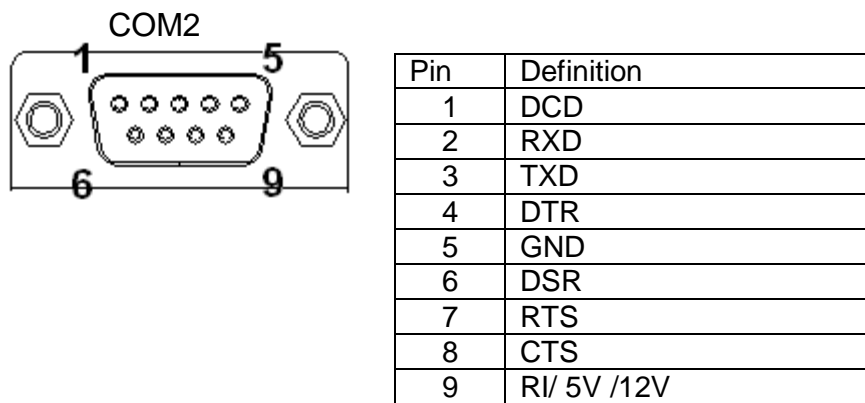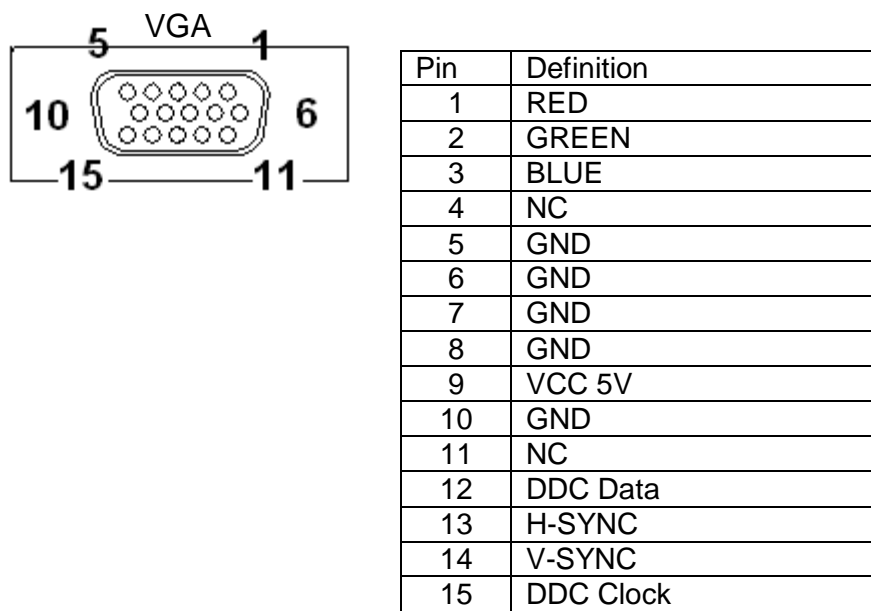
## G. USB_LAN1 (LAN connector RJ45+USB 2.0/1.1 Port)

Connection/Speed LED:

| State | Description |
|-------|-------------|
| Orange | Speed:1 Gbps |
| Green | Speed:1 00 Mbps |

Activity LED:

| State | Description |
|-------|-------------|
| On | Transmitting |
| Off | Not Transmitting |

| Pin | Definition |
|-----|------------|
| 1 | Data 0+ |
| 2 | Data 0- |
| 3 | Data 1+ |
| 4 | Data 1- |
| 5 | Data 2+ |
| 6 | Data 2- |
| 7 | Data 3+ |
| 8 | Data 3- |

USB_LAN1

## H. LPT Port

LPT
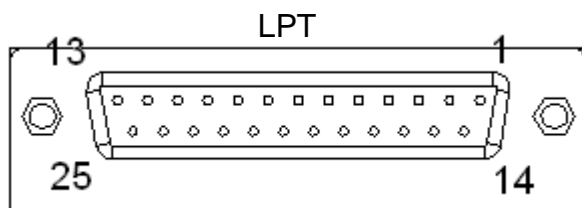
| Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|
| 1 | STB- | 14 | AFD- |
| 2 | PD0 | 15 | ERR- |
| 3 | PD1 | 16 | INIT- |
| 4 | PD2 | 17 | SLIN- |
| 5 | PD3 | 18 | GND |
| 6 | PD4 | 19 | GND |
| 7 | PD5 | 20 | GND |
| 8 | PD6 | 21 | GND |
| 9 | PD7 | 22 | GND |
| 10 | ACK- | 23 | GND |
| 11 | BUSY | 24 | GND |
| 12 | PE | 25 | GND |
| 13 | SLCT | | |

## I. KB_MS1 (PS/2 Connector)
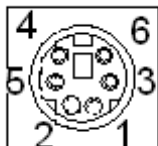
| Pin | Definition |
|-----|------------|
| 1 | Keyboard Data |
| 2 | Mouse Data |
| 3 | GND |
| 4 | Mouse Clock |
| 5 | 5V |
| 6 | Keyboard Clock |

## J. RJ11 Port

RJ11
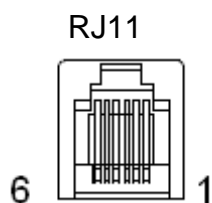
| Pin | Definition |
|-----|------------|
| 1 | GND |
| 2 | GPIO-0 |
| 3 | CASH Drawer Switch |
| 4 | 12V |
| 5 | GPIO-1 |
| 6 | GND |

## K. AUDIO_JACK (Audio Line Out)

Audio Jack
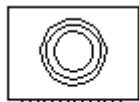


5 4 1 3 2

| Pin | Definition |
|-----|------------|
| 1 | GND |
| 2 | Line Out (L) |
| 3 | AUDIO_JD |
| 4 | -ACZ_DET |
| 5 | Line Out (R) |

# Second I/O Pin Definition

## A. Type A

| Pin | Definition | Pin | Definition | Pin | Definition | Pin | Definition |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|
| A1 | NC | A16 | GND | B1 | NC | B16 | GND |
| A2 | NC | A17 | GND | B2 | NC | B17 | GND |
| A3 | NC | A18 | GND | B3 | NC | B18 | GND |
| A4 | NC | A19 | GND | B4 | NC | B19 | GND |
| A5 | DSR_5 | A20 | GND | B5 | DSR_3 | B20 | GND |
| A6 | DCD_5 | A21 | 12V | B6 | DCD_3 | B21 | 12V |
| A7 | RXD_5 | A22 | 12V | B7 | RXD_3 | B22 | 12V |
| A8 | RI_5 | A23 | 12V | B8 | RI_3 | B23 | 12V |
| A9 | CTS_5 | A24 | 12V | B9 | CTS_3 | B24 | 12V |
| A10 | TXD_5 | A25 | 12V | B10 | TXD_3 | B25 | 12V |
| A11 | RTS_5 | A26 | 12V | B11 | RTS_3 | B26 | 12V |
| A12 | DTR_5 | A27 | 12V | B12 | DTR_3 | B27 | 12V |
| A13 | GND | A28 | 12V | B13 | GND | B28 | 12V |
| A14 | 5V | A29 | GND | B14 | 5V | B29 | GND |
| A15 | GND | A30 | MIC_L | B15 | GND | B30 | MIC_R |

## B. Type B

| Pin | Definition | Pin | Definition | Pin | Definition | Pin | Definition |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|
| A1 | NC | A16 | GND | B1 | USB5V | B16 | GND |
| A2 | NC | A17 | GND | B2 | D- | B17 | GND |
| A3 | NC | A18 | GND | B3 | D+ | B18 | GND |
| A4 | NC | A19 | GND | B4 | USB_GND | B19 | GND |
| A5 | DSR_5 | A20 | GND | B5 | DSR_3 | B20 | GND |
| A6 | DCD_5 | A21 | 12V | B6 | DCD_3 | B21 | 12V |
| A7 | RXD_5 | A22 | 12V | B7 | RXD_3 | B22 | 12V |
| A8 | RI_5 | A23 | 12V | B8 | RI_3 | B23 | 12V |
| A9 | CTS_5 | A24 | 12V | B9 | CTS_3 | B24 | 12V |
| A10 | TXD_5 | A25 | 12V | B10 | TXD_3 | B25 | 12V |
| A11 | RTS_5 | A26 | 12V | B11 | RTS_3 | B26 | 12V |
| A12 | DTR_5 | A27 | 12V | B12 | DTR_3 | B27 | 12V |
| A13 | GND | A28 | 12V | B13 | GND | B28 | 12V |
| A14 | 5V | A29 | GND | B14 | 5V | B29 | GND |
| A15 | GND | A30 | MIC_L | B15 | GND | B30 | MIC_R |

## C. Type C

| Pin | Definition | Pin | Definition | Pin | Definition | Pin | Definition |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|
| A1 | NC | A16 | GND | B1 | USB5V | B16 | GND |
| A2 | NC | A17 | GND | B2 | D- | B17 | GND |
| A3 | NC | A18 | GND | B3 | D+ | B18 | GND |
| A4 | NC | A19 | GND | B4 | USB_GND | B19 | GND |
| A5 | DSR_5 | A20 | GND | B5 | DSR_3 | B20 | GND |
| A6 | DCD_5 | A21 | 12V | B6 | DCD_3 | B21 | 12V |
| A7 | RXD_5 | A22 | 12V | B7 | RXD_3 | B22 | 12V |
| A8 | RI_5 | A23 | 12V | B8 | RI_3 | B23 | 12V |
| A9 | CTS_5 | A24 | 12V | B9 | CTS_3 | B24 | 12V |
| A10 | TXD_5 | A25 | 12V | B10 | TXD_3 | B25 | 12V |
| A11 | RTS_5 | A26 | 12V | B11 | RTS_3 | B26 | 12V |
| A12 | DTR_5 | A27 | 12V | B12 | DTR_3 | B27 | 12V |
| A13 | GND | A28 | 12V | B13 | GND | B28 | 12V |
| A14 | 5V | A29 | GND | B14 | 5V | B29 | GND |
| A15 | GND | A30 | MIC_L | B15 | GND | B30 | MIC_R |

## D. Type D

| Pin | Definition | Pin | Definition | Pin | Definition | Pin | Definition |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|
| A1 | USB5V | A16 | GND | B1 | USB5V | B16 | GND |
| A2 | D- | A17 | GND | B2 | D- | B17 | GND |
| A3 | D+ | A18 | GND | B3 | D+ | B18 | GND |
| A4 | USB_GND | A19 | GND | B4 | USB_GND | B19 | GND |
| A5 | NC | A20 | GND | B5 | NC | B20 | GND |
| A6 | NC | A21 | 12V | B6 | NC | B21 | 12V |
| A7 | NC | A22 | 12V | B7 | NC | B22 | 12V |
| A8 | NC | A23 | 12V | B8 | NC | B23 | 12V |
| A9 | NC | A24 | 12V | B9 | NC | B24 | 12V |
| A10 | NC | A25 | 12V | B10 | NC | B25 | 12V |
| A11 | NC | A26 | 12V | B11 | NC | B26 | 12V |
| A12 | NC | A27 | 12V | B12 | NC | B27 | 12V |
| A13 | GND | A28 | 12V | B13 | GND | B28 | 12V |
| A14 | NC | A29 | GND | B14 | NC | B29 | GND |
| A15 | GND | A30 | MIC_L | B15 | GND | B30 | MIC_R |

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## E. Type E

| Pin | Definition | Pin | Definition | Pin | Definition | Pin | Definition |
|-----|------------|-----|------------|-----|------------|-----|------------|
| **A1** | NC | A16 | GND | B1 | NC | B16 | GND |
| **A2** | NC | A17 | GND | B2 | NC | B17 | GND |
| **A3** | NC | A18 | GND | B3 | NC | B18 | GND |
| **A4** | NC | A19 | GND | B4 | NC | B19 | GND |
| **A5** | NC | A20 | GND | B5 | NC | B20 | GND |
| **A6** | NC | A21 | 12V | B6 | NC | B21 | 12V |
| **A7** | NC | A22 | 12V | B7 | NC | B22 | 12V |
| **A8** | NC | A23 | 12V | B8 | NC | B23 | 12V |
| **A9** | CTS_5 | A24 | 12V | B9 | CTS_3 | B24 | 12V |
| **A10** | TXD_5 | A25 | 12V | B10 | TXD_3 | B25 | 12V |
| **A11** | NC | A26 | 12V | B11 | NC | B26 | 12V |
| **A12** | NC | A27 | 12V | B12 | NC | B27 | 12V |
| **A13** | GND | A28 | 12V | B13 | GND | B28 | 12V |
| **A14** | 5V | A29 | GND | B14 | 5V | B29 | GND |
| **A15** | GND | A30 | MIC_L | B15 | GND | B30 | MIC_R |

# CHAPTER 5

# *Troubleshooting*

**Please note** that the following troubleshooting guide is designed for people with strong computer hardware knowledge such as System Administrators and Engineers.

## Touch Panel does not Work

A)  Check if the touch driver has been properly installed. Or try to reinstall again (Please refer to the touch driver installation).

B)  Move back cover, check all relative cables for touch controller.

C)  If touch controller does not appear green light, it could be defective.

## Touch Panel Cannot Calibrate Correctly

A)  Please try to re-install touch driver and re-calibrate again. If not, the touch controller and touch panel could be defective.

## LCD Panel is Not Functioning Properly

A)  Check that the LCD driver is installed properly (Please refer to the LCD driver installation section).

B)  Connect a LCD or CRT monitor to the VGA connector, if there is a display, then the LCD panel could be defective or is not installed properly.

C)   Move back cover, check all the LCD relative cables. (For example: check LVDS, inverter whether they are properly.)

## MCR is not functioning properly

**A-1)**  Check if the MCR is properly connected to the MCR connector board on main system.

**A-2)**  Make sure the MCR 12PIN cable is properly connected to the right side wafer (which is USB hub board) of LCD.

**A-3)**  The USB hub board could be defective.

**A-4)**  The MCR module could be defective.

# VFD/LCM Pole Display is not functioning properly

**A)** Ensure that COM4 is enabled in the CMOS setup, and data is written to COM4 in the application.

**B)** Ensure the jump setting of COM4 ,please refer the M/B manual.

**C)** Check if there is any display when system power is ON, if the screen is blank, please follow the steps below.

> **B-1)** Make sure the power switch on the VFD display is on before powering the main system.

**D)** Check RJ-45 cable is properly connected to I/O

**E)** Check the cable is properly connected to main board

**F)** The on-board COM4 I/O chips could be defective.

# LAN is not functioning properly

**A)** Check if the LAN driver is installed properly. (Please refer to the LAN driver installation)

**B)** Check if there are any IRQ conflicts.

**C)** Check if the RJ45 cable is properly connected.

**D)** The on board LAN chip could be defective.

# Cash Drawer Port is not functioning properly

**A)** Make sure the pin assignment matches between the cash drawer and the RJ11 cash drawer port

**B)** Verify the digit I/O port address is 284

**C)** The motherboard could be defective

| Value | Description |
|---|---|
| 0x284 | Output address. |
| 0x284 read 8bit | Bit 2 => 0: low 1: high |
| 0x200 | Sleep 200ms |
| 0x01 | Open cashdrawer1 value. |
| 0x02 | Open cashdrawer2 value. |
| 0x04 | Close cash-drawer value. |
| 0x04 | Cash-drawer status mask. |