

# QP-1000

Compact All-in-One Point of Sales System



## User Manual

**Before installing and operating the unit, please read this user manual thoroughly and retain for reference.**

## How to Use This Manual

This manual contains information to set up and use the QP-1000. In addition, instructions are included for added hardware, upgrades, and optional items, as well as for software.

- Chapter 1** An introduction to what you find in the QP-1000 and an overview of product specifications, appearance, and interface.
- Chapter 2** Detailed installation information for the base unit and upgrades, including the HDD, main memory, and Compact Flash.
- Chapter 3** Mounting procedures for optional devices, such as MSR, WiFi, rear mount VFD and cash drawer.
- Chapter 4** AMB-6410 main board diagrams, locations of jumpers, and connectors.
- Chapter 5** Installation instructions for the Intel chip set driver, video driver, touch screen tools, audio, LAN, AdvanPOS system and OPOS drivers.



**WARNING!**

Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.



**CAUTION:**

Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.



**NOTE:**

Text set off in this manner provides important supplemental information.

---

## Federal Communications Commission (FCC) Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



**NOTE:**

Shielded interconnect cables and shielded AC power cables must be employed with this equipment to insure compliance with pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

---

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

## Copyright

The information in this guide is subject to change without prior notice.

The manufacturer shall not be liable for technical or editorial errors or omissions contained herein, nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

This manual contains information protected by copyright. No part of this manual may be photocopied or reproduced in any form without prior written consent from the manufacturer.

The software described in this guide is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of the agreement.

Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

© 2010 All rights reserved.  
First Edition January 2010

## Patents and Trademarks

### **AdvanPOS trademark**

Certificate No.: 01328466 (ROC patent)

Patent pending (European Union, Mainland China and USA)

## Precautions

1. Please read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from the AC outlet before cleaning. Do not use liquid or spray detergent for cleaning. Use only a moistened sheet or cloth.
4. For pluggable equipment, the socket outlet should be installed near the equipment and should be easily accessible.
5. Avoid humidity and moisture.
6. Install equipment on a stable surface.
7. Do not leave this equipment running in an enclosed or non-air-circulated environment, nor store in temperatures above 60°C. Such conditions may damage the equipment.
8. Ventilation openings on the unit are for air circulation and protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
9. Check the voltage of the power source before connecting the equipment to the power outlet.
10. Place the power cord so that it will not be stepped on. Do not place anything over the power cord. The power cord must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for a long time, disconnect the equipment from the power outlet to avoid damage.
13. Never allow any liquid into ventilation openings. This could cause fire or electrical shock.
14. Never open the equipment. For safety reasons, qualified service personnel should only open the equipment.
15. If one of the following situations may arise, get the equipment checked by qualified service personnel:
  - a. The power cord or plug is damaged.
  - b. Liquid has penetrated the equipment.
  - c. The equipment has been exposed to moisture.
  - d. The equipment does not work well or you cannot get it work according to the user manual.
  - e. The equipment has been dropped and damaged.
  - f. The equipment has obvious signs of damage.



**WARNING!** Not intended for outdoor use.



**CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace only with same type, and discard used batteries according to manufacturer's instructions.

---

# Contents

<b>Chapter 1 Introduction</b> .....	<b>1</b>
Features .....	1
Specifications .....	1
Package Contents .....	2
Base System .....	3
Flexible Options .....	4
Dimensions .....	5
Connector Panel .....	6
<b>Chapter 2 Standard Hardware and Upgrades</b> .....	<b>7</b>
Precautions .....	7
Opening Bottom Base Cover .....	8
Clearing CMOS .....	10
Compact Flash Card Installation .....	11
Memory Installation .....	13
Removing and Replacing the SATA Hard Disk .....	16
<b>Chapter 3 Optional Components and Peripherals</b> .....	<b>18</b>
WiFi Module Installation .....	18
Rear Mount VFD Installation .....	20
Cash Drawer Installation .....	22
<b>Chapter 4 AMB-6410 Main Board Configuration</b> .....	<b>23</b>
Jumper and Connector Locations .....	23
Connector Pin Assignments .....	24
External VFD Port: Connector Pin Definitions .....	26
Jumper Settings .....	27
<b>Chapter 5 Software Setup</b> .....	<b>29</b>
Driver Software List .....	29
Intel Chipset Driver Installation .....	30
Intel Graphics Driver Installation .....	31
Abon Touch Screen Driver Installation .....	32
Audio Driver Installation .....	34
Ethernet Driver Installation .....	35
Wireless LAN Driver Installation (optional) .....	36
Rear Mount VFD Driver Installation (optional) .....	37
MSR Driver Installation (optional) .....	37
AdvanPOS System Driver Installation (required for Cash Drawer) .....	38

OPOS CCO Driver Installation ..... 39

AdvanPOS OPOS Driver Installation ..... 41

Appendix A. Sample C++ Cash Drawer Code for Windows ..... 42

Appendix B. Sample Visual Basic Cash Drawer Code for Windows..... 44

# Chapter 1 Introduction

## Features

- 8.9 inch TFT touch screen
- Fanless operation
- Total power consumption of 17W
- IP65 sealed front touch panel
- Robust plastic housing
- Multiple color options
- Folded size of only 232 x 239 x 102 mm
- 6 x COM, 6 x USB, 1 x CF II
- Flexible options: MSR, WiFi, and VFD
- RoHS compliant

## Specifications

### QP-1000 System Configuration

CPU	Intel® Atom™ Z510 1.1GHz /Z530 1.6GHz
System Chipset	Intel System Control Hub US15W
System Memory	Maximum supports 1 x 2GB SO-DIMM DDR2 SDRAM (up to 2GB)
Video Memory	Supports Intel DVMT, shared system memory up to 254MB
Compact Flash	Supports 1 x Compact Flash Card Type II
HDD	1 x internal 2.5 inch 80GB SATA hard disk drive (up to 160GB)
Power	1 x external 40W 12VDC power adapter (100~240VAC, 50~60Hz, 3.3A)
OS Support	Windows® XP Pro Embedded / WEPOS® / Windows® POS Ready 2009 / Linux®

### LCD Touch Panel

Resolution Size	8.9 inch TFT LCD / 1024 x 600
Brightness	200cd/m <sup>2</sup>
Touch Screen Type	Abon 5-wire resistive

### I/O Ports

USB Ports	Supports 6 USB 2.0 ports for future expansion (3 x internal, 3 x external) Right x 1, rear x 2
Serial Ports	4 x external: COM1, COM2, COM5 (D-SUB9), COM6 for VFD 2 x internal: COM3 for touch screen, COM4 reserved
Parallel Port	1 x bi-directional parallel port (D-SUB25)
VGA Port	1 x external VGA port (D-SUB15)

Cash Drawer Port	1 x 12V RJ11 connector (maximum 2 drawers)
LAN Port	1 x Giga LAN (10/100/1000Mbps Base-T), RJ45 connector
Audio Port	1 x Line-out, 1 x Mic-in
Speaker	2 x internal stereo 2W speakers

### Mechanics and Environment

Construction	Plastic housing and metal
Dimensions	232 x 243 x 103 mm with LCD down 232 x 243 x 238 mm with LCD up
Housing Color	Red/Black, Yellow/Black, Blue/Black, Pink/Gray, Green/Gray, White/Gray, Black
Net Gross Weight	3.4 Kg (with MSR)
Operating Temperature	0 °C ~ 40 °C
IP65	IP65 sealed front touch panel
EMI/Safety	CE, FCC, RoHS

### Package Contents

The following items come standard with the QP-1000:

<b>POS System</b>		<b>Power Adaptor</b>	
<b>Utility and Main Board Chipset Driver CD</b>		<b>AC Power Cord</b>	

### Options

- Integrated Magnetic Stripe Reader (MSR) Module: triple track
- Wireless Module: WiFi 802.11b/g or Bluetooth 2.0
- VFD Customer Display: 5 cm height, 2 lines 20 characters each
- 8.9 inch TFT LCD (touch /non-touch) standalone

## Base System

Before you begin, take a few moments to become familiar with the QP-1000.



## Flexible Options

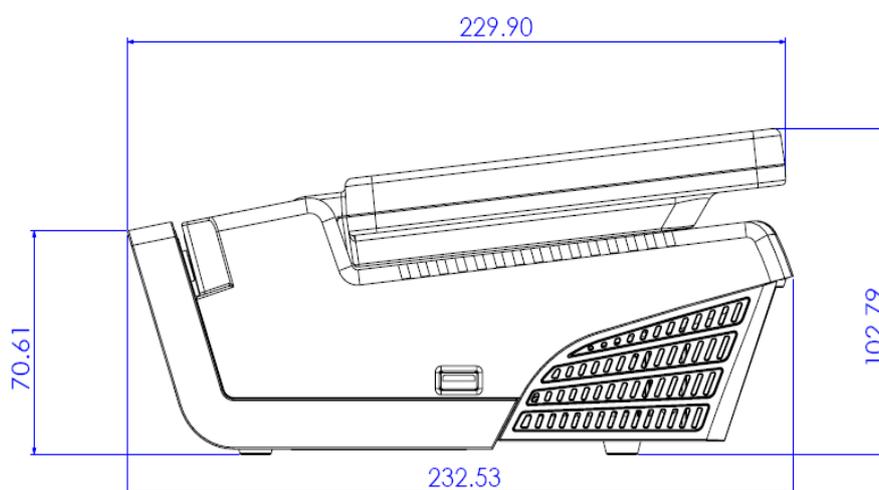
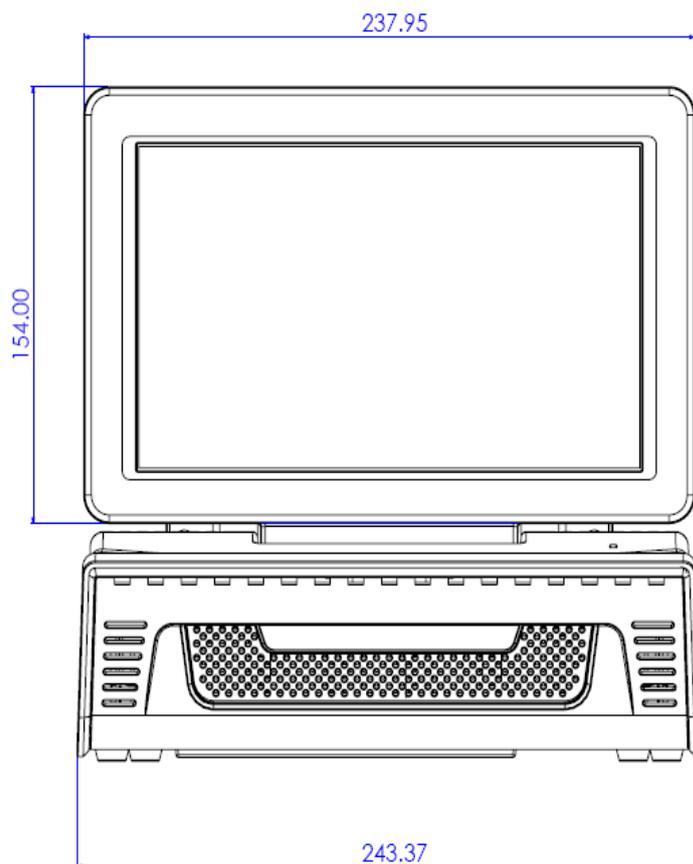
The QP-1000 has three optional components that connect to one of the available internal USB ports, PS/2, or RS-232 for operation. Optimized for simple installation, these interfaces do not require any voltage setting adjustments.

- Rear Mount VFD (RS-232 interface)
- WiFi (USB interface)
- MSR (PS/2 interface)



# Dimensions

(Unit: mm)



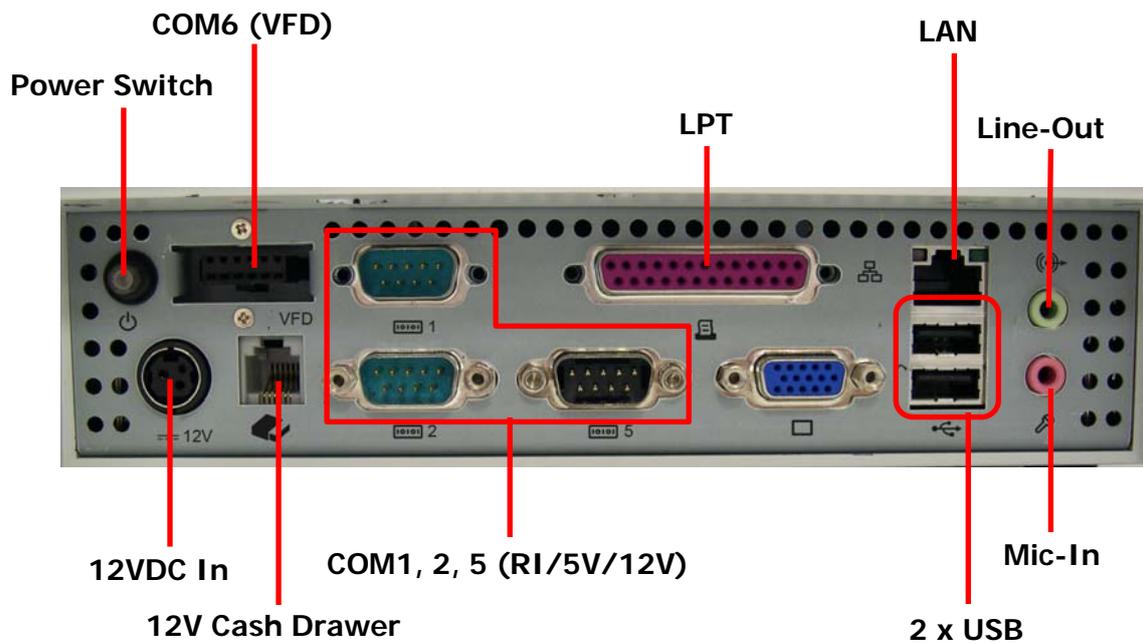
# Connector Panel

The QP-1000's primary connector panel is located at the rear.



**NOTE:**

QP-1000's COM6 (VFD) port is not a complete RS-232C signals, can not be used as a general use COM port, please refer to Chapter 4 for the VFD port pin assignment.



## Chapter 2 Standard Hardware and Upgrades

### Precautions

Before performing hardware changes, be sure to carefully read all of the applicable instructions, cautions, and warnings in this guide.

---



**WARNING!**

To reduce the risk of personal injury from electrical shock, hot surfaces, or fire:

Disconnect the power cord from the wall outlet and allow the internal system components to cool before touching.

Do not plug telecommunications or telephone connectors into the network interface controller receptacles.

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

Plug the power cord in a grounded (earthed) outlet that is easily accessible at all times.



**CAUTION:**

Static electricity can damage the electrical components of the computer and/or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object.

When the computer is plugged into an AC power source, voltage is always applied to the main board. You must disconnect the power cord from the power source before opening the unit to prevent damage to internal components.

---

## Opening Bottom Base Cover

---



**CAUTION:** To prevent loss of work and damage to the system or drive:

If you are inserting or removing a drive, shut down the operating system properly, turn off the system, and unplug the power cord. Do not remove a drive while the system is on or in standby mode.

Before handling a drive, ensure that you are discharged of static electricity. While handling a drive, avoid touching the connector.

---

1. Turn off the system power properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet and disconnect any external devices.
3. For easier access and to protect the LCD, tilt the panel down into its storage position in the base, then gently place the main unit upside down.



**CAUTION:** To avoid scratching the panel while dismantling the system, first place a piece of cloth or cushion on your work surface.

---

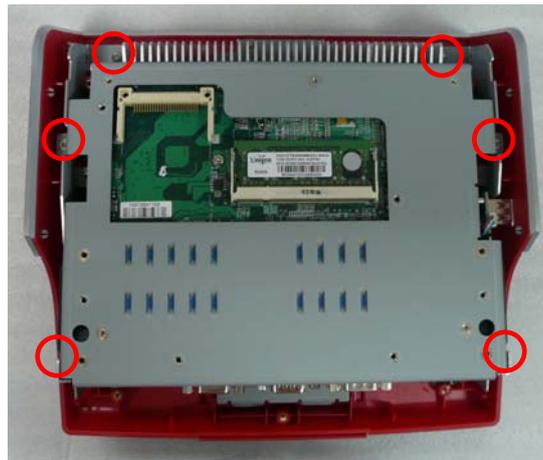
4. Remove the nine screws indicated at the bottom base cover and CF cover.



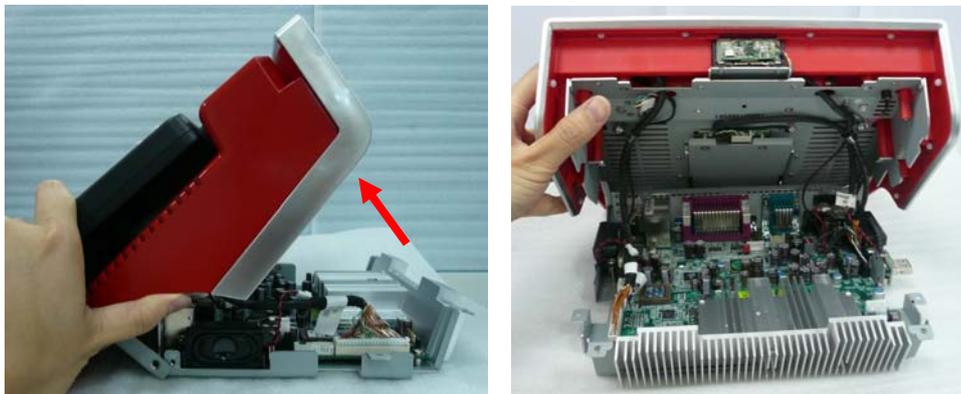
5. Remove the Compact Flash (CF) cover and carefully lift up the system's bottom base cover.



6. Remove the six screws indicated from both sides of the metal base.



7. Grip both sides of the base, making sure to hold the metal base in place and flip the main unit back to an upright position. Open the bottom base cover in the direction of the arrow.



## Clearing CMOS

The QP-1000's configuration (CMOS) may occasionally be corrupted. If it is, it will be necessary to clear the CMOS memory using jumper J21. Please refer to Chapter 4 for the exact J21 pin positions.

1. Turn off the system power properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet and disconnect any external devices.



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. The power cord must be disconnected from the power source before clearing the CMOS.



**NOTE:**

All LEDs on the board should be OFF. Failure to ensure there is no power in the system may damage the main board. You must disconnect the power cord to avoid damage to the internal components of the system.

---

3. Open the CF cover and bottom base cover.
4. Locate the J21 jumper box on the main board.
5. Remove the jumper shunt from pins 1-2.
6. Wait 60 seconds to allow the CMOS to clear, then remove the jumper shunt and place it back in its original position over pins 1-2.
7. Reattach both the CF and base cover, then move the main unit back to an upright position.

## Compact Flash Card Installation

1. Turn off the system power properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet and disconnect any external devices.



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.

---

3. For easier access and to protect the LCD, tilt the panel down into its storage position in the base, then gently place the main unit upside down.



**CAUTION:**

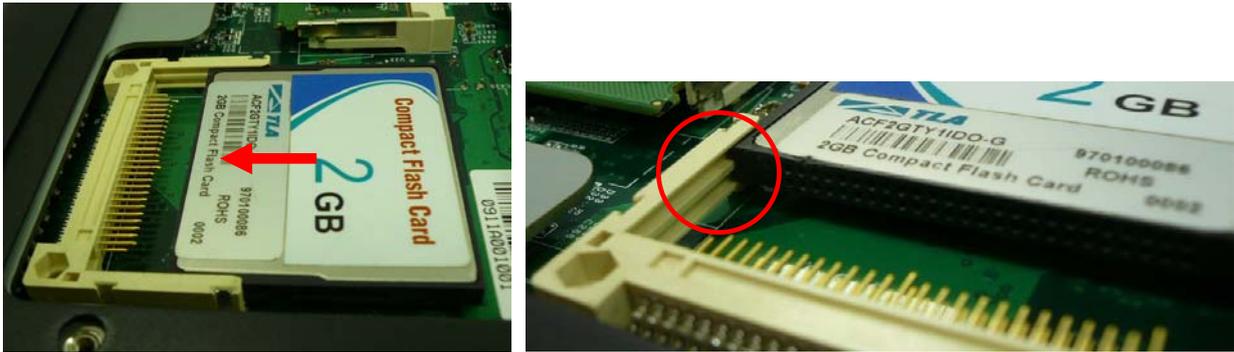
To avoid scratching the panel while dismantling the system, first place a piece of cloth or cushion on your work surface.

---

4. Remove the two screws indicated on the base bottom and remove the CF cover.



5. Insert the CF card into the socket.



**NOTE:**

Grooves on both sides of the CF card should exactly match those on the socket, simplifying CF card installation.

---

6. Reattach the CF cover and move the system back to an upright position.
7. Reconnect the power cord and any external devices, then turn on the system. The system should automatically recognize the CF card when the system power is turned on



**NOTE:**

CF card and 2.5 inch HDD master/slave setting:

The system allows the use of both the CF card and hard disk at the same time, however the user will need to set the system BIOS for the preferred boot order. When either a CF card only or 2.5 inch hard disk only is installed, the BIOS will automatically designate it as the 'master' drive and system boot device.

---

## Memory Installation

The memory sockets on the main board can be populated with an industry-standard DIMM. The QP-1000 comes standard with one preinstalled DIMM. To achieve maximum memory performance, up to 2GB of memory can be changed.



**CAUTION:**

You must disconnect the power cord and wait approximately 30 seconds for the power to drain before adding or removing memory cards. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the system is plugged into an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or main board. If you see an LED light on the main board, voltage is still present.

The memory module sockets have gold-plated metal contacts. When upgrading the memory, it is important to use memory modules with gold-plated metal contacts to prevent corrosion and/or oxidation resulting from having incompatible metals in contact with each other.

Static electricity can damage the electronic components of the system or optional cards. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object.

When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

- 
1. Turn off the system power properly through the operating system, then turn off any external devices.
  2. Disconnect the power cord from the power outlet and disconnect any external devices.



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.



**WARNING!**

To reduce risk of personal injury from hot surfaces, allow the internal system components to cool before touching.

- 
3. For easier access and to protect the LCD, tilt the panel down into its storage position in the base, then gently place the main unit upside down.



**CAUTION:**

To avoid scratching the panel while dismantling the system, first place a piece of cloth or cushion on your work surface.

4. Remove the two screws indicated on the base's bottom and remove the CF cover.



5. If an existing memory card needs to be replaced, pull the ends of both metal latches away from the card to release it.



**NOTE:**

A memory card can be installed in only one way. Match the notch on the card with the tab in the memory socket.

6. Insert the replacement memory card into the socket, almost covering the gold contacts completely, then push the card down. If the card is fully inserted and properly seated, the metal latches will be in the closed position indicated.



7. Reattach the CF cover and move the main unit back to an upright position.
8. Reconnect the power cord and any external devices, then turn on the system. The system should automatically recognize the additional memory when powered up.

## Removing and Replacing the SATA Hard Disk

---



**NOTE:**

This system does not support Parallel ATA (PATA) hard drives.

Before removing the original hard drive, be sure to back up its data so that you can transfer the data to the replacement hard drive. Also, if you are replacing the primary hard drive, make sure you have a recovery disc set to restore the operating system, software drivers, and any software applications that were preinstalled on the system.

---

1. Turn off the system power properly through the operating system, then turn off any external devices.
  2. Disconnect the power cord from the power outlet and disconnect any external devices.
- 



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.

---

3. For easier access and to protect the LCD, tilt the panel down into its storage position in the base, then gently place the main unit upside down.



**CAUTION:**

If the system has a VFD installed, the VFD must first be removed before opening the HDD cover.

To avoid scratching panel, before doing dismantling, put a piece of cloth or cushion under the main unit.

---

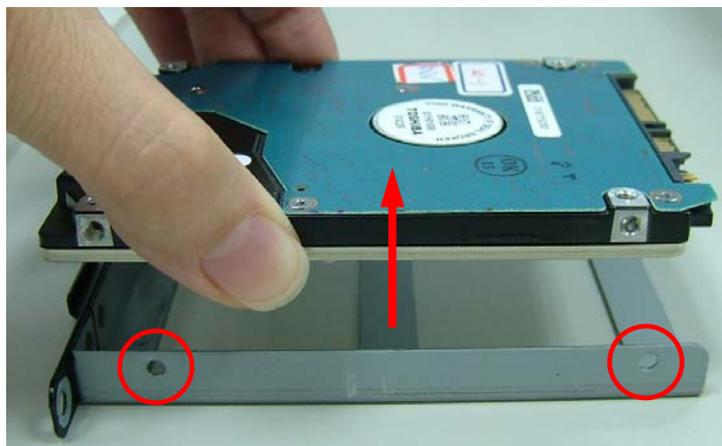
4. Remove the single screw that secures the HDD box cover.



5. Move the main unit back to an upright position, then carefully slide the HDD box cover and HDD box out.



6. From the sides of the HDD box, remove all four screws and lift out the hard disk.



7. Insert the replacement hard disk into the HDD box, and re-secure the screws.
8. Slide the HDD box back into the panel, ensuring that it is pressed all the way in and properly seated.
9. Reattach the cover and screw.
10. Reconnect the power cord and any external devices, then turn on the system.

## Chapter 3 Optional Components and Peripherals

### WiFi Module Installation

1. Turn off the system power properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet and disconnect any external devices.



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.

3. From the rear of the LCD panel, remove the single screw and the WiFi cover as indicated.



4. Slide the WiFi module into the panel, ensuring it is plugged securely into the socket.



5. Secure the WiFi module with four screws.



6. Reconnect the power cord and any external devices, then turn on the system.

## Rear Mount VFD Installation

---



**CAUTION:** Before connecting the VFD cable to the system's VFD port, please make sure the COM6 Power Select Connector setup to +5V output. Please refer to the Jumper Settings section.

---

1. Turn off the system power properly through the operating system, then turn off any external devices.
  2. Disconnect the power cord from the power outlet and disconnect any external devices.
- 



**CAUTION:** Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.

---

3. For easier access and to protect the LCD, tilt the panel down into its storage position in the base, then gently place the main unit upside down.



**CAUTION:** To avoid scratching the panel while dismantling the system, first place a piece of cloth or cushion on your work surface.

---

4. Align the VFD hinge holder to the two indicated holes and secure the VFD module with two screws.



5. Connect the VFD cable to the VFD port.



6. Move the main unit back to an upright position
7. Reconnect the power cord and any external devices, then turn on the system.



**NOTE:**

Should you need to configure the VFD, please execute the utility under  
<CD>\Optional Module Data & Tool\VFD\QP-1000\WDA-2025R\VFD tool

---

# Cash Drawer Installation



**NOTE:**

Before connecting a cash drawer to the system, please make sure the driver voltage and cable pin assignment of the cash drawer matches the definition of the system's cash drawer port. Please refer to the Cash Drawer Power Select Connector section.

1. Turn off the system power properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet and disconnect any external devices.



**CAUTION:**

Regardless of the power-on state, voltage is always present on the main board as long as the system is plugged into an active AC outlet. You must disconnect the power cord to avoid damage to the internal components of the system.

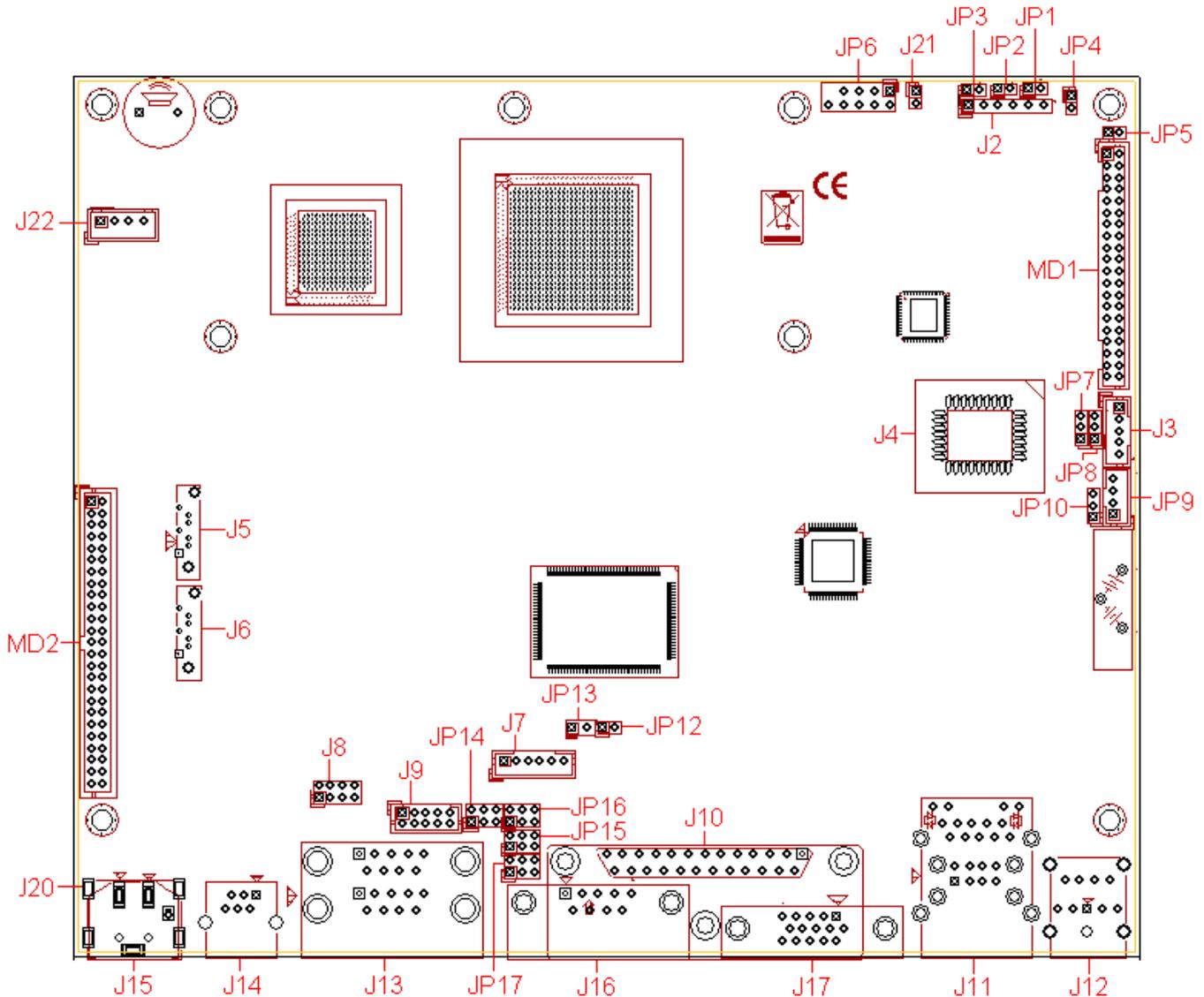
3. Plug the cash drawer cable into the indicated cash drawer port.



4. Reconnect the power cord and any external devices, then turn on the system.

# Chapter 4 AMB-6410 Main Board Configuration

## Jumper and Connector Locations



### Connector Allocation

Connector	Function
J3	LCD Inverter power connector
J4	BIOS Socket
J5	SATA1 Connector
J6	SATA2 Connector
J7	PS/2 Keyboard/Mouse Connector
J8	System Panel Connectors
J9	COM6
J10	Parallel Port Connector
J11	LAN & (USB1 & USB5) Connector
J12	Line-OUT/ Microphone connector
J13	COM1, COM2 connector

J14	Cash Drawer Connector
J15	Power Input Connector (Din Jack 3 Pin)
J16	COM5 Connector
J17	VGA Connector
J18	Compact Flash Card Connector
J19	DDR2 SDRAM Connector
J20	Power Input Connector (Din Jack 3 Pin With Shield/Option)
J21	CMOS Setup
J22	SATA Power Output Connector
JP5	CF MASTER/SLAVE Setup
JP6	Port 80 Connector
JP7	LCD Panel Voltage Setup
JP8	LCD Panel Light Adjust Voltage Setup
JP9	USB2 Connector
JP10	LCD Backlight Enable Voltage Setup
JP13	PS/2 Keyboard/Mouse Setup
JP14	COM6 RI Function Setup
JP15	COM2 RI Function Setup
JP16	COM1 RI Function Setup
JP17	COM5 RI Function Setup

## Connector Pin Assignments

### J20

#### +12V DC Input DIN Connector

PIN No.	Description
1	VIN
2	GND
3	VIN
CG1	GND

### J14

#### Cash Drawer Port RJ-11 Connector

PIN No.	Description	PIN No.	Description
1	GND	2	12V for drawer A
3	GPI	4	+12V
5	12V for drawer B	6	GND

**J13/J16****RS-232 Port COM1, COM2, COM5 D-Sub9 Connector**

PIN No.	Description
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

**J10****Parallel Port LPT1 SCSI Connector**

PIN No.	Description	PIN No.	Description
1	STBX	2	D0
3	D1	4	D2
5	D3	6	D4
7	D5	8	D6
9	D7	10	ACKX
11	BUSY	12	PE
13	SLCT	14	AFDX
15	ERX	16	INITX
17	SLINX	18	GND
19	GND	20	GND
21	GND	22	GND
23	GND	24	GND
25	GND		

**J17****VGA Port D-Sub15 Connector**

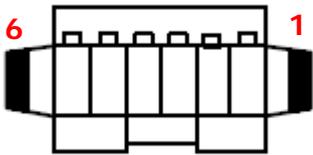
PIN No.	Description	PIN No.	Description
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	Reserved
7	GND	8	GND
9	NC	10	GND
11	NC	12	DDC DATA
13	HSYNC	14	VSYNC
15	DDC CLK		

**J11****LAN Port RJ-45 and USB Port1/Port4 Connector**

PIN No.	Description	PIN No.	Description
T1	LAN0+	B1	+5V
T2	LAN0-	B2	USBD1-
T3	LAN1+	B3	USBD1+
T4	LAN2+	B4	GND
T5	LAN2-	B5	+5V
T6	LAN1-	B6	USBD4-
T7	LAN3+	B7	USBD4+
T8	LAN3-	B8	GND

**J12****Speaker out and MIC Connector**

PIN No.	Description
Top	Stereo line out
Bottom	Microphone input

**External VFD Port: Connector Pin Definitions**

PIN No.	Description
1	VIN
2	GND
3	CTS
4	RTS
5	RXD
6	TXD

## Jumper Settings

To set jumper positions, place the jumper shunt over the pins designated in the table (SHORT) or remove (NC) it from the jumper pins and store for future use. Default settings are indicated with a star sign (★).

### J21

#### Clear CMOS Selection

PIN No.		Function
1-2 Short		Charge ★
1-2 Open		Clear CMOS

### JP5

#### CF Master/Slave Selection

PIN No.		Function
1-2 Short		Master
1-2 Open		Slave ★

### JP15

#### COM2 Power Select Connector

PIN No.			Function
1-2	3-4	5-6	
Short			+5V Output
	Short		RI Function ★
		Short	+12V Output

### JP16

#### COM1 Power Select Connector

PIN No.			Function
1-2	3-4	5-6	
Short			+5V Output
	Short		RI Function ★
		Short	+12V Output

### JP17

#### COM5 Power Select Connector

PIN No.			Function
1-2	3-4	5-6	
Short			+5V Output
	Short		RI Function ★
		Short	+12V Output

**JP14****COM6 Power Select Connector**

PIN No.			Function
1-2	3-4	5-6	
Short			+5V Output
	Short		RI Function ★
		Short	+12V Output

## Chapter 5 Software Setup

This system comes with a variety of drivers for different operating systems. A software CD is included in the package contents.

### Driver Software List

Driver	Driver Setup Location
Intel Chipset	<CD>:\Driver\MB\AMB-6410\Intel INF
Intel Graphics	<CD>:\Driver\MB\AMB-6410\VGA\ZL1500_QP-000_QP-3000
Abon Touch Screen	<CD>:\Driver\Peripheral\Touch\Abon
RealTek Audio	<CD>:\Driver\MB\AMB-6410\Audio\WDM_R202
PCI-E Ethernet	<CD>:\Driver\MB\AMB-6410\GLAN
802.11b/g Wireless	<CD>:\Driver\Peripheral\WLAN\802.11bg
Cash Drawer	<CD>:\Driver\ MB\AMB-6410\System Driver
OPOS CCOs	<CD>:\Driver\OPOS\CCOs
AdvanPOS OPOS Driver	<CD>:\Driver\OPOS\OPOS Driver
Real Mount VFD Configure Tool	<CD>:\Optional Module Data & Tool\VFD\QP-1000\ WDA-2025R\vfd tool\Config_final
MSR Configure Tool	<CD>:\Optional Module Data & Tool\MSR

# Intel Chipset Driver Installation

1. Run the infinst\_autol.exe file on the CD in folder <CD>:\Driver\MB\AMB-6410\Intel INF



2. Click Next on the Welcome screen.

3. Click Yes on the License Agreement screen.

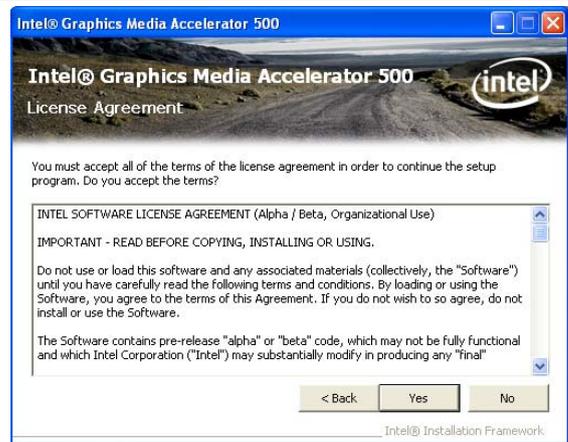


4. Click Next on the Information screen.

5. When installation is complete, click Finish.

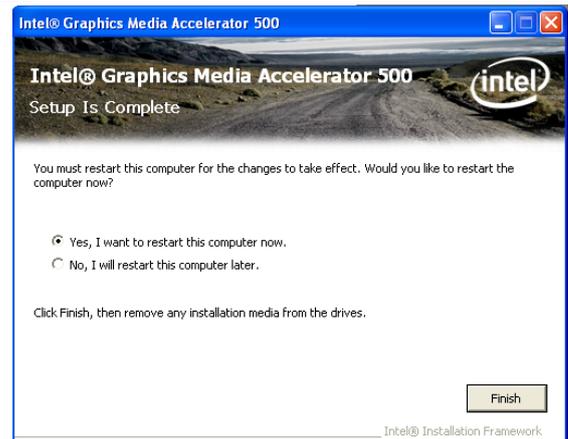
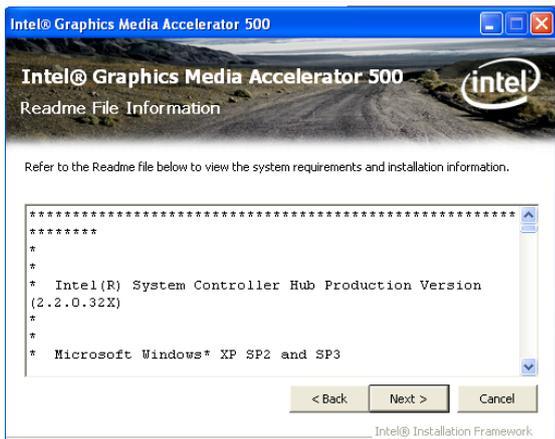
# Intel Graphics Driver Installation

1. Locate and Run the setup.exe file on the CD in folder <CD>:\Driver\MB\AMB-6410\VGA\ ZL1500\_QP-000\_QP-3000



2. Click Next on the Welcome screen.

3. Click Yes on the License Agreement screen.

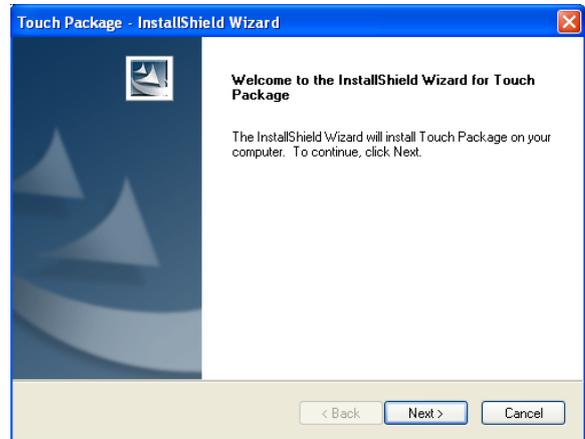
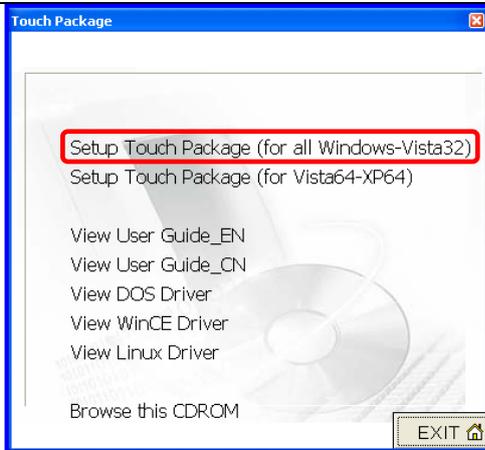


4. Click Next on the Information screen.

5. When installation is complete, click Finish and restart the system.

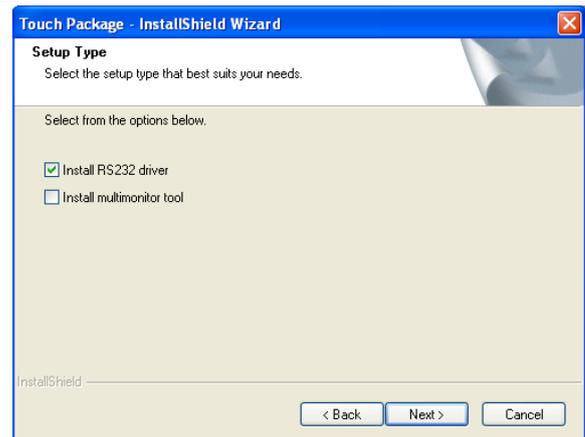
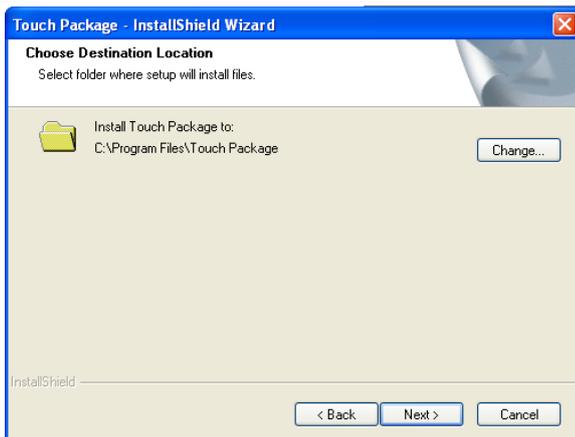
# Abon Touch Screen Driver Installation

1. Locate and Run the autorun.exe file on the CD in folder <CD>:\Driver\Peripheral\Touch\Abon



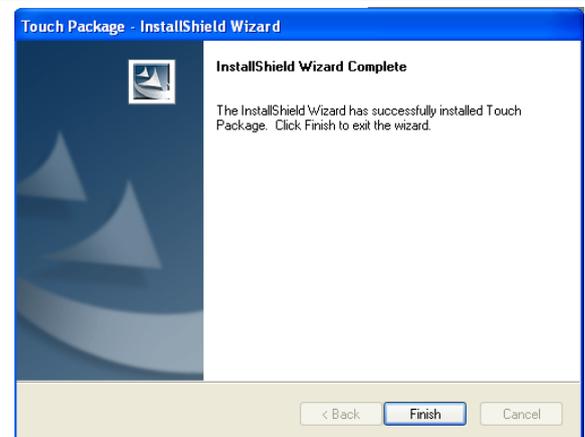
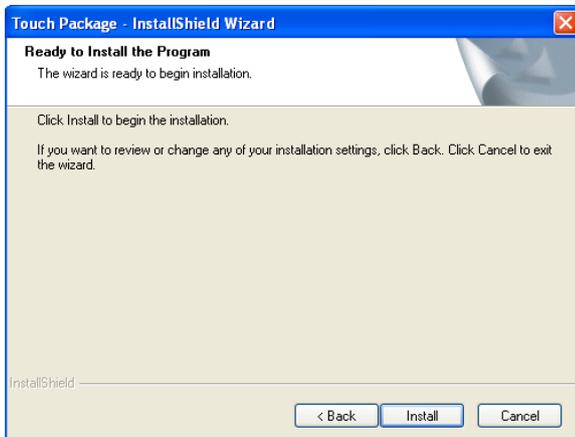
2. Select Setup Touch Package (for all Windows-Vista32).

3. Click Next on the Welcome screen.



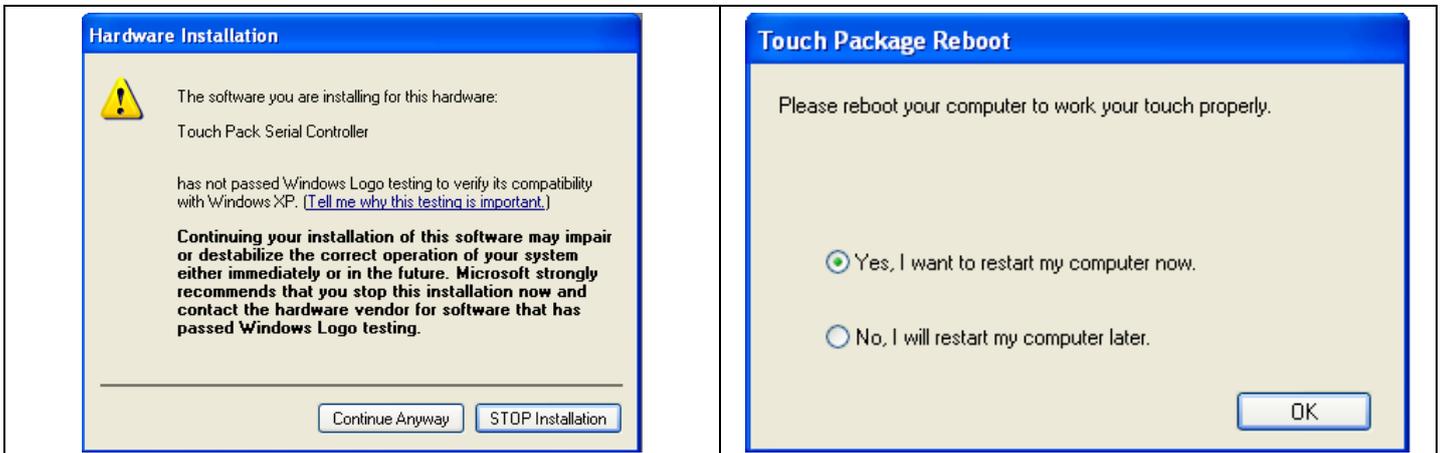
4. Click Next to confirm destination location.

5. Select Install RS232 driver and click Next.



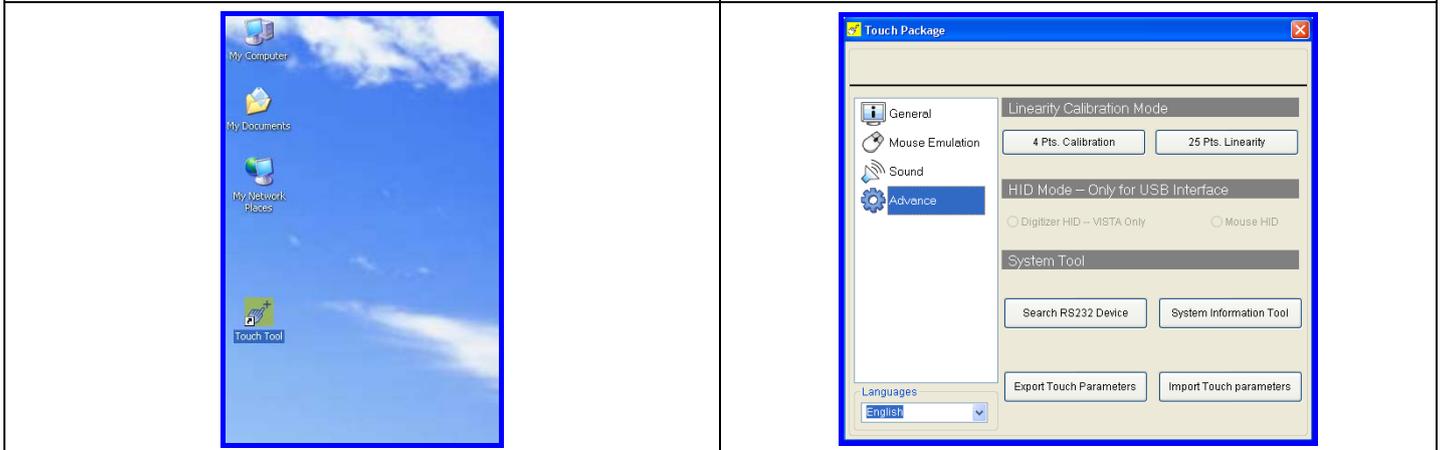
6. Click Install to begin installation.

7. Click Finish to complete.



8. Click Continue Anyway.

9. Click OK to reboot the system.

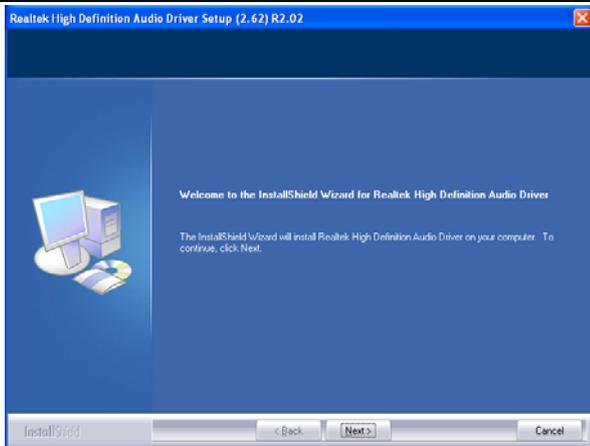


10. Run the Touch Tool on the desktop.

11. Select Advance and click on the 4 Pts. Calibration button.

# Audio Driver Installation

1. Locate and Run the WDM\_R202.exe file on the CD in folder <CD>:\Driver\MB\AMB-6410\Audio\WDM\_R202

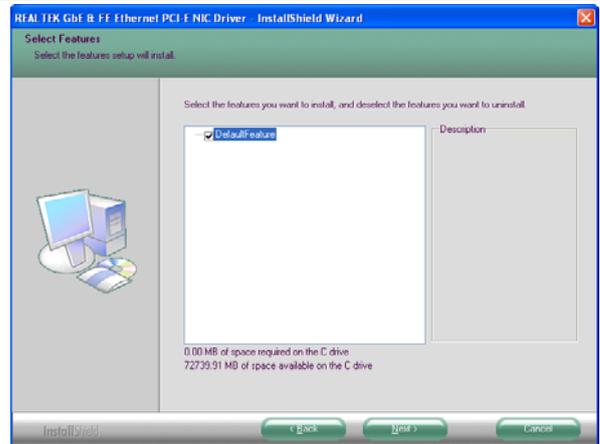
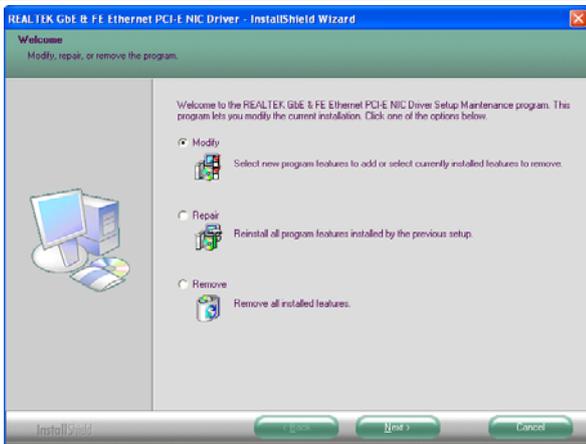


2. Click Next on the Welcome screen.

3. When installation is complete, click Finish and restart the system.

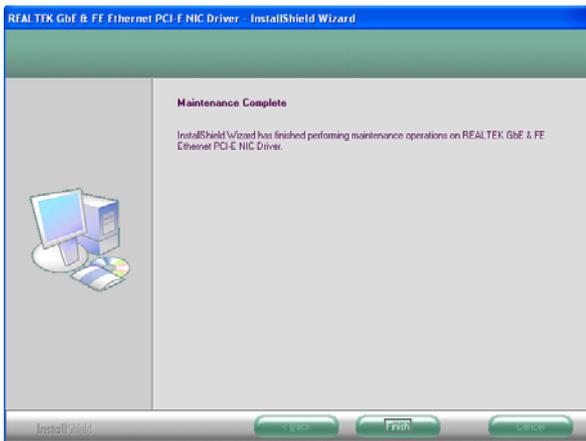
# Ethernet Driver Installation

1. Locate and Run the setup.exe file on the CD in folder <CD>:\Driver\MB\AMB-6410\GLAN



2. Select Modify then click Next.

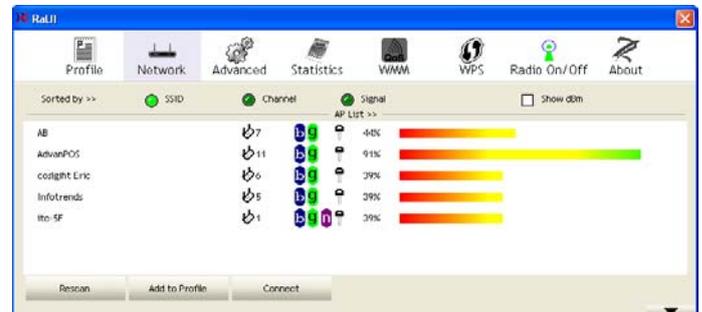
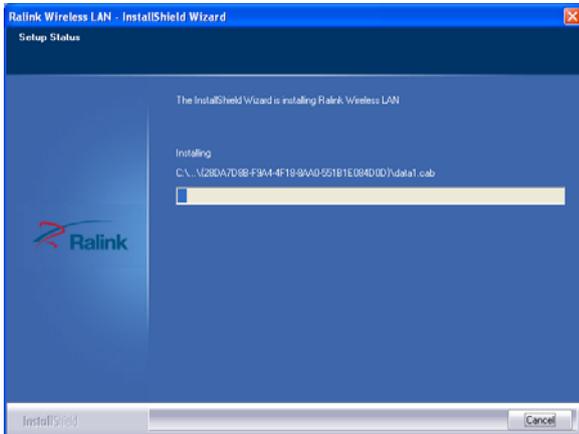
3. Click Default Feature and click Next.



4. When installation is complete, click Finish.

## Wireless LAN Driver Installation (optional)

1. First, plug in the USB WLAN Interface module.
2. Locate and Run the setup.exe file on the CD in folder <CD>:\Driver\Peripheral\WLAN\802.11bg



3. Wait as the WLAN driver is installed.

4. When installation is complete, the WLAN utility will automatically appear on the desktop.

## Rear Mount VFD Driver Installation (optional)

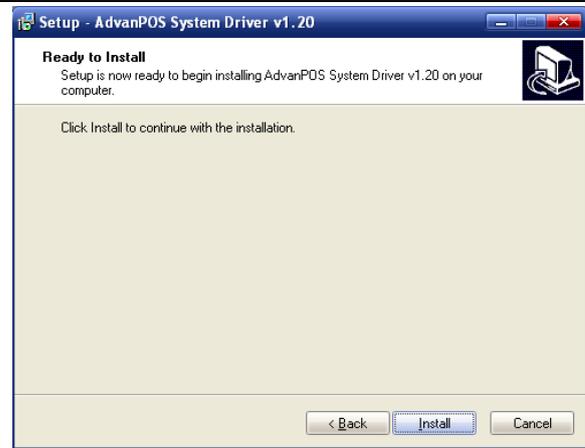
1. First, install the rear mount VFD module.
2. Reboot system to automatically complete VFD driver installation.
3. Shpuld you need to configure the VFD module, please execute "01 2029Config.exe" under <CD>:\ Optional Module Data & Tool\VFD\QP-1000\WDA-2025R\vfd tool\Config\_final

## MSR Driver Installation (optional)

1. First, install the MSR module.
2. Reboot system to automatically complete MSR driver installation.
3. Shpuld you need to configure the MSR module, please execute "MSRCfgSetup\_V1.36.exe" under <CD>:\ Peripheral Modular Data\MSR for MSR testing.

# AdvanPOS System Driver Installation (required for Cash Drawer)

1. Locate and Run the setup.exe file in folder <CD>:\Driver\MB\AMB-6410\System Driver



2. Click Next on the Welcome screen.

3. Click Install on the Ready to Install screen.

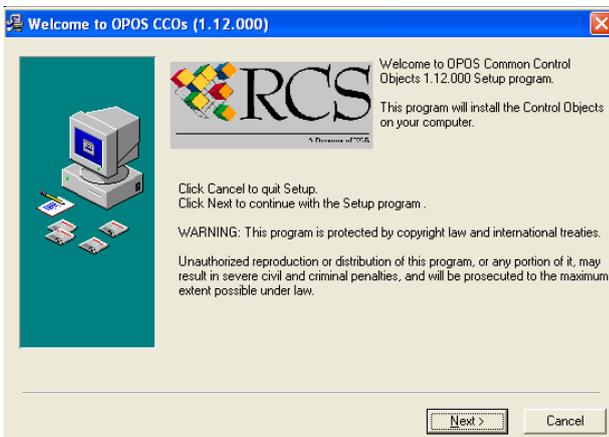


4. Click Finish on the Completing installation screen. A system restart is required.

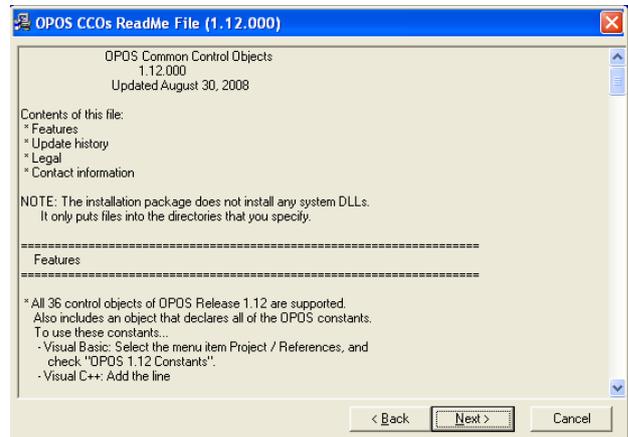
# OPOS CCO Driver Installation

Before installing the OPOS driver, please make sure the AdvanPOS System Driver has been installed. The OPOS driver for the QP-1000 supports the Cash Drawer, MSR, and VFD (Line- Display)

1. Locate and Run the OposCCOs-1\_12\_000.exe file in folder <CD>:\Driver\OPOS\CCOs



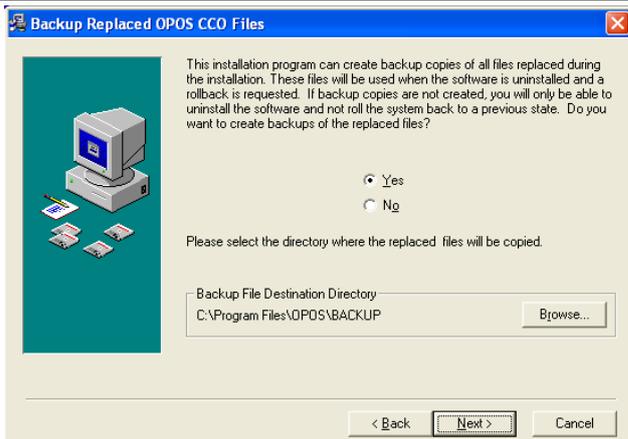
2. Click Next on the Welcome screen.



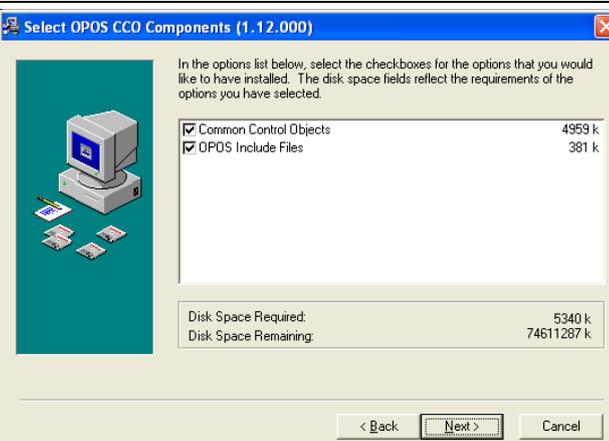
3. Click Next on the ReadMe screen.



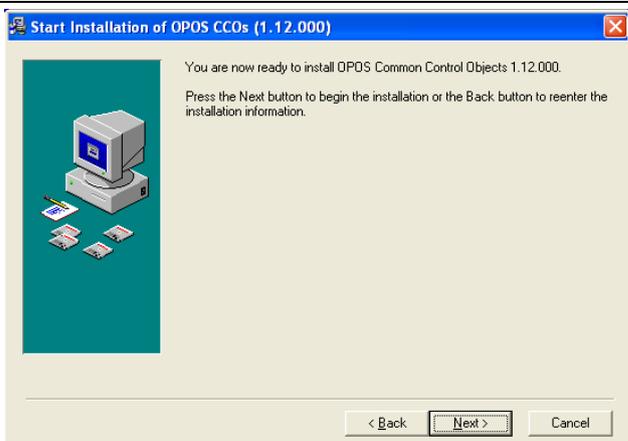
4. Click Next to confirm the Destination Location.



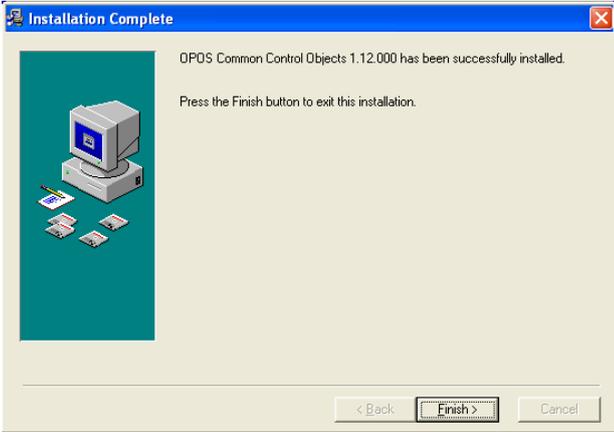
5. Click Yes to backup the CCO files and select backup file destination directory, then click Next.



6. Select Common Control Objects and OPOS Include Files, click Next.



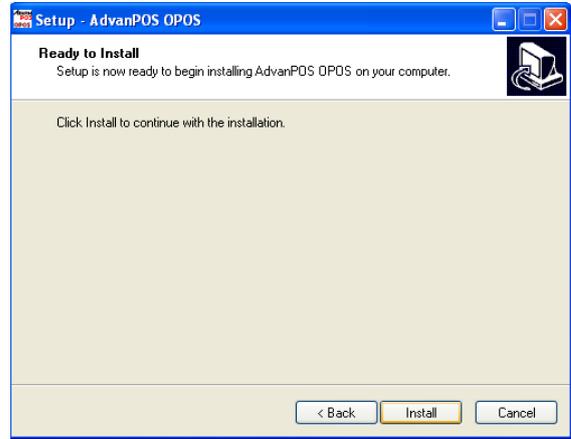
7. Click Next on the Start Installation screen.



8. Click Finish on the Installation Complete screen.

# AdvanPOS OPOS Driver Installation

1. Locate and Run the setup.exe file in folder <CD>:\Driver\OPOS\OPOS Driver



2. Click Next on the Welcome screen.

3. Click Install on the Setup screen.



4. Click Finish on the Completing installation screen.

# Appendix A. Sample C++ Cash Drawer Code for Windows

**NOTE:**

Requires installation of System Driver. Refer to the System Driver Installation section for instructions.

## 1. Open Cash Drawer

```
// IOCTL Codes
#define GPD_TYPE 56053
#define ADV_OPEN_CTL_CODE CTL_CODE(GPD_TYPE, 0x900, METHOD_BUFFERED, FILE_ANY_ACCESS)
#define ADV_STATUS_CTL_CODE CTL_CODE(GPD_TYPE, 0x901, METHOD_BUFFERED, FILE_ANY_ACCESS)

void OpenDrawer(UCHAR uWhichDrawer)
{
    // uWhichDrawer = 1 => CD#1, uWhichDrawer = 2 => CD#2
    HANDLE hFile;
    BOOL bRet;
    UCHAR uDrawer = uWhichDrawer;

    // Open the driver
    hFile = CreateFile("\\\\.\\ADVSYS",
        GENERIC_WRITE | GENERIC_READ,
        FILE_SHARE_READ | FILE_SHARE_WRITE, NULL,
        OPEN_EXISTING, FILE_ATTRIBUTE_NORMAL, 0);

    if (m_hFile == INVALID_HANDLE_VALUE)
    {
        AfxMessageBox("Unable to open Cash Drawer Device Driver!");
        return;
    }

    // Turn on the Cash Drawer Output (Fire the required solenoid)
    bRet = DeviceIoControl(hFile, ADV_CD_OPEN_CTL_CODE,
        &uDrawer, sizeof(uDrawer),
        NULL, 0,
        &ulBytesReturned, NULL);

    if (bRet == FALSE || ulBytesReturned != 1)
    {
        AfxMessageBox("Failed to write to cash drawer driver");
        CloseHandle(hFile);
        return;
    }

    CloseHandle(hFile);
}
```

## 2. Get Cash Drawer Status

```
void GetDrawerState()
{
    HANDLE hFile;
    BOOL bRet;

    // Open the driver
    hFile = CreateFile(TEXT("\\\\.\\ADVSYS"),
        GENERIC_WRITE | GENERIC_READ,
        FILE_SHARE_READ | FILE_SHARE_WRITE, NULL,
        OPEN_EXISTING, FILE_ATTRIBUTE_NORMAL, 0);

    if (m_hFile == INVALID_HANDLE_VALUE)
    {
        AfxMessageBox("Unable to open Cash Drawer Device Driver!");
        return;
    }

    // Read the CD status
    bRet = DeviceIoControl(hFile, ADV_CD_STATUS_CTL_CODE,
        NULL, 0
```

```
        &ReadByte, sizeof(ReadByte),
        &ulBytesReturned, NULL);

if (bRet == FALSE || ulBytesReturned != 1)
{
    AfxMessageBox("Failed to Read from cash drawer driver");
    CloseHandle(hFile);
    return;
}
else
{
    AfxMessageBox(ReadByte ? "Drawer Open" : "Drawer Closed");
}

CloseHandle(hFile);
}
```

## Appendix B. Sample Visual Basic Cash Drawer Code for Windows



### NOTE:

Requires installation of System Driver. Refer to the System Driver Installation section for instructions.

```
' Use inside a form's code section and use Option Explicit
Private Declare Function CreateFile Lib "kernel32" Alias "CreateFileA" _
    (ByVal lpFileName As String, ByVal dwDesiredAccess As Integer, _
    ByVal dwShareMode As Integer, ByVal lpSecurityAttributes As IntPtr, _
    ByVal dwCreationDisposition As Integer, ByVal dwFlagsAndAttributes As Integer, _
    ByVal hTemplateFile As IntPtr) As Integer

Private Declare Function DeviceIoControl Lib "kernel32" _
    (ByVal hDevice As IntPtr, ByVal dwIoControlCode As Integer, _
    ByRef lpInBuffer As Byte, ByVal nInBufferSize As Integer, _
    ByRef lpOutBuffer As Byte, ByVal nOutBufferSize As Integer, _
    ByRef lpBytesReturned As Long, ByVal lpOverlapped As Integer) As Integer

Private Declare Function CloseHandle Lib "kernel32" (ByVal hObject As Long) As Integer

' A Form with a single button and one static text box
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

    Dim DeviceHandle As Integer = 0, iBytesRtn As Integer
    Dim iRet As Integer, iDrawer As Integer, iStatus As Integer

    Const GENERIC_READ As Long = &H80000000, GENERIC_WRITE As Long = &H40000000
    Const FILE_SHARE_READ As Long = &H1, FILE_SHARE_WRITE As Long = &H2
    Const OPEN_EXISTING As Long = &H3, FILE_ATTRIBUTE_NORMAL As Long = &H80
    Const INVALID_HANDLE_VALUE As Long = &HFFFFFFFF
    Const ADV_OPEN_CTL_CODE As Long = &HDAF52400
    Const ADV_STATUS_CTL_CODE As Long = &HDAF52480

    Err.Clear()

    DeviceHandle = CreateFile("\\.\ADVSYS", GENERIC_READ Or GENERIC_WRITE, FILE_SHARE_READ Or
        FILE_SHARE_WRITE, 0, OPEN_EXISTING, FILE_ATTRIBUTE_NORMAL, 0)

    If DeviceHandle = INVALID_HANDLE_VALUE Then
        'Failed to Open Cash Drawer Driver
        Debug.Print("Error opening ADVSYS.sys. Error = " & Err.LastDllError)
    Else
        ' Open Drawer #1
        iDrawer = 1
        iRet = DeviceIoControl(DeviceHandle, ADV_OPEN_CTL_CODE, iDrawer, 4, 0, 0, iBytesRtn, 0)

        If (iRet = 0 Or iBytesRtn <> 1) Then
            Debug.Print("Error writing to Cash Drawer Driver. Error" & Err.LastDllError)
        End If

        ' Open Drawer #2
        iDrawer = 2
        iRet = DeviceIoControl(DeviceHandle, ADV_OPEN_CTL_CODE, iDrawer, 4, 0, 0, iBytesRtn, 0)

        If (iRet = 0 Or iBytesRtn <> 1) Then
            Debug.Print("Error writing to Cash Drawer Driver. Error" & Err.LastDllError)
        End If

        ' Get Drawer Status
```

```
iRet = DeviceIoControl(DeviceHandle, ADV_STATUS_CTL_CODE, 0, 0, iStatus, 4, iBytesRtn, 0)

If (iRet = 0 Or iBytesRtn <> 1) Then
    Debug.Print("Error writing to Cash Drawer Driver. Error" & Err.LastDllError)
End If

If (iStatus = 0) Then
    StatusText.Text = "Cash Drawer(s) Closed"
Else
    StatusText.Text = "Cash Drawer(s) Open"
End If

CloseHandle(DeviceHandle)
End If
End Sub
```