



User's Manual

Aer PPC

PP-8642

User Manual

V0.3

December 9, 2016



User's Manual

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User's Manual

Revision Record

Date	Version	Description	Note
August 8,2015	0.1	Draft	Sabrina Chu
January 19,2016	0.2	Add wall mount SOP, LCD Panel Type setup, Table of Figures, Assembly the box system	Elio Chen
December 9,2016	0.3	Add Stand Installation	Elio Chen



Safety Precaution

Please observe the following precautions to ensure safe use of equipment.

1. Disconnect the equipment from AC outlet before cleaning.
Use only moist cloth (with water). Do not use detergent.
2. Power outlet must be easily accessible and near the equipment.
3. Keep the equipment away from humid and dusty environment.
4. Place the equipment on a stable surface during installation and operation.
5. Do not place any load on the power cord.
6. All cautions and warnings on the equipment should be noted.
7. When the equipment is not in use, disconnect it from the power source to avoid damage by transient over-voltage.
8. Liquid into the equipment may cause fire or electrical shock.
9. Only qualified service personnel should be allowed to open the equipment.
10. If any of the following situations arises, ask service personnel to check the equipment:
 - A. Power cord / plug is damaged
 - B. Liquid penetrates into the equipment
 - C. The equipment does not function properly and/or cannot work according to the User Manual
 - D. The equipment has been dropped
 - E. The equipment shows signs of damage
11. Temperature below -20° C (-4°F) or above 60° C (140° F) may damage the equipment



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CHAPTER 1

1.1 Introduction

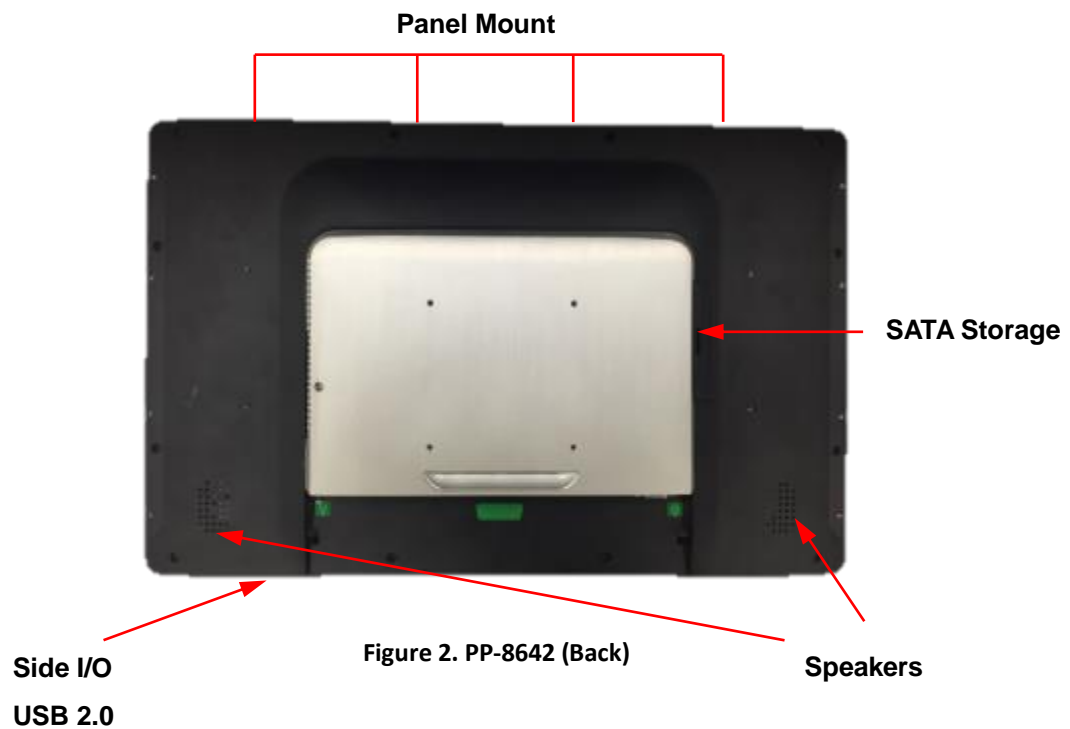
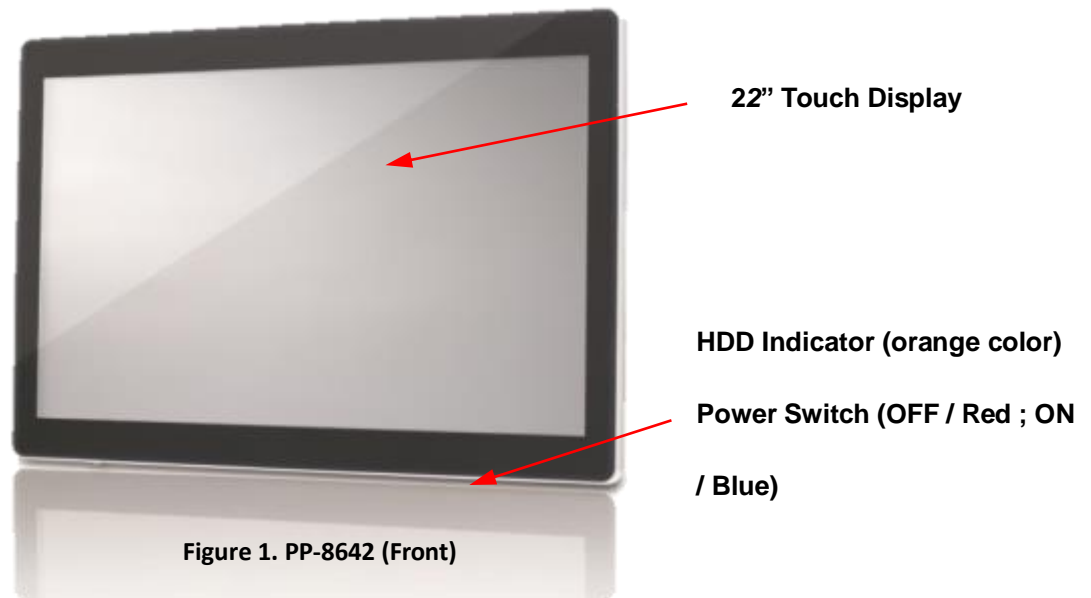
PP-8642 is the latest member of Aer PPC series that features a slim all-in-one design with great versatility. It can be easily configured to meet the demand of different store environments as a desktop, wall-mount or pole-mount POS system.

PP-8642 is a performance system in die-cast aluminum chassis that withstands harsh environments. It is equipped with the Intel 4th Generation Core Processor i3-4330TE, i5-4590T and Intel Celeron G1820TE those are both powerful and energy efficient.

Key Features

- Performance and Powerful
- Slim & Sleek
- Desktop, Wall-Mount or Pole-Mount
- Projected Capacitive Touch (IP65 compliant panel)
- Rich in I/O Connectivity

1.2 Overview



1.3 Dimension



Figure 3. Front Dimension



Figure 4. Side Dimension

1.4 I/O Connectivity

Default



Figure 5. Default I/O Component

Type C



Figure 6. Type C I/O Component

Type G



Figure 7. Type G I/O Component

Type K



Figure 8. Type K I/O Component

Type J



Figure 9. Type J I/O Component

Kiosk Type C



Figure 10. Kiosk Type C I/O Component



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1.5 I/O Description

I/O Port	Connector Type	Description
12v DC- in	DC-in (4 pin)	12V Power Adapter
12V DC-out	DC-out	12V DC Jack 2.5 mm
24v PUSB 2.0	24v USB	24v USB device
Cash Drawer	RJ11	12v / 24v Cash Drawer
VGA	D-Sub 15	2 nd LCD
HDMI	HDM Type A	Type A HDMI
Ethernet	RJ-45	Gigabit LAN
USB	USB Type A	USB 3.0
USB	USB Type A	USB 2.0
COM1	RJ45	RI / 5v / 12v (select in BIOS) 5v : Green / 12v : Orange
Option Type C		
12v PUSB 2.0	12v USB	12v USB device
COM 3	D-Sub 9	RI / 5V / 12V (select in BIOS)
COM 2	D-Sub 9	RI / 5V / 12V (select in BIOS)
Option G		
12v USB 2.0	12v USB	12v USB device
12v USB 2.0	12v USB	12v USB device
12v USB 2.0	12v USB	12v USB device
Option K		
12v USB 2.0	12v USB	12v USB device
12v USB 2.0	12v USB	12v USB device
COM 2	D-Sub 9	RI / 5V / 12V (select in BIOS)
Option J		
COM 2	D-Sub 9	RI / 5V / 12V (select in BIOS)
12v USB 2.0	12v USB	12v USB device
Line Out Mic In	Phone jack 3.5 Φ	
Power jack	Phone jack 3.5 Φ	Power switch device



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Option Kiosk Type C		
12v PUSB 2.0	12v USB	12v USB device
Line Out Mic In	Phone jack 3.5 Φ	
COM 3	D-Sub 9	RI / 5V / 12V (select in BIOS)
COM 2	D-Sub 9	RI / 5V / 12V (select in BIOS)

1.6 Packing List

Standard		Optional	
1	PP-8642	1	2nd I/O
2	Power Adapter (150w)		
3	AC Power Cord		
4	RJ45-DB9 Cable		

CHAPTER 2

2.1 Hardware Installation



**SWITCH OFF POWER AND UNPLUG POWER CORD BEFORE
SATA STORAGE IS REMOVED**

2.1.1 Assembly the Box system

1. Find the “Push button” under the box system and loose the screw.



Figure 11. Box System

2. Press the “Push Button”.



Figure 12. “Push Button” Location

3. Move out the box system.



Figure 13. Box Remove

4. Separate the box system and the monitor.



Figure 14. Box Separating

2.1.2 2.5" SATA Storage (HDD/SSD) setup

1. Find the HDD cover in the back.



Figure 15. HDD Cover Location

2. User a finger or a coin to separate the HDD cover.



Figure 16. Separate the HDD cover

3. Loose the screw on the HDD/SSD bracket.

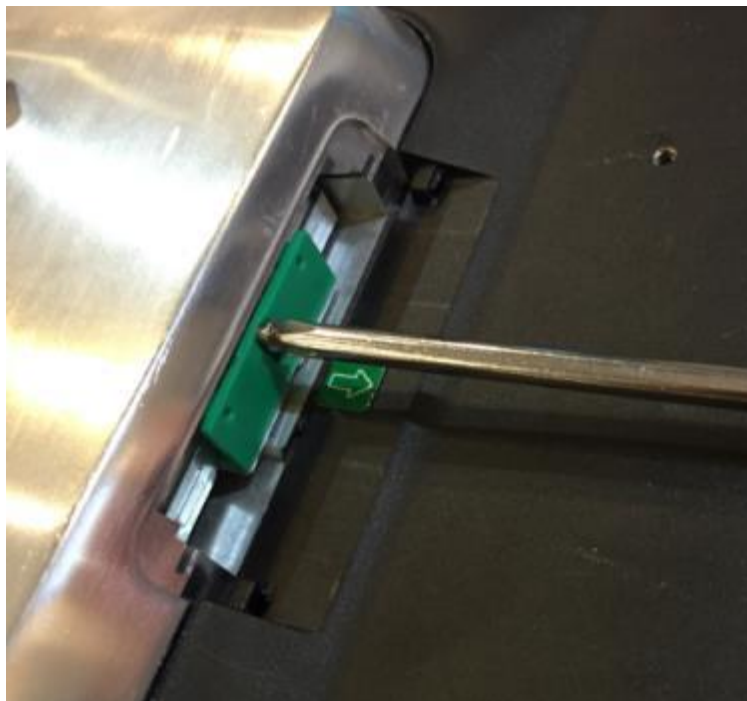


Figure 17. Screw on the HDD bracket

4. Pull out the HDD/SSD bracket with HDD/SSD.



Figure 18. Pull out the HDD

2.1.3 Cable cover and Cabling

1. Connect the adaptor to 12V DC in.



Figure 19. Connect the power cable

2. Connect all the devices.



Figure 20. Connect devices

3. Arrange the cables and install the cable cover.

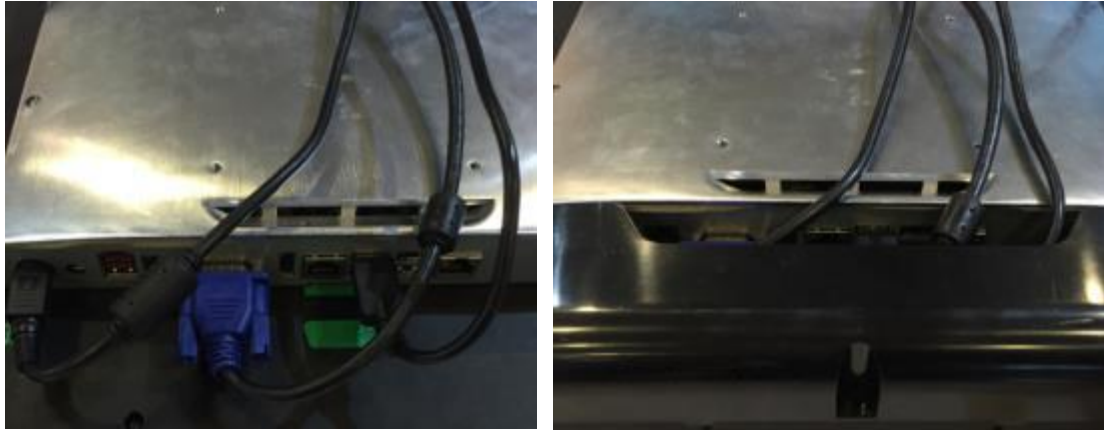


Figure 21. Cabling with cable cover

4. Tighten one M3 x 5 screw on the bottom.

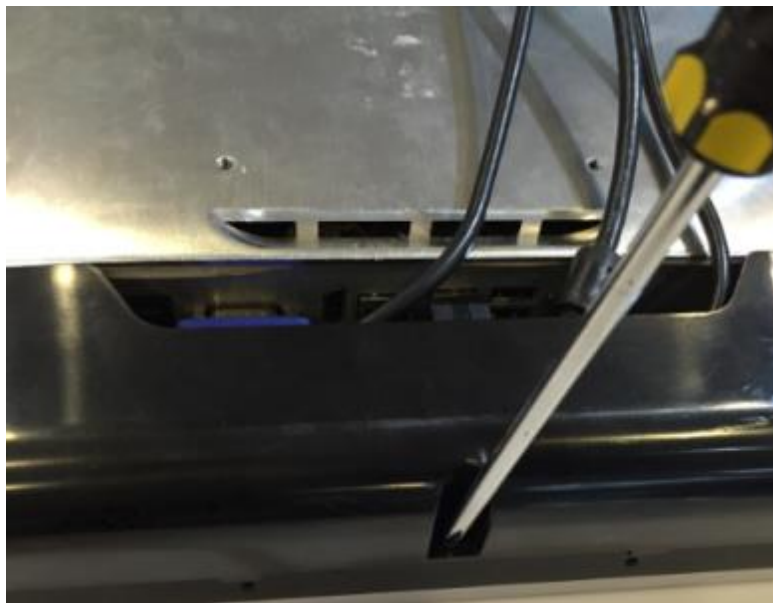


Figure 22. screw location of cable cover

2.1.4 Wall Mount Installation

1. Prepare the PP-8642 and the wall mount kit.
2. Set up the wall mount kit on PP-8642 and tighten four M4 x 10 screws.

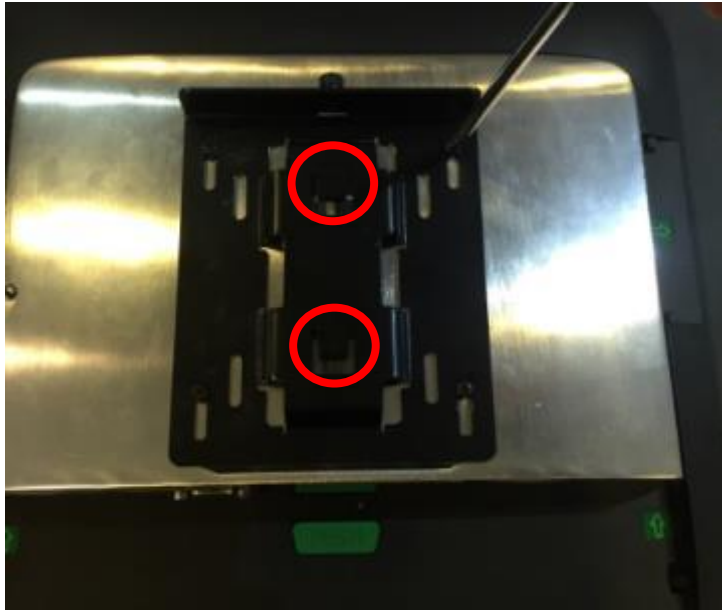


Figure 23. Wall mount kit with box (Red circle indicated for anchor point of assembling)

3. Set up another part of wall mount kit on the wall with four self-tapping screws.

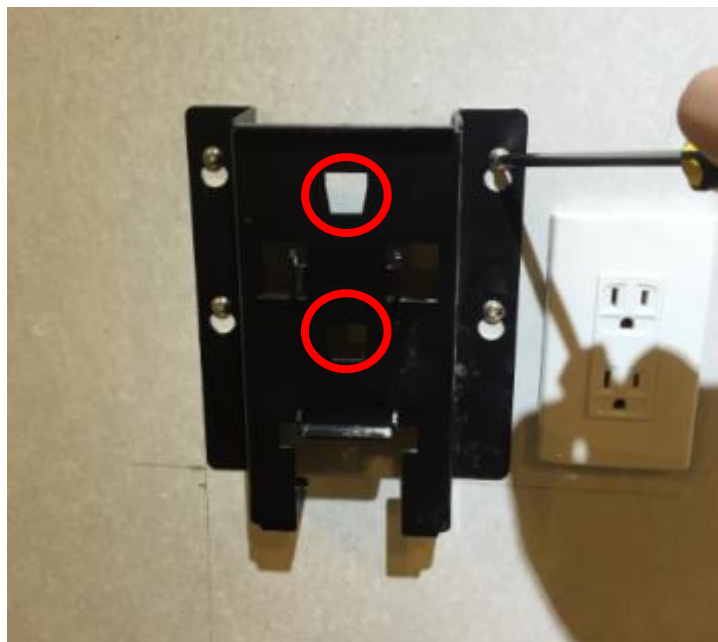


Figure 24. Wall mount kit on the wall (Red circle indicated for anchor point of assembling)

4. Assembly two parts of wall mount kit (Refer to Figure 22 & Figure 23).



Figure 25. Wall mount kit assembly

5. Tighten the hand screw on the top of wall mount kit.



Figure 26. screw on the wall mount kit

2.1.5 Stand Installation

1. Prepare the PP-8642, one stand, four M4 x 8 screws, and screwdriver.



2. Tighten four screws on the back cover.





2.2 Hardware Setup

2.2.1 Power Setting (COM Port)



PLEASE MAKE SURE THE DEVICE VOLTAGE MATCHES THE POWER SETTING BEFORE CONNECTION.

1. Connect the keyboard and enter BIOS.
2. Choose “Advanced” and enter “Super IO Configuration (COM 1/2)”.

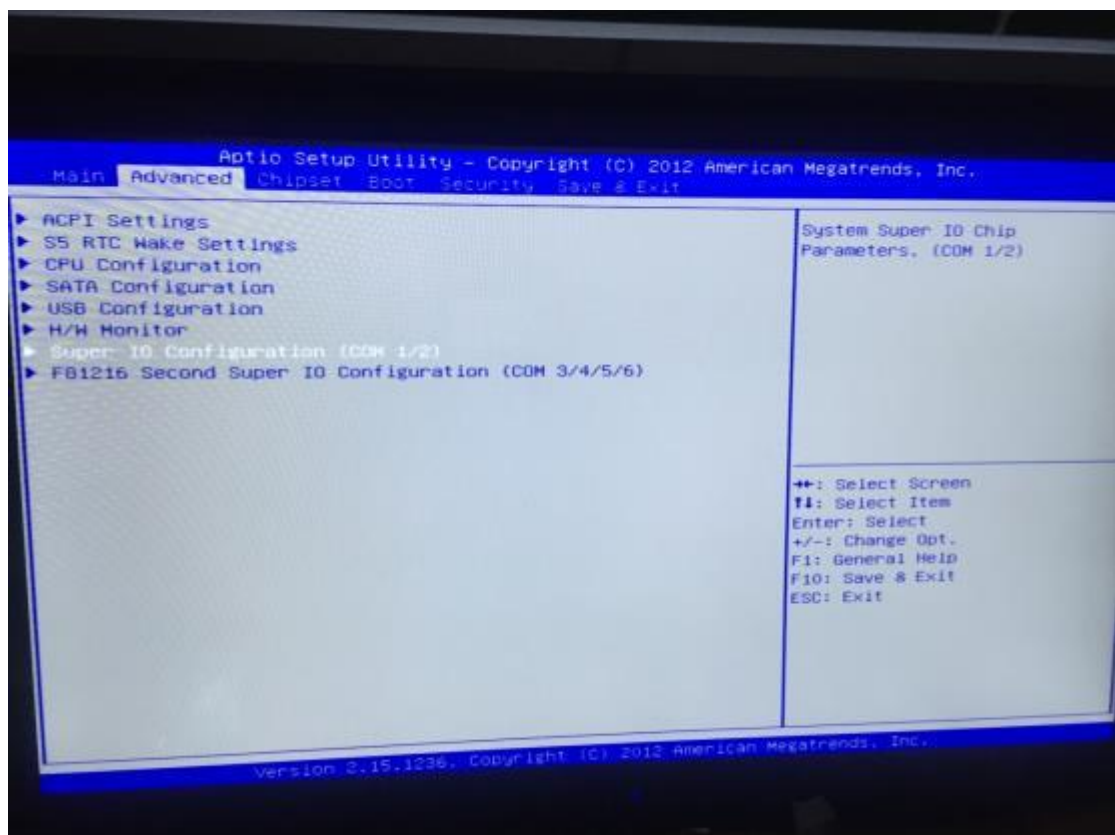


Figure 27. I/O select in BIOS

3. Choose "Serial Port 1 Configuration / Serial Port 2 Configuration".

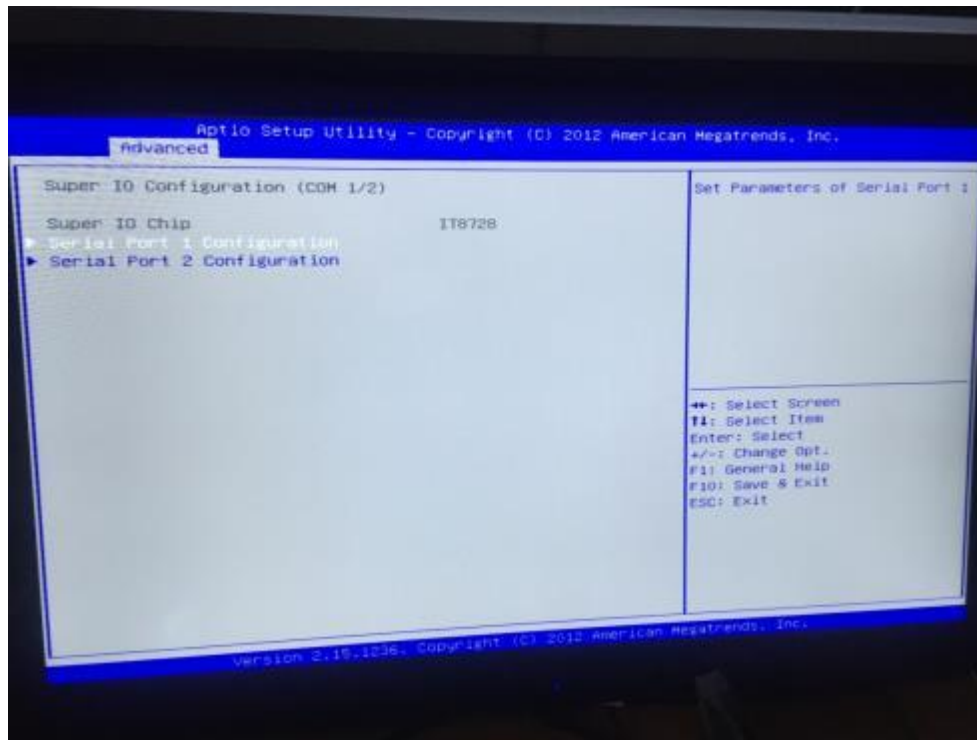


Figure 28. COM Port select in BIOS

4. Enter "Mode" to select power supply.

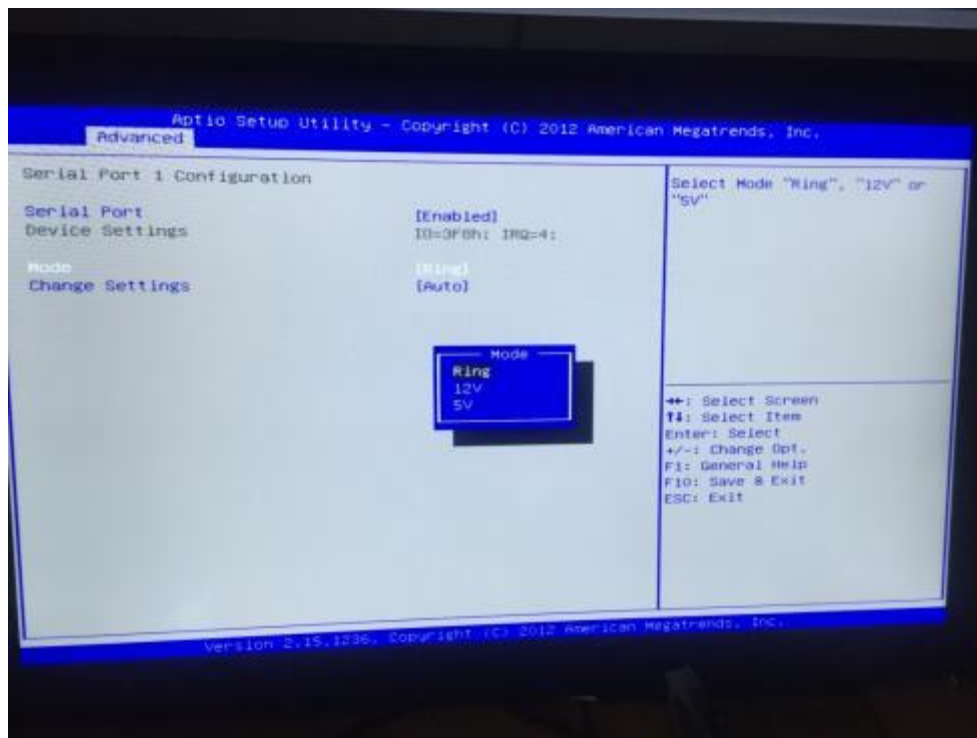


Figure 29. Power select for COM Port in BIOS

5. For COM 3/4/5/6, choose "Advanced" and enter "F81216 Second Super IO Configuration (COM 3/4/5/6)" shown as below.

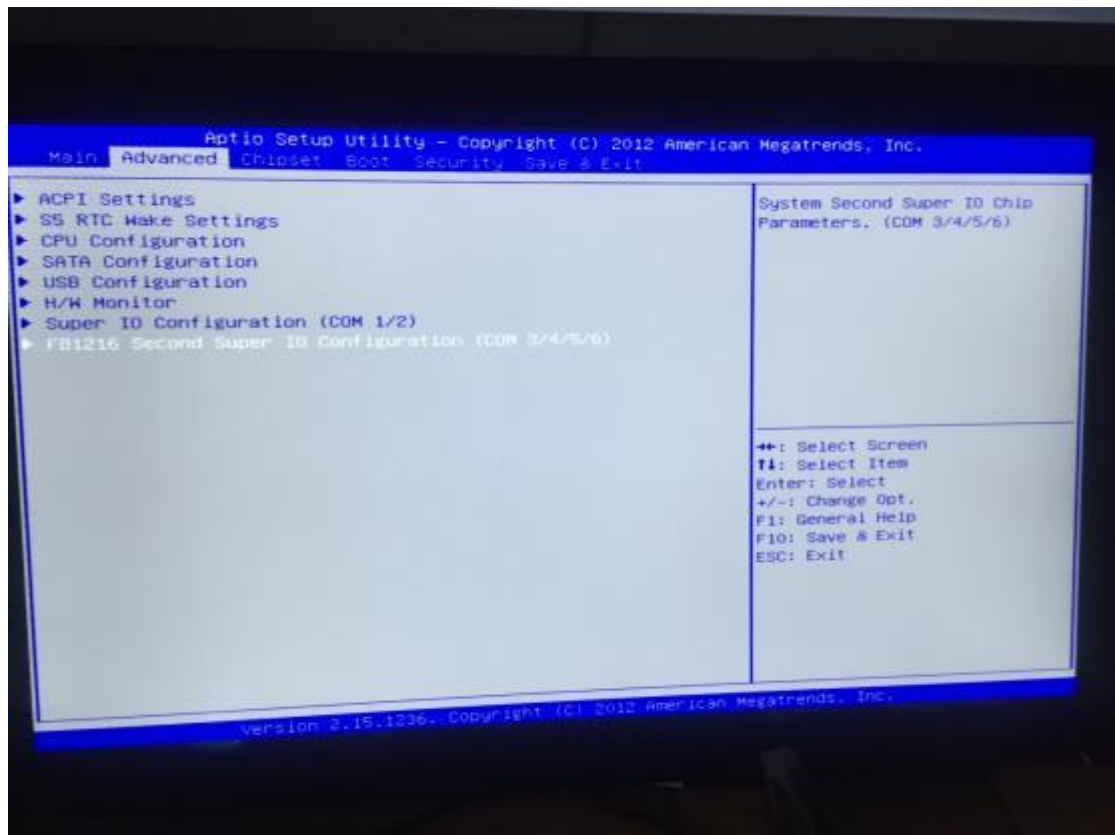


Figure 30. COM Port select in BIOS (3/4/5/6)

2.2.2 Power Setting (Cash Drawer)

1. Connect the keyboard and enter BIOS.
2. Choose "Chipset" and enter "Cash Drawer Power" to select power supply shown as below.

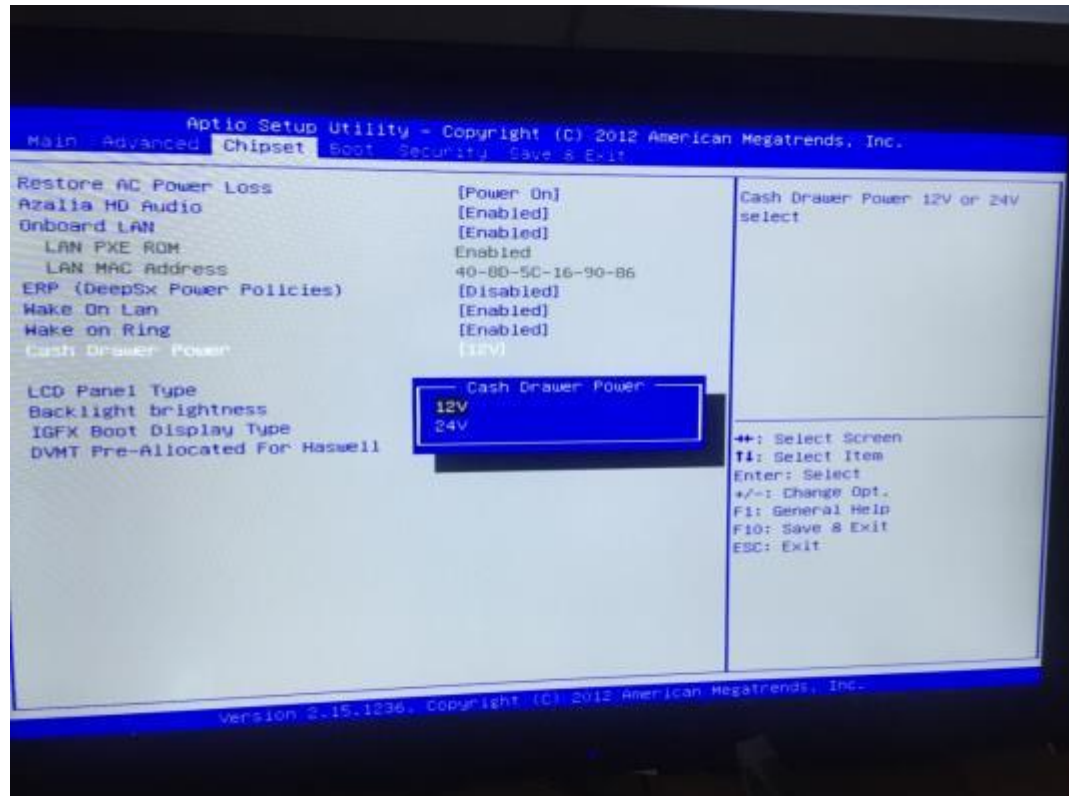


Figure 31. Power select for cash drawer in BIOS

2.2.3 LCD Panel Type

1. Connect the keyboard and enter BIOS.
2. Choose "Chipset" and enter "LCD Panel Type" shown as below.

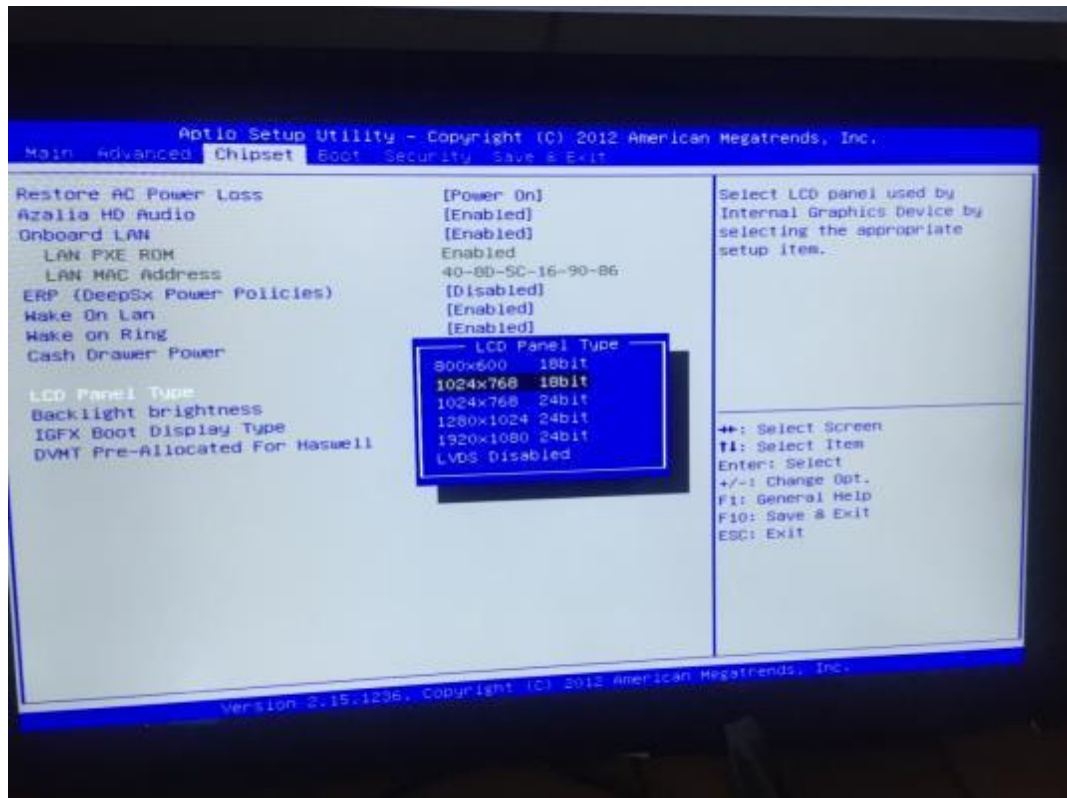


Figure 32. LCD panel type select

2.2.4 LED Backlight Brightness

1. Connect the keyboard and enter BIOS.
2. Choose "Chipset" and enter "Backlight brightness" shown as below.



Figure 33. Backlight brightness select

2.2.5 Restore AC Power Loss

1. Connect the keyboard and enter BIOS.
2. Choose "Chipset" and enter "Restore AC Power Loss" shown as below.

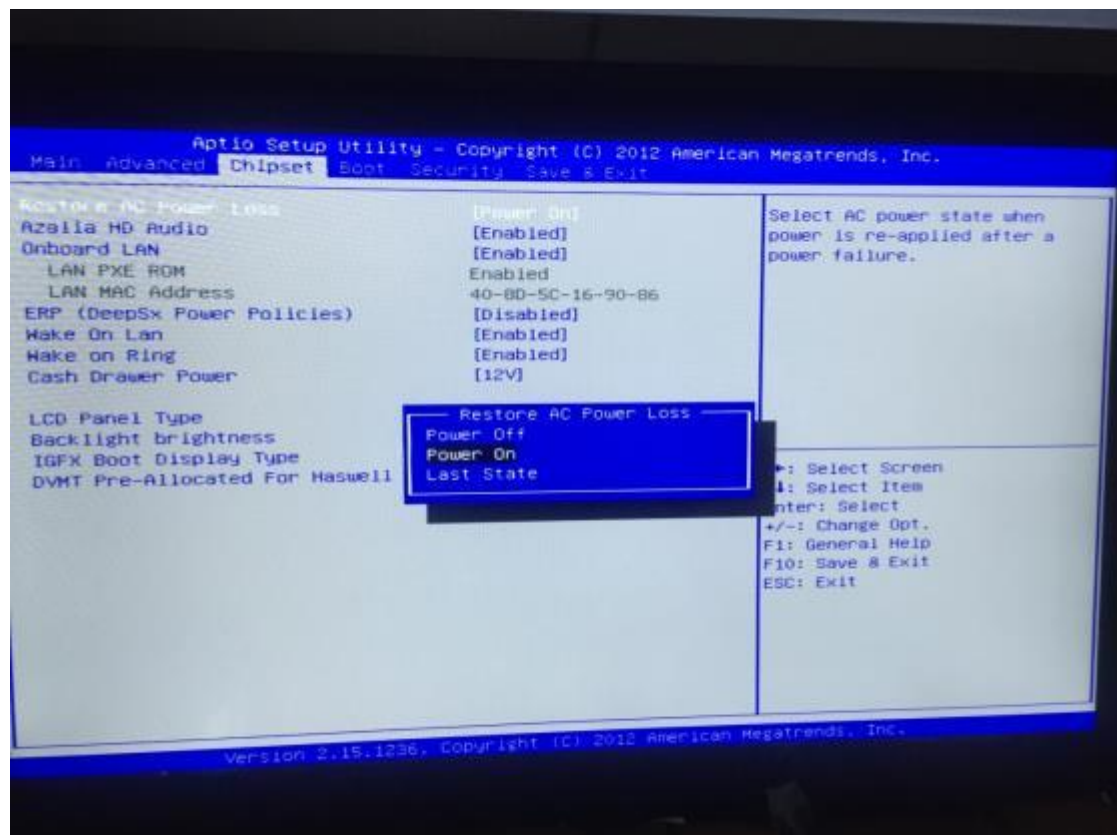


Figure 34. Restore AC power loss select

2.2.6 Cash Drawer Setup

Please make sure the voltage and cable pin assignment of your cash drawer matches the cash drawer port on **PP-8642**.

You may find the jumper setting and pin definition in M/B H81 user manual.

Please refer to **trouble shooting** if the cash drawer cannot be detected by PP-8642



Figure 35. Cash drawer port location

To open drawer 1 (the default):

```
port[openaddr] <= open1
```

```
wait(sleep(ms))
```

```
port[openaddr] <= close
```

To open drawer 2:

```
port[openaddr] <= open2
```

```
wait(sleep(ms))
```

```
port[openaddr] <= close
```

To get status:

```
StatusValue <= port[status] and statusmask
```

The parameters, which are in the cashdrawer.ini

```
openaddr=A05
```

```
status=A05
```

```
sleep=200
```

```
open1=40
```

```
open1=80
```

```
close=1
```

```
statusmask=10
```


CHAPTER 3

3.1 Software Installation and Setup

Please download drivers and utilities from www.fecpos.com/en-global/ams/Download

3.1.1 OS Installation Sequence

To install Windows system (Windows 7, Windows system, Windows 8, Windows 8.1, Windows 10) 32-bit/64-bit, please press Del into BIOS when you login the system.

1. **Manu:** Advance → SATA configuration → IDE/AHCI Mode **select AHCI Mode**

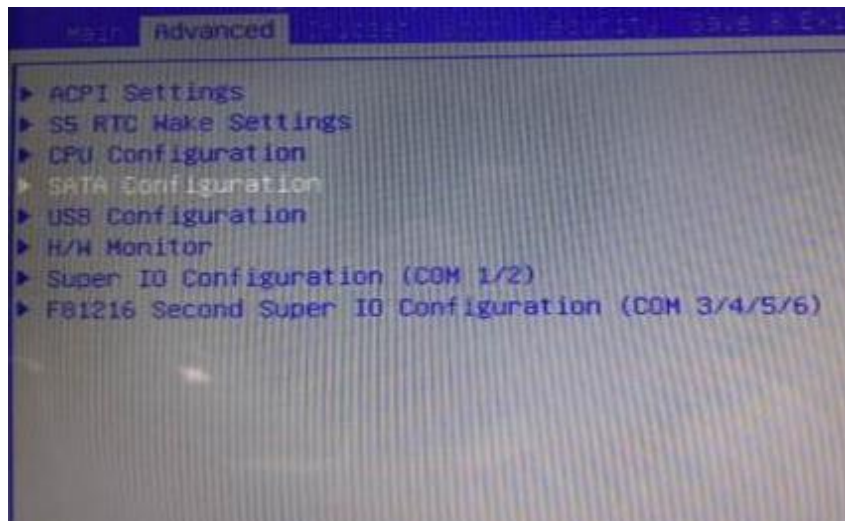


Figure 36. SATA configuration select

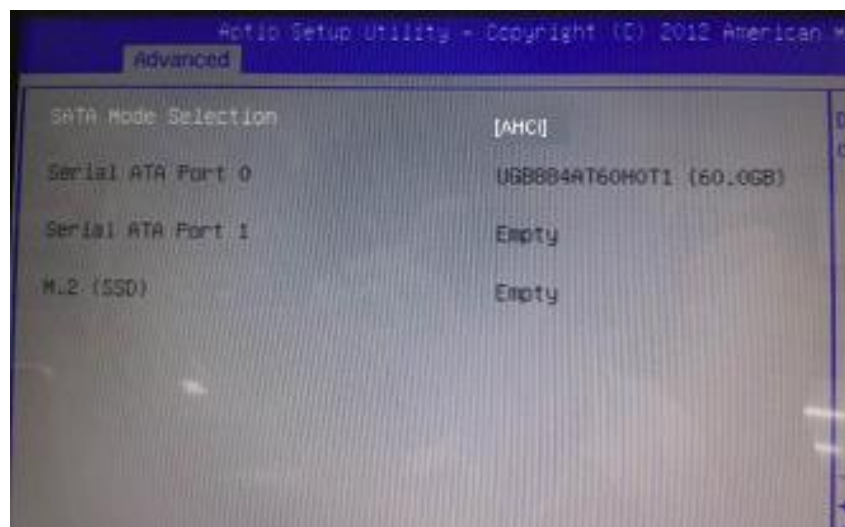


Figure 37. SATA mode select

2. Manu: Boot

→Boot Mode → CSM/UEFI Boot **select CSM Boot**

→Boot Option Priorities

→Option #1 DVD device (Model name, type), windows system in DVDROM

→Option #2 Hard Driver device (Model name, type)

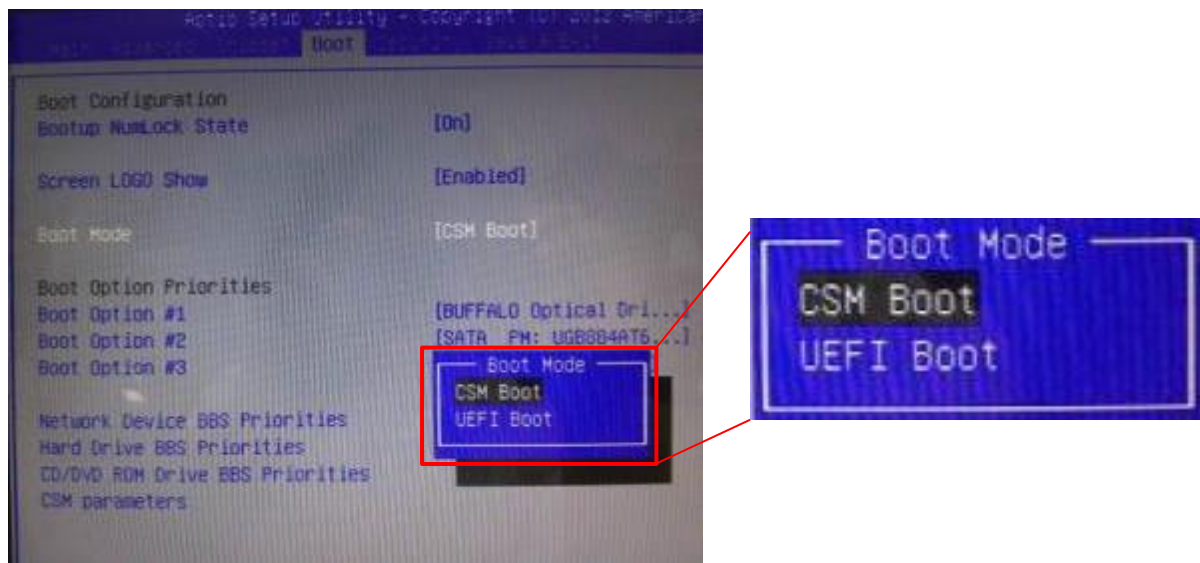


Figure 38. Boot mode select

3. Press **F10** to install OS

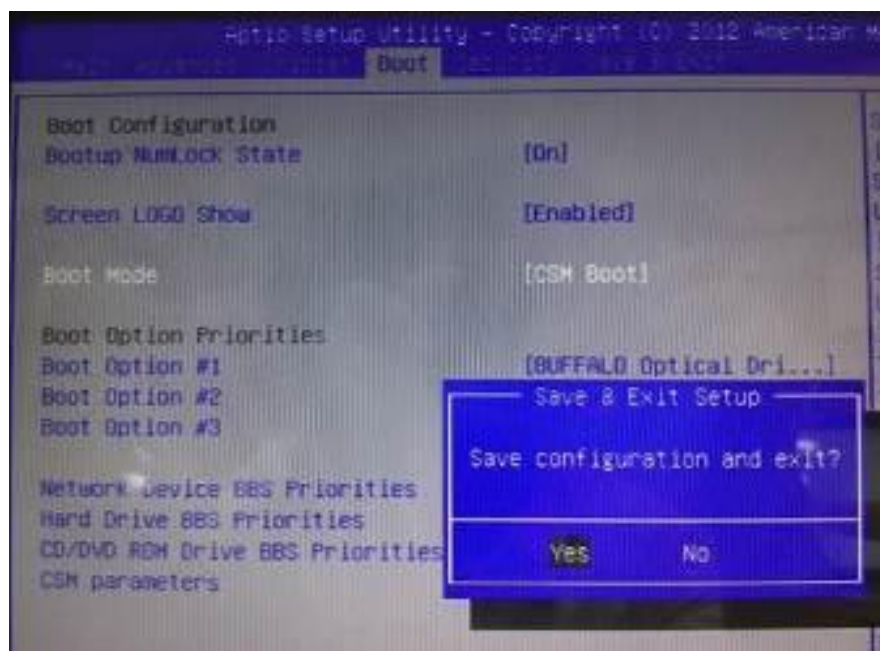


Figure 39. Save BIOS setup



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Please notice, while the PC is in UEFI mode, the Windows PE version must match the PC architecture. A PC in 64-bit UEFI firmware mode can only boot 64-bit versions of Windows PE. A PC in 32-bit UEFI firmware mode can only boot 32-bit versions of Windows PE. On PCs that support both UEFI mode and legacy BIOS mode, you may be able to run 32-bit Windows PE on a 64-bit PC by changing BIOS menu settings from “UEFI mode” to “BIOS mode”, assuming the manufacturer supports legacy BIOS mode.

If you need more information about the UEFI Mode , you can check following website : <https://msdn.microsoft.com/en-au/library/hh824898.aspx>



3.1.2 Device Installation Sequence

1. Chipset Driver
2. ME Driver
3. VGA Driver
4. Audio Driver
5. LAN Driver
6. USB 3.0 Driver
7. Touch Tools (Touch Utility)

1. Intel H81 Chipset Utilities for Windows system

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **Setup.exe**

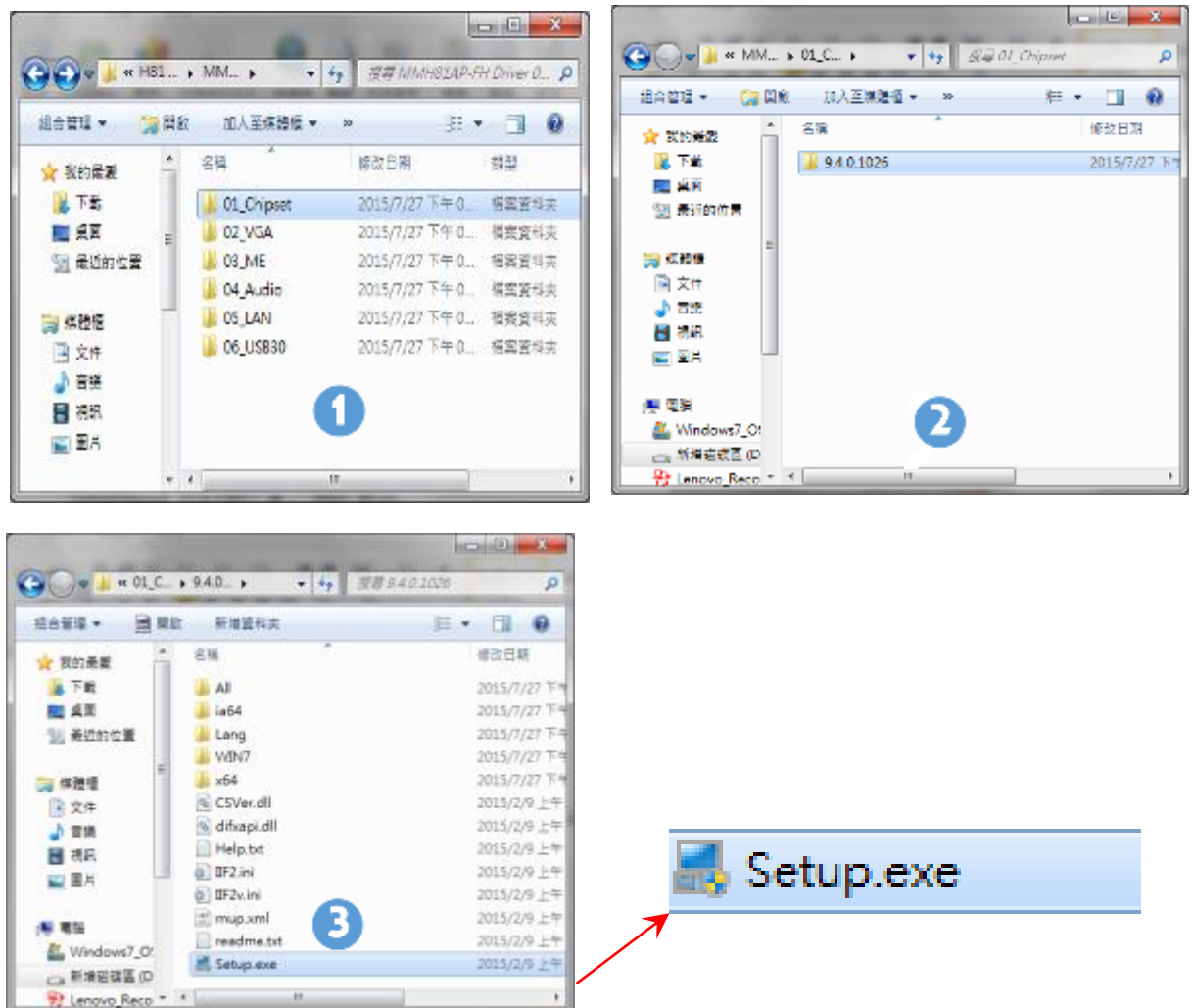


Figure 40. Chipset driver setup

2. ME Driver for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **SetupME.exe**

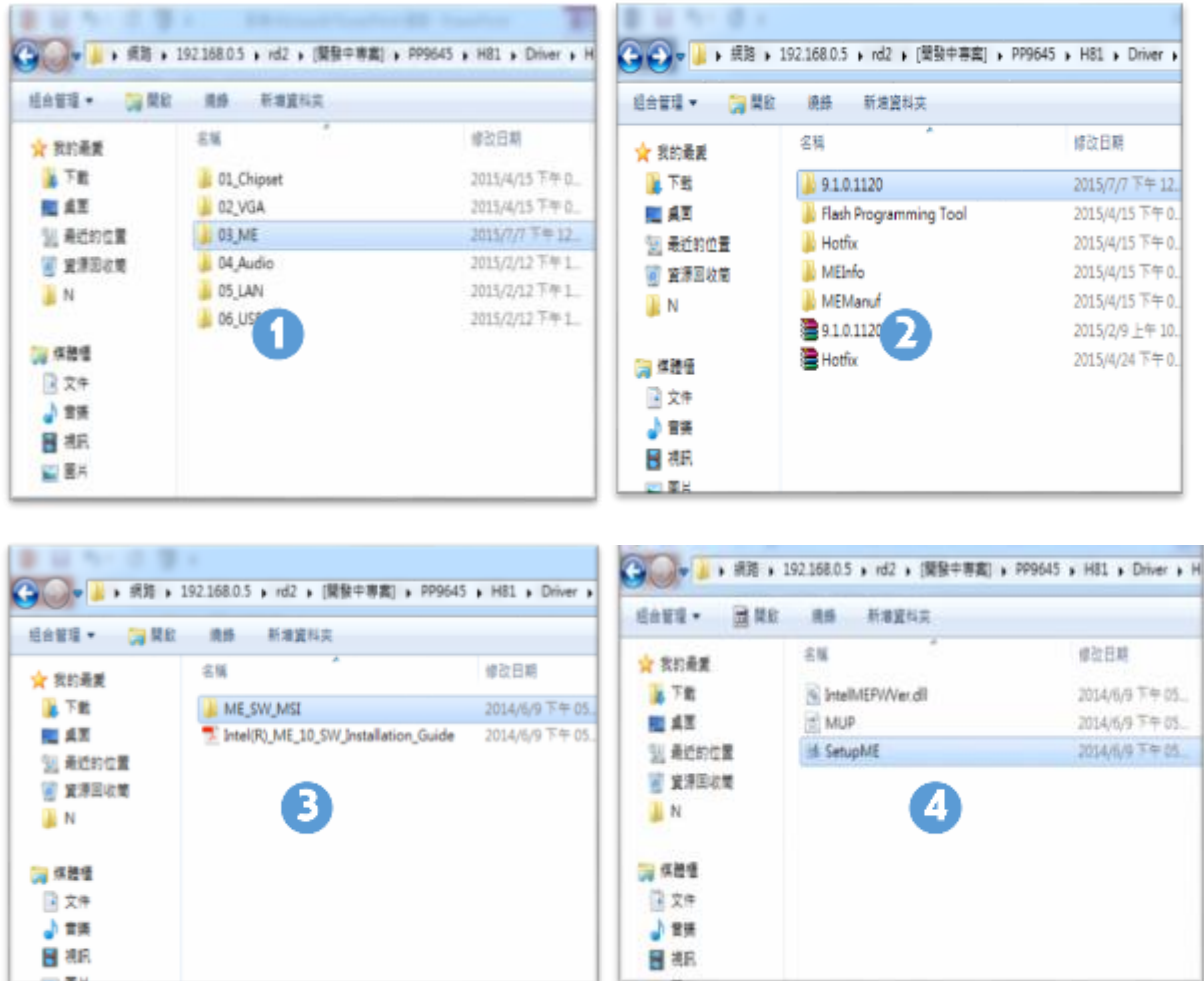


Figure 41. ME driver setup

3. Restart PP-8642 to complete installation

***When the system is POSReady7 or Windows 7, you need to install Hotfix driver extra, but you don't need to install this driver if the system is Windows 8 or Windows 8.1.**

ME Driver for Windows 8.

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **SetupME.exe**

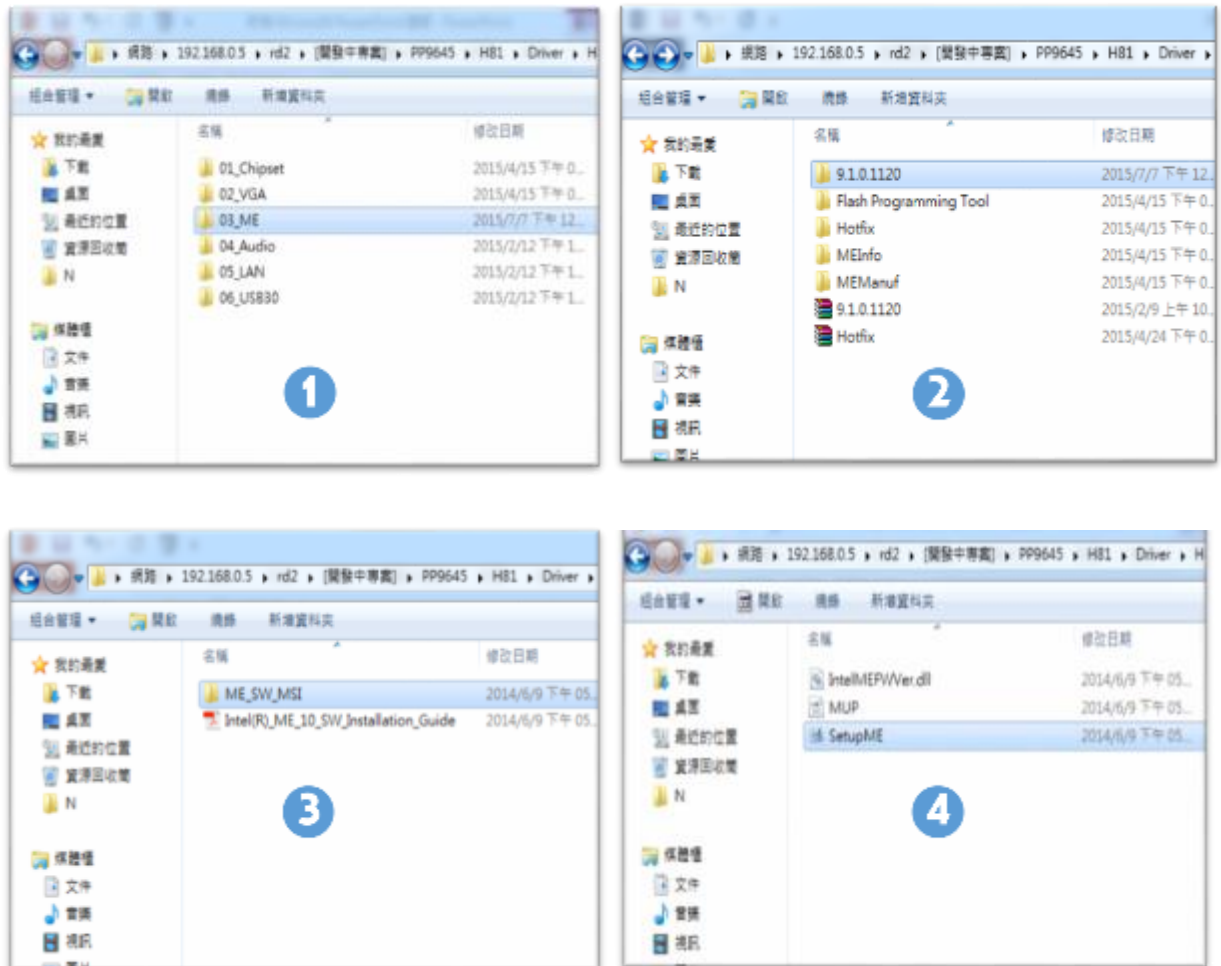
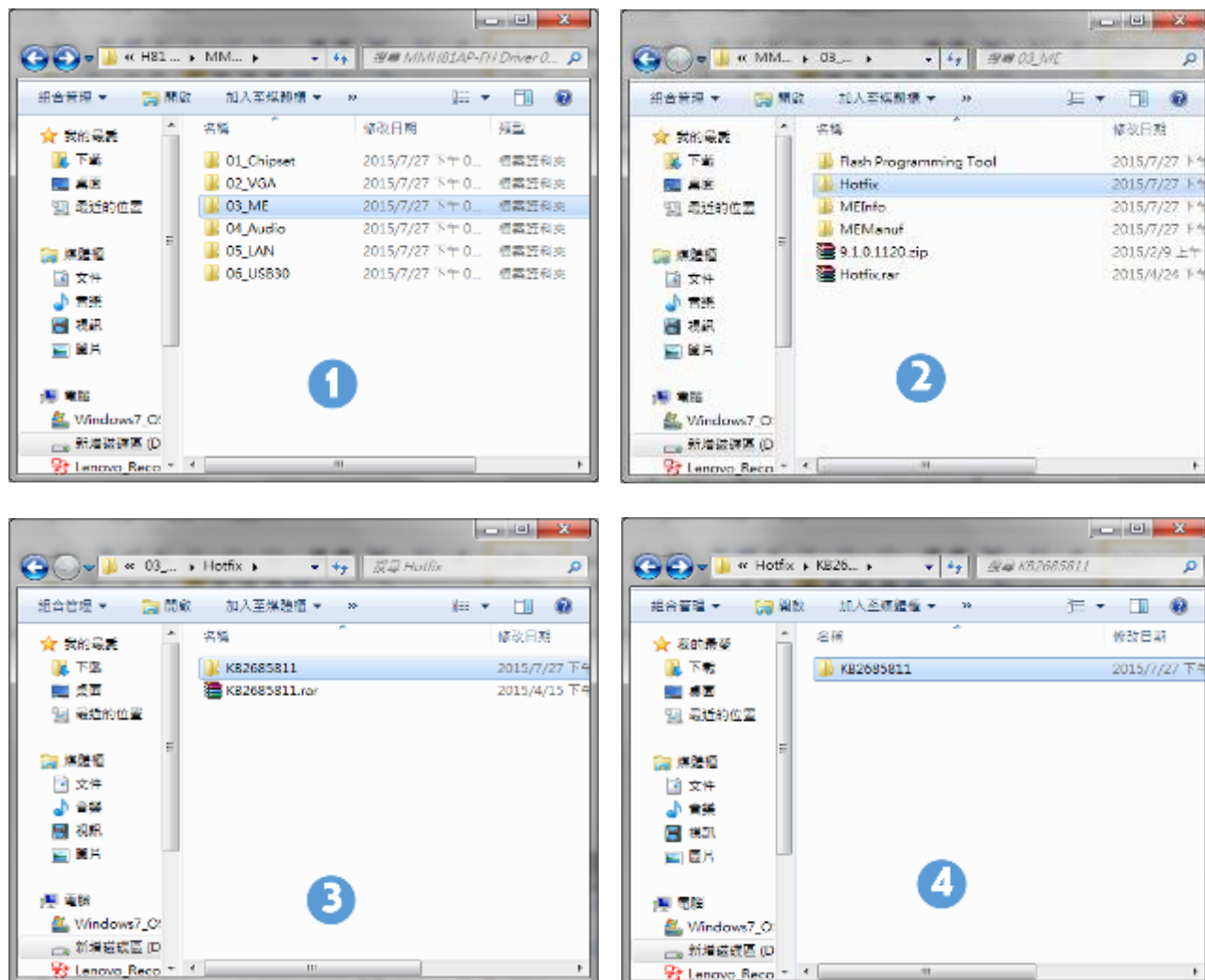


Figure 42. ME driver for Win 8 setup

3. Restart PP-8642 to complete installation

ME Update (Hotfix) for Windows system

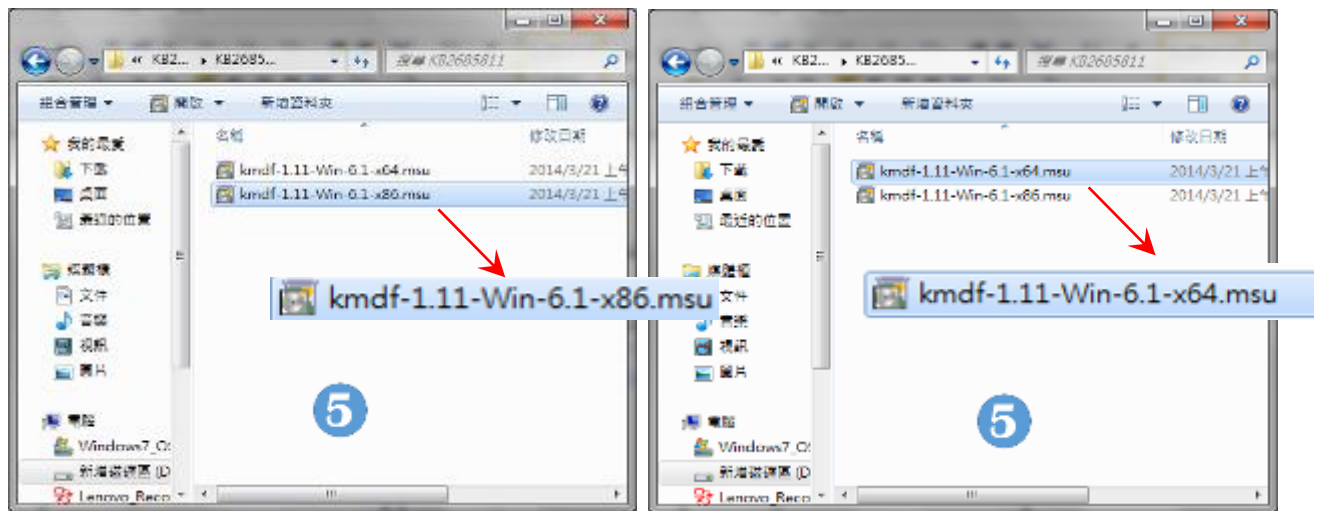
1. Download drivers from www.fecpos.com/en-global/ams/Download



32 bit

64bit

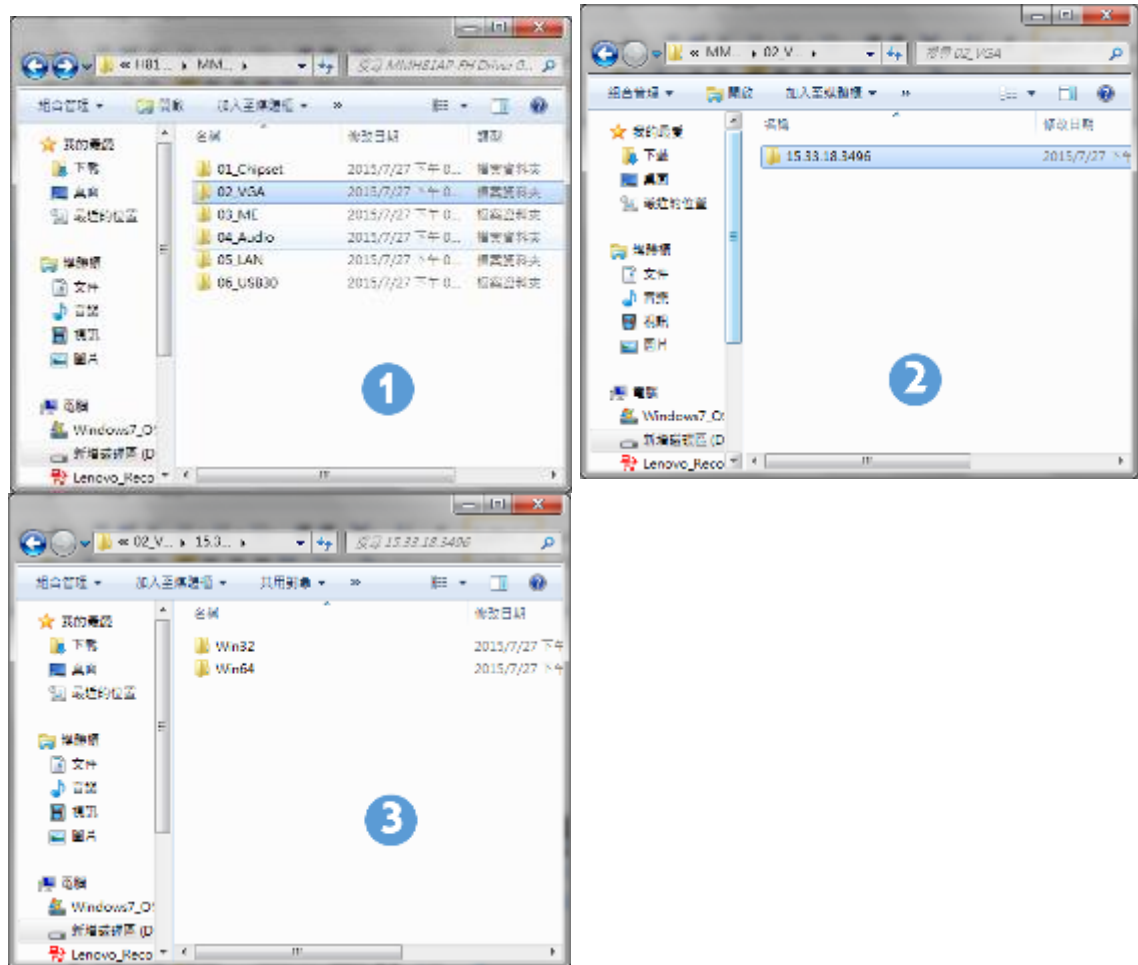
Figure 43. ME driver for Hotfix setup



2. Run **kmdf1.11-win-6.1-x86/64.msu**
3. Restart PP-8642 to complete installation

3. Intel VGA Driver for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download



Win32 (32-bit)

Win64 (64-bit)

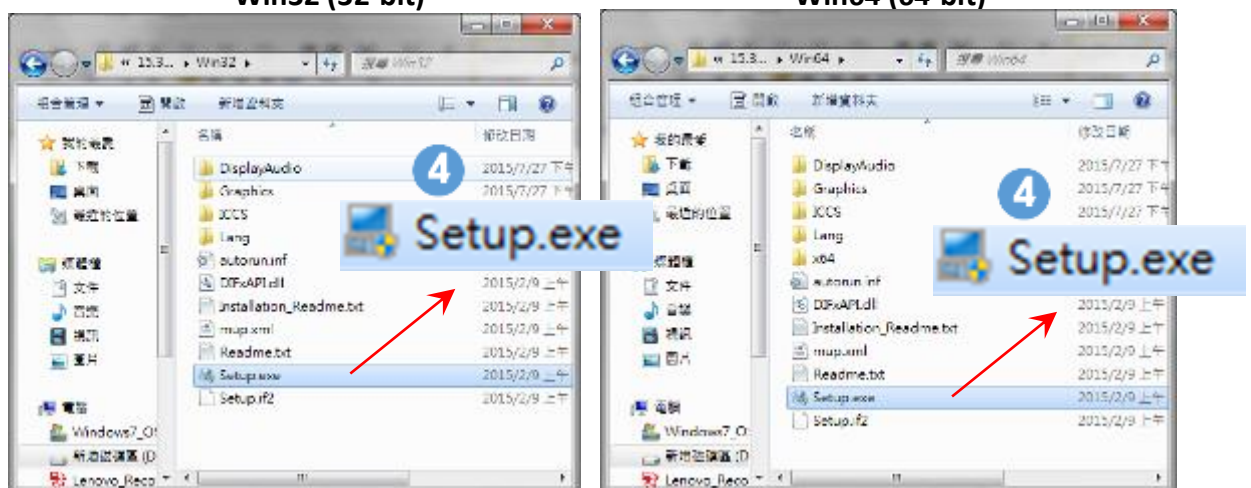


Figure 44. VGA driver setup

4. Run **Steup.exe**
5. Restart PP-8642 to complete installation

4. Audio Driver for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run Steup.exe

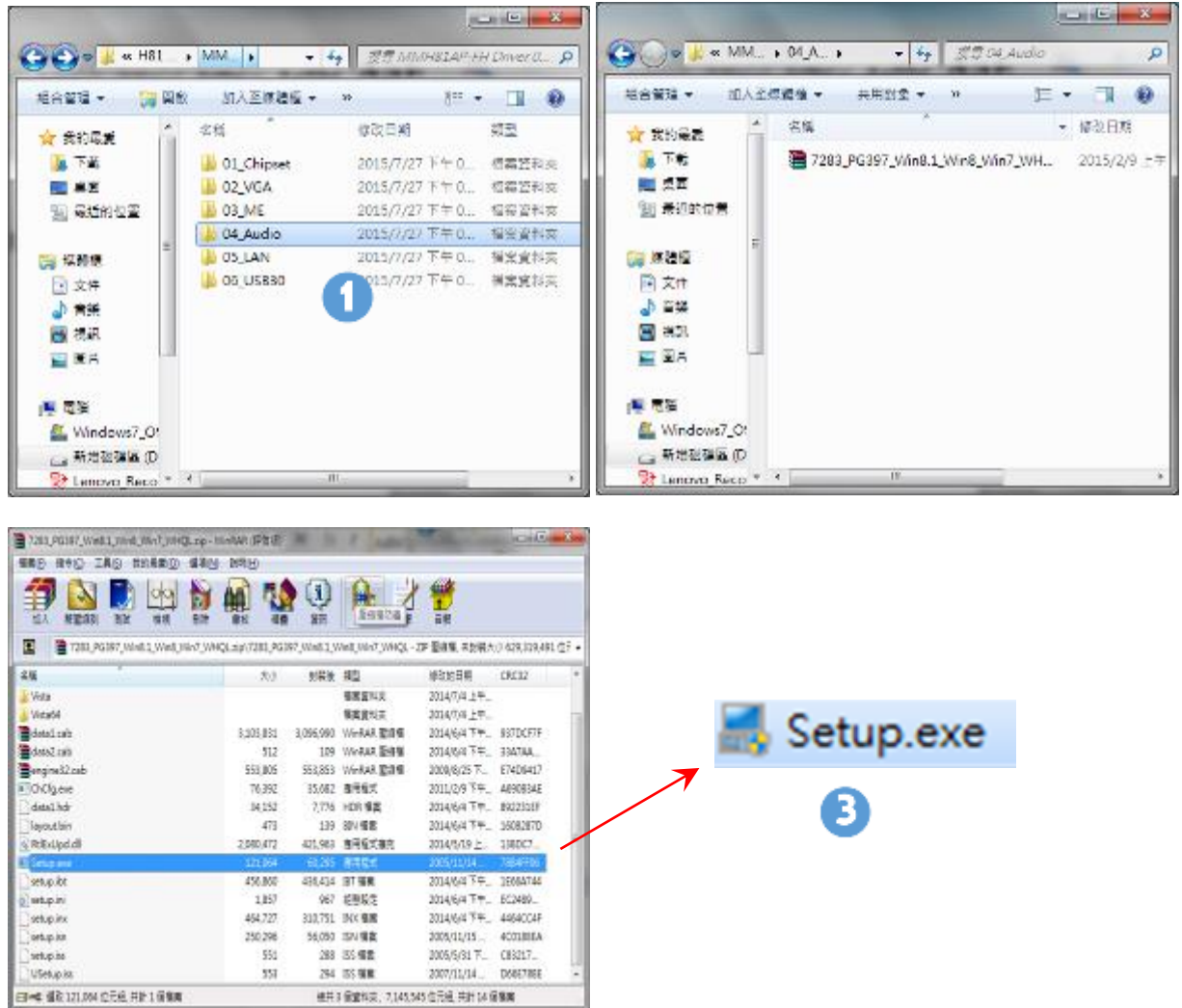


Figure 45. Audio driver setup

3. Restart PP-8642 to complete installation

5. LAN Driver for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **Steup.exe**

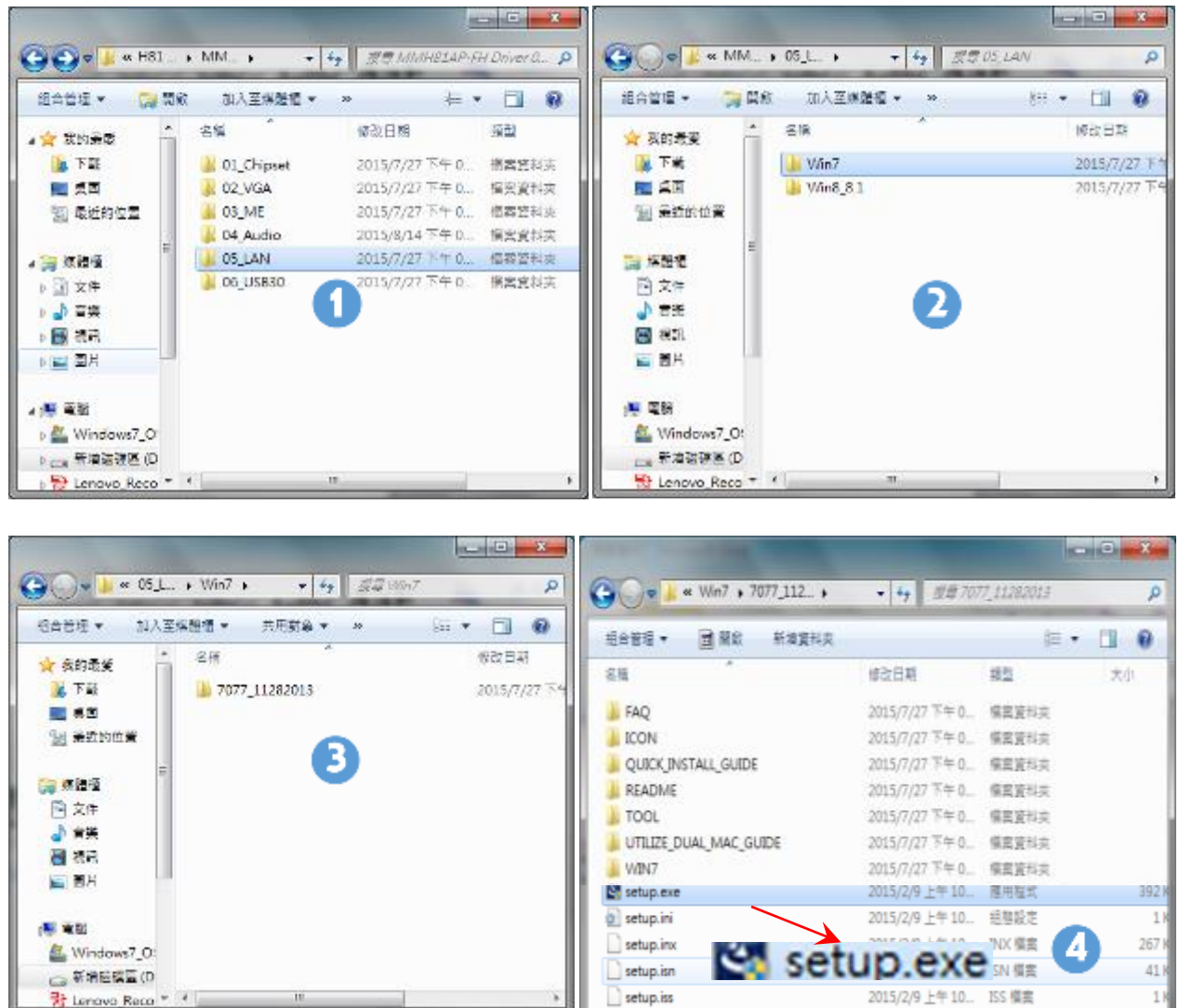


Figure 46. LAN driver setup

Wireless LAN Driver for Windows

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **Steup.exe**

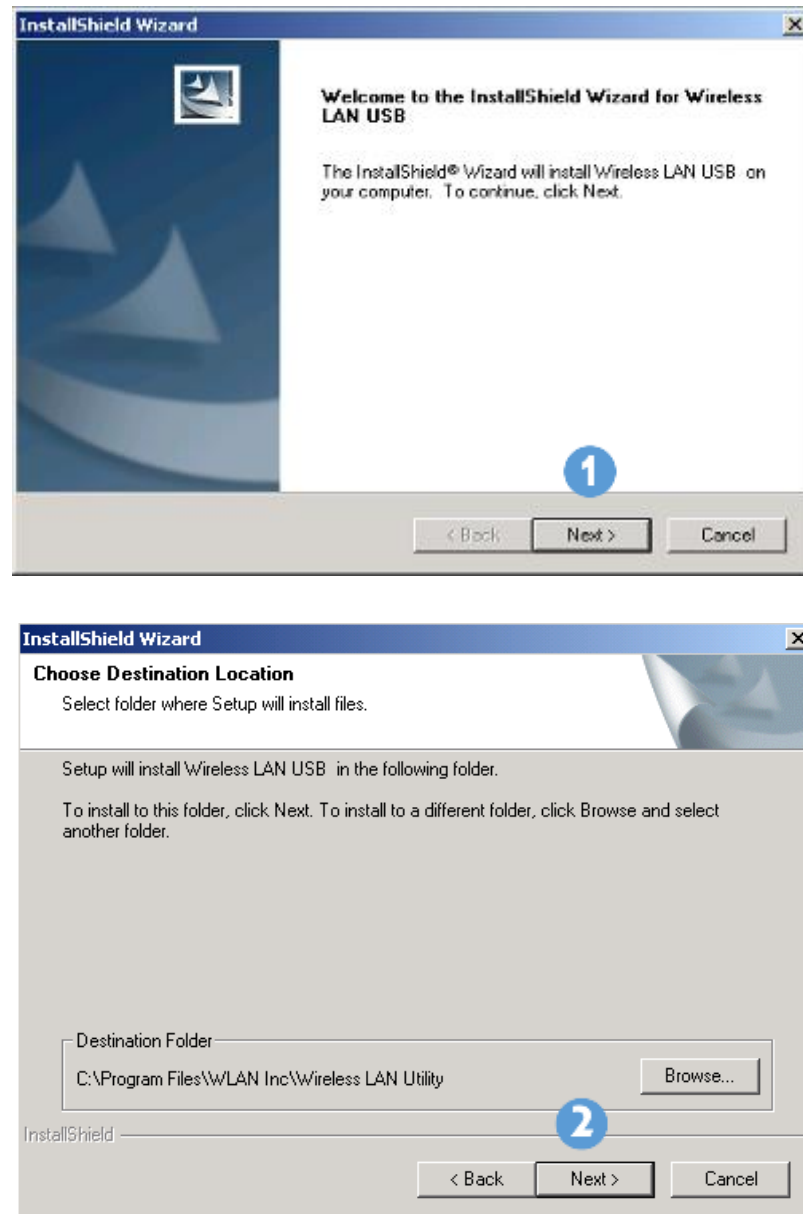


Figure 47. Wireless Lan driver setup

6. USB 3.0 Driver for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download

2. Run **Steup.exe**

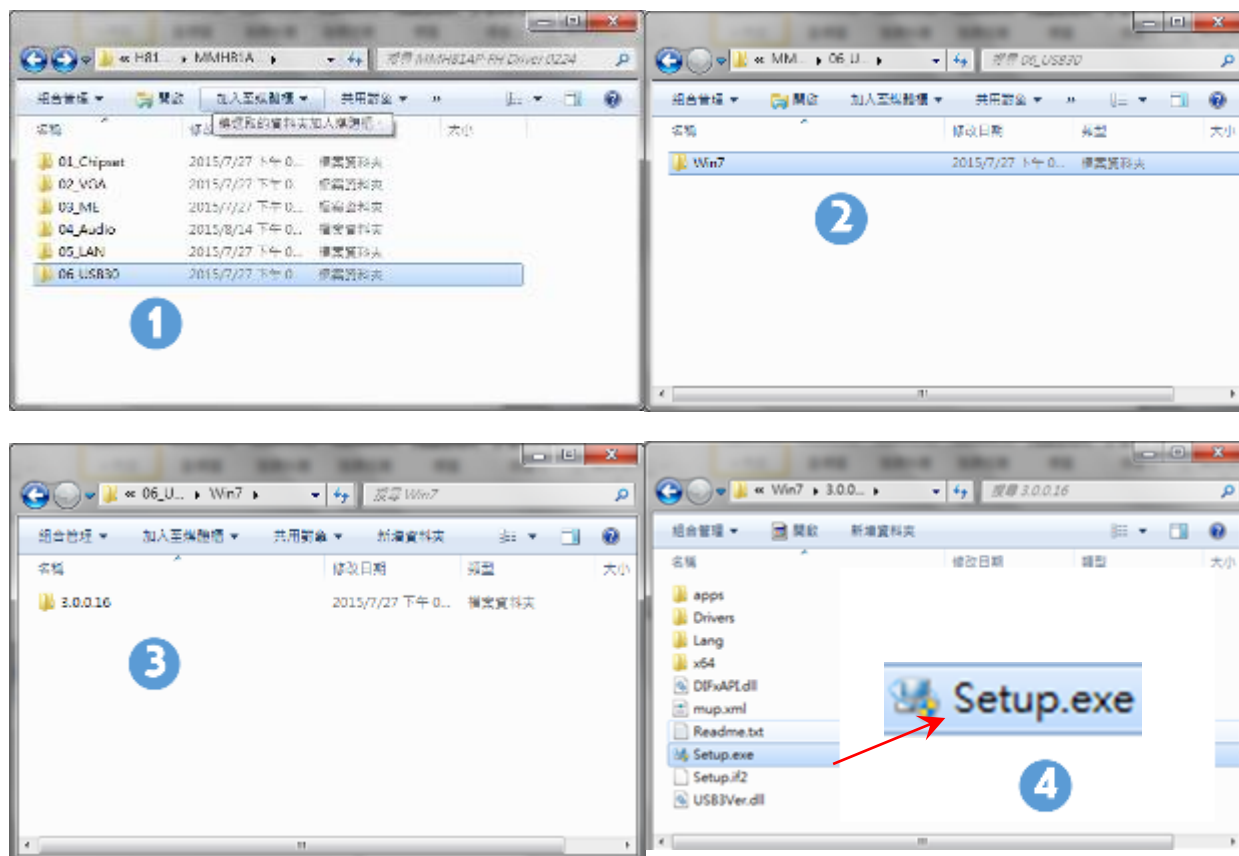


Figure 48. USB 3.0 driver setup

3. Restart PP-8642 to complete installation

7. EETI TouchKit for Windows system.

1. Download drivers from www.fecpos.com/en-global/ams/Download
2. Run **Steup.exe**

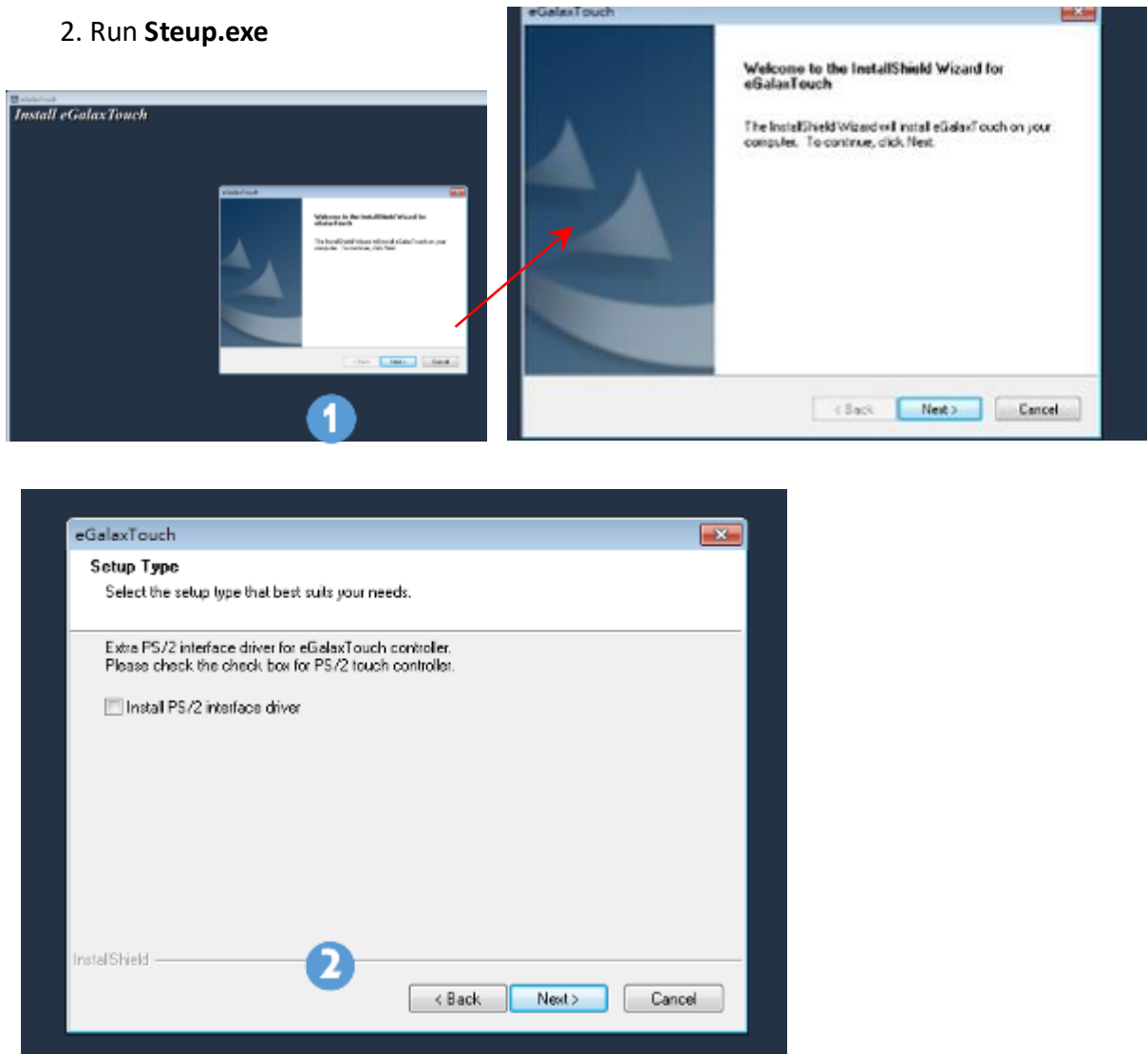
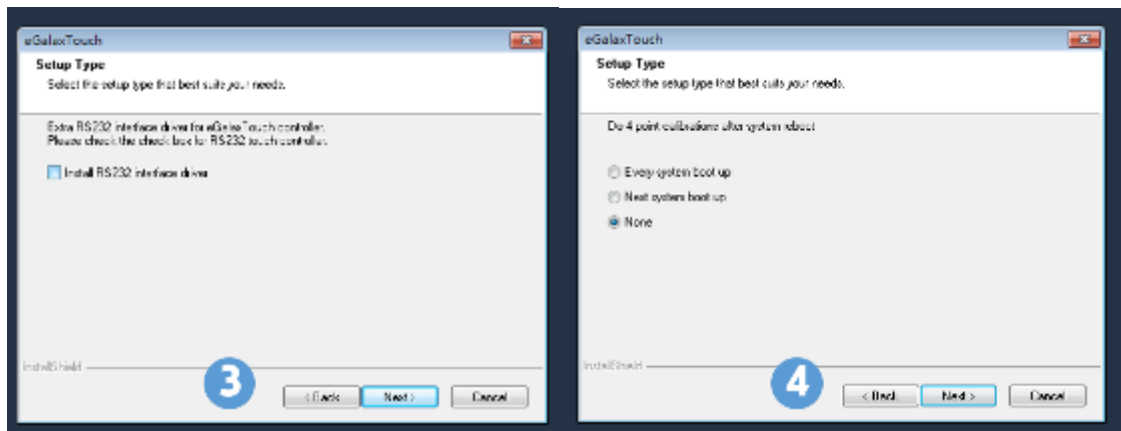


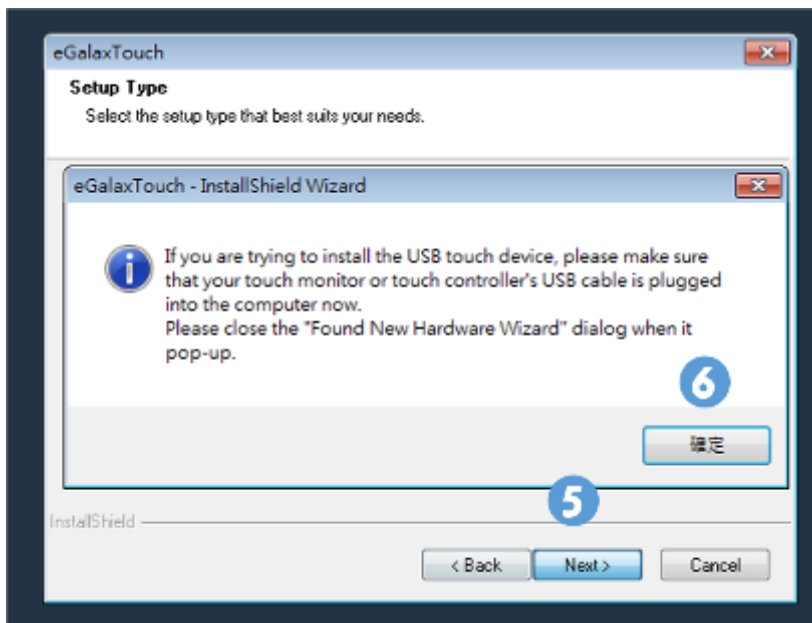
Figure 49. TouchKit setup

3. Do **NOT** select **Install PS/2 interface driver** and continue.

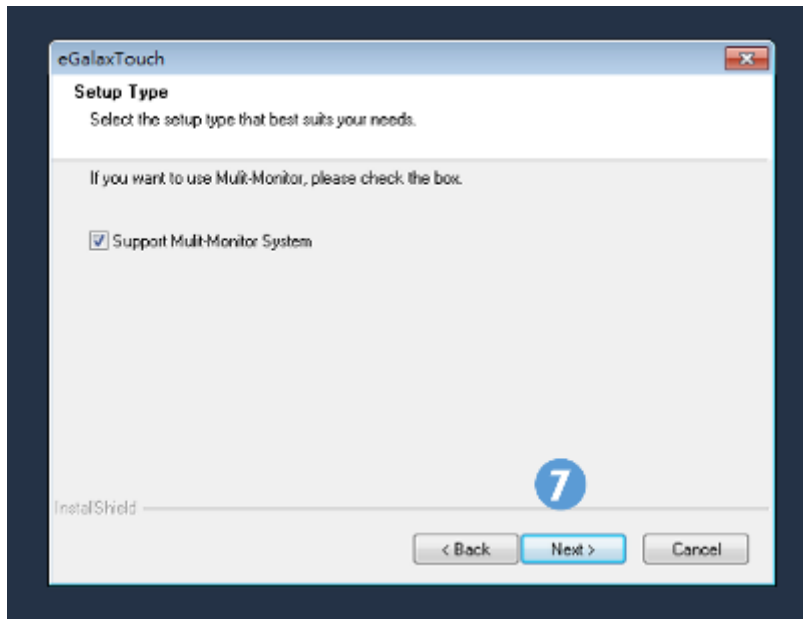


4. Do **NOT** select **Install RS232 interface driver** and continue.

5. Confirm USB touch device is in use.



6. Select **"Support Multi-Monitor System"** and continue



7. Restart PP-8642 to complete installation

EETI TouchKit for Control Panel.

Tools allows the user to calibrate the touch panel via **4 Points Calibration**

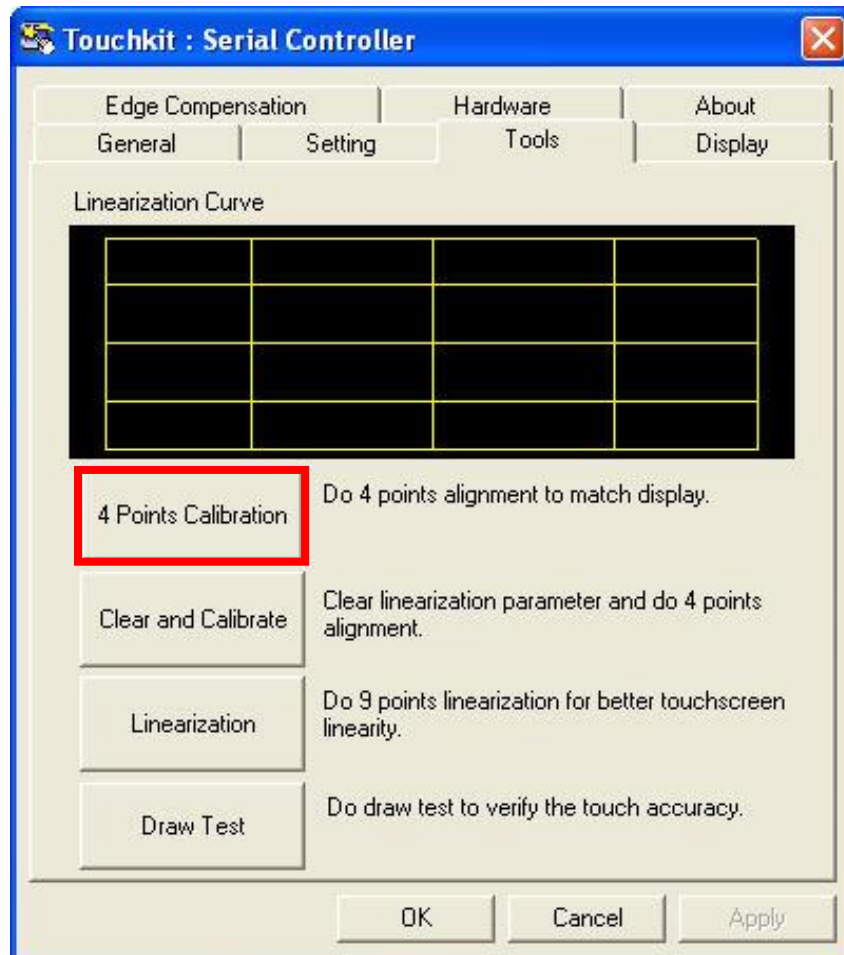


Figure 50. TouchKit tool

CHAPTER 4

4.1 Specifications

PP-8642 SKU	PP-8642C3	PP-8642C5	PP-8642K5
Platform Processor	Haswell H81 Chipset Celeron G1820TE 2.20GHz i3-4330TE 2.40 GHz i5-4590T 2.0~3.0 GHz		
Memory	Dual SODIMM x 2 DDR3L Standard 2G ; Max 16G		
Touch Display	Bezel Free P-Cap touch GG LED / 30K hours / 250 nits	Bezel Free P-Cap touch GG LED / 50K hours / 300 nits	Bezel Free P-Cap touch GG LED / 50K hours / 300 nits
Contrast Ratio	3000 : 1	5000 : 1	5000 : 1
1 st Storage	SATA Storage x 1 (HDD or SSD)		
2 nd Storage	M.2 Storage x 1 (SDD for 2 nd storage)		
Power	150W		
Speaker	Yes		No
Optional I/O	Type C, Type G, Type K, Type J		Kiosk Type C

CHAPTER 5

5.1 Troubleshooting

This guide is for people with strong knowledge in computing hardware

Touch Panel does not work

- A) Check the connection between touch panel and touch controller
- B) HID USB touch device is detected by O/S
- C) (P-Cap) P-Cap touch is detected by O/S or try reinstallation
- D) (P-Cap touch calibration) reboot the system and P-Cap touch will calibrate automatically

OSD Buttons do not work

- A) Press each OSD button for more than two seconds to trigger its function
- B) Make sure one button is touched at a time

HDD / SSD is not detected

- A) Make sure SATA storage device is properly installed
- B) HDD power cable is properly connected to the mainboard
- c) Check CMOS setup and set SATA HDD to Auto Detect
- D) Check onboard SATA port

LAN does not function properly

- A) LAN driver is installed properly
- B) RJ45 cable is connected properly
- c) check IRQ conflict

COM does not function properly

- A) Check the I/O ports in CMOS



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- B) Check IRQ conflict
- c) Check mainboard and I/O cable

Cash Drawer Port does not function properly

- A) Pin assignment of cash drawer matches that of RJ11 cash drawer port
- B) Check I/O port address