



PP-1635

Aer PPC

User Manual

ver. 0.1

Copyright Notice

This document is copyrighted, © 2014. All rights are reserved. Firich Enterprises Co., Ltd reserves the right to make improvements of the product described in this manual at any time without notice.

No part of this manual may be reproduced, copied, translated, or transmitted in any form or by any means without the prior written permission from Firich Enterprise Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Firich Enterprise Co., Ltd assumes no responsibility for its use, nor for any infringements upon the rights of third parties, which may result from its use.

The material in this document is for product information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, Firich Enterprise Co., Ltd, assumes no liabilities resulting from errors or omissions in this document, or from the use of the information contained herein.

FEC shall not be liable for technical or editorial errors or omissions contained herein.

Revision Record

Date	Version	Description	Note
2018/1/9	0.1	Draft	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

Table of Content

Chapter 1	7
Introduction	7
PP-1635 (Aer PPC)	7
Overview.....	8
Dimension.....	9
Tilting Angle	10
I/O Connectivity	11
Packing List	12
Chapter 2	13
Hardware Installation and Upgrade	13
2.5" SATA Storage (HDD / SSD)	13
MSR / iButton / RFID / FingerPrint (ID Device).....	14
Power Setting (COM / Cash Drawer Port).....	15
Cable Cover and Cabling.....	錯誤! 尚未定義書籤。
Integrated VFD / LCM.....	16
LED Backlight Brightness	18
2 nd Monitor (15" Pole Type).....	錯誤! 尚未定義書籤。
Cash Drawer.....	19
Chapter 3	20
Software Installation and Setup	20
Installation Sequence.....	20
Intel J1900 Chipset Utilities for Windows 7.....	21
Audio Driver for Windows 7.....	23
Realtek LAN Driver for Windows 7.....	24
Intel Graphic Driver for Windows 7.....	25
Intel TXE Driver for Windows 7	26
Intel TXE Update for Windows 7	27
USB 3.0 Driver for Windows 7	28
ELO TouchKit Tools Installation.....	錯誤! 尚未定義書籤。
ELO TouchKit Installation for Windows 7	錯誤! 尚未定義書籤。
EETI TouchKit for Windows 7	錯誤! 尚未定義書籤。

<i>EETI TouchKit Control Panel</i>	錯誤! 尚未定義書籤。
<i>Wireless LAN Driver for Windows</i>	29
Chapter 4	30
<i>Specifications</i>	30
Chapter 5	31
<i>Troubleshooting</i>	31
Touch Panel does not work.....	31
OSD Buttons do not work.....	31
HDD / SSD is not detected.....	31
MSR does not function properly	31
LAN does not function properly	31
COM does not function properly.....	32
Cash Drawer Port does not function properly	32

Chapter 1

Introduction

PP-1635 (Aer PPC)

PP-1635 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.

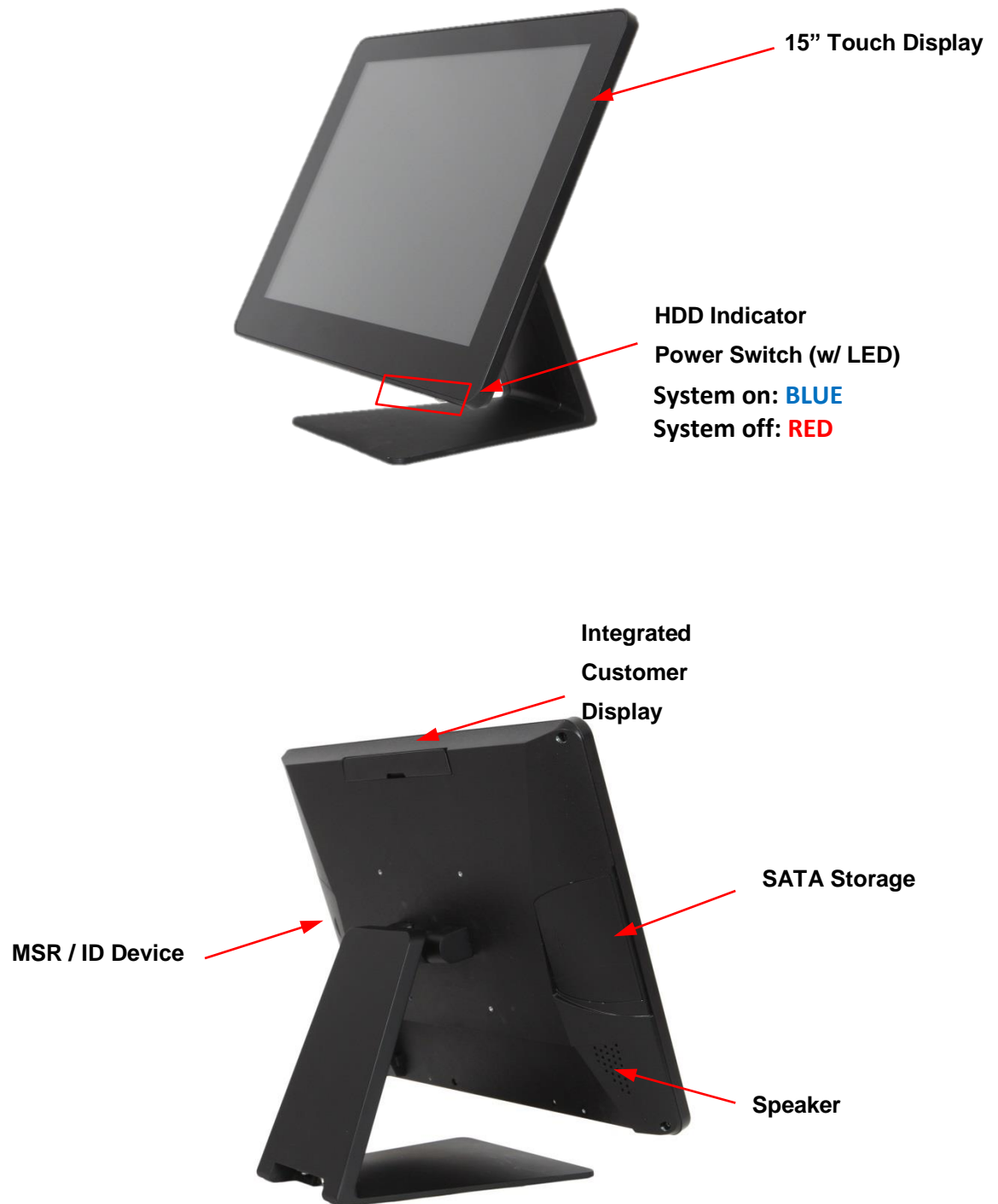
PP-1635 is a fanless system in die-cast aluminum chassis that is with stands harsh environments. It is equipped with Intel Celeron J1900 that is both powerful and energy efficient.

Key Features

- All in one designed
- Slim & Sleek
- Aluminum Die-casting housing
- Fanless & Noise Free
- True flat Projected Capacitive Touch (IP54 compliant panel)



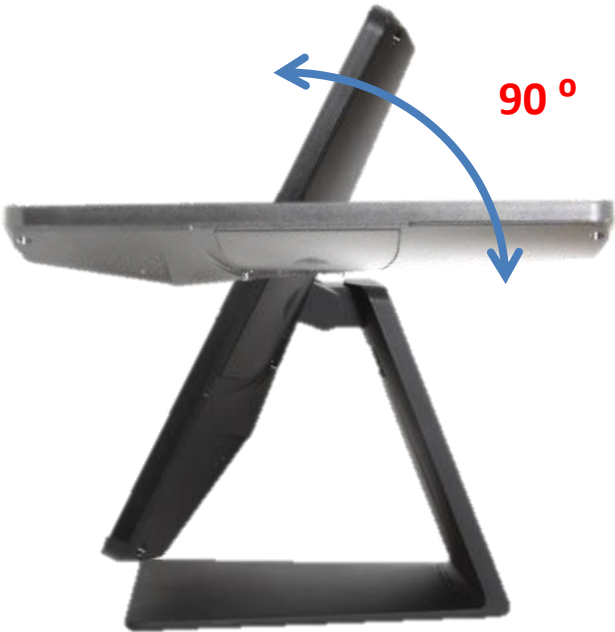
Overview



Dimension



Tilting Angle



Swappable stand cover



I/O Connectivity

I/O – Default



I/O Port	Connector Type	Description
12v DC- in	DC-in (4 pin)	12v Power Adapter
12v DC-out	DC-out (phone jack)	12v devices
Cash Drawer	RJ-11	12v Cash Drawer
Ethernet	RJ-45	Gigabit LAN
VGA	D-Sub 15	2 nd LCD, 5v /12v (Select in BIOS)
USB	USB Type A	USB 2.0
USB	USB Type A	USB 2.0 / 3.0
COM 1	RJ-45	RI / 5v / 12v (select in BIOS) 5v : Green / 12v : Orange
COM 2	D-Sub 9	RI / 5v / 12v (select in BIOS)
COM 3	D-Sub 9	RI / 5v / 12v (select in BIOS)
COM 4	RJ-45	RI / 5v / 12v (select in BIOS)

Packing List

Standard		Optional	
1	PP-1635		
2	Power Adapter (60w)		
3	AC Power Cord		
4	RJ45-DB9 Cable		

Chapter 2

Hardware Installation and Upgrade

Warning!



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

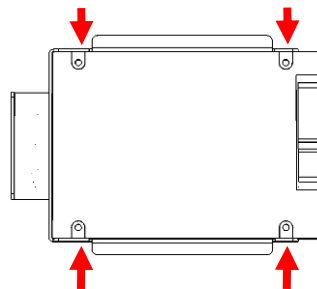
2.5" SATA Storage (HDD / SSD)

1. power off and unplug power cord from PP-1635

2. remove SATA storage cover



3. fix SATA storage to metal bracket
via 4 screws



4. install SATA storage with bracket
5. fix the bracket via 1 x M3 screw



6. replace SATA storage cover

7. plug in power cord and power on

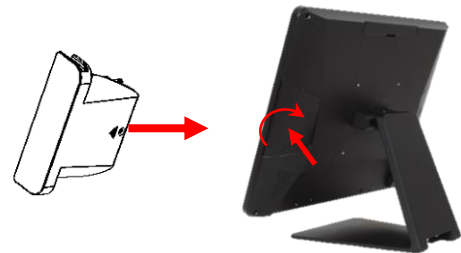


MSR / iButton / RFID / FingerPrint (ID Device)

1. remove plastic cover

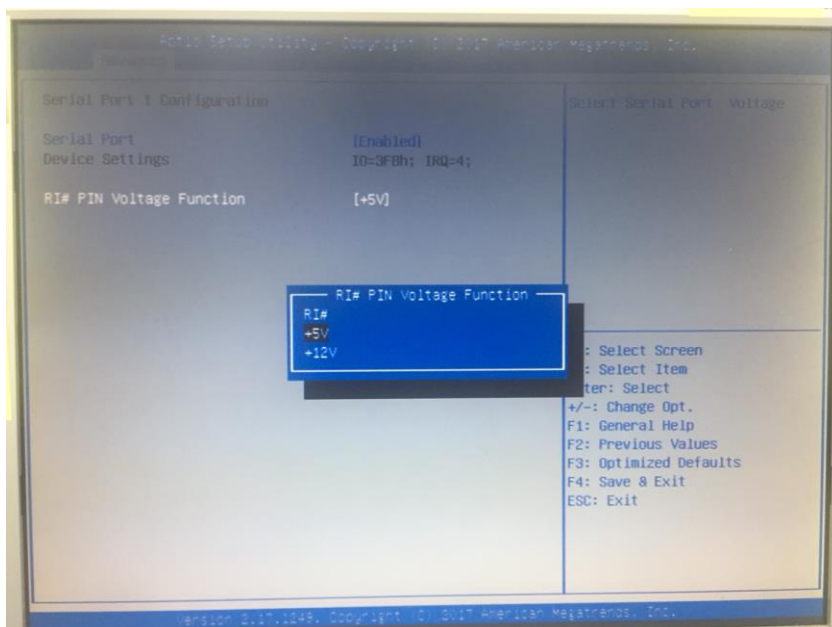
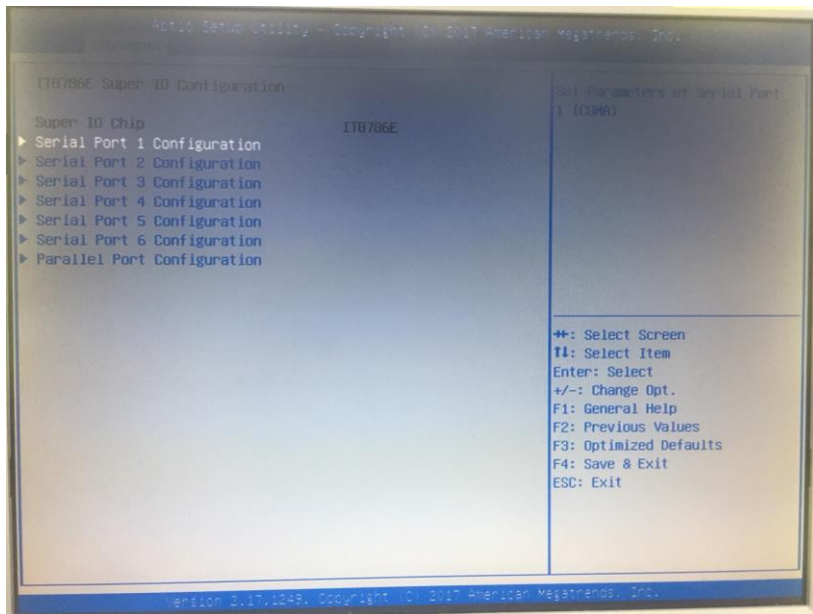


2. plug in ID device (USB) and fix it via 1 x M3 screw



Power Setting (COM / Cash Drawer Port)

You may select the power (5v / 12v) of COM in BIOS



Make sure the device voltage matches the power setting before connection

Integrated VFD / LCM

1. remove the back cover



2. connect customer display via serial cable



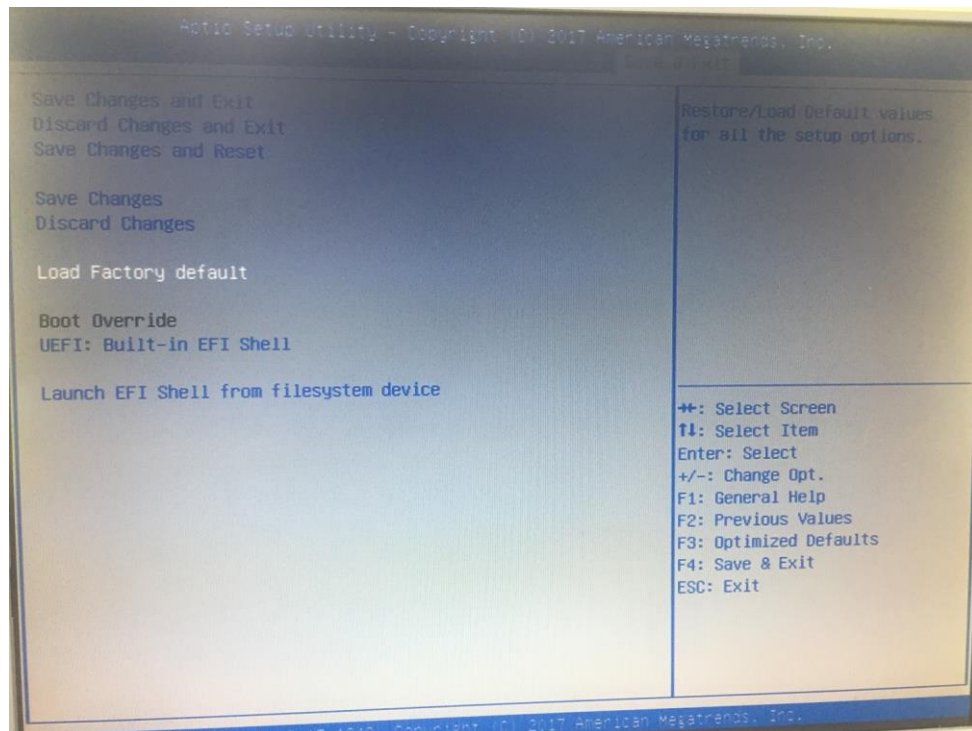
3. customer display (integrated type) is connected to **COM6**
5mm LCM Module (AP-2025) is **5v**
9mm VFD (AP-2029), 9mm LCM 20x2 (AP-2024), LCM 240x64 (AP-240G) are **12v**

*** make sure the power setting of COM6 is correct before customer display is connected**

4. do not exceed the tilt angle as this may damage internal cable

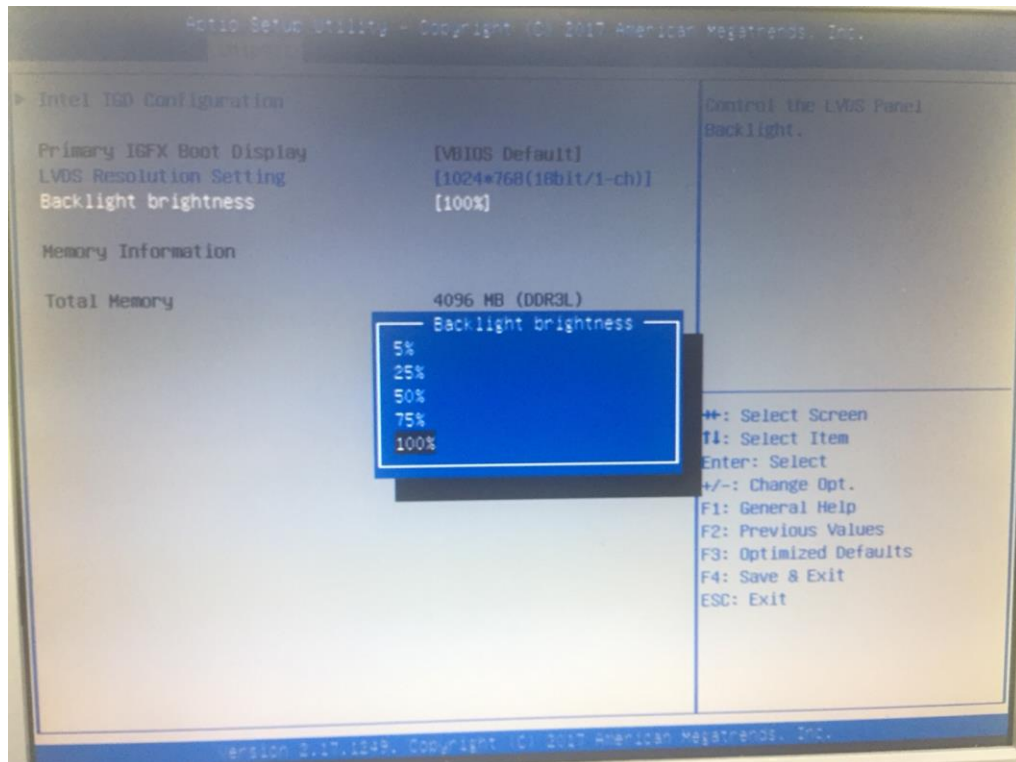


Load Factory Default



Choose "Load Factory Default" to reset BIOS setting which defined in FEC factory.

LED Backlight Brightness



5 levels of backlight brightness (5, 25, 50, 75, 100%) can be selected in the BIOS

Cash Drawer

Please make sure the voltage and cable pin assignment of your cash drawer matches the cash drawer port on **PP-1635**.

You may find the jumper setting and pin definition in M/B J1900 user manual.

Please refer to **trouble shooting** if the cash drawer cannot be detected by PP-1635



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=a04  
status=a05  
sleep=200  
open1=40  
open2=80  
close=00  
statusmask=01
```

Chapter 3

Software Installation and Setup

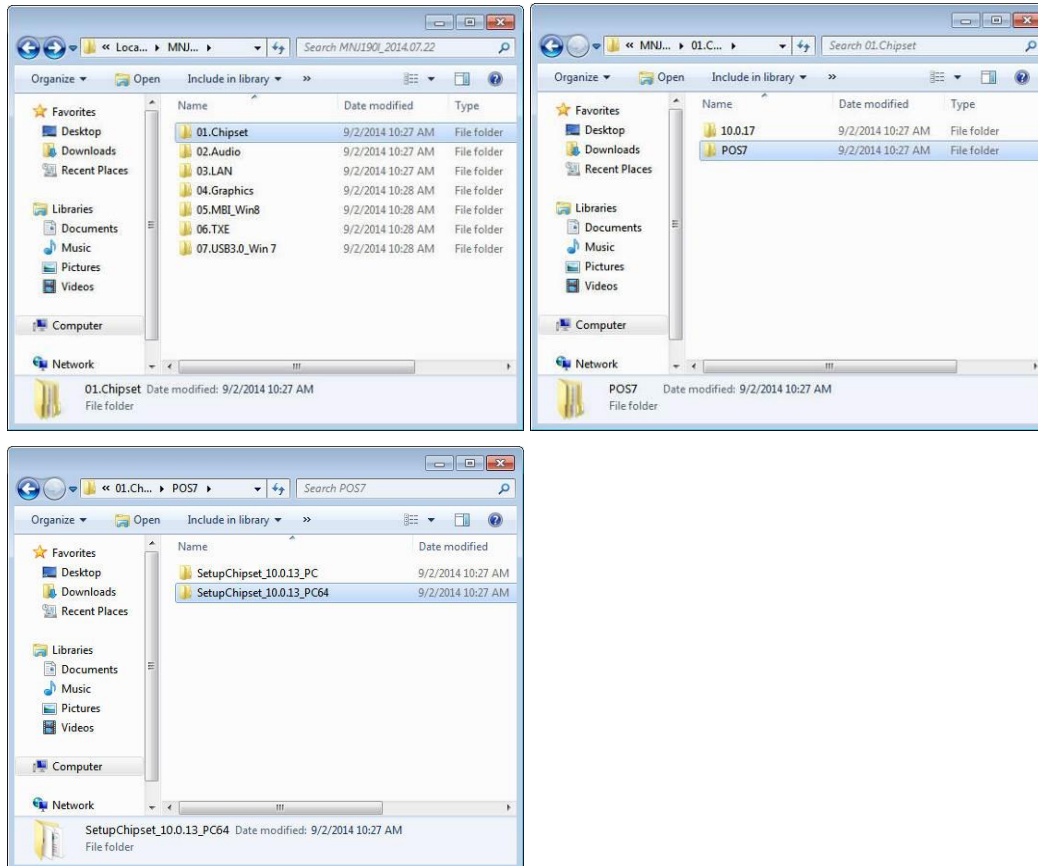
Please download drivers and utilities from www.fecpos.com/en-global/ams/Download

Installation Sequence

1. Chipset Driver
2. Audio Driver
3. LAN Driver
4. Graphic Driver
5. TXE Driver → TXE Update
6. USB3.0 Driver
7. Touch Tools (Touch Utility)

Intel J1900 Chipset Utilities for Windows 7

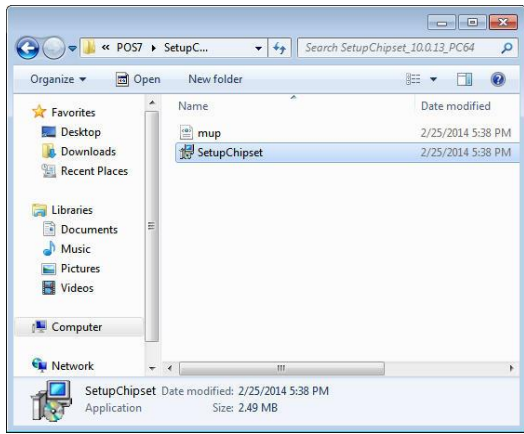
1. download drivers from www.fecpos.com/en-global/ams/Download



“setupChipset_10.0.13PC” → Win7 32 bit

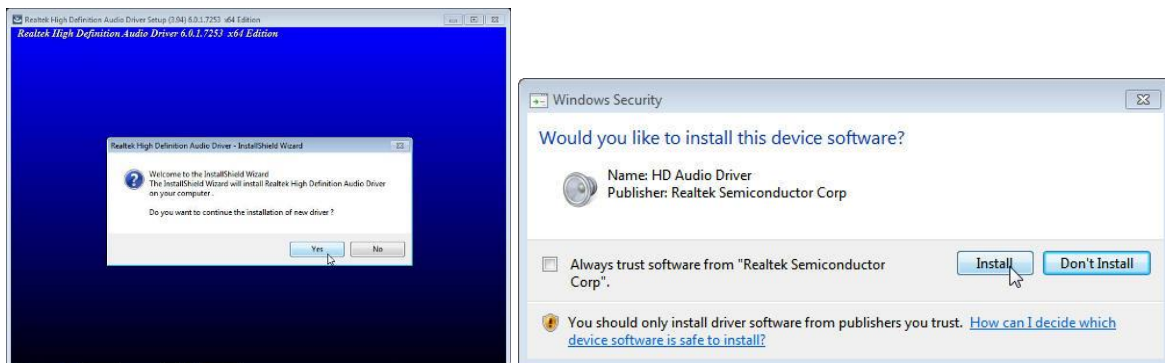
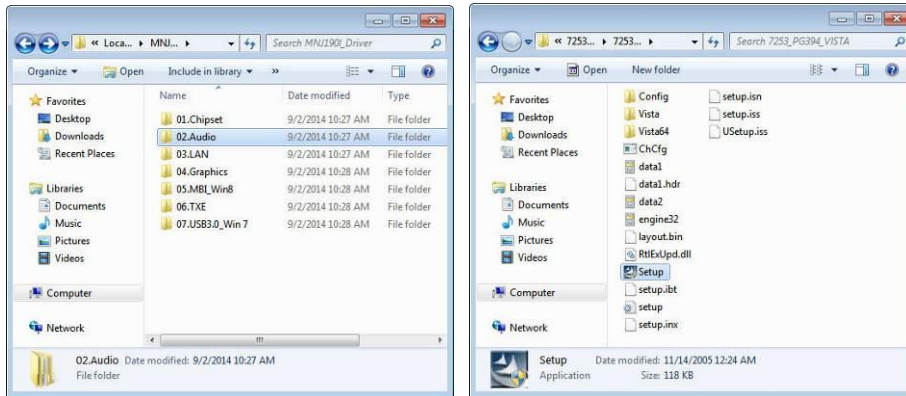
“setupChipset_10.0.13PC64” → Win 7 64 bit

2. run **SetupChipset.exe**



Audio Driver for Windows 7

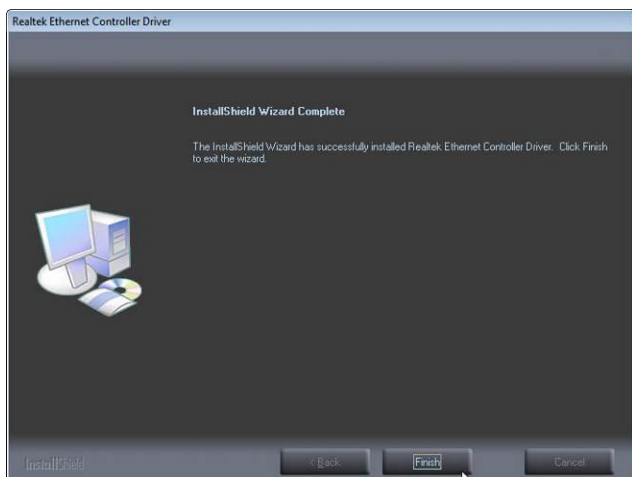
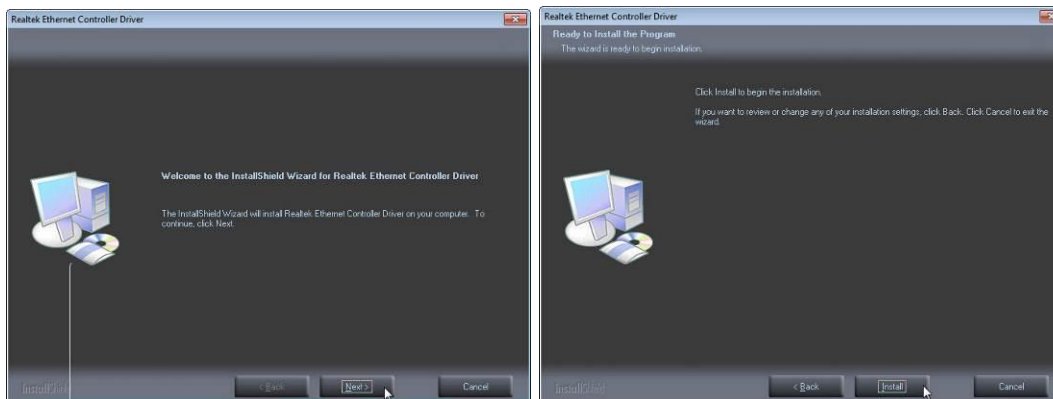
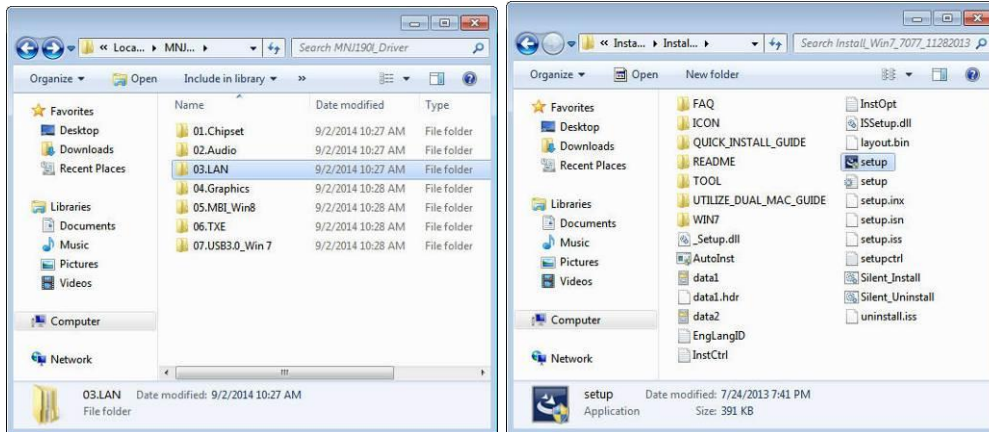
1. download drivers from www.fecpos.com/en-global/ams/Download
2. run **Steup.exe**



3. restart PP-1635 to complete installation

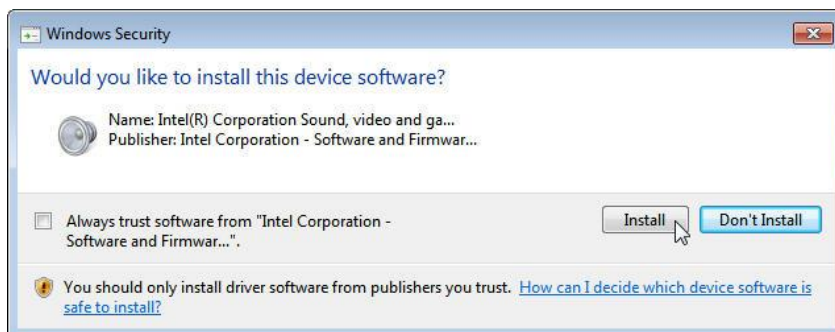
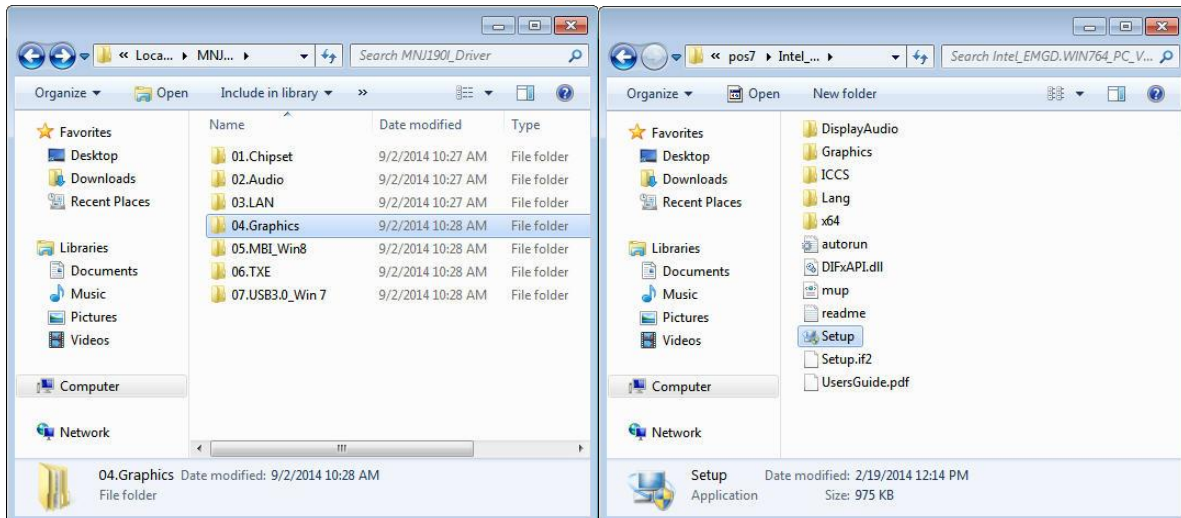
Realtek LAN Driver for Windows 7

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



Intel Graphic Driver for Windows 7

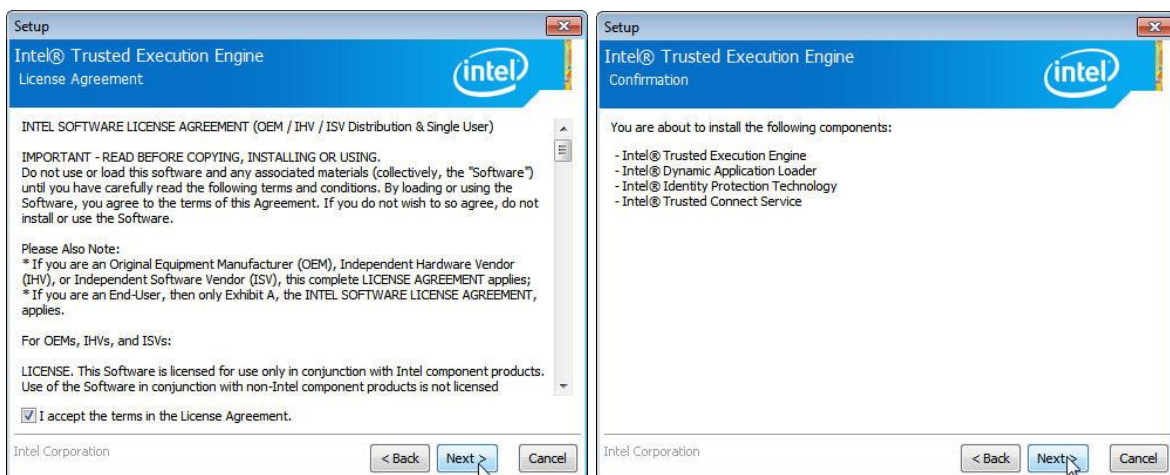
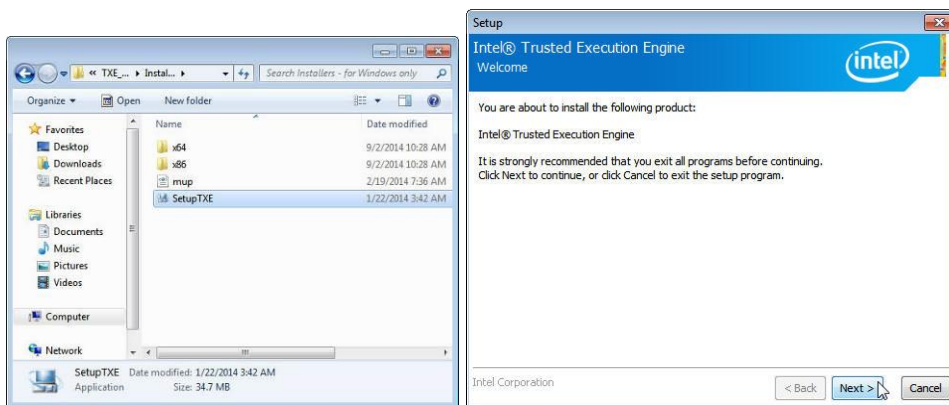
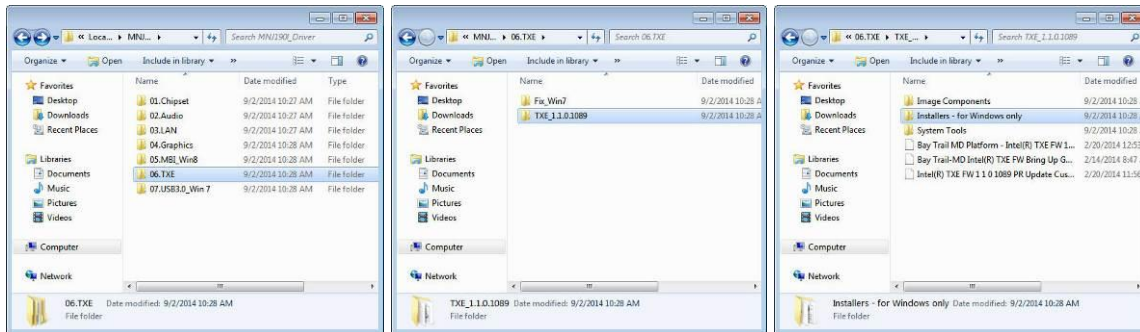
1. download drivers from www.fecpos.com/en-global/ams/Download
2. run **Steup.exe**



3. restart PP-1635 to complete installation

Intel TXE Driver for Windows 7

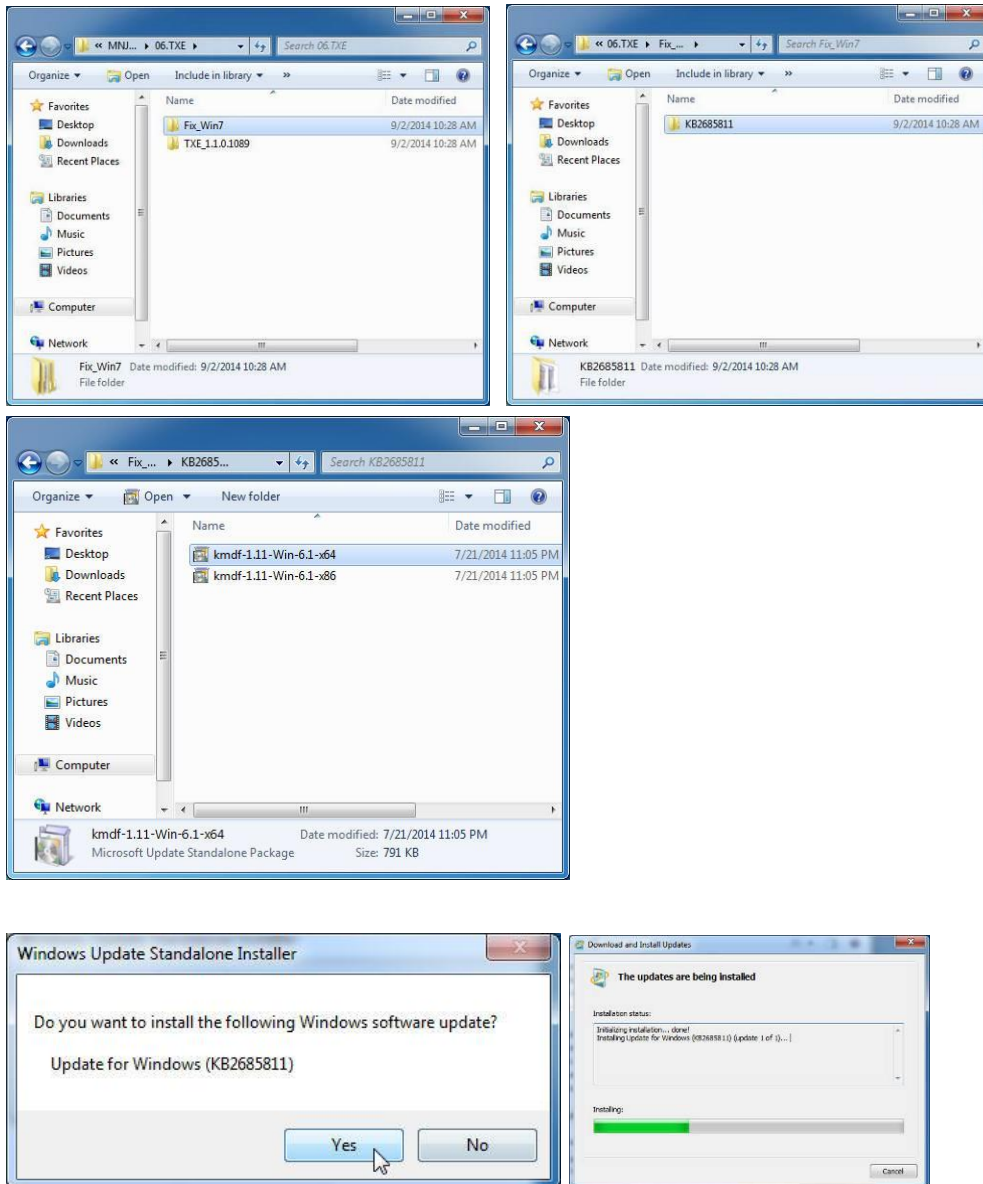
- 1 download drivers from www.fecpos.com/en-global/ams/Download
- 2 run **Steup.exe**



- 3 restart PP-1635 to complete installation

Intel TXE Update for Windows 7

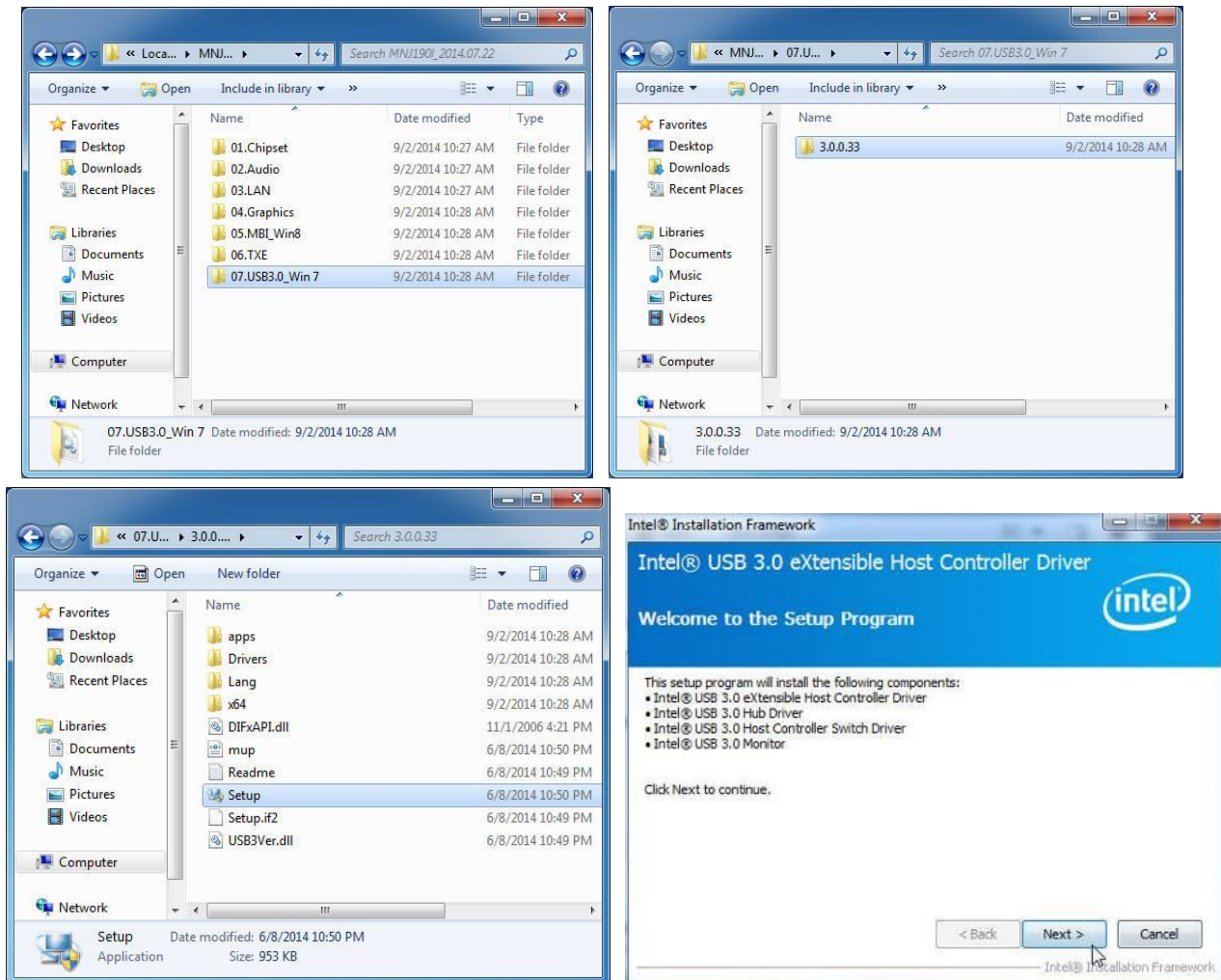
1. download drivers from www.fecpos.com/en-global/ams/Download
2. run **kmdf1.11-win-6.1-x64.exe**



3. restart PP-1635 to complete installation

USB 3.0 Driver for Windows 7

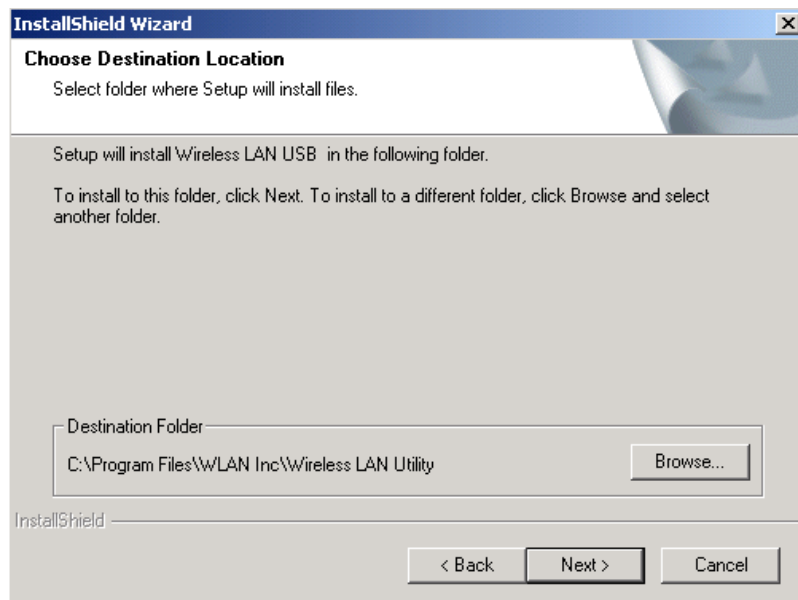
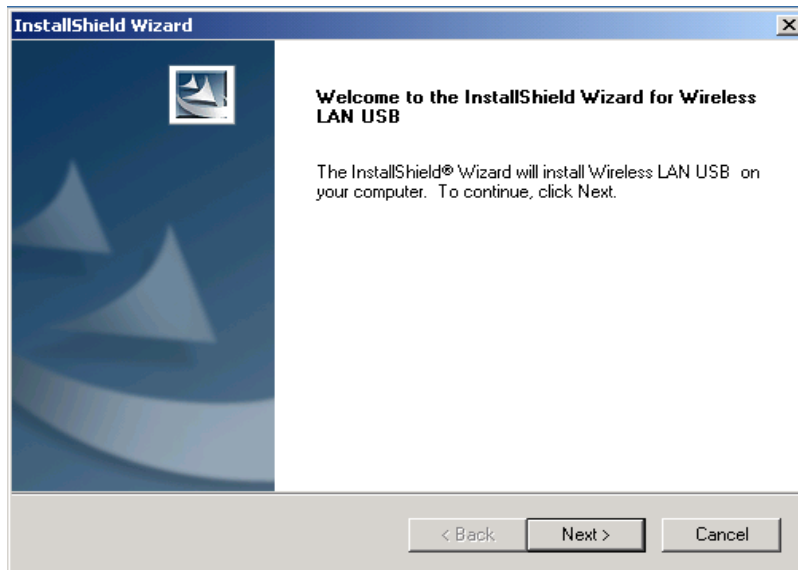
1. download drivers from www.fecpos.com/en-global/ams/Download
2. run **Steup.exe**



3. restart PP-1635 to complete installation

Wireless LAN Driver for Windows

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



Chapter 4

Specifications

Aer PPC		PP-1635
System	Processor	Intel Celeron J1900 (up to 2.42 GHz)
	Memory	DDR3L 2GB (standard) ; 8GB (max)
	Power Supply	60W
	Thermal	fan-less
	Storage Device	1 x 2.5" SATA Drive
	Speakers	2w x 2
Display	Display	15" (4 : 3)
	Touch	Projected Capacitive
	Backlight	LED
	Brightness	250 nits
	Backlight MTBF	50,000 hours
Peripherals	MSR	Track 1/2/3 (USB)
	Finger Print	Optical (USB)
	RFID	13.56 MHz (USB)
	iButton	USB / Virtual COM
	WireLess LAN	802.11b/g/n (USB)
	VFD	20 x 2 (9mm / 12v / character mode)
	LCM	20 x 2 (9mm / 12v / character mode) 240 x 64 (9mm / 12v / graphic mode) 20 x 2 (5mm / 5v / character mode) 192 x 32 (5mm / 5v / graphic mode)

Chapter 5

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

MSR does not function properly

- A) make sure MSR (USB Hid keyboard) is properly connected
- B) MSR LED is blue (color)

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
- 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