



P3100

User Manual

Version 1.0



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SAFETY INSTRUCTIONS

1. Read these instructions carefully. Keep these instructions for future reference.
2. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
3. Please keep this equipment from humidity.
4. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
5. Make sure power cord such a way that people can not step on it. Do not place anything over the power cord.
6. All cautions and warnings on the equipment should be noted.
7. If the equipment is not used for long time, disconnect the equipment from main to avoid being damaged by transient over voltage.
8. Never pour any liquid into opening, this could cause fire or electrical shock.
9. If one of the following situations arises, get the equipment checked by a 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 can not get it work according to user manual.
 - e. The equipment has dropped and damaged.
10. Do not leave this equipment in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the equipment.
11. Unplug the power cord when doing any service or adding optional kits.

Lithium Battery Caution:

Danger of explosion can happen if the battery is incorrectly replaced, Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacture's instructions.

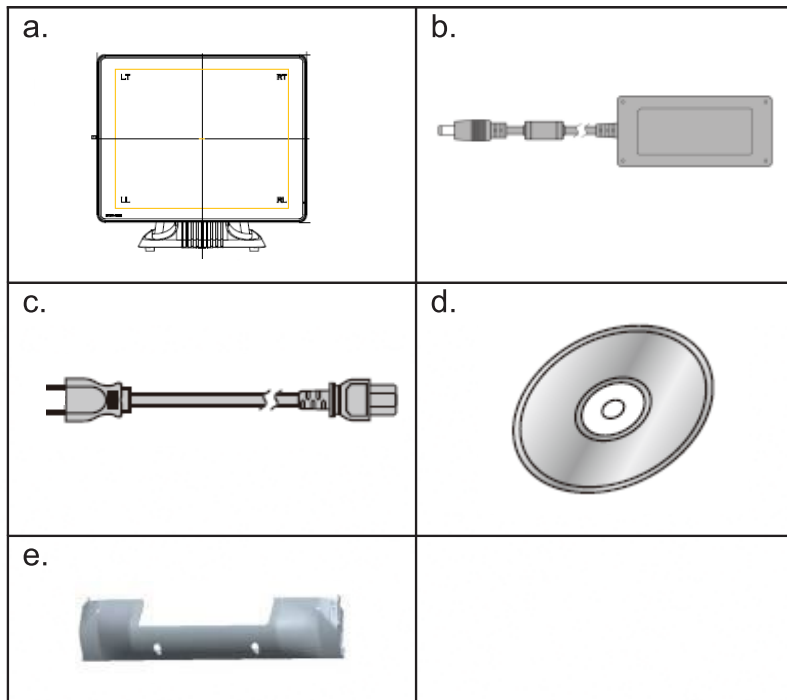
Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

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1 PACKING LIST

1-1 Standard Accessories



- a. System (with stand)
- b. Power Adapter
- c. Power Cord
- d. Driver Bank
- e. Cable Cover

1-2 Optional Accessories

Modules*:

MSR
 1D/2D barcode scanner
 RFID (13,56 MHz)
 iButton
 Smart card reader
 Fingerprint reader
 Addimat waiter key

Accessories:

Build-in VFD
 Pole VFD
 8" pole customer display
 15" pole customer display
 UPS battery

***Note:** Nearly all modules are also available as 2-in-1 or 3-in-1 solution.

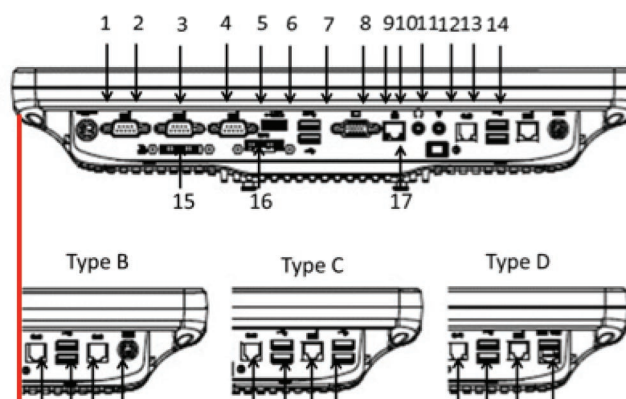
2 SYSTEM VIEW

2-1 Front/Rear View

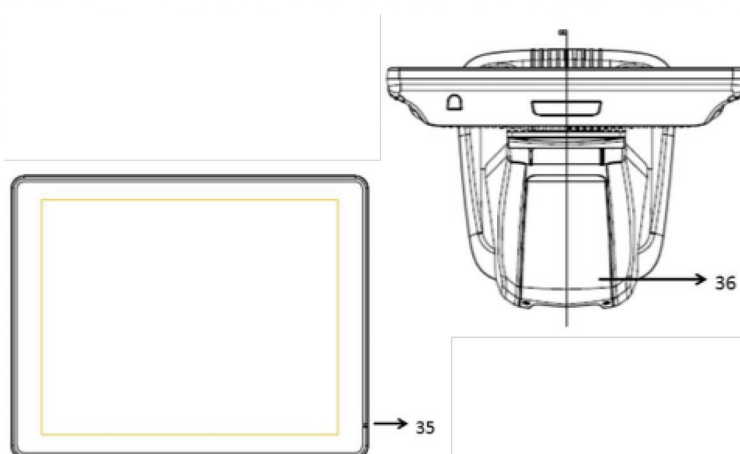
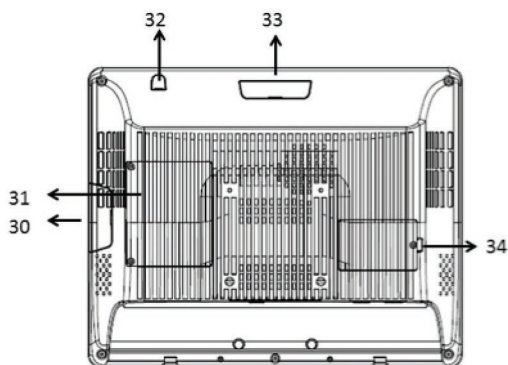
Item

- | | |
|--|--|
| 1. 19V DC Input | 33. 8" 2nd Display/VFD Cover |
| 2. COM2 | 34. Memory Cover |
| 3. COM1 | 35. Power LED |
| 4. COM3 | 36. Cover for internal access of HDD/Adapter |
| 5. E-SATA&USB | |
| 6. USB 2.0 X1 & 3.0 X 1 | |
| 7. VGA | |
| 8. LAN port | |
| 9. Line-out | |
| 10. Mic-in | |
| 11. RJ11(Cash drawer)(COM6) | |
| 12. USB 2.0 x2 | |
| 13. RJ45(COM4) | |
| 14. PS2(K/B) | |
| 15. Parallel port (Option) | |
| 16. UPS port(Optional) | |
| 17. Power Button | |
| 18. RJ11(Cash drawer)(COM6) | |
| 19. USB 2.0 x2 | |
| 20. RJ11(Cash drawer)(COM4) | |
| 21. PS2(K/B) | |
| 22. RJ11(Cash drawer)(COM6) | |
| 23. USB 2.0 x2 | |
| 24. RJ45(COM4) | |
| 25. USB 2.0 x2 | |
| 26. RJ11(Cash drawer)(COM6) | |
| 27. USB 2.0 x2 | |
| 28. RJ45(COM4) | |
| 29. Powered 24V USB | |
| 30. Cover for MSR/Smart Card/ i-Button/Fingerprint/ RFID | |
| 31. HDD Cover | |
| 32. Antenna Cover | |

Evo670 Type A I/O Drawing



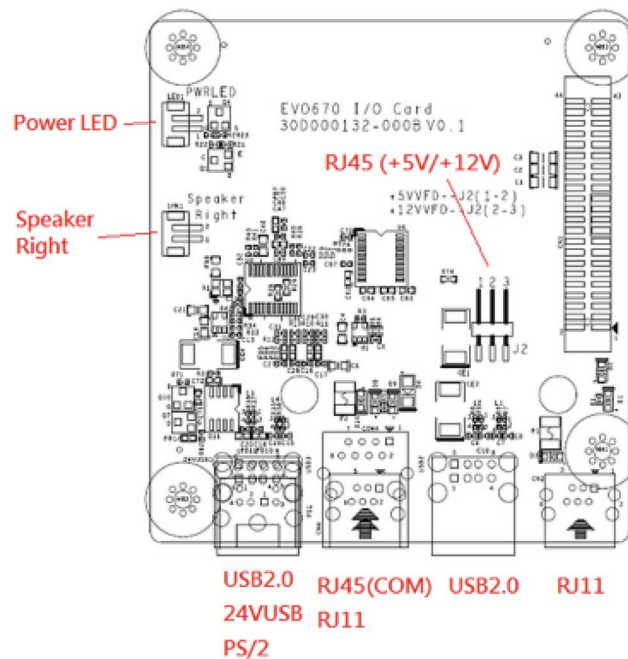
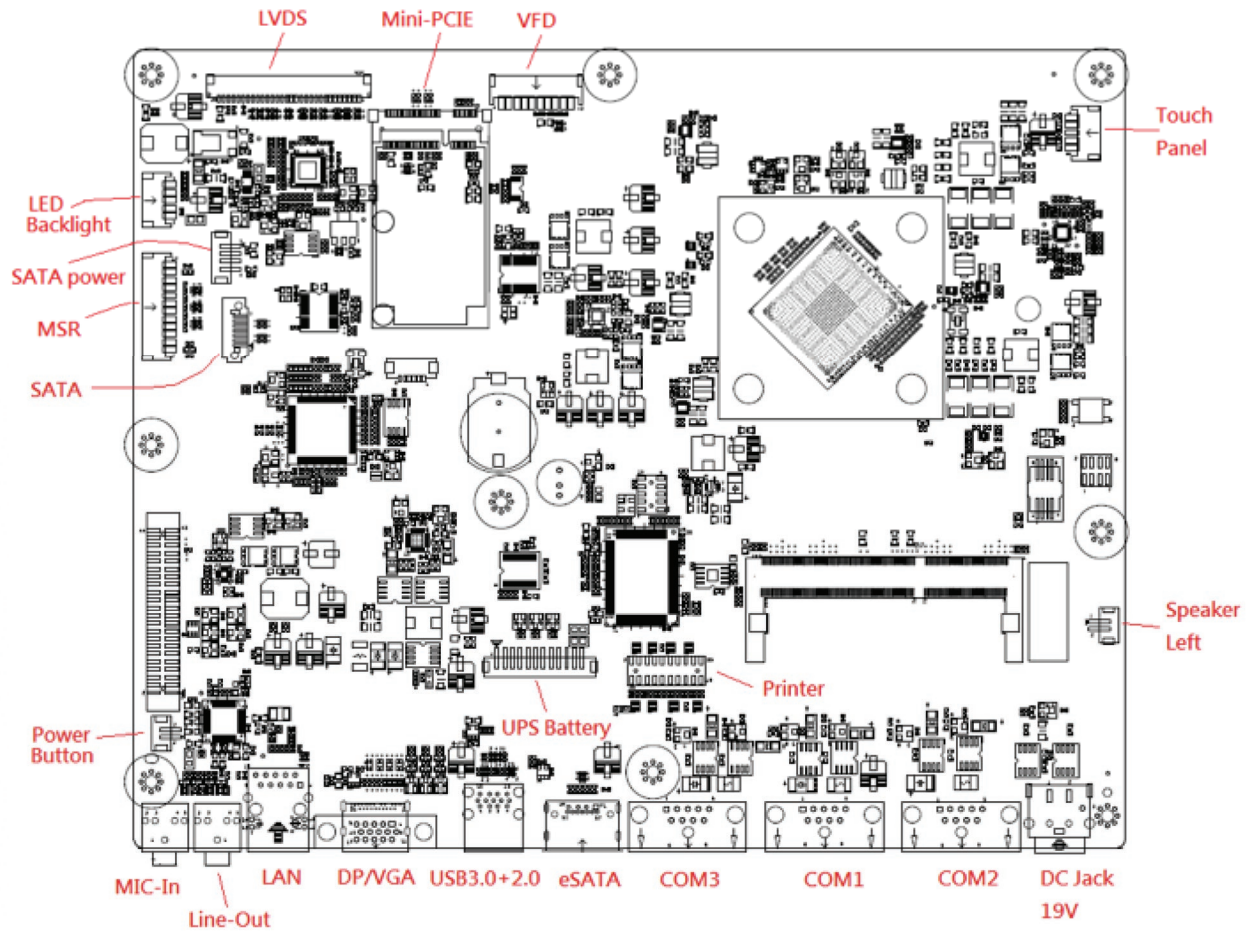
* Please make sure 19V DC plug in the right direction before plugging in DC jack.



2-2 Specification

Processor	Intel® Celeron J1900 QC 2.0Ghz
Memory	One SO-DIMM socket supports DDR3L 1333 up to 8GB
Audio	Line-out/Mic-in
Network	RJ45 10/100/1000 Base-T
Storage	2.5" SATA HDD / SSD
BIOS	Insyde
Power	DC 19V 90W adaptor, 150W for Type D I/O Board
Thermal Solution	Fanless design
Dimension	410 (W) x 385.2 (H) x 296.4 (D) mm
Operating Temperature	0°C ~ 35°C
Storage Temperature	-20°C ~ 60°C
Storage Humidity	20% ~ 80%, non-condensing
Display	
LCD Panel Size	17-inch TFT Active Matrix Display
Resolution	1280 x 1024 Pixels
Brightness	250 cd/m2 /350cd/m2 (Optional)
Touch Panel	5-wire Resistive Type / Projected Capacitive Type
Tilt Angle	30°~90°

3 PIN DEFINITION



1. COM 5 for Touch Panel (CN 16)

NO.	Definition
1	+5V
2	RxD
3	TxD
4	GND
5	N/C

2. Printer connector

NO.	Definition	No.	Definition
1	STB#	11	PD4
2	AFD#	12	PE
3	PDO	13	PD5
4	ERR#	14	SLCT
5	PD1	15	PD6
6	INIT#	16	GND
7	PD2	17	PD7
8	SLIN#	18	GND
9	PD3	19	ACK#
10	BUSY	20	GND

3. VFD Connector CN9

NO.	Definition
1	RTS#
2	GND
3	TxD
4	RxD
5	CTS#
6	+5V
7	+5V
8	USB D-
9	USB D+
10	GND

4. Speaker SPK1, SPK2

NO.	Definition
1	Speaker Out +
2	Speaker Out -

5. LVDS

No.	Definition	No.	Definition
1	RxECLK+	16	RxOCLK-
2	RxECLK-	17	GND
3	RxE3+	18	RxO2+
4	RxE3-	19	RxO2-
5	RxE2+	20	RxO1+
6	RxE2-	21	RxO1-
7	GND	22	RxO0+
8	RxE1+	23	RxO0-
9	RxE1-	24	GND
10	RxE0+	25	N/C for M-type, GND for G-type
11	RxE0-	26	N/C
12	RxO3+	27	N/C for M-type, GND for G-type
13	RxO3-	28	+5V
14	GND	29	+5V
15	RxOCLK+	30	+5V

6. LED Panel Backlight

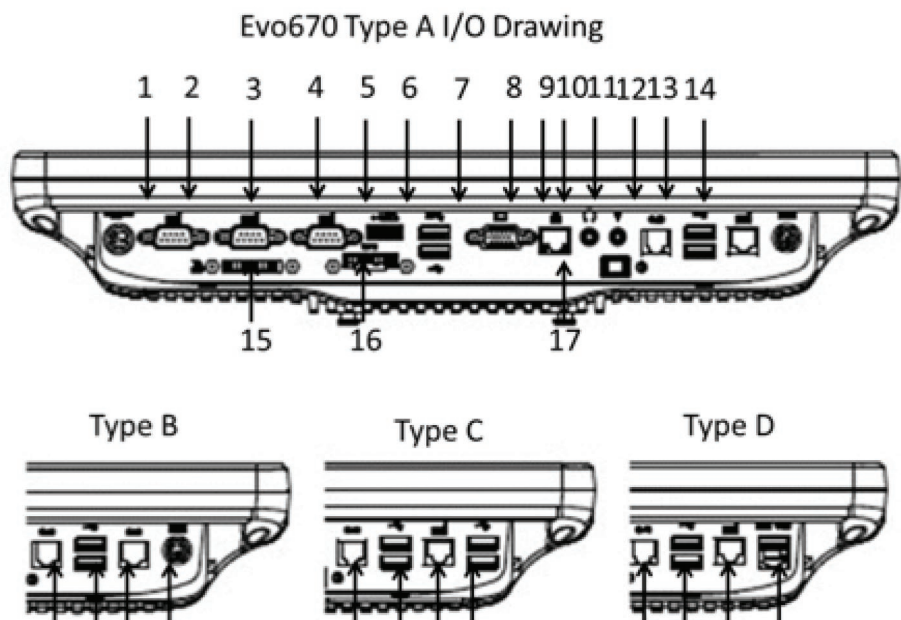
NO.	Definition
1	+12V
2	GND
3	N/C
4	Brightness
5	BKL Enable

4 REAR I/O INTERFACE

Rear I/O Drawing

Item

- | | |
|----------------------------|-----------------------|
| 1. 19V DC Input | 22. RJ11(Cash Drawer) |
| 2. COM2 | 23. USB 2.0 x2 |
| 3. COM1 | 24. RJ45(COM4) |
| 4. COM3 | 25. USB 2.0 x2 |
| 5. E-SATA&USB | 26. RJ11(Cash Drawer) |
| 6. USB 2.0 x1 & 3.0 x1 | 27. USB 2.0 x2 |
| 7. VGA | 28. RJ45(COM4) |
| 8. LAN port | 29. Powered 24V USB |
| 9. Line-out | |
| 10. Mic-in | |
| 11. RJ11(Cash drawer) | |
| 12. USB 2.0 x2 | |
| 13. RJ45(COM4) | |
| 14. PS2(K/B) | |
| 15. Parallel port (Option) | |
| 16. UPS port(Optional) | |
| 17. Power Button | |
| 18. RJ11(Cash Drawer) | |
| 19. USB 2.0 x2 | |
| 20. RJ11(Cash Drawer) | |
| 21. PS2(K/B) | |



1. COM1 & COM2 & COM3

No.	Definition	No.	Definition
1	DCD#	6	DSR#
2	RxD	7	RTS#
3	TxD	8	CTS#
4	DTR#	9	RI#/+5V/+12V
5	GND		

2. RJ45 VFD

No.	Definition
1	+5V/+12V
2	DSR#
3	GND
4	DTR#
5	RST#
6	CTS#
7	TxD
8	RxD

3. VGA port

No.	Definition	No.	Definition
1	Red	9	N/C
2	Green	10	GND
3	Blue	11	N/C
4	N/C	12	I2C DATA
5	GND	13	HSYNC
6	GND	14	VSYNC
7	GND	15	I2C CLK
8	GND		

4. 2-Layer USB 3.0+2.0 connector

No.	Definition	No.	Definition
1	+5V	8	TX-
2	D-	9	TX+
3	D+	10	+5V
4	GND	11	D-
5	RX-	12	D+
6	RX+	13	GND
7	GND		

5. 2-Layer USB 2.0 connector

No.	Definition	No.	Definition
1	+5V	5	+5v
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

6. PS/2 K/B port

No.	Definition	No.	Definition
1	KB_DAT	6	MS_CLK
2	MS_DAT	7	GND
3	GND	8	GND
4	+5V	9	GND
5	KB_CLK		

7. LAN port

No.	Definition
1	MDI0A+
2	MDI0A-
3	MDI1A+
4	MDI1A-
5	MDI2A+
6	MDI2A-
7	MDI3A+
8	MDI3A-

8. RJ11 port (for Cash Drawer)(COM4)

No.	Definition
1	GND
2	C/D_OPEN#
3	C/D Status
4	+12V/+24V
5	N/C
6	GND

9. RJ11 port (for Cash Drawer)(COM6)

No.	Definition
1	GND
2	C/D_OPEN#
3	C/D Status
4	+12V/+24V
5	N/C
6	GND

10. DC Jack

No.	Definition
1	+19V
2	Ground
3	+19V

11. eSATA&USB connector

No.	Definition	No.	Definition
S1	GND	U1	+5V
S2	SATA_TX0_P	U2	USB D-
S3	SATA_TX0_N	U3	USB D+
S4	GND	U4	GND
S5	SATA_RX0_N		
S6	SATA_RX0_P		
S7	GND		

12. Powered 24V USB

No.	Definition
1	+5V
2	USB D-
3	USB D+
4	GND
5	GND
6	+24V
7	+24V
8	GND

Example DOS COMMAND for Cash Drawer:

1. Create **the file**: TEST.TXT
2. Input below **contents** in TEST.TXT
CONTEXT-"000.0"
MODE COM4:300
3. Run COMMAND under DOS mode
COPY TEST.TXT COM 4

Example DOS COMMAND for Cash Drawer:

1. Create **the file**: TEST.TXT
2. Input below **contents** in TEST.TXT
CONTEXT-"000.0"
MODE COM6:300
3. Run COMMAND under DOS mode
COPY TEST.TXT COM 6

13. UPS

No.	Definition
1	Batt+
2	Batt+
3	Batt+
4	Batt+
5	BAT_ID
6	SMBCLK
7	SMBDATA
8	GND
9	GND
10	GND
11	GND
12	N/C

14. LINE-OUT JACK Pin Definition

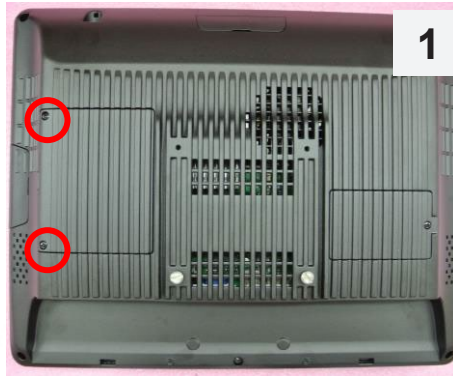
No.	Definition
1	GND_AUD
2	GND_AUD
3	LINE_OUTR2
4	LINE_OUTL2
5	LINE2-JD

15. MIC-in JACK Pin Definition

No.	Definition
1	GND_AUD
2	GND_AUD
3	MIC1_IN
4	MIC1_IN
5	MIC1-JD

5 SYSTEM ASSEMBLY & DISASSEMBLY

5-1 HDD



1. Unscrew 2 screws and remove the HDD cover
2. Install HDD with 4 screws

5-2 Memory



1. Unscrew 1 screw and remove the memory cover
2. Install HDD with 4 screws

5-3 MSR

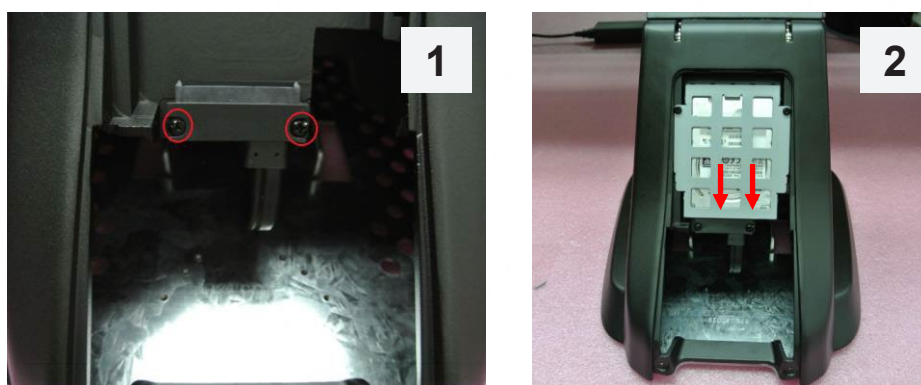


1. Remove MSR cover
2. Install MSR with two screws

5-4 VFD



5-5 2nd HDD Kit





1. Fix the e-SATA cable as the position shown in the picture 1
2. Install HDD kit with two screws
3. Plug e-SATA cable into the position shown in the picture 3

5-6 8" 2nd Monitor



1. Remove the cover
2. Plug cable into the 1*4 pin connector
3. Install 8" 2nd Monitor with two screws

5-7 Adapter



1. Unlock two screws and then remove the cover
2. Assemble the adapter bracket with two screws
3. Assemble the back cover the stand with two screws

Note:

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS

The adapter bracket of P3100 is only for P3100 standard adapter
(Model name: FSP150, 150W). Please don't assemble other type adapter into the stand.

5-8 1D / 2D / i-Button with RFID module

1. Cable installation.

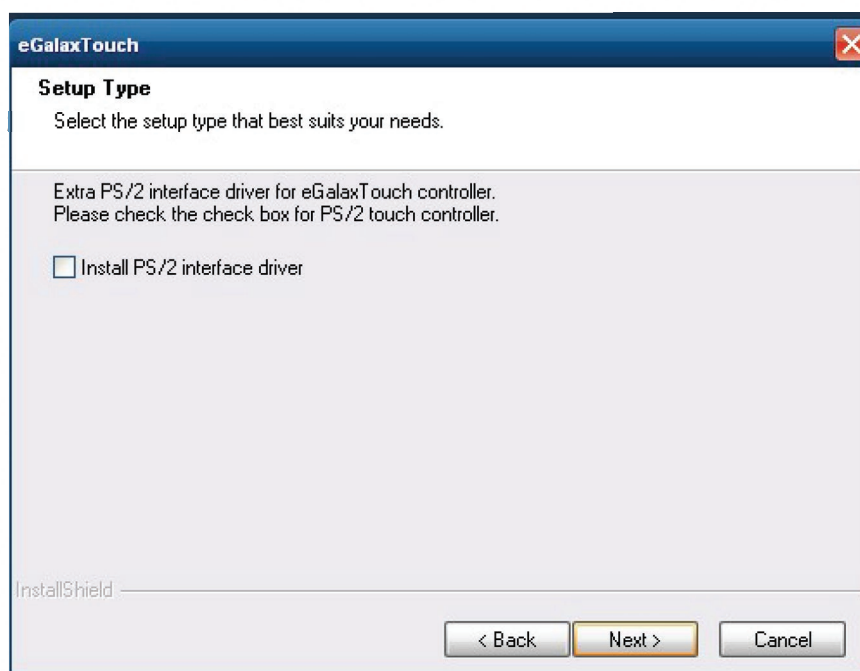
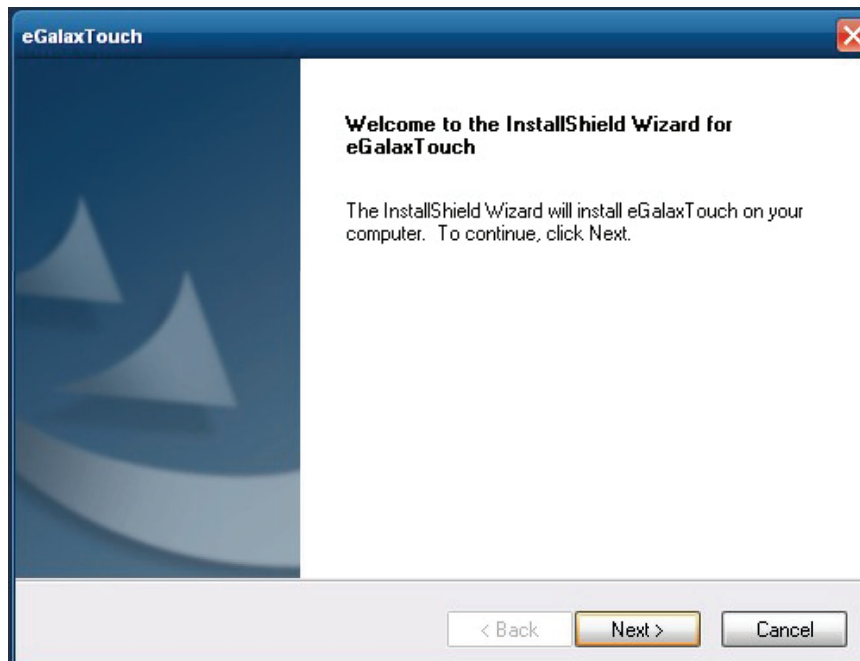
For I-Button / RFID /1D/2D barcode scanner, please connect the cable as shown in figure

2. Fix the screws as shown in below figure.

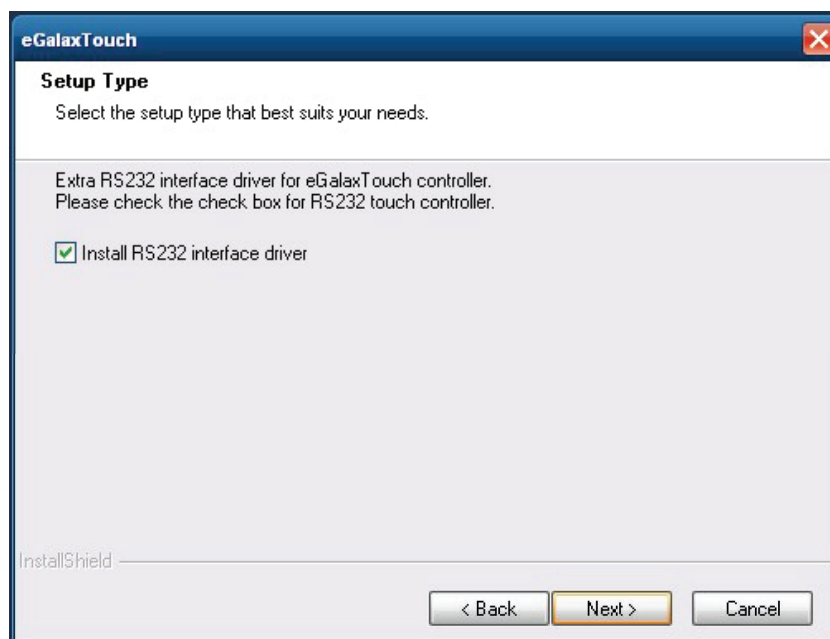


6-1 Resistive Type Touch Panel and P-CAP

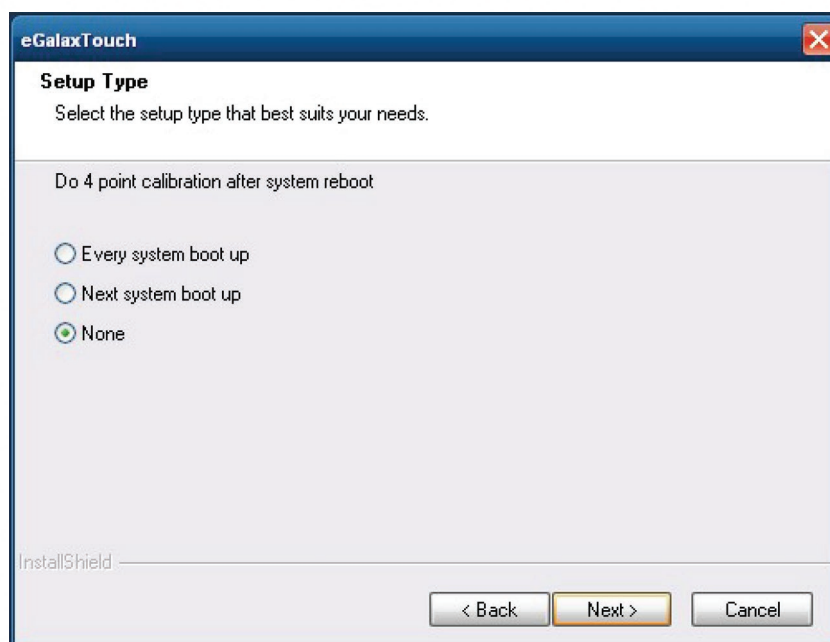
1. Click "Next"



3. Click "Next"



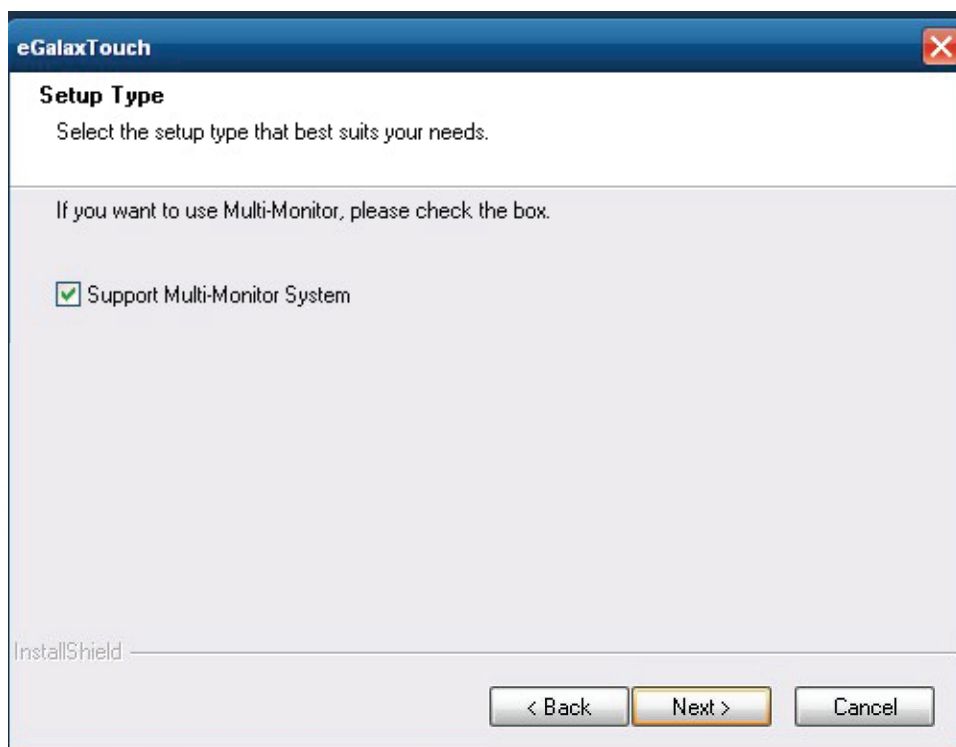
4. Select "None", Click "Next".



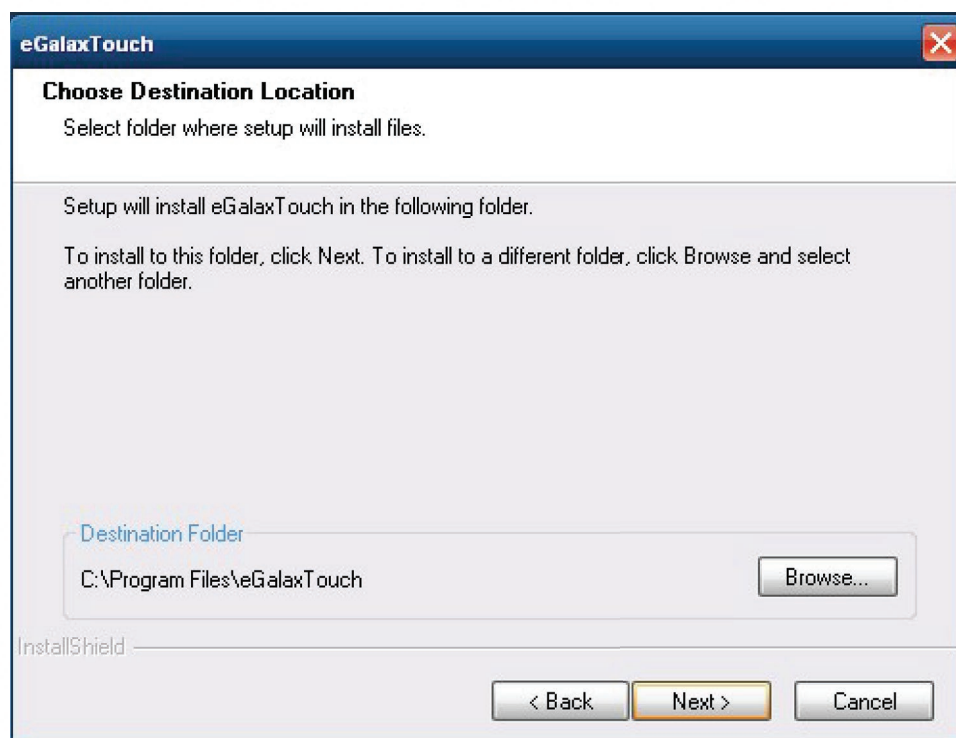
5. Click "OK"



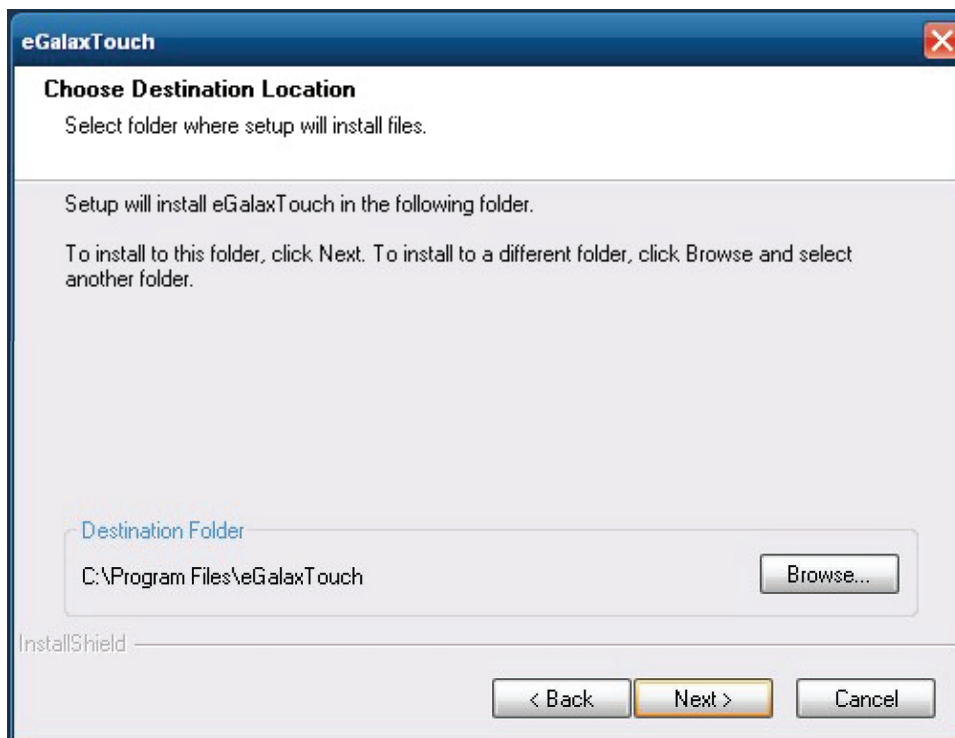
6. Select “Support Multi-Monitor System”, Click “Next”.



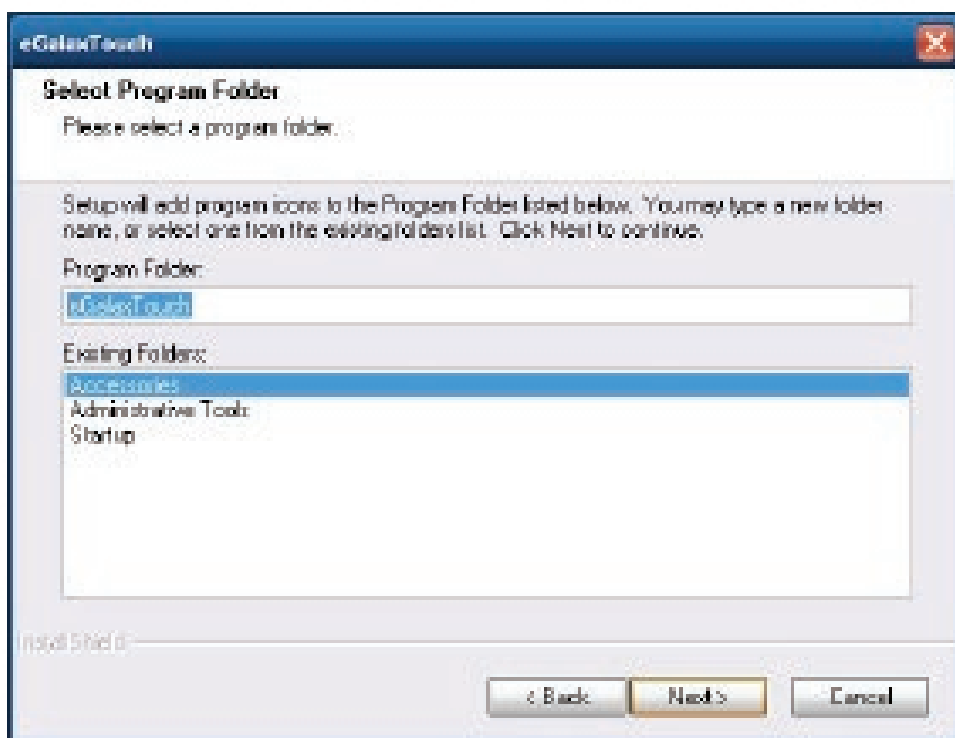
7. Click “Next”.



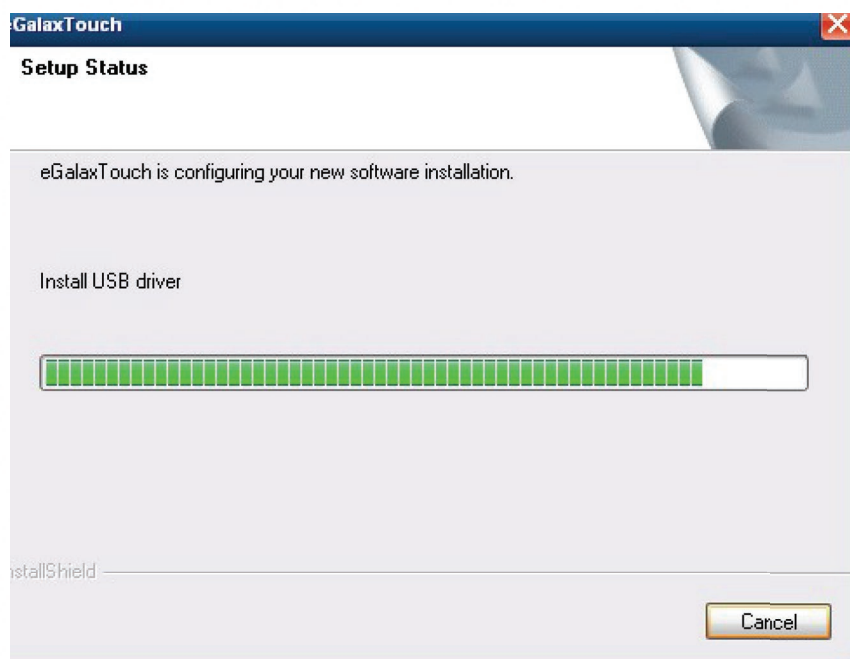
8. Click “Next”.



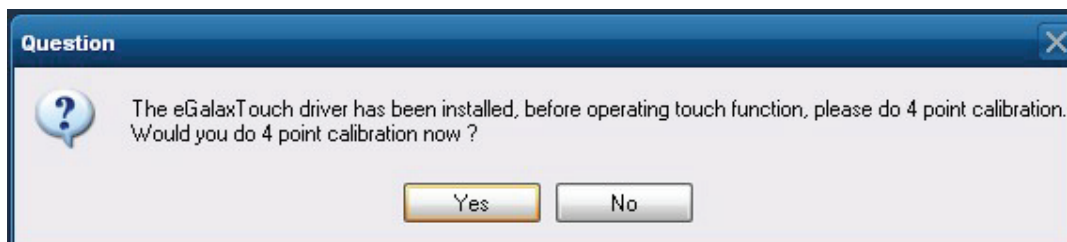
9. Click “Next”



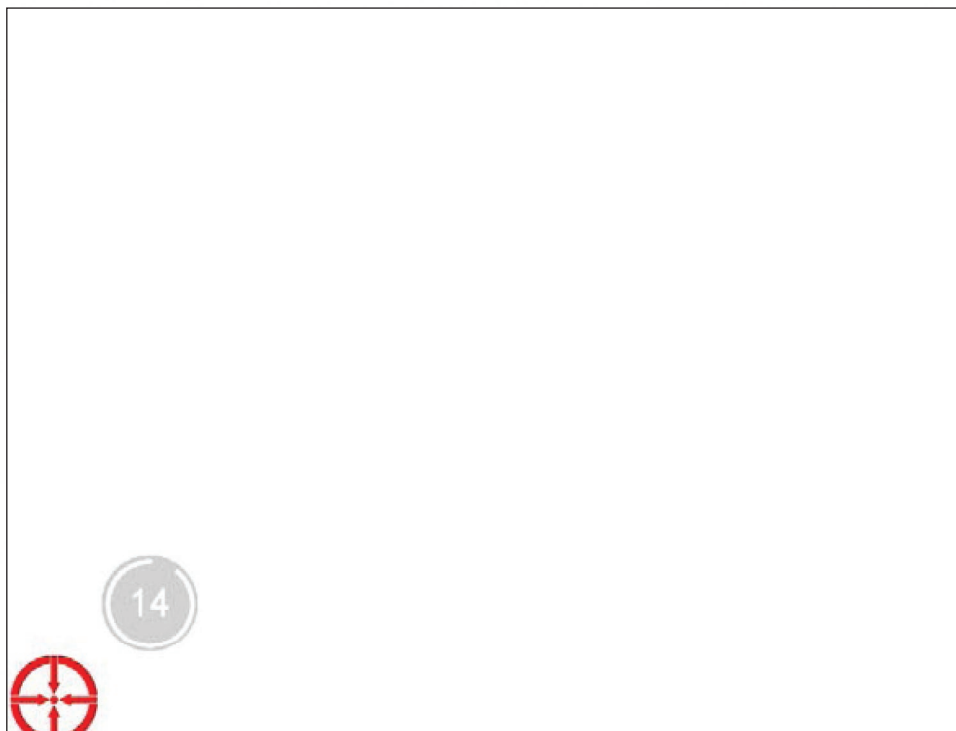
10. Select “Create a eGalaxTouch Utility shortcut on desktop”, Click “Next”.



11. Would you do 4 point calibration now? Click “Yes”.



12. Do 4 points alignment to match display



13. Calibration utility



6-2 MagStripe Card Reader Configuration Utility

1 Combo USB HID MSR

The MagStripe Card Reader Configuration Utility is used to set up the output format of HIDMSR-20

Installation

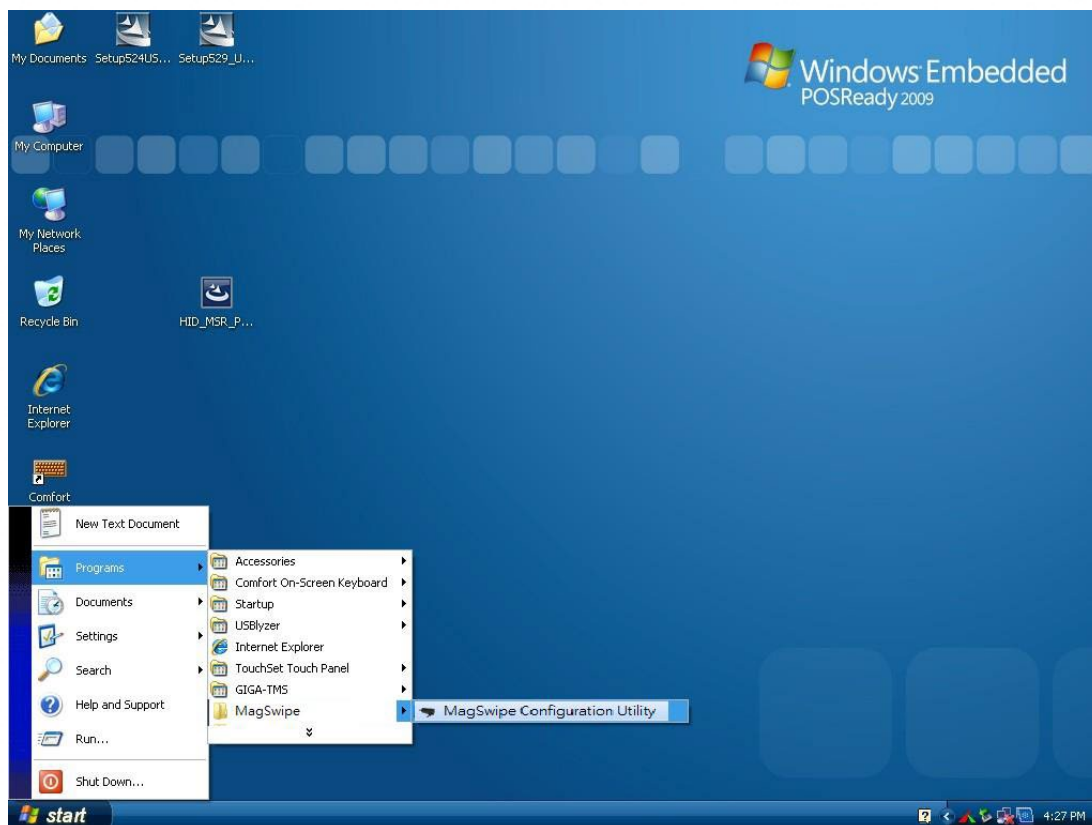
Below steps guide you how to install the Utility program.

1. Insert the setup CD
2. Run the HIDMSR-20 Utility.exe setup file that is located in the Software folder of CD.
3. Follow the wizard to complete the installation.

Launching Program

Below steps guide you how to load the Utility program.

1. From Start/Programs, click HIDMSR20 folder
2. Click MagStripe Card Reader Configuration Utility to launch the program.



1. The utility program will detect the connected reader. If detected, all the input text boxes will be enabled.
2. If the reader has not been connected to PC yet, please connect the reader and then click Refresh to get connected.

Configuration

Below is the main window of Utility program.

The screenshot shows the HIDMSR-20 Utility V1.10 configuration window. The window is divided into several colored panels, each containing different configuration options:

- General (Green Panel):** Includes fields for Prefix, Suffix, Package, Delimiter, Output Order (Track 1-Track 2-Track 3), Decode Mode (Track 1, Track 2, Track 3), Language (ENGLISH), and a file path for the key file (C:\Program Files (x86)\HID-MSR\HIDMSR-20Utility\ENGLISH.key). Buttons for Restore, Update, Keyboard, and Demo MSR Swipe Card are at the bottom.
- ISO (Red Panel):** Configures three tracks (Track 1, Track 2, Track 3) with Prefix, Suffix, Error Message, Start Sentinel, End Sentinel, Extract Form, and Length.
- IButton (Orange Panel):** Configures Attach and Remove buttons with Prefix, Suffix, Error Message, Start Sentinel, End Sentinel, Extract Form, Length, and Output Order.
- AAMVA (Blue Panel):** Configures three tracks (Track 1, Track 2, Track 3) with Prefix, Suffix, Error Message, Start Sentinel, End Sentinel, Extract Form, and Length.
- JIS2 (Cyan Panel):** Configures a single track with Prefix, Suffix, Error Message, Start Sentinel, End Sentinel, Extract Form, and Length.
- MSR (Pink Panel):** Configures Mode (KB or HID), Power (ON or OFF), and Beep (ON or OFF). Set and Get buttons are at the bottom.

For the settings, there are:

1. Language: The language defines the code positions of the keyboard. Each language should use its own settings. Wrong language selected will cause the wrong character displayed.
2. Prefix/Suffix: Defines the data string which you would like to append in front or end of the MSR data string.
3. Error Message: Indicates which track number cause the error.
4. Delimiter: Indicates the swipe result.
5. ISO: Define start and end sentinel character.
6. Decode Mode: Determines the way of outputting the three tracks data.

Shown below is the data structure of the output string for MSR.

PP PR1 SS1 TK1 ES1 SU1 PR2 SS2 TK2 ES2 SU2 PR3 SS3 TK3 TK3 SU3 SU DM

- PP: Prefix for package.
- PR1: Prefix for track 1.
- SS1: Start sentinel for track 1.
- TK1: Data for track 1, if error happens, using Error Message instead.
- ES1: End sentinel for track 1.
- SU1: Suffix for track 1.
- PR2: Prefix for track 2.
- SS2: Start sentinel for track 2.
- TK2: Data for track 2, if error happens, using Error Message instead.
- ES2: End sentinel for track 2.
- SU2: Suffix for track 2.
- PR3: Prefix for track 3.
- SS3: Start sentinel for track 3.
- TK3: Data for track 3, if error happens, using Error Message instead..
- ES3: End sentinel for track 3.
- SU3: Suffix for track 3.
- SU: Suffix for package.
- DM: Delimiter for the swipe result.

Prefix/Suffix

In default, the prefix and suffix settings are all keep blank. There are 4 kinds of prefix and suffix to be defined, which are:

- Package: For the prefix string, it is appended in the front of the whole MSR data. For the suffix, it is appended in the end of the whole MSR data. In most case, the suffix for package is always to be the "Enter" or "Tab" character. The max data length of the prefix and suffix for the package can be up to 127.
- TK1: For the prefix string, it is appended in the front of the start sentinel of track 2. For the suffix, it is appended in the end of the end sentinel of track 2. The max data length of the prefix and suffix for the TK1 can be up to 127.
- TK2: For the prefix string, it is appended in the front of the start sentinel of track 2. For the suffix, it is appended in the end of the end sentinel of track 2. The max data length of the prefix and suffix for the TK1 can be up to 127.
- TK3: For the prefix string, it is appended in the front of the start sentinel of track 3. For the suffix, it is appended in the end of the end sentinel of track 3. The max data length of the prefix and suffix for the TK1 can be up to 127.

ISO

This group defines the start and end sentinel for each track. The sentinel is always used to extract the track data from the whole MSR data string. The data length for each sentinel is fixed to one character. Because there is ISO standard that defining the start and end sentinel for the three tracks. For the compatible reason, please do not modify the default value if possible.

Decode Mode

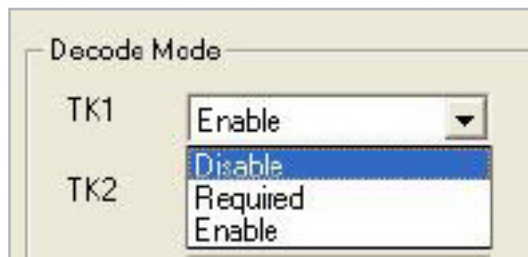
For this group, it contains two kinds of settings, which are:

I Track Data Filtering: Determine which track to be, not to be output or needed to be output.

I Switch Output Order: Change the output order of track 1 ~ 3.

Track Data Filtering

Shown below is the filter setting for track 1. This provides a fool-proofing method in case of receiving unwanted or uncompleted track data.

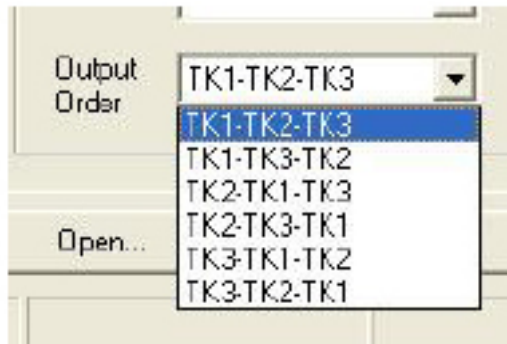


These three filter settings are:

1. Enable: If selected, the data of specified track will be packaged in the MSR data string. If the specified track data is not decoded, it will leave blank in the MSR data string.
2. Required: If selected, which means the output MSR data string must contain the specified track data. If the specified track data is not decoded, even MSR data string contains other track data, it will still not to be output.
3. Disable: If selected, the data of specified track will not be packaged in the MSR data string. No matter it is decoded or not.

Switch Output Order

Show below is the selection of the three track data output order (sequence). The default order is Track 1–Track 2–Track 3.



There 6 orders allow to be selected. Please select one to fit your application needs.

Update Settings

Once complete the settings, click Update to update the settings to connected HID MSR reader.

Save Settings

To save the settings to a file, click Save; specify the file name and location to be saved.

Open Settings

To load pre-saved settings, click Open, specify the settings file, and then click OK to load into program.

Restore MSR Reader Settings

To load restore settings of connected MSR reader, click Restore ES2: End sentinel for track.

2 SINGLE MSR

The MagSwipe Configuration Utility is used to set up the output format of MagSwipe

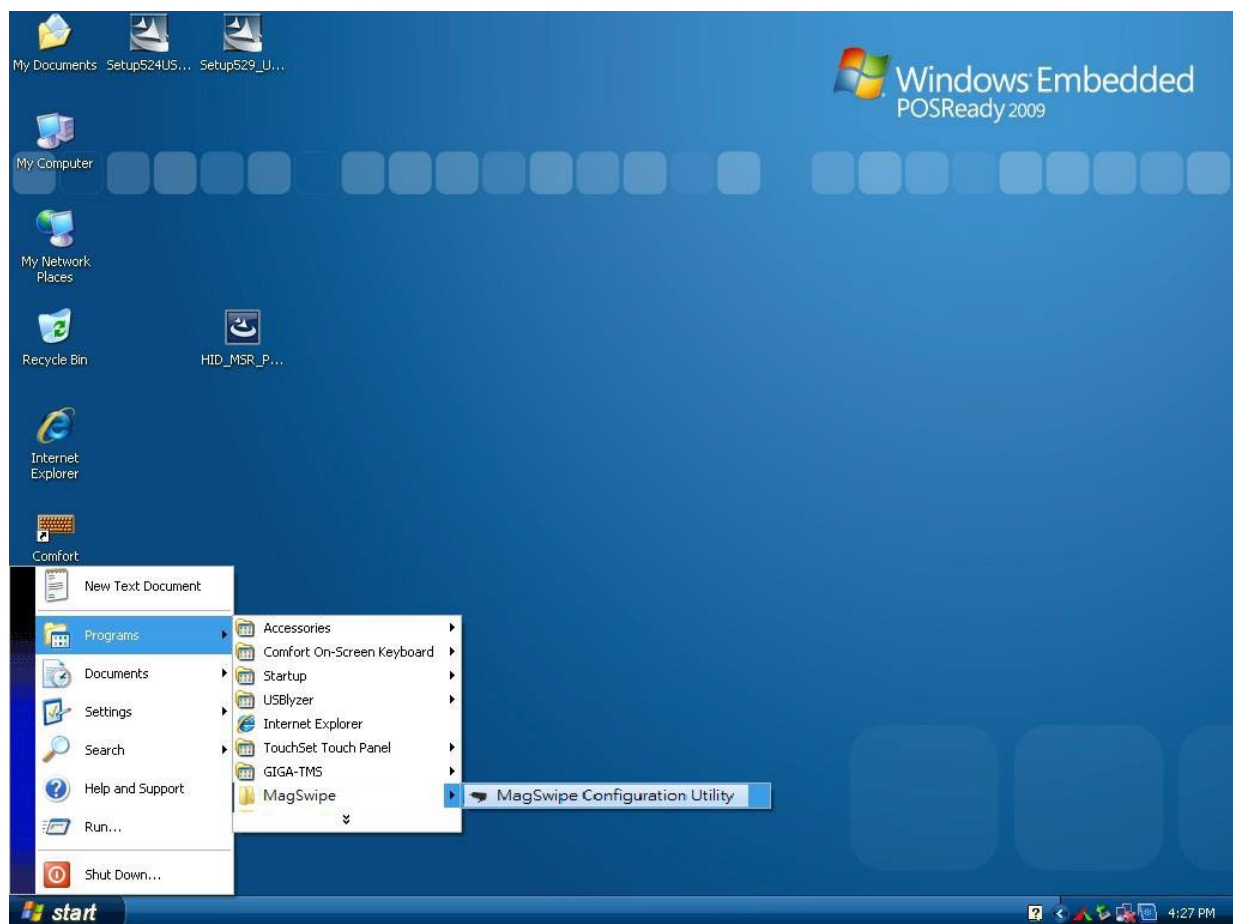
Installation

1. Insert the setup CD
2. Run the 80066804-006_Magswipe_Configuration_Software_V2_1_A setup file that is located in the Software folder of CD.
3. Follow the wizard to complete the installation.

Launching Program

Below steps guide you how to load the Utility program.

1. From Start/Programs, click MagSwipe folder
2. Click MagSwipe Configuration Utility to launch the program.

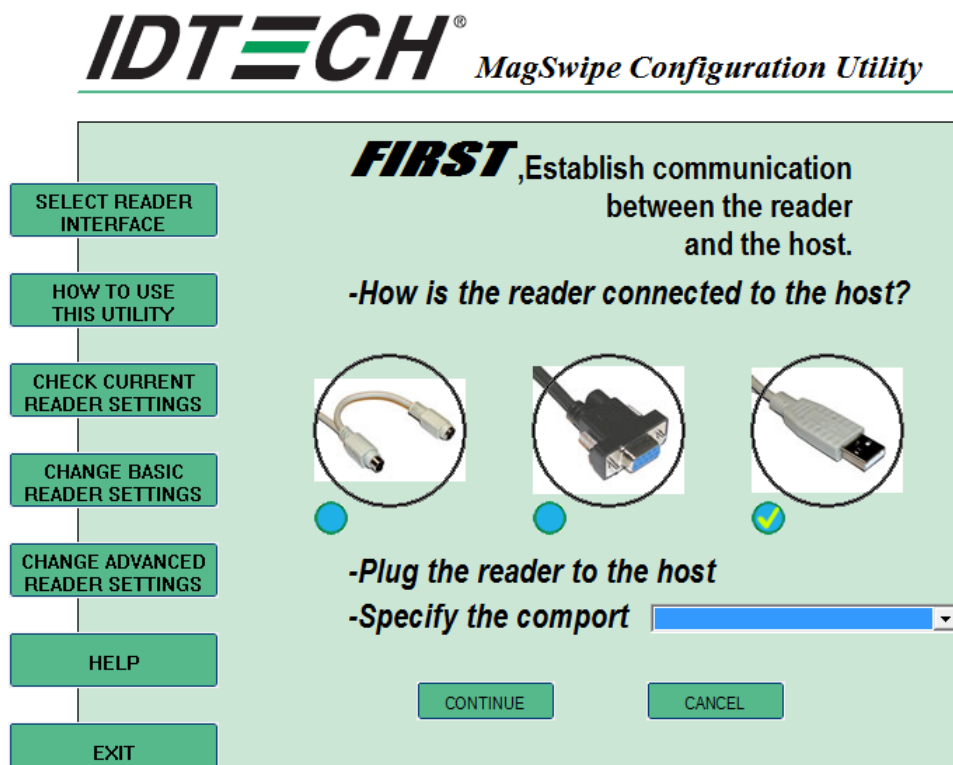


Configuration



Select Reader Interface

The reader to be configured should be connected. Select the corresponding connected reader interface and click the Continue button

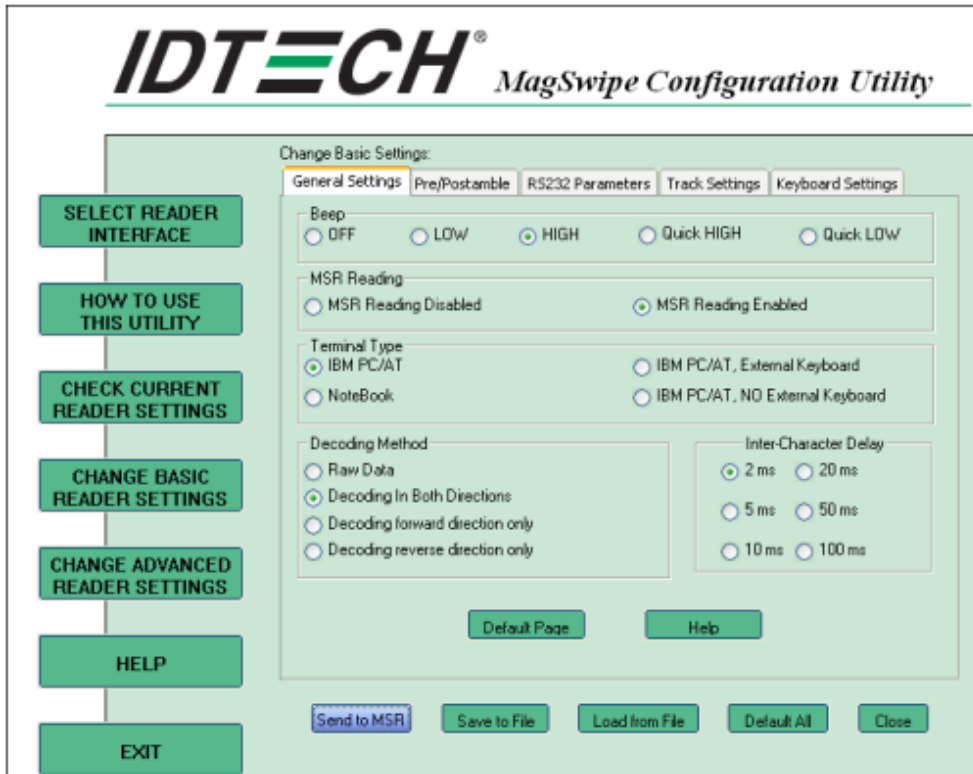


After the interface selection is made, click the Continue button. The utility attempts to communicate with the connected reader. If successful, the Home Menu Page is displayed. The Home Menu Page is shown below



Change Basic Reader Setting

After selecting the appropriate interface for the reader, select one of the Home Menu Page buttons to proceed with the Magnetic Stripe Reader (MSR) configuration process. The „Basic Reader Settings“ group defines the basic operating parameters and data output format of the reader.



Button Definitions

Send To MSR

When all the setting parameters are selected, use the „Send To MSR...“ button to send configuration data to the reader device. When the reader has received the data correctly, the settings take effect immediately.

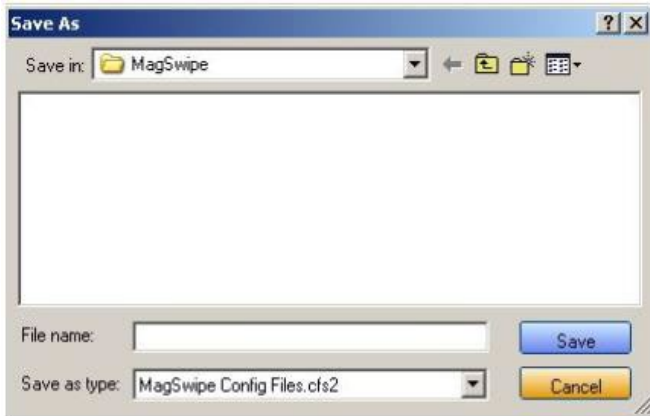
Load From File

The configuration data can be loaded into the configuration utility from a file that has been previously saved. Select this command, start a „File Open“ dialog, which allows selection of the file.



Save To File

The configuration data can be saved as a file and being used later to configure other readers. When saving a configuration the „File Save“ dialog is opened as shown below. Input a filename and file location.



Default All

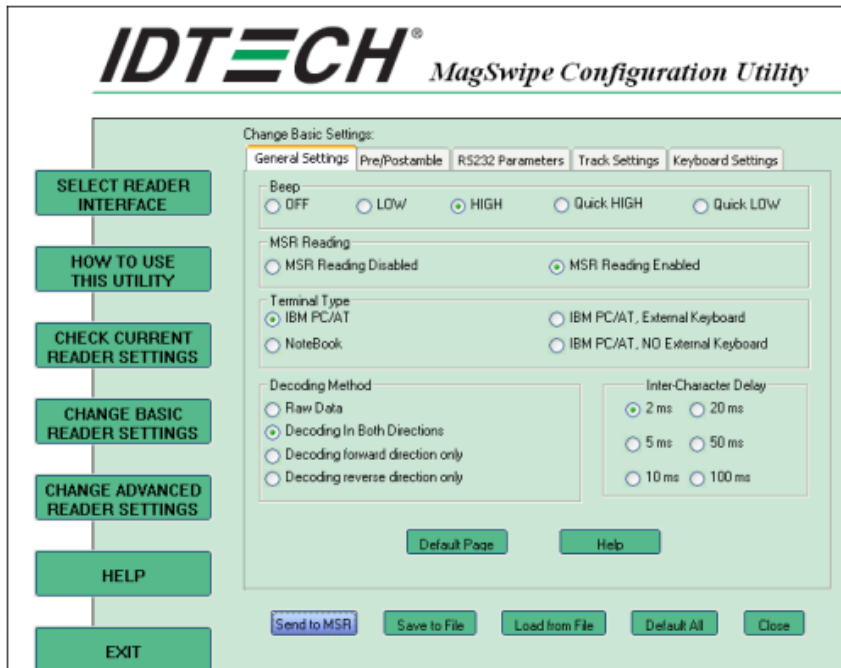
This button sets the reader with the default configuration parameters (the default factory settings). The settings take effect immediately. The default parameters affect all reader configurations settings.

Close

Close this dialog and return to the Home Menu Page.

General Settings

This group of configuration settings defines the basic operating parameters of the reader.



MSR Reading

This option will turn on or off the MSR. If MSR is disabled no data is sent out to host in any case. The default is MSR Reading Enabled.

Decoding Method Settings

This option gives four kinds of decoding methods.

Raw Data (output in both forward and reverse directions)

Decoding in Both Directions (forward and reverse reading)

Decoding in Forward Direction only (card entering slot from LED end)

Decoding in Reverse Direction only (card entering slot from end opposite LED)

With the bi-directional operation, the user can swipe the card in both swipe directions and the data encoded on the magnetic stripe will be output. In the single swipe direction selections, the card can only be swiped in one specified direction to read the card. The default setting will decoding card data with the card swiped in either the forward or the reverse direction.

„Raw Data“ is an output of the decoded magnetic stripe data in hexadecimal format (no ASCII character conversion is performed). In the Raw Data setting, the reader outputs all

track-decoded data. The MSR will represent the raw data with two ASCII characters: the first ASCII character is for high bits of the raw data byte and the second is for the low bits. For example, the two ASCII characters „4“ and „1“ represent raw data byte 41h(01000001).

Beep Volume

The Beep volume can be adjusted to four loudness levels or off. Four loudness levels are:

Quick High

Quick Low

High

Low

The default is High beep.

Terminal Type

NoteBook

IBM-PC/AT

IBM-PC/AT, External keyboard

IBM-PC/AT, No External keyboard

The firmware can be programmed to interface as a keyboard wedge to 4 different types of terminals. The default is IBM-PC/AT.

Inter-Character Delay :

2ms, 5ms, 10ms, 20ms, 50ms, 100ms;

This is the time period the reader will delay between sending successive characters. Some terminals or computers (host) require an inter-character delay to simulate the effects of keystroke delays. Choosing a longer inter-character delay causes the characters to be sent at a slower rate. If the host system is not capable of receiving characters as fast as the reader can transmit, setting an appropriate inter-character delay will keep the reader from overrunning the host input buffer. The default is 2ms.

Default Page Button

After you click the Default Button, the general settings page will change back to the default value. Settings are not sent to MSR until the „Send to MSR“ button is clicked.

Help Button

Click the help button to open the help index for this section.

Pre/Postamble

Preamble

Characters can be added to the beginning of the reader's output string of data. These can be special characters for identifying a specific reading station, to format a message header expected by the receiving host, or any other character string. Up to nine ASCII characters can be defined for the Preamble.

Postamble

The Postamble serves the same purpose as the Preamble, except the extra characters are added to the end of a data string. The Postamble can be added only after a terminator character, if specified.

Track Prefix and Suffix

For some Host applications, it may be convenient to start or end a string of reader data with a Sentinel or terminator character. The maximum Prefix/Suffix string is six characters and its default is NULL (no prefix or suffix).

Track Start Sentinels

Characters can be added to the beginning of each track data string to simulate the start of the track data. These can be special characters for identifying a specific track.

End Sentinel

The magnetic stripe End Sentinel character can be added to the end of a magnetic stripe data string. This character simulates the end of character for track1, track2 or track3. This default is ,?'

Track Settings

The screenshot shows the 'IDTECH® MagSwipe Configuration Utility' window. On the left is a vertical menu with buttons: 'SELECT READER INTERFACE', 'HOW TO USE THIS UTILITY', 'CHECK CURRENT READER SETTINGS', 'CHANGE BASIC READER SETTINGS' (highlighted in blue), 'CHANGE ADVANCED READER SETTINGS', 'HELP', and 'EXIT'. The main window has a title bar and a menu bar with 'General Settings', 'Pre/Postamble', 'RS232 Parameters', 'Track Settings' (highlighted), and 'Keyboard Settings'. Below the menu bar is a 'Track Select' section with radio buttons: 'Any Track' (selected), 'Track1 Only', 'Track2 Only', 'Track1 And Track2', 'Track3 Only', 'Track1 And Track3', 'Track2 And Track3', 'All Three Tracks', and 'Track1 Or Track2'. Below this are checkboxes: 'Send Start/End Sentinel' (checked), 'Send LRC in Card Data' (unchecked), 'For Track 2 Only Send Account Number' (unchecked), and 'Send Error Indication' (unchecked). There are two rows of input fields: 'Track Separator' and 'Terminator', each with a text box containing '[cr]' and a 'Non-Printable Char' dropdown menu. At the bottom are buttons: 'Default Page', 'Help', 'Send to MSR', 'Save to File', 'Load from File', 'Default All', and 'Close'.

Track Selection

There are three tracks of information possible on a magnetic stripe. This option selects the tracks that will be decoded (read). Note that the magnetic stripe reader must have the hardware configuration (read head and circuits) for reading the specified tracks. If a single or dual track reader is used, the heads must be positioned to read the tracks selected by this option. The default is Any Track. (All tracks written on the card will be read).

Track Separator Selection

This option allows the user to select the character to be used to separate data decoded by a multiple-track reader. The default value is CR

Send Start/End Sentinel

The reader can send the Start/End sentinel for a track, decoded without error.

Send LRC in Card Data

The reader can send the track LRC for a properly decoded track.

For Track 2 only Send Account Number

The reader can only send account Number if it is true. And if it is false, the reader sends all Track 2 data.

Send Error Indication

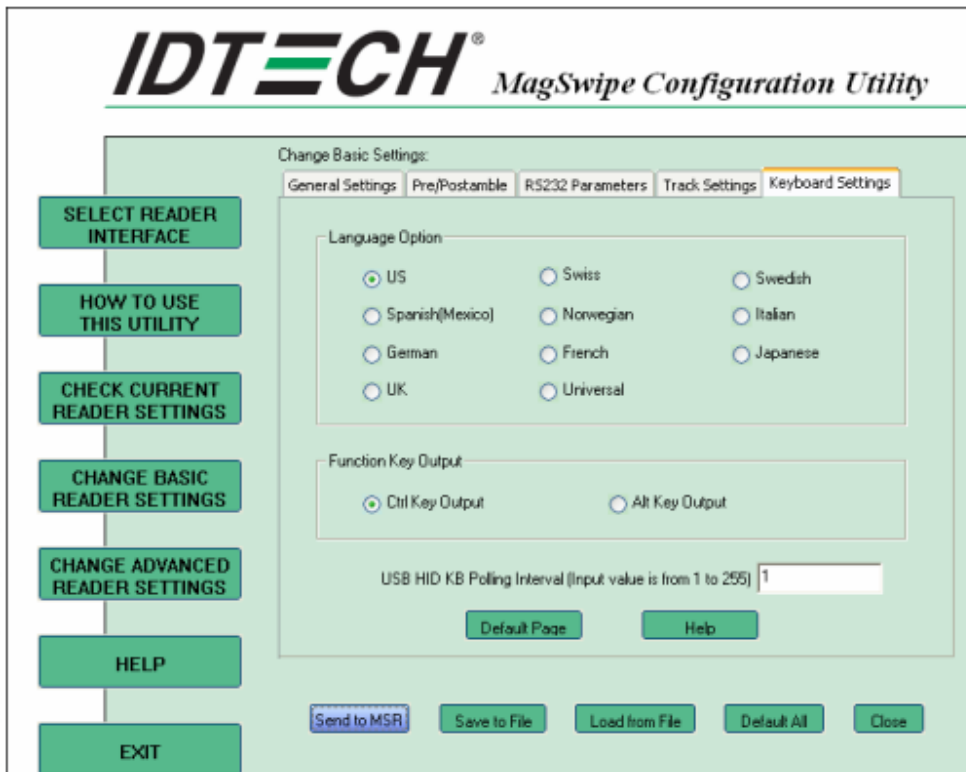
This option let reader to send out [SS]E[ES] if failed to read or missing data on a selected track. The default is off.

The error output for track 1 is „%E?“.

The error output for track 2 is „;E?“.

The error output for track 3 is „+E?“.

Keyboard Settings



Keyboard Settings

There are keyboard settings information on a magnetic stripe. MiniMag II will support following foreign language keyboard and function key output for PS/2 and USB HID Keyboard Interface.

Language Option

This option allows the user to select the keyboard language of US, Swiss, Swedish, Norwegian, Italian, Spanish(Mexico), German, French, Japanese, UK and Universal. Universal language sends out all the data as a series of ALT keyed sequence.

Function Key Output

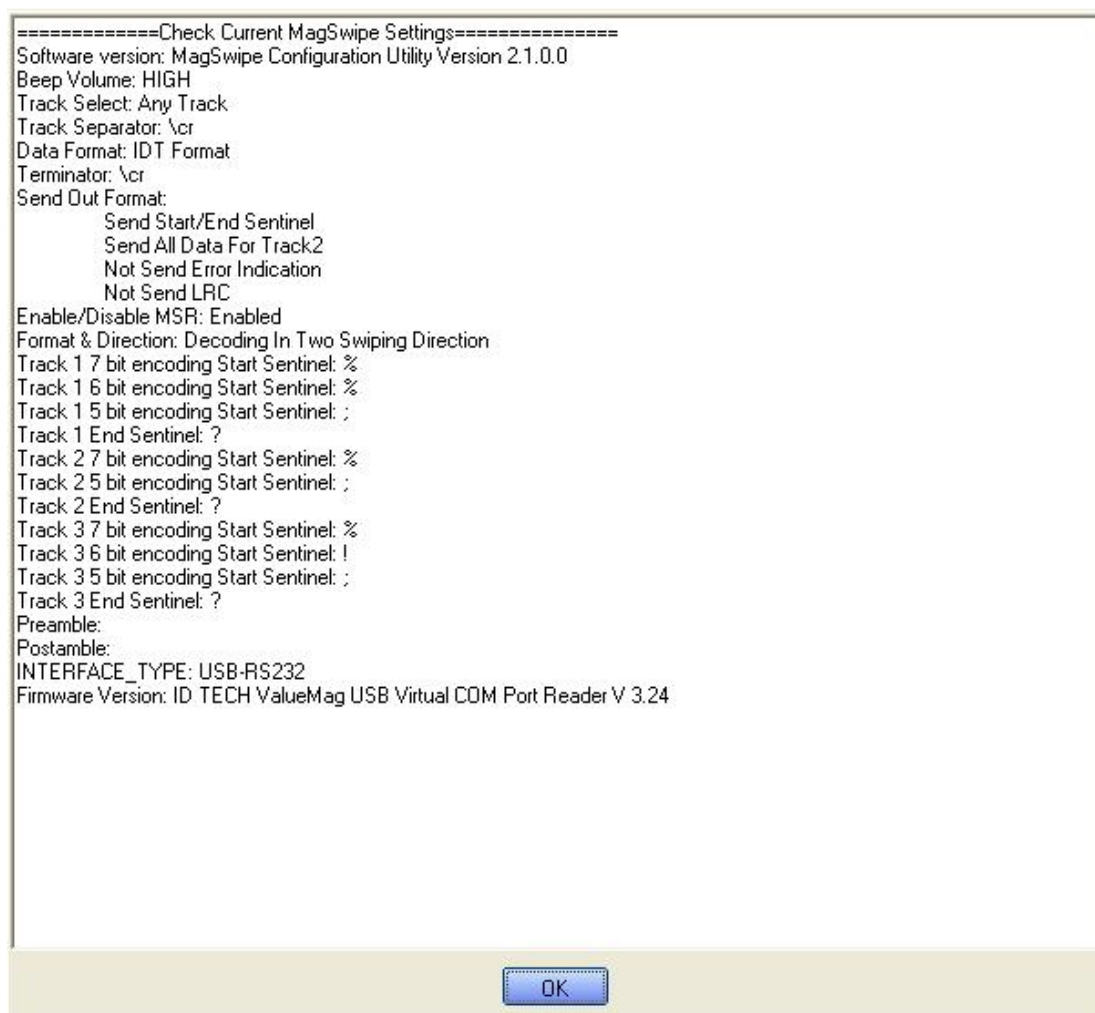
The function key output be used to support the special key to delay card data output.

USB HID KB Polling Interview

The user can input the number between 1 to 255 for the delay of output.

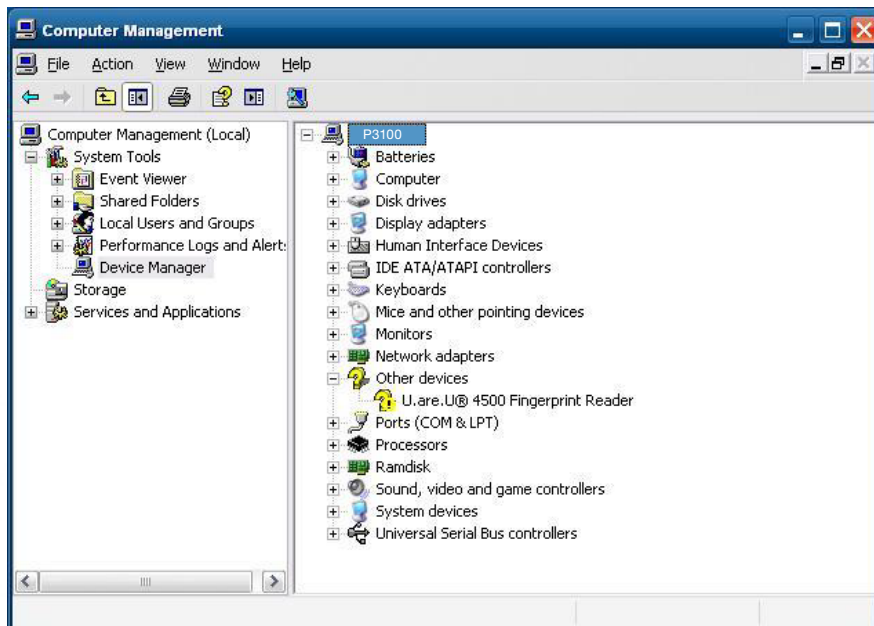
Check Current Reader Setting

After you connect the device, the current reader configuration can be displayed by selecting this button. The configuration data of the connected reader will be displayed like in the example:



6-3 Fingerprint Reader

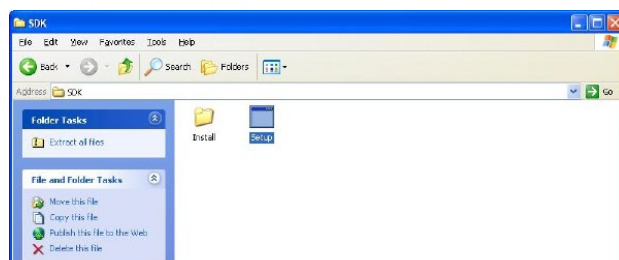
Step 1 Check Fingerprint reader be detected by “Device manager”



Step 2 Select SDK folder.



Step 3 Run Setup.exe.



Step 4 Click "Next".



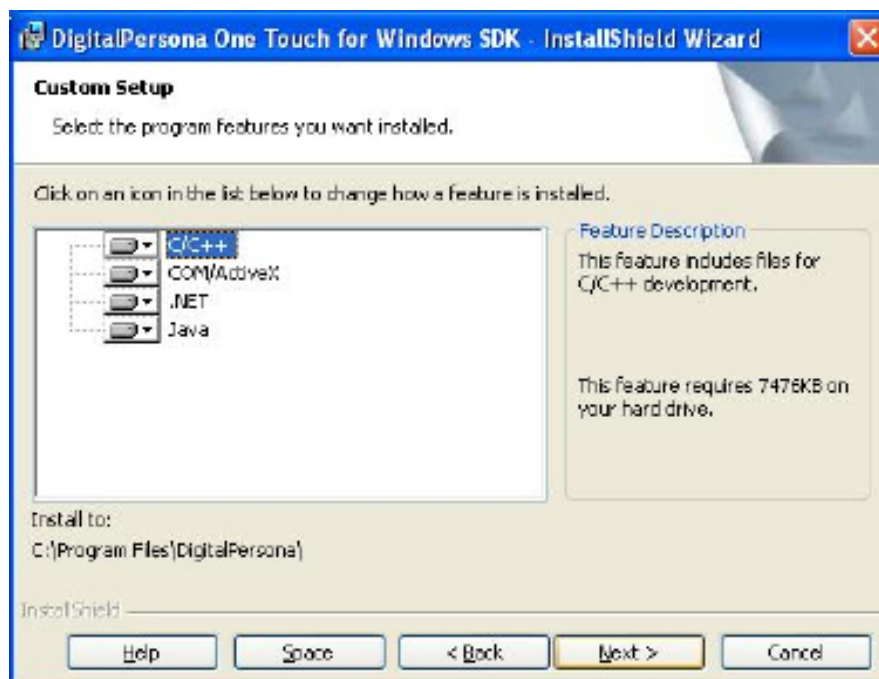
Step 5 Select " I accept the terms in the license agreement" and click "Next".



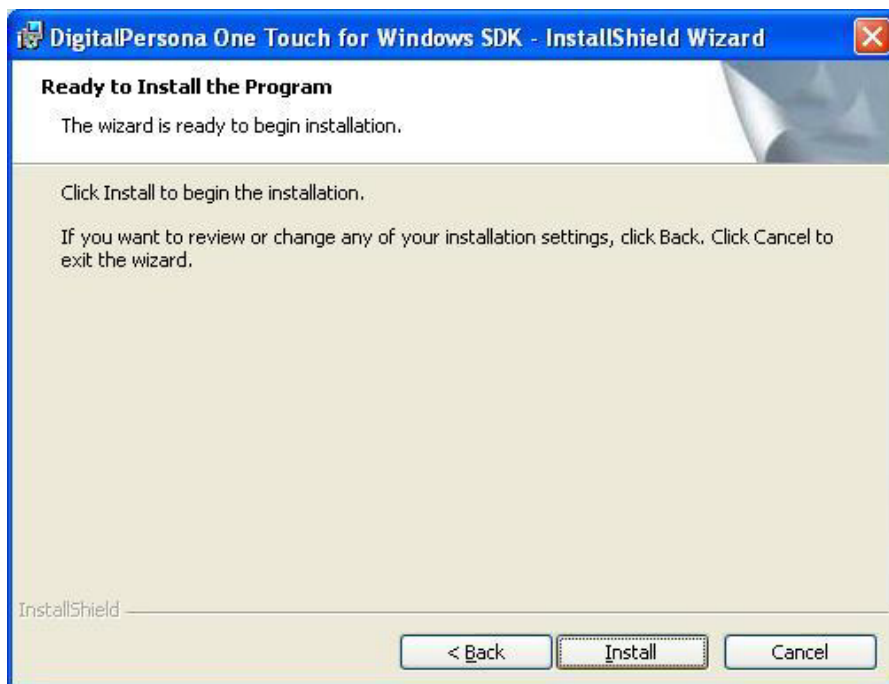
Step 6 Click “Next”.



Step 7 Click “Next”.



Step 8 Click "Install".



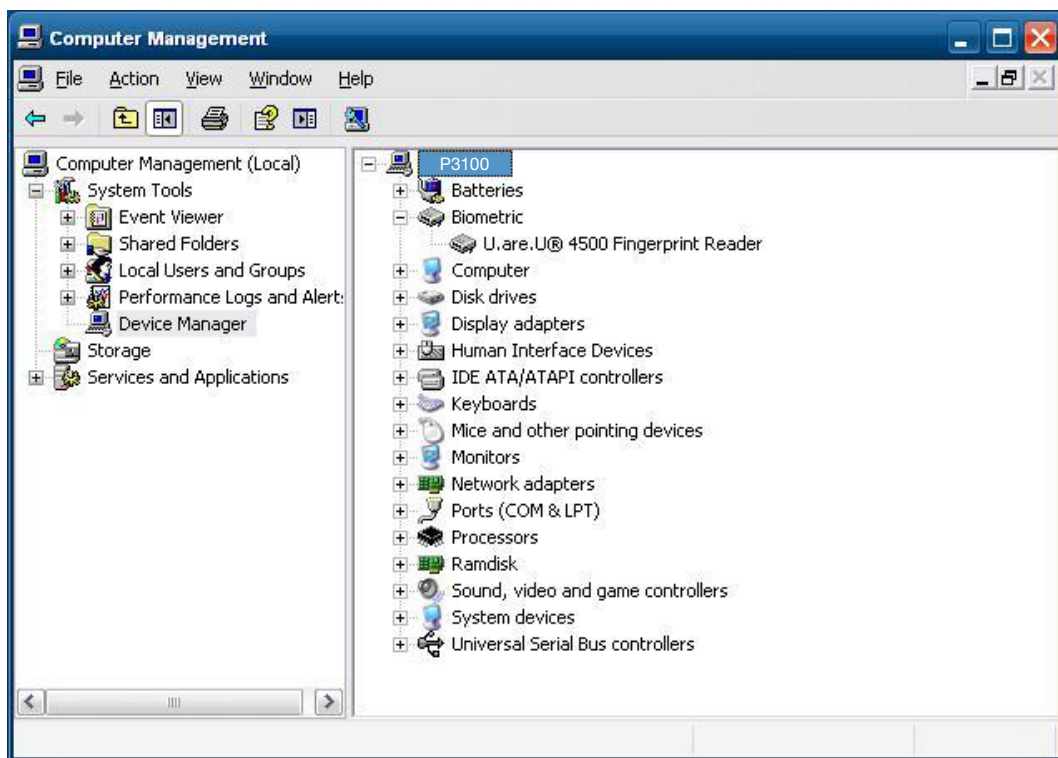
Step 9 Click "Finish".



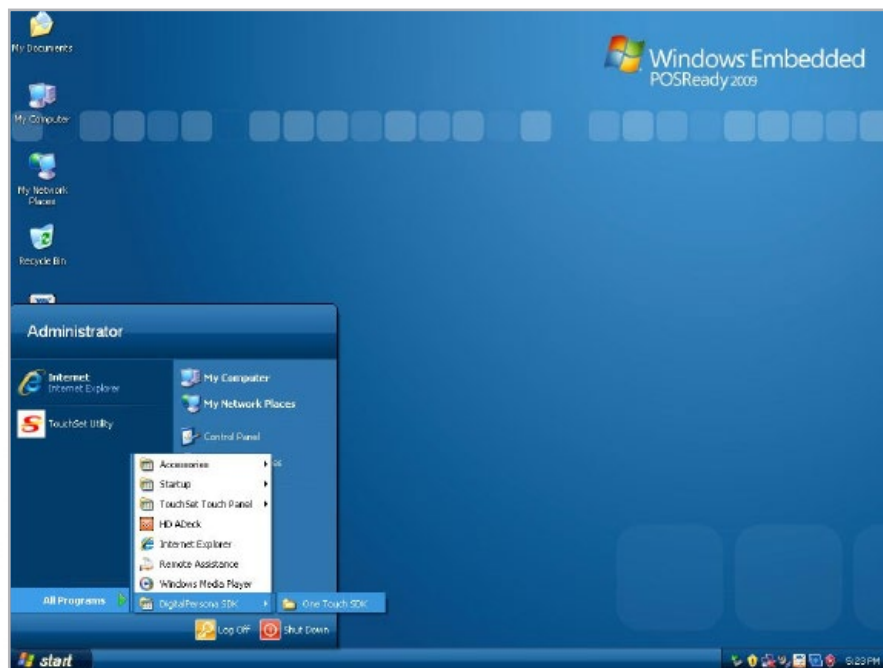
Step 10 Restart system



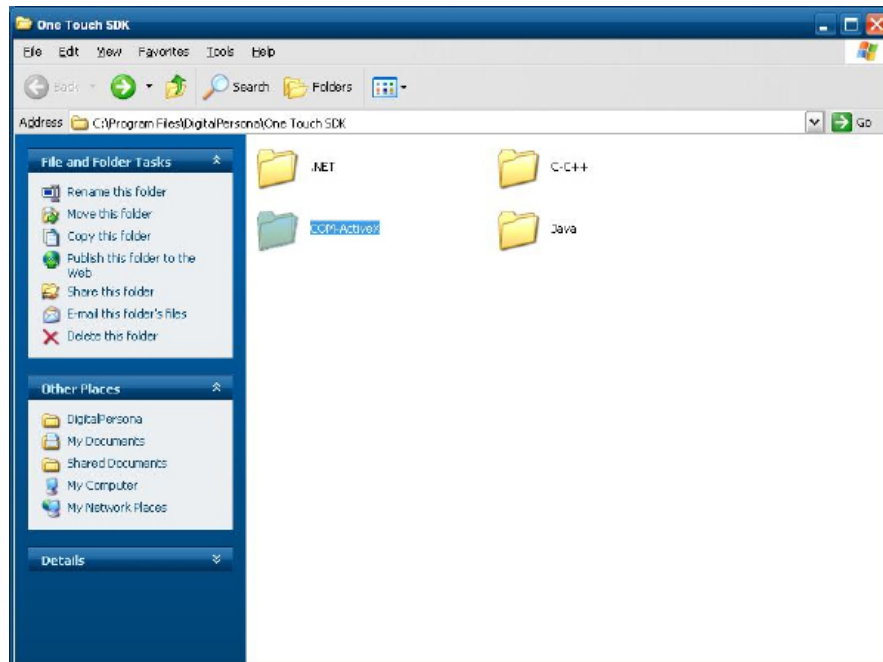
Step 11 Check Fingerprint reader in Device Manager.



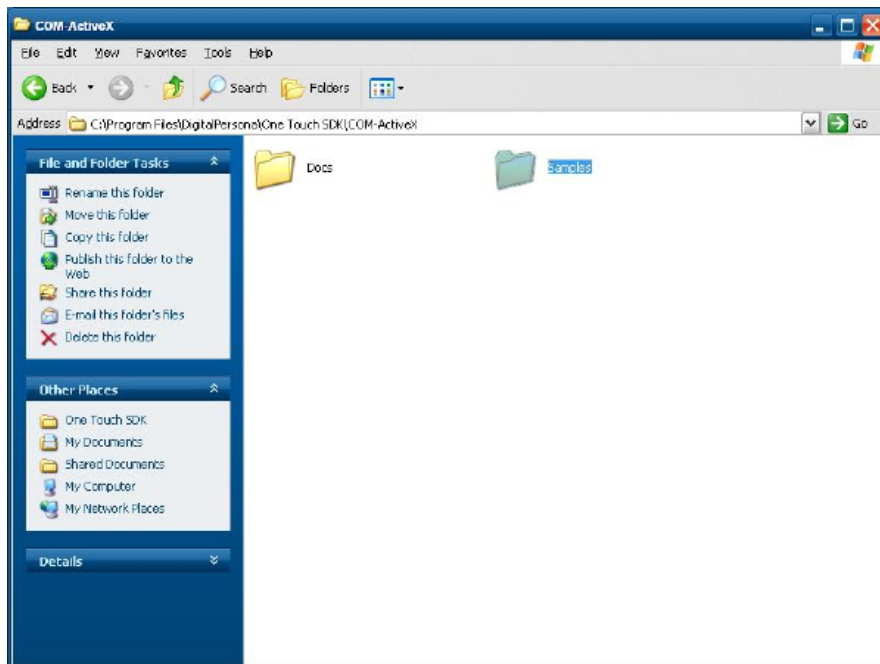
Step 12 Launch Fingerprint reader from start menu



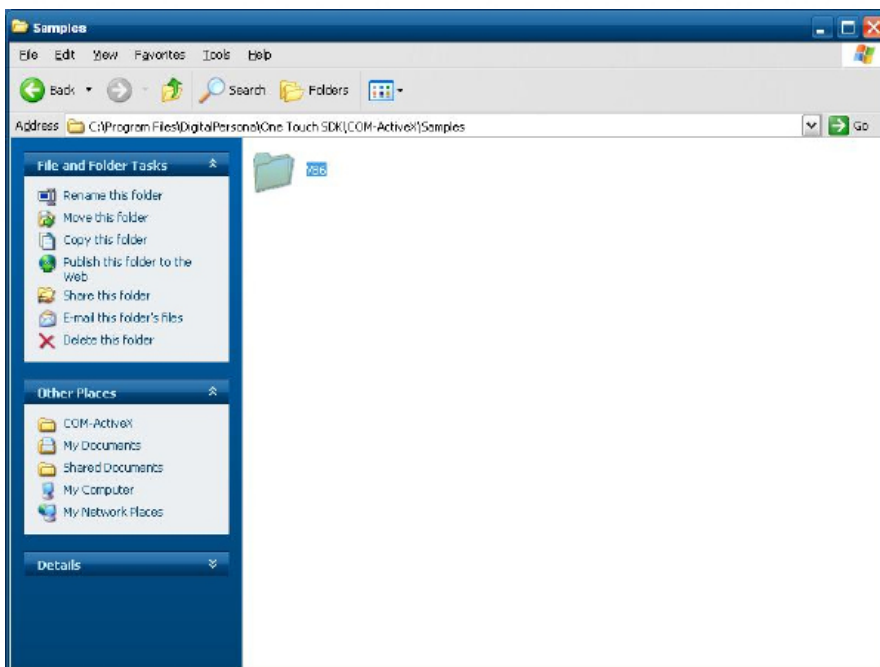
Step 13 Select "COM-ActiveX"



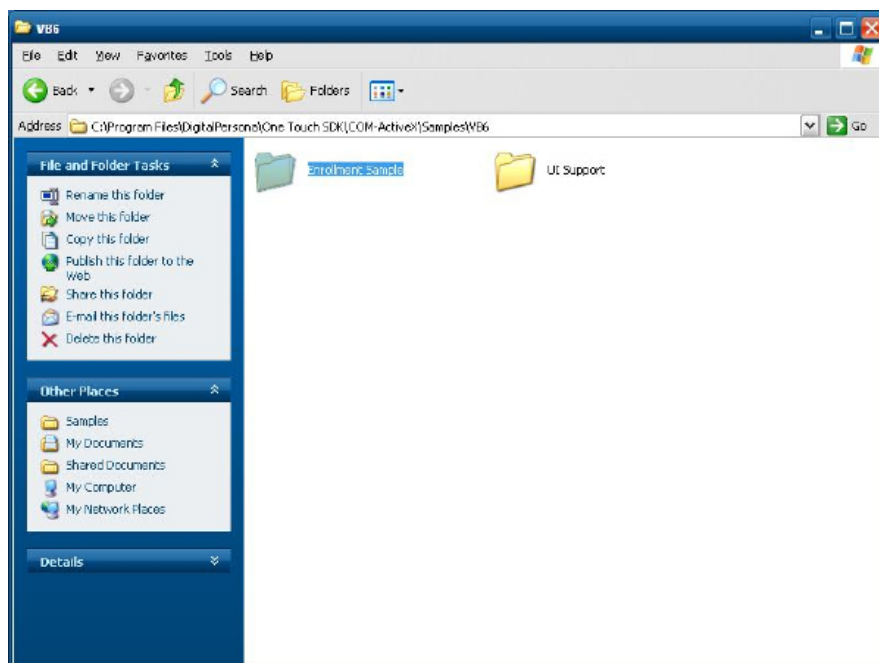
Step 14 Select "Sample"



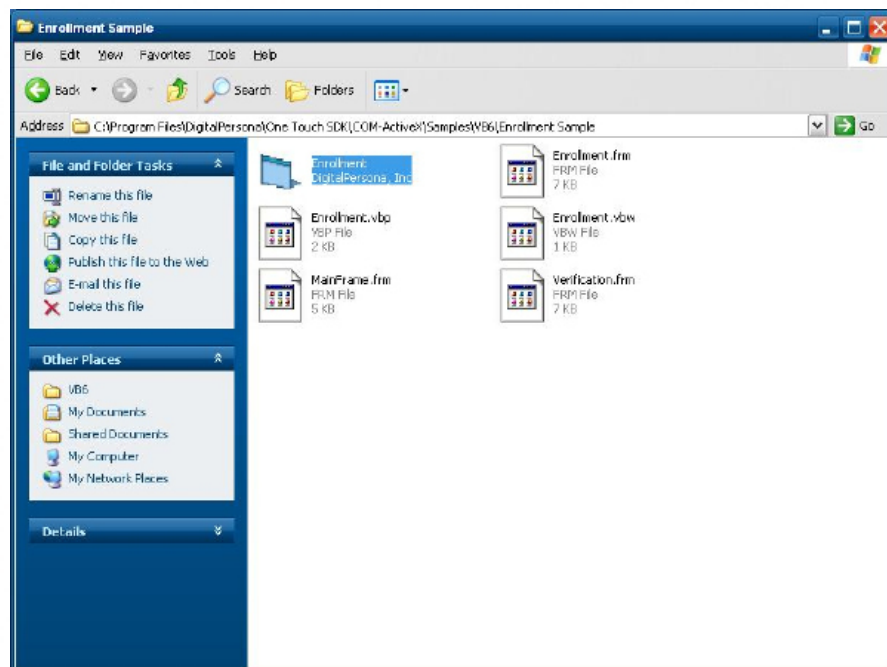
Step 15 Select "VB6"



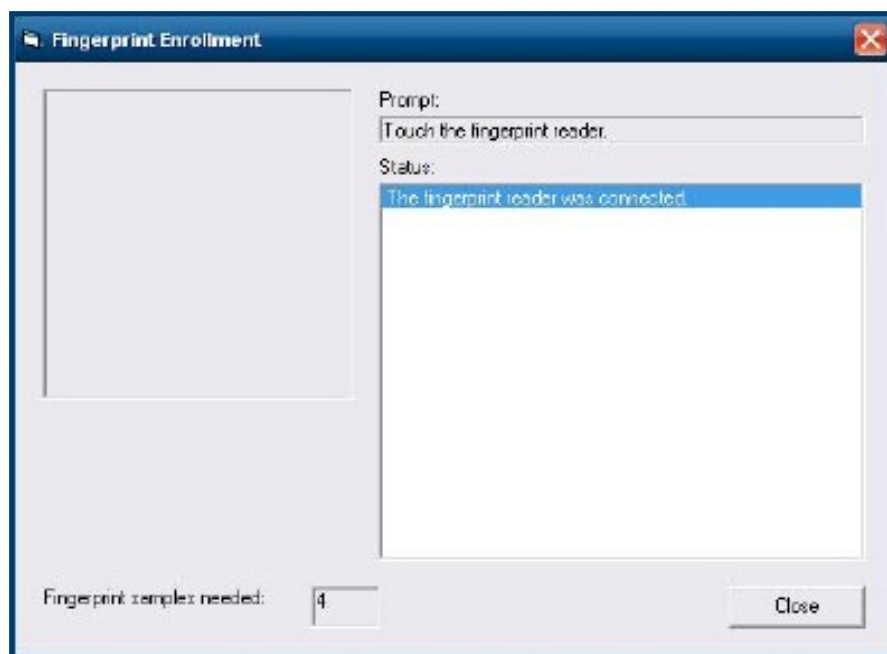
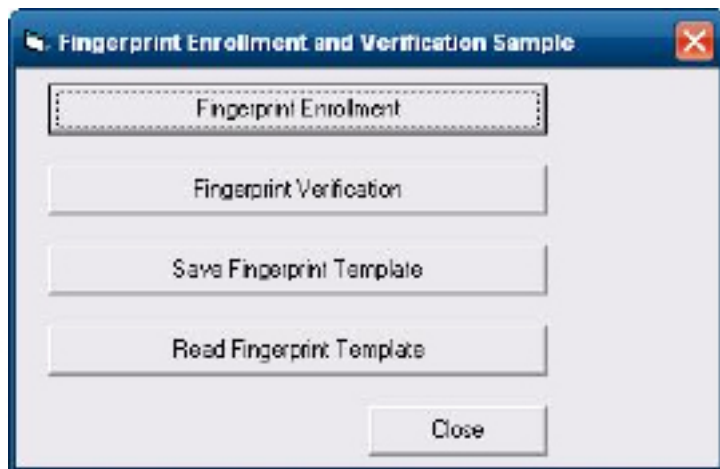
Step 16 Select “Enrollment Sample”.



Step 17 Enroll the fingerprint by the “Enrollment”



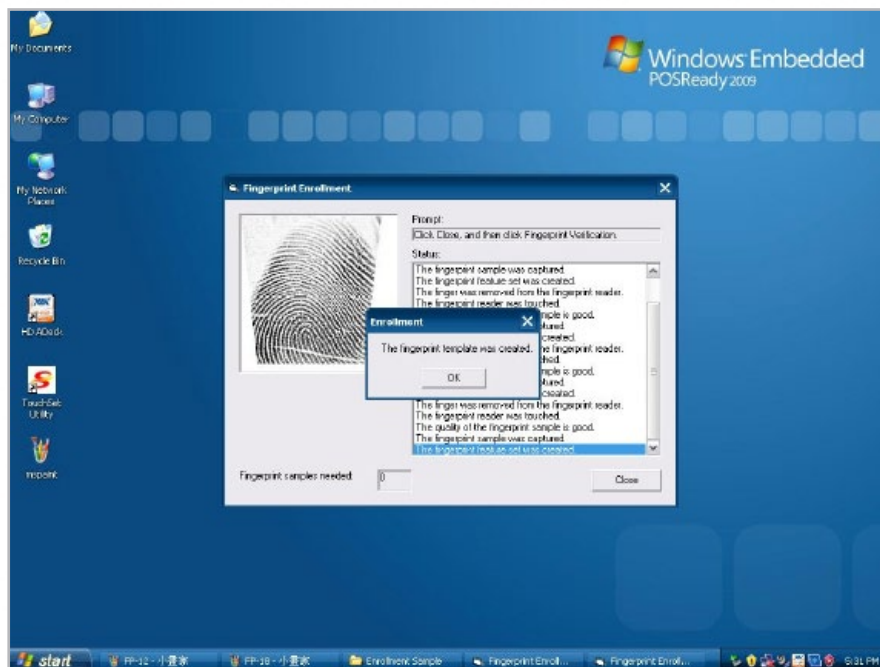
Step 18 Select “Fingerprint Enrollment”



Step 19 Put your finger on fingerprint reader and follow the direction to enroll your fingerprint it need scan your fingerprint 4 times



Step 20 after enroller finish it will popup a dialog box



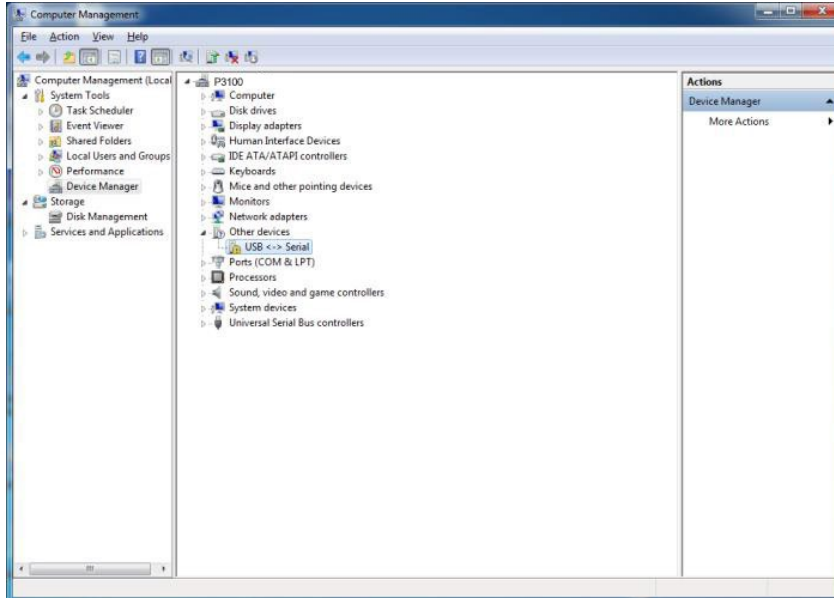
6-4 RFID

1. Install

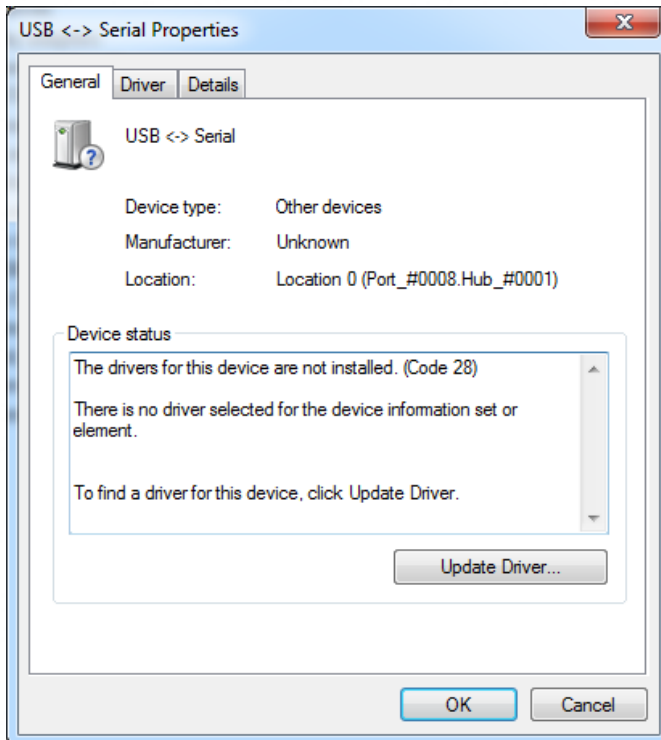
1.1 Check the Device Manager to verify the status of RFID reader.

Computer Management -> Device Manager -> Other devices

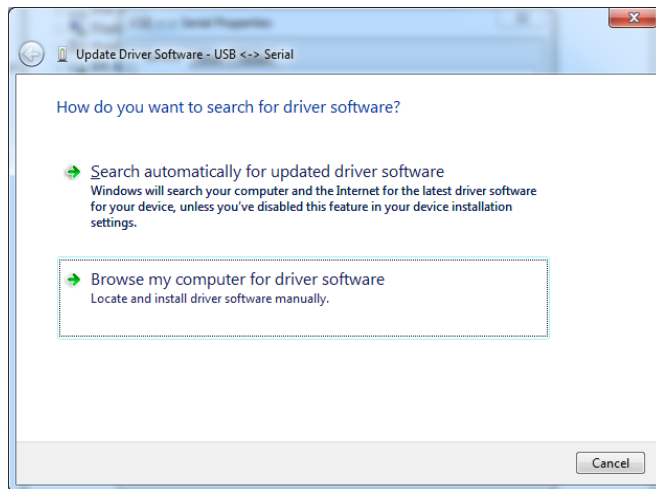
(The device will show a question mark if the installation is not done properly.)



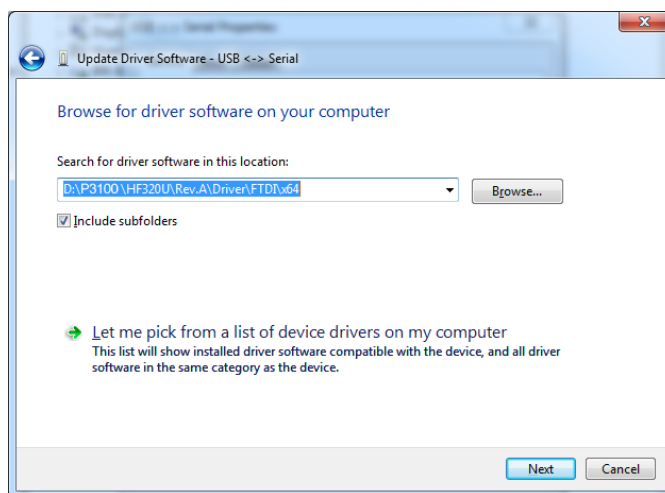
1.2 Double-click to Update driver.



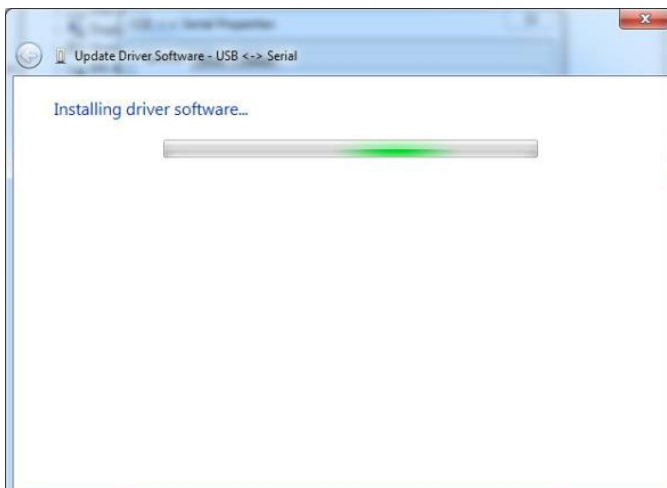
1.3 Select “Browse my computer for driver software.”



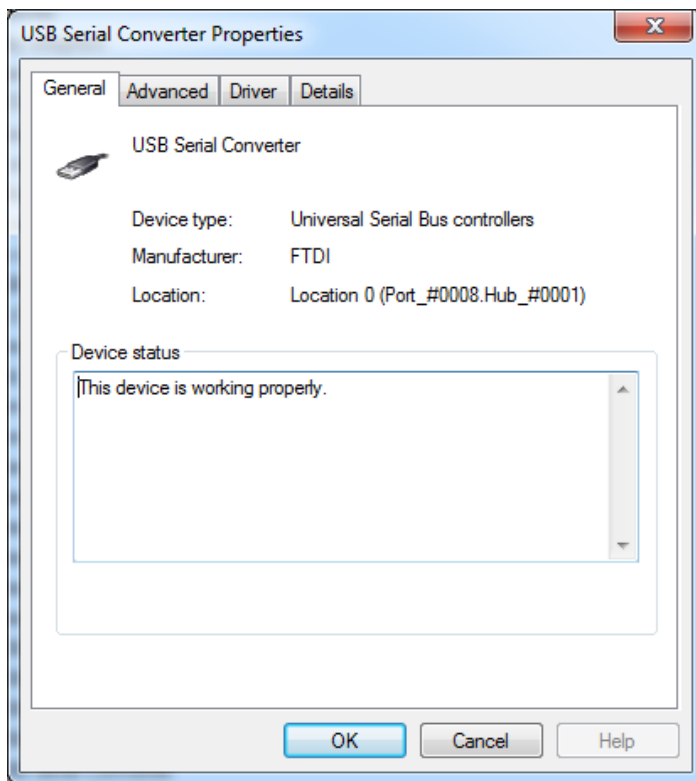
1.4 Click Browse to select file called HFF320U \Driver\FTD\x64 And click Next.



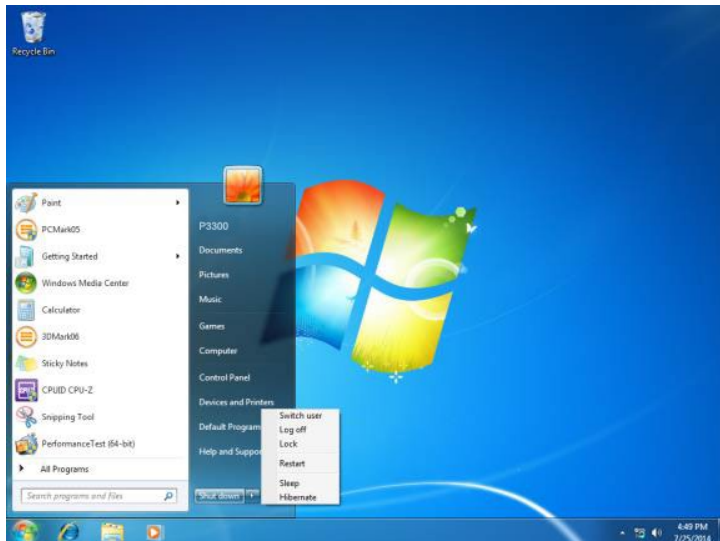
1.5 Install the driver



1.6 Install complete and then click “close”

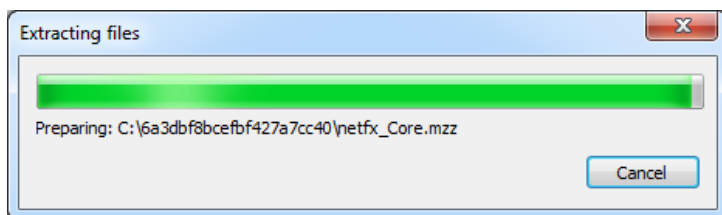
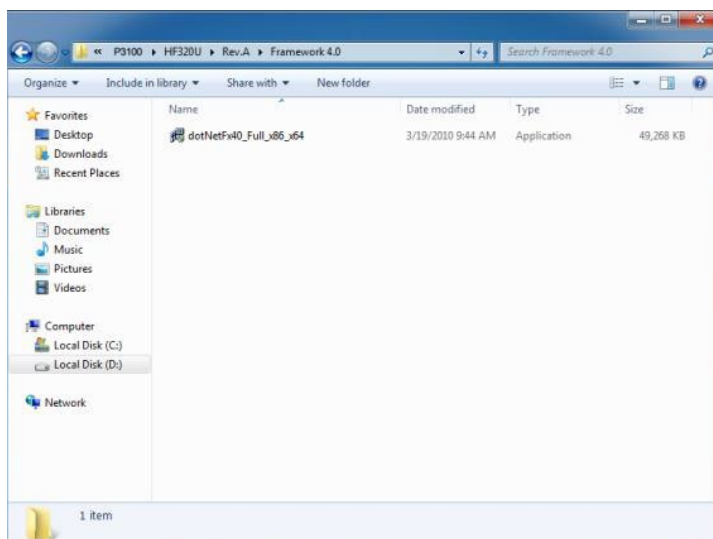


1.7 Restart the computer

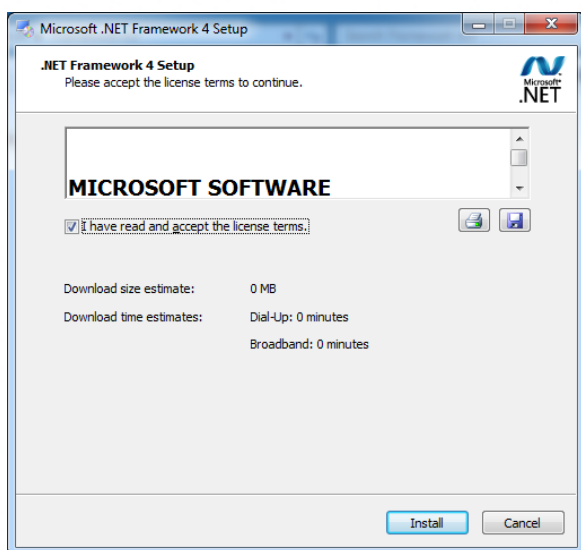


2 Install framework 4.0

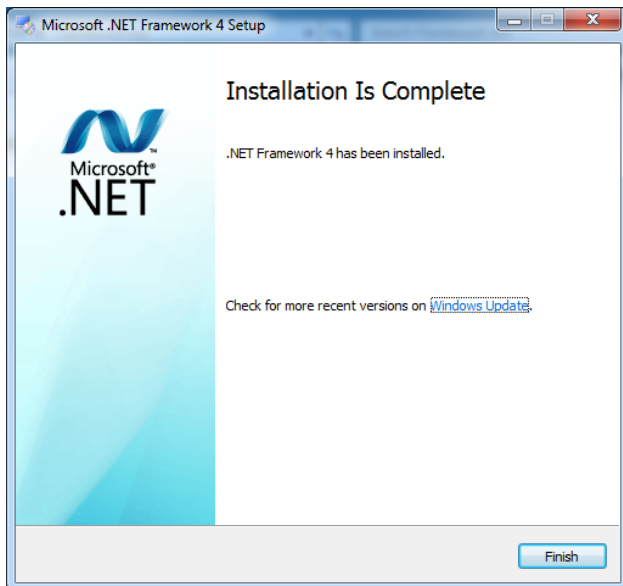
2.1 Double-click to install.



2.2 Select "I have read and accept the license terms. And click Install..

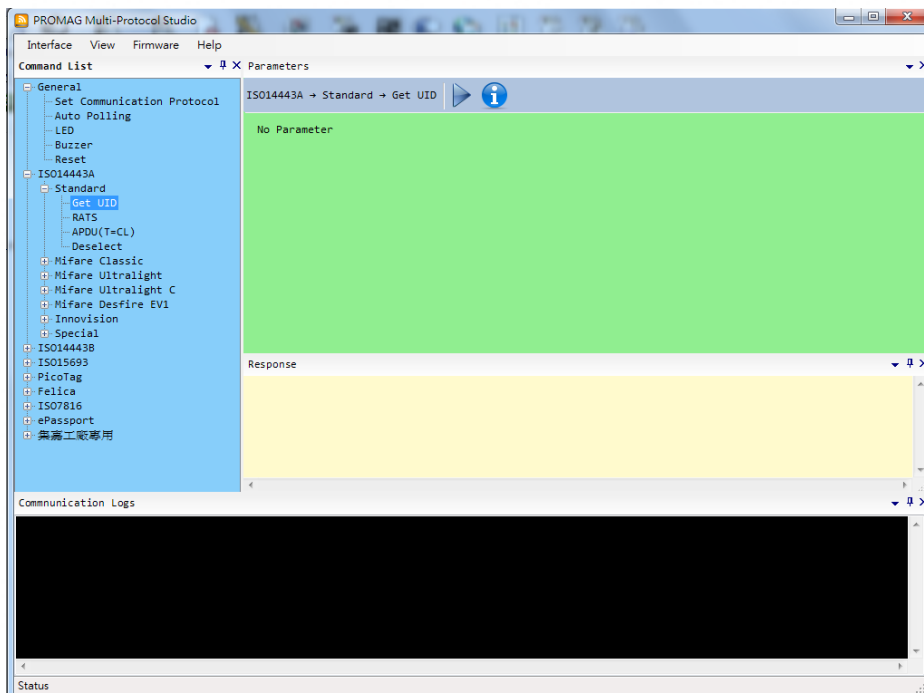


2.3 Click Finish.

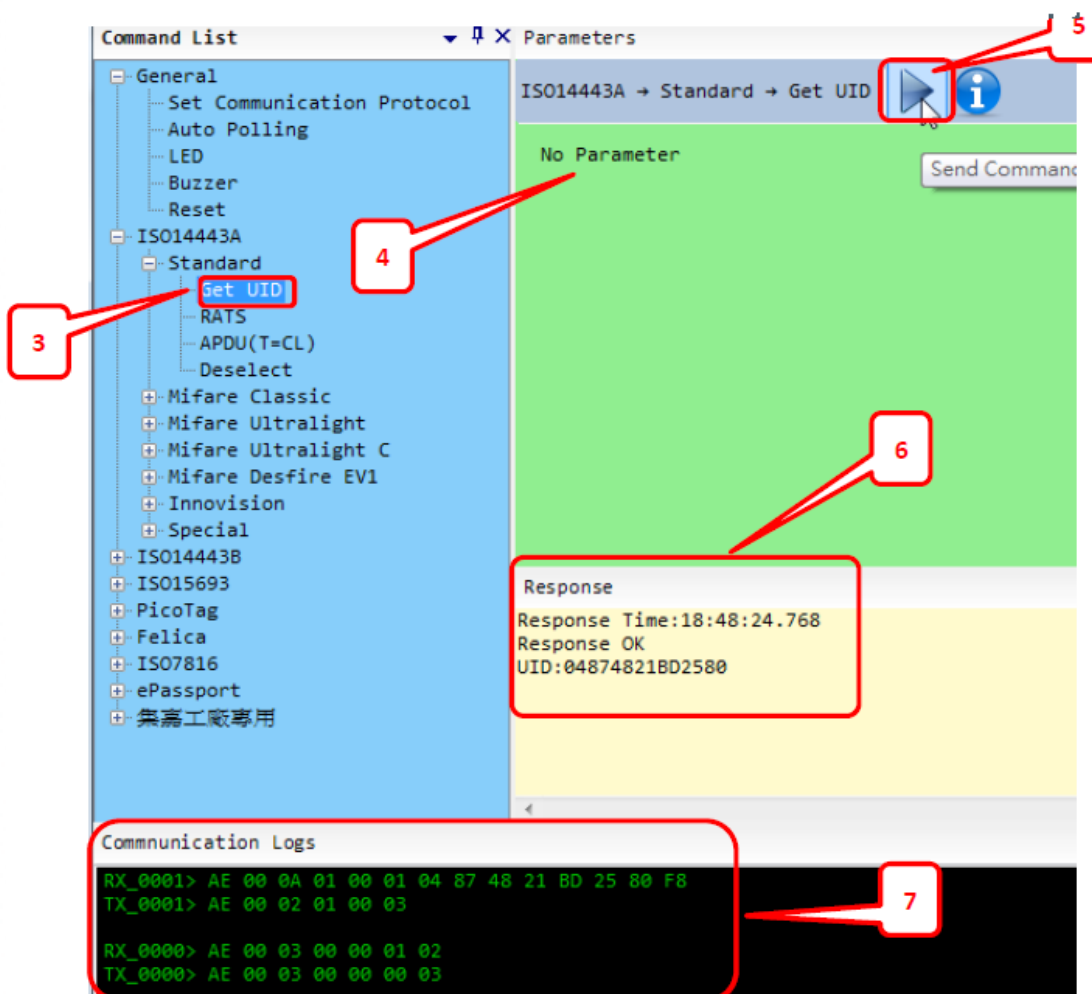
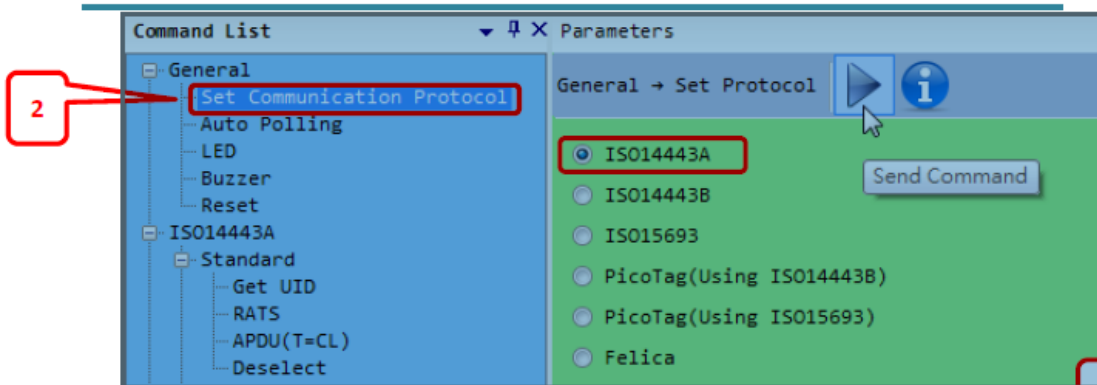
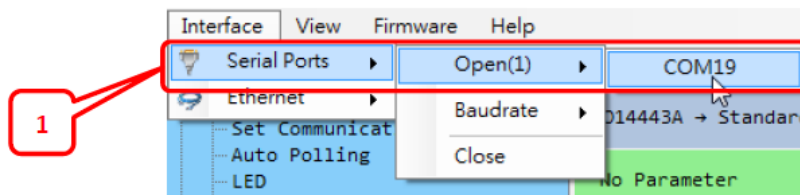


3 Quick Start with Demonstration Software

3.1 The demonstration software is “MP Studio.exe” provided in the folder “Demo Software”. There is no software setup required; just double click the “MP Studio.exe”. The demonstration software can run either from CD or a copy on hard drive. The GUI of software is shown in below picture and ready to use.



3.2 Following steps, as shown in below picture, demonstration a simple usage in reading UID of ISO14443A card for quick understanding.



6-5 Configuration Utility of I-Button Reader

Notice: For the i-Button Reader device positioned at side MSR, there are two installation guides for two different i-Button reader device, please select correct installation guide before installation



1 The installation guide of I-Button Reader positioned at side MSR

The i-Button Reader Configuration Utility is used to set up the output format of HID MSR

Installation

Below steps guide you how to install the Utility program.

- Insert the setup CD
- Run the HIDMSR-20 Utility.exe setup file that is located in the Software folder of CD.
- Follow the wizard to complete the installation.

Launching Program

Below steps guide you how to load the Utility program.

- From Start/Programs, click HIDMSR-20 Utility folder
- Click MagStripe Card Reader Configuration Utility to launch the program.



- The utility program will detect the connected reader. If detected, all the input text boxes
- If the reader has not been connected to PC yet, please connect the reader and then click Refresh to get connected.

Configuration

Below is the main window of i-Button Utility program.

For the settings, there are:

- Prefix/Suffix: Defines the data string which you would like to append in front or end of the i-Button key string.
- Error Message: Indicates error message when i-Button key read fail.
- Message: Indicates message when i-Button key read correctly.
- SS/ES : Define Start and End sentinel byte for the i-Button ID string.
- Length : i-Button ID length request from 0~16.
- Output order : 5 formats could be select at Attach /Remove i-Button ID

0. 0-All
1- CRC.ID
2- ID, FC
3- ID
4-Disabled

Update Settings

Once complete the settings, click Update to update the settings to connected HID MSR reader.

Save Settings

To save the settings to a file, click Save; specify the file name and location to be saved.

Open Settings

To load pre-saved settings, click Open, specify the settings file, and then click OK to load into program.

Restore MSR Reader Settings

To load restore settings of connected MSR reader, click Restore ES2: End sentinel for track.

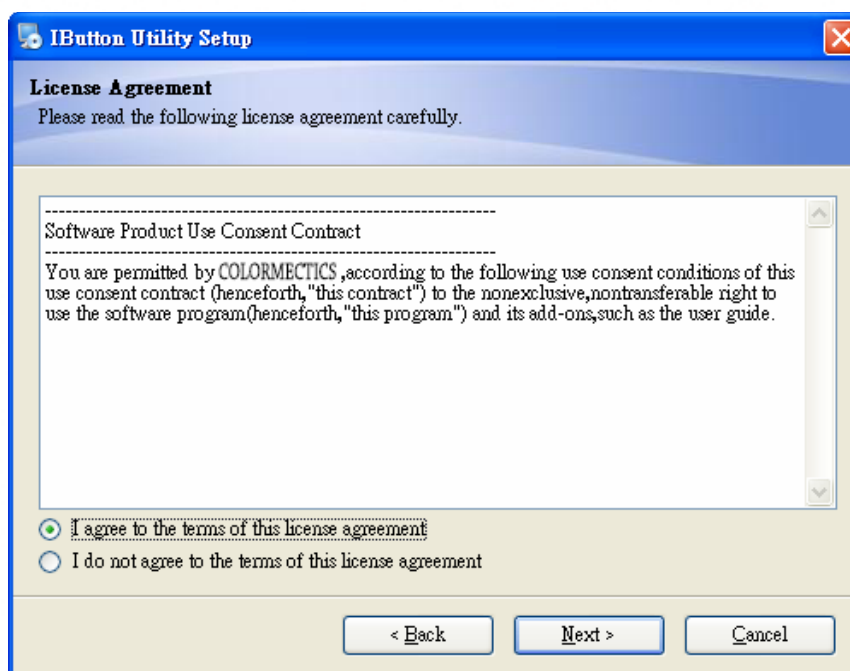
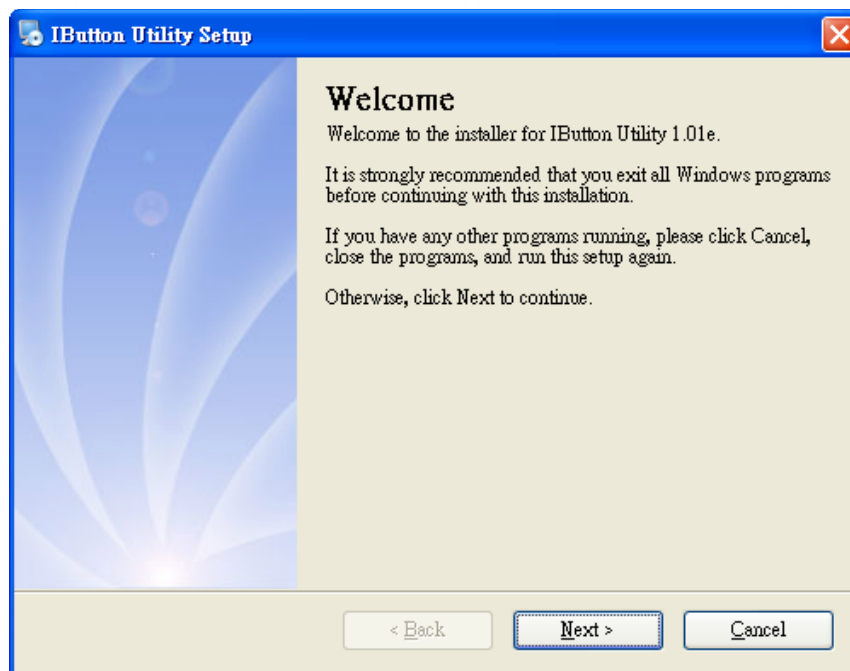
2 The installation guide of I-Button Reader positioned at bottom case and side MSR

Installation

Below steps guide you how to install the Utility program.

- Insert the setup CD.
- Run the Colormetrics i-Button Utility.exe setup file that is located in the Software folder of CD.
- Follow the wizard to complete the installation.

1. Setup IButton _V1.0.exe software



IButton Utility Setup

User Information
Enter your user information and click Next to continue.

Name:

Company:

< Back Next > Cancel

IButton Utility Setup

Installation Folder
Where would you like IButton Utility to be installed?

The software will be installed in the folder listed below. To select a different location, either type in a new path, or click Change to browse for an existing folder.

Install IButton Utility to:
 Change...

Space required: 2.31 MB
Space available on selected drive: 1.69 GB

< Back Next > Cancel

IButton Utility Setup

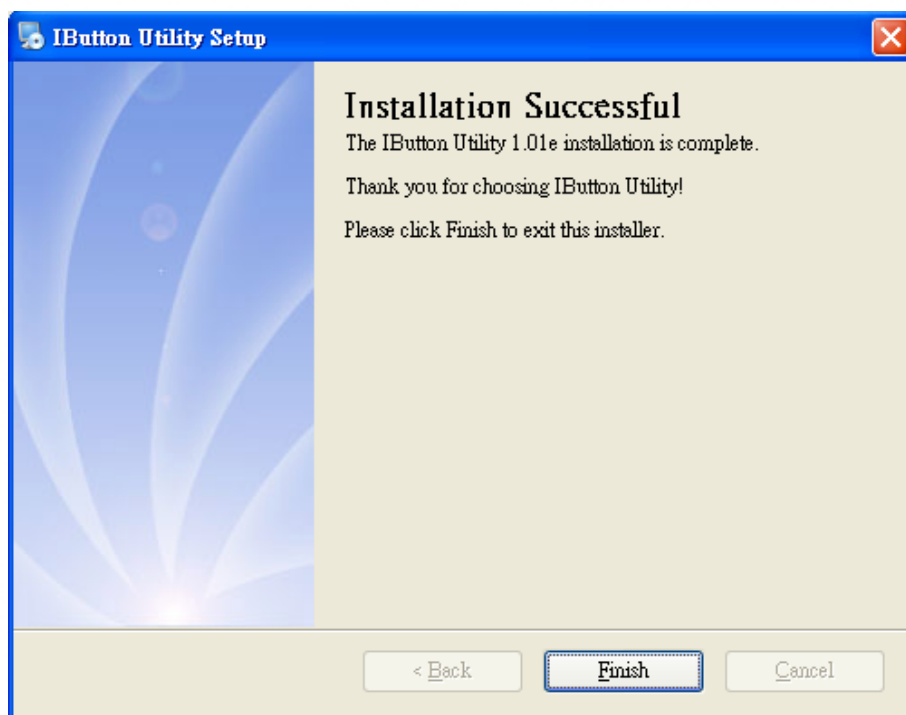
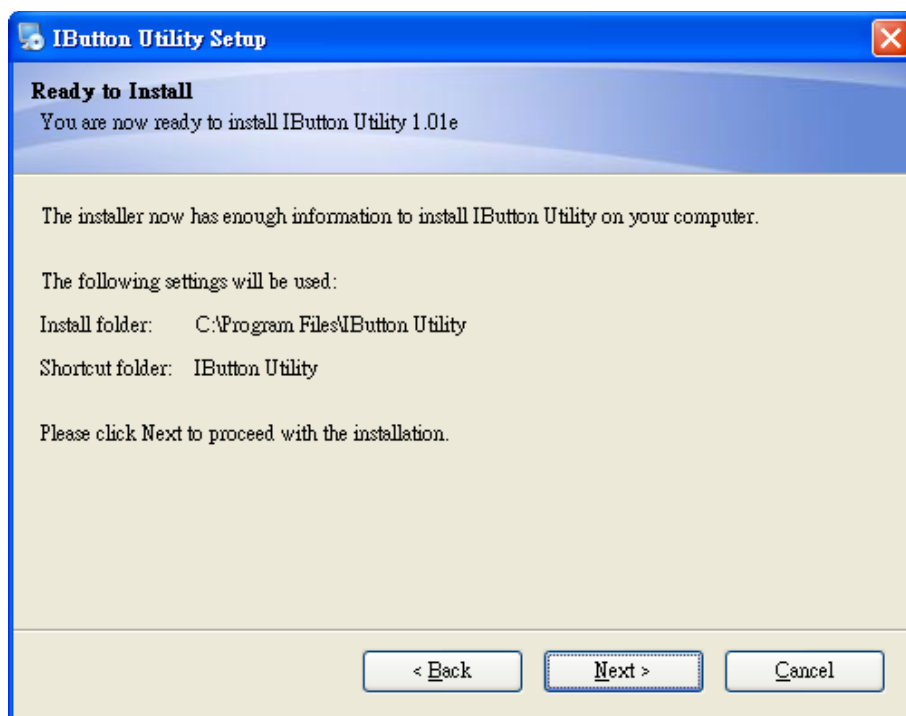
Shortcut Folder
Where would you like the shortcuts to be installed?

The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.

Shortcut Folder:

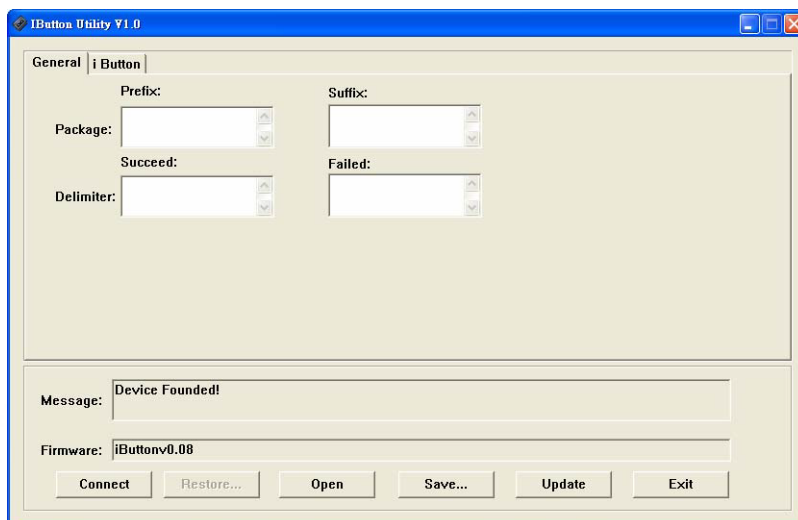
☒ Install shortcuts for current user only
☐ Make shortcuts available to all users

< Back Next > Cancel



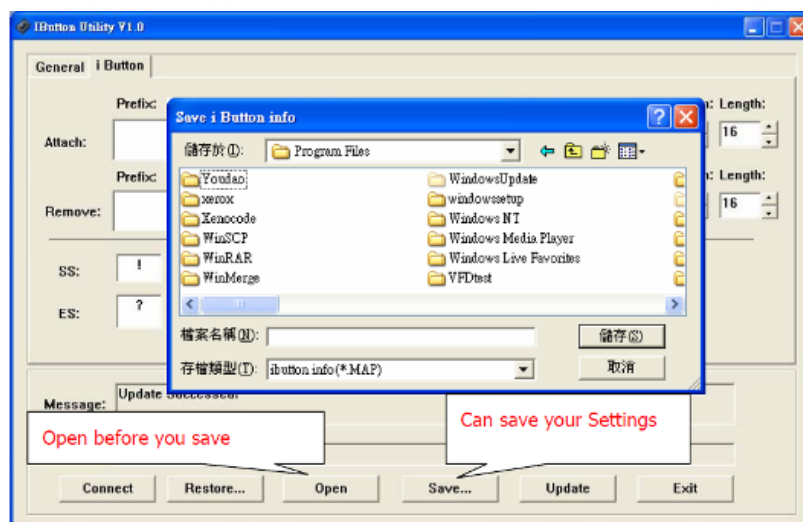
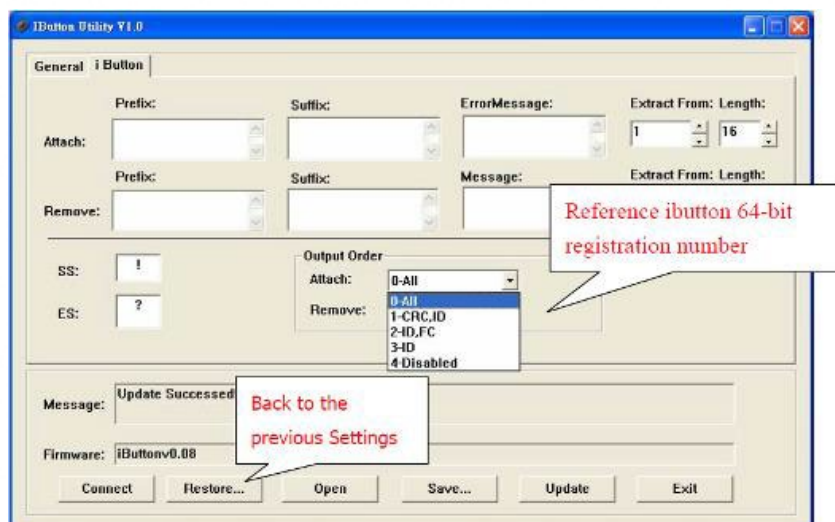
2. To execute "IButton_V1.0.exe" for setup communication between software and iButton module.

- The utility program will detect the connected reader. If detected, all the input text boxes will be enabled.
- If the reader has not been connected to PC yet, please connect the reader and then click Refresh to get connected.



Configuration

Below is the main window of i-Button Utility program.



For the settings, there are:

- Prefix/Suffix: Defines the data string which you would like to append in front or end of the i-Button key string.

iButton Data Package :



- Error Message: Indicates error message when i-Button key read fail..
- Message: Indicates message when i-Button key read correctly.
- SS/ES : Define Start and End sentinel byte for the i-Button ID string.

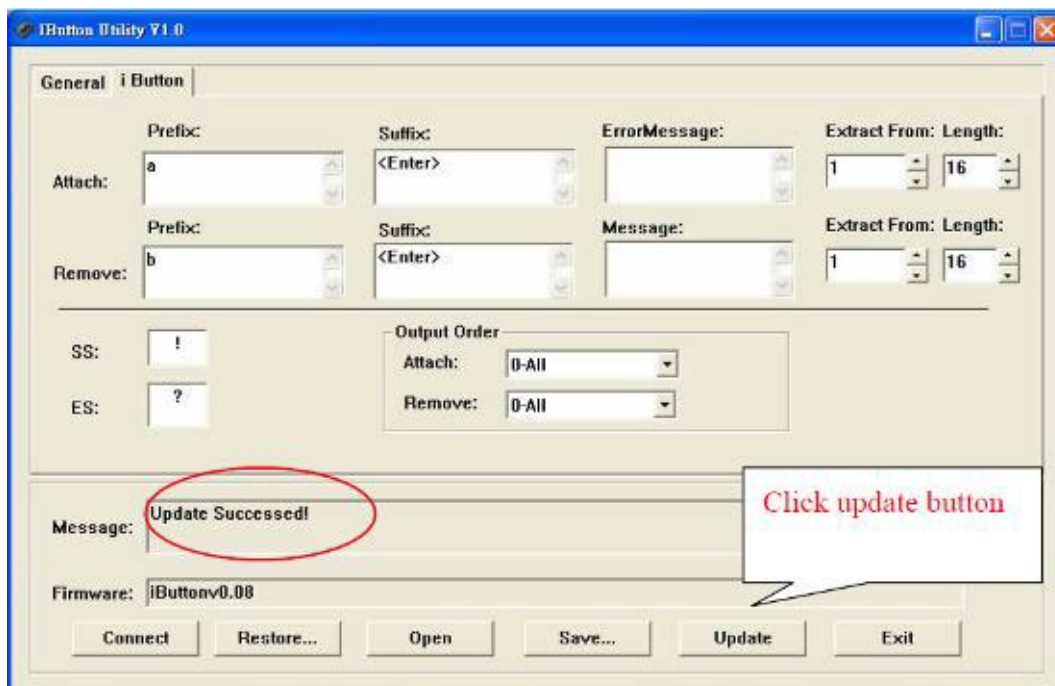
iButton data formate:

SS + iButton 64- Bit Registration Number + ES

- Length : i-Button ID length request from 0~16
- Output order : 4 formats could be select at Attach /Remove i-Button ID.

iButton 64- Bit Registration Number: 8-Bit CRC + 48-Bit ID + 8-Bit FC

DEMO SETUP&OUTPUT



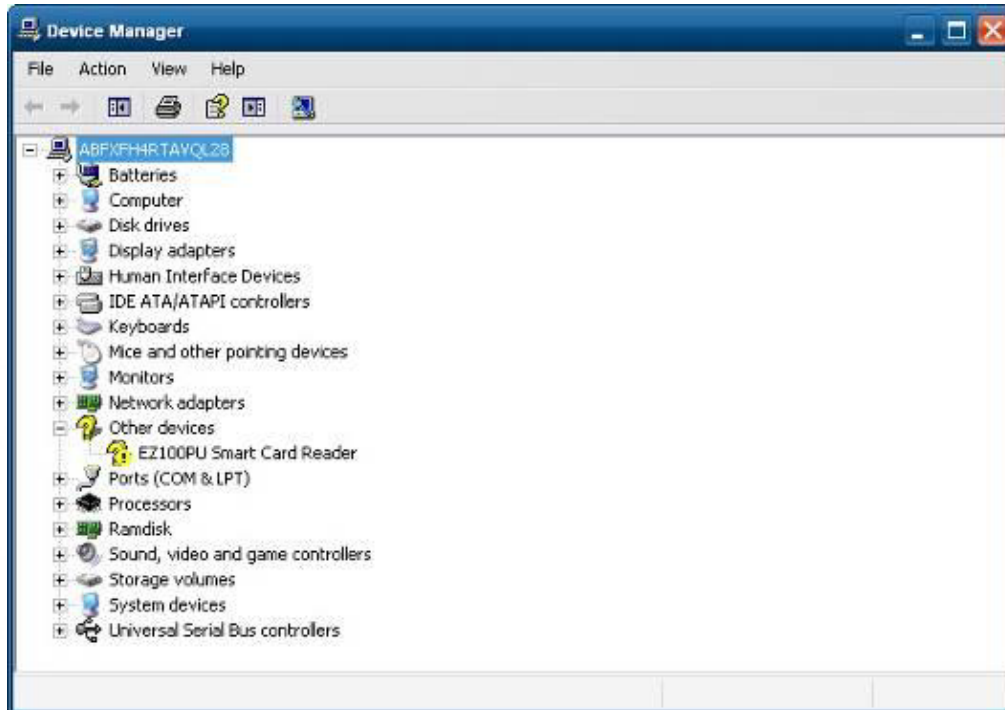
OUTPUT DATA :

a!ab00000003bdfa01?

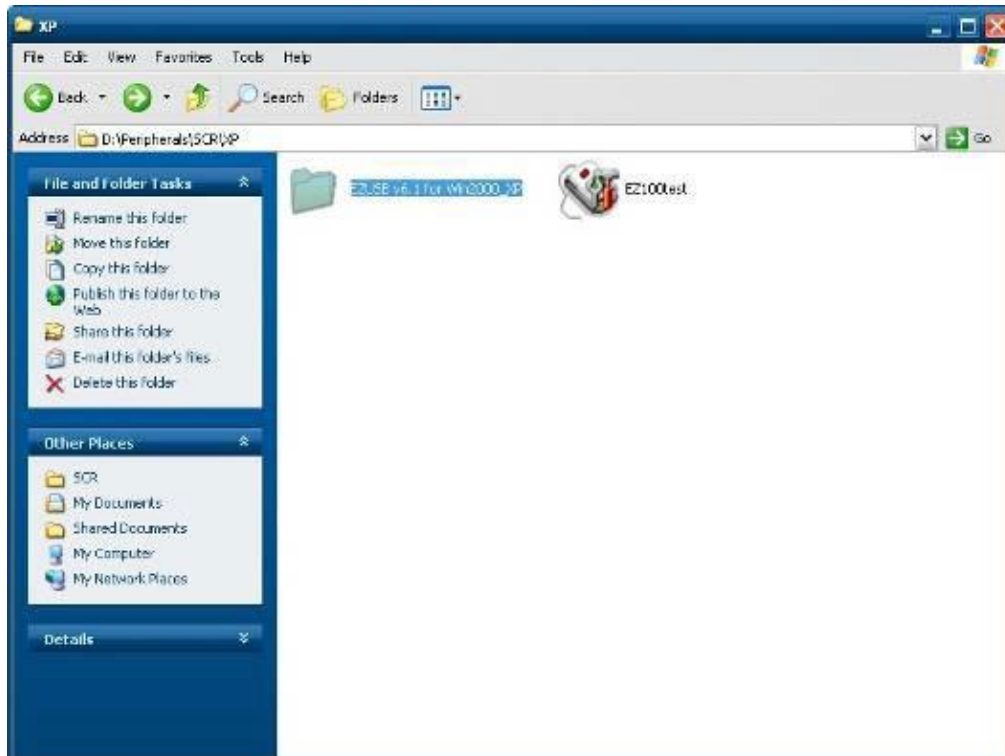
b!ab00000003bdfa01?

6-6 Installation and Testing of Smart Card Reader

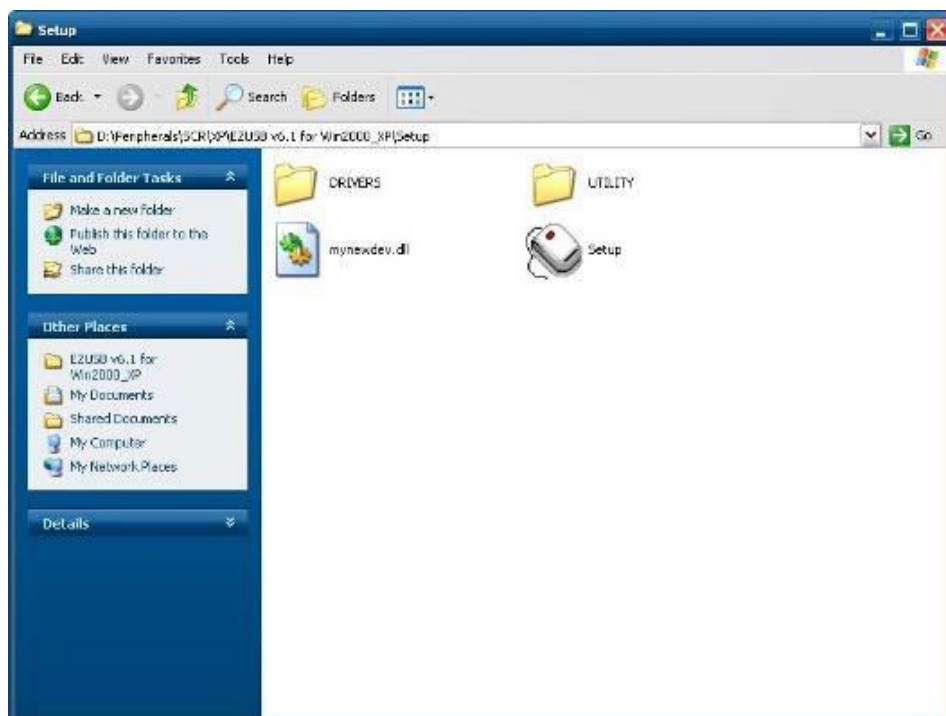
1. Check smart card reader be detected by “Device manager”.



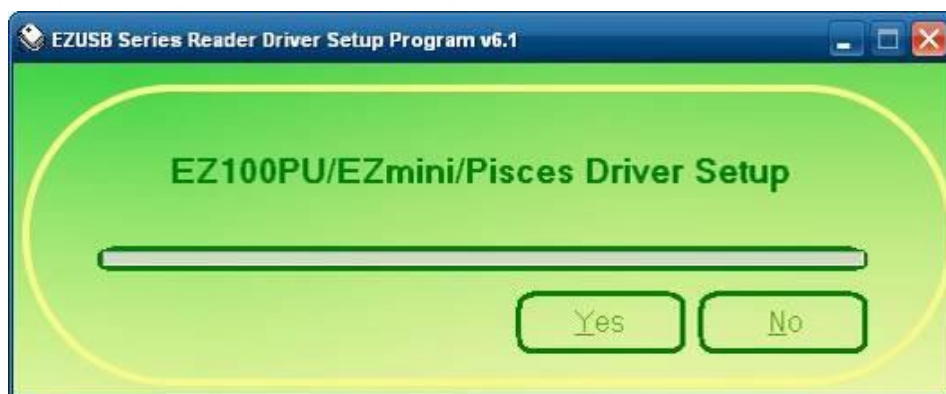
2. Install the SCR driver.



3. Run Setup.exe.



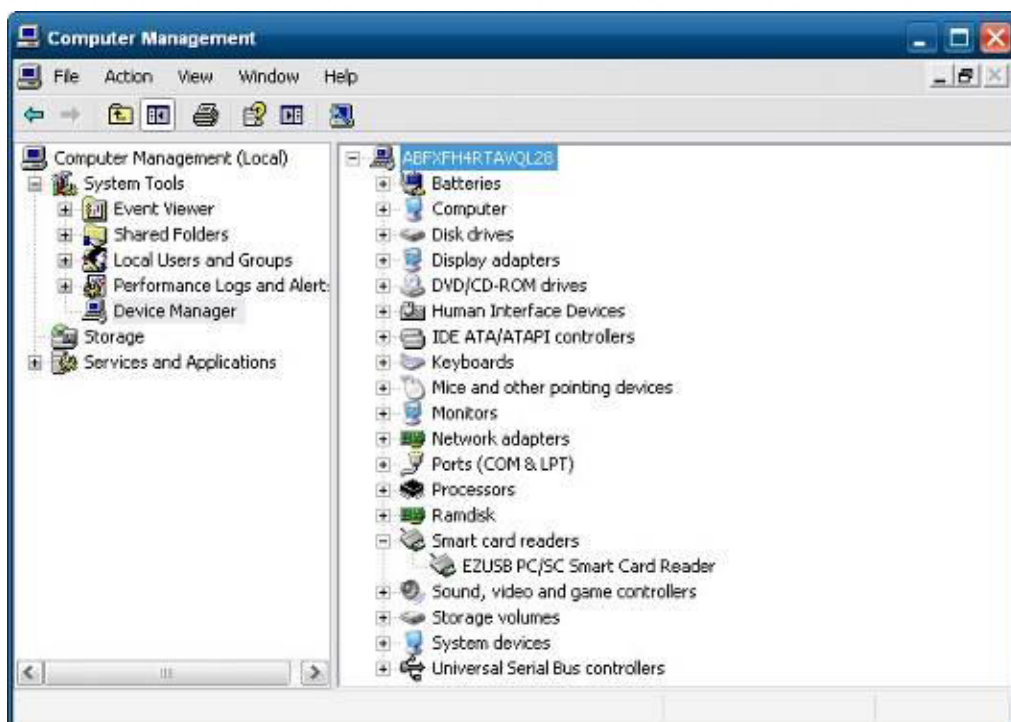
4. Click "Yes".



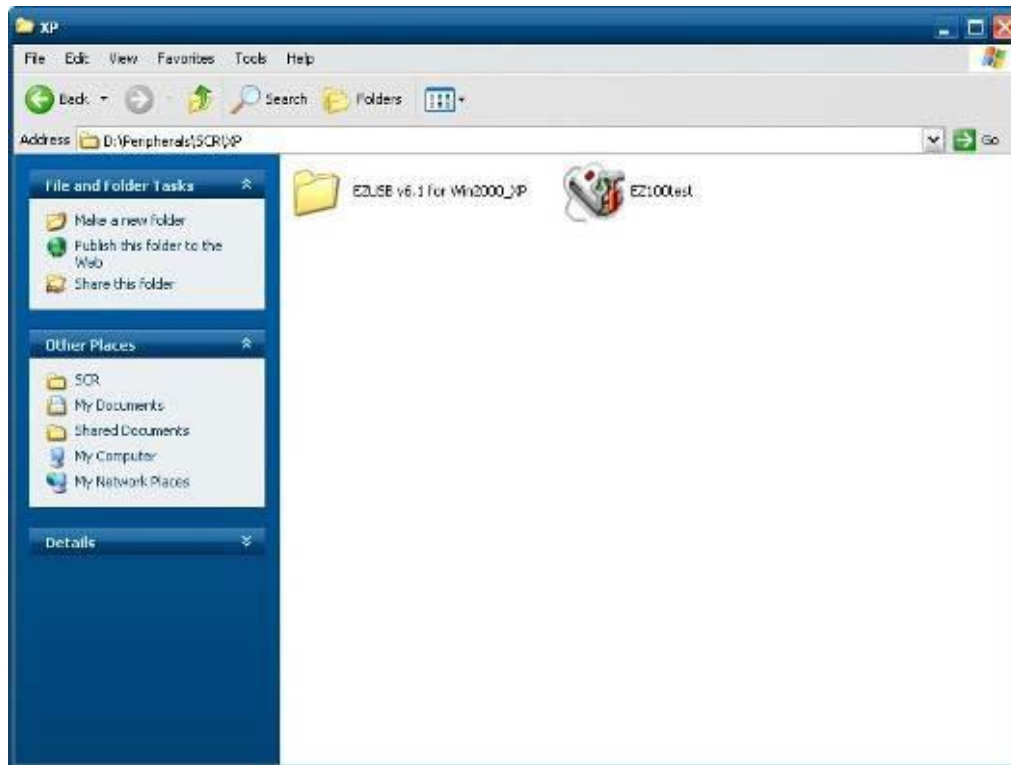
5. Restart systems.



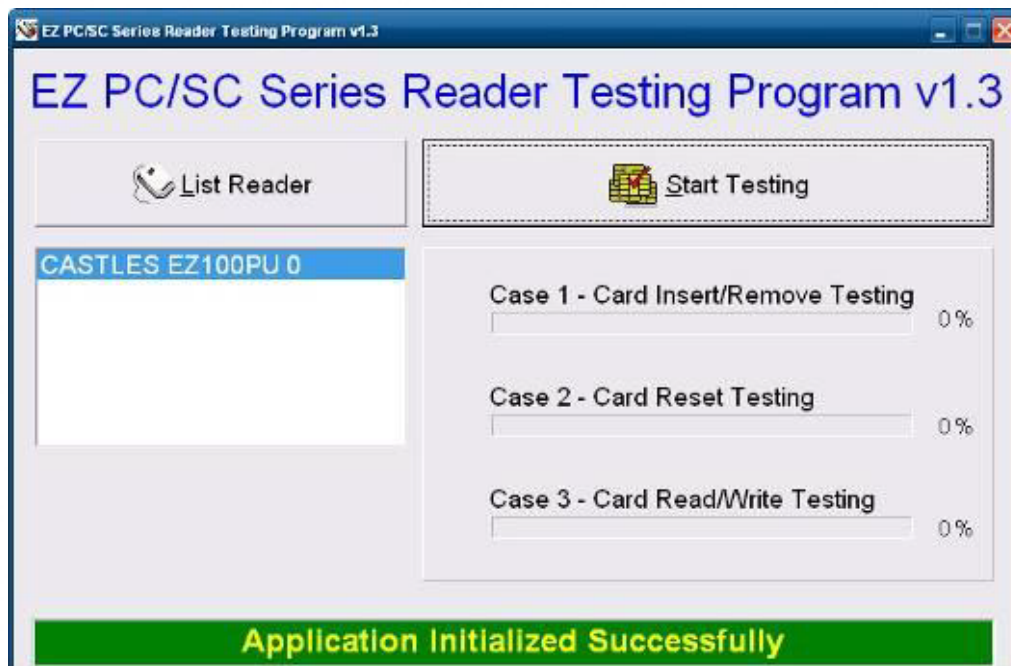
6. Check SCR reader in Device Manager.



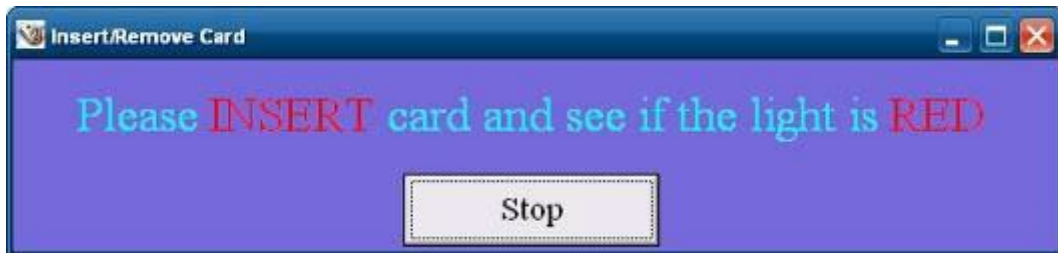
7. Run the testing program – EZ100test.



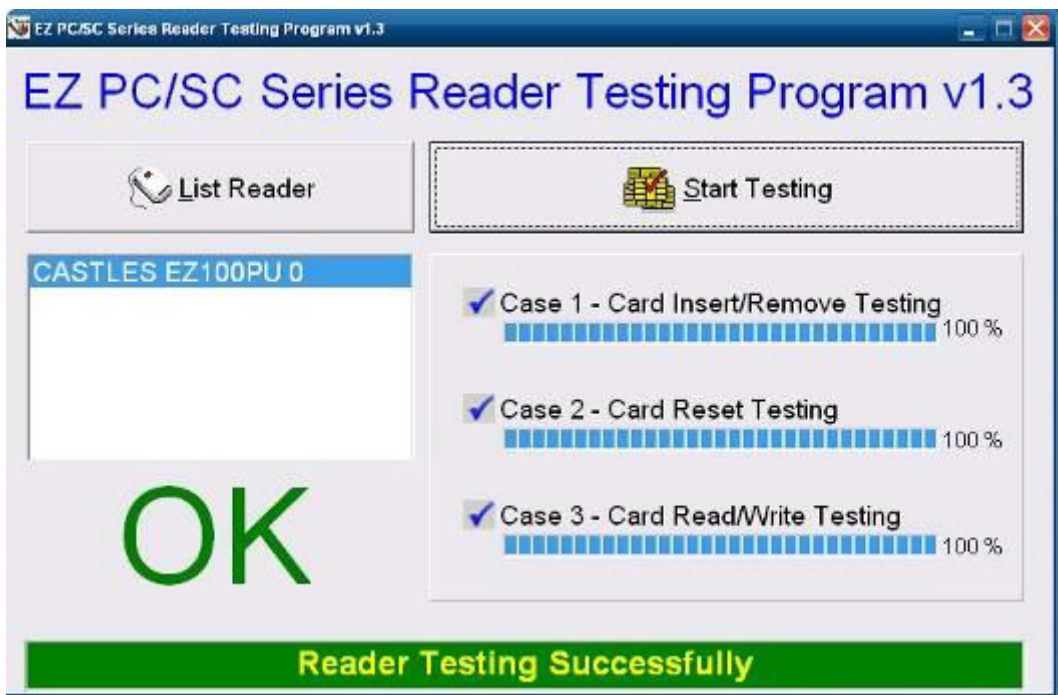
8. Confirm that SCR can be detected by the testing program, the Start Testing



9. Follow dialog boxes displayed to remove and insert card.



10. After finishing the testing, the dialog box will show "oK".

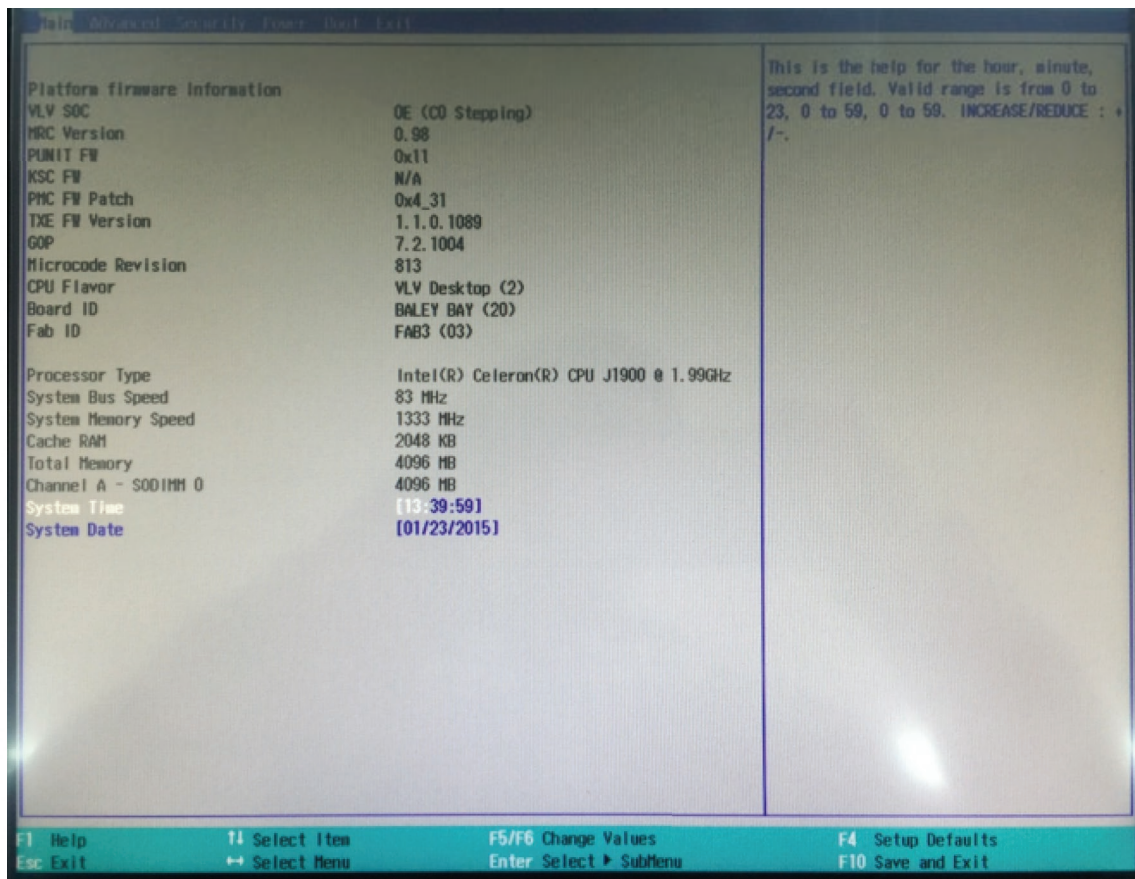


7 BIOS/UTILITY SETUP

7 BIOS/Utility setup BIOS/Utility setup

Press / <F2> key to enter BIOS SETUP UTILITY when system boot up.

Please press / <F2> key tenderly and slowly.



Date and Time

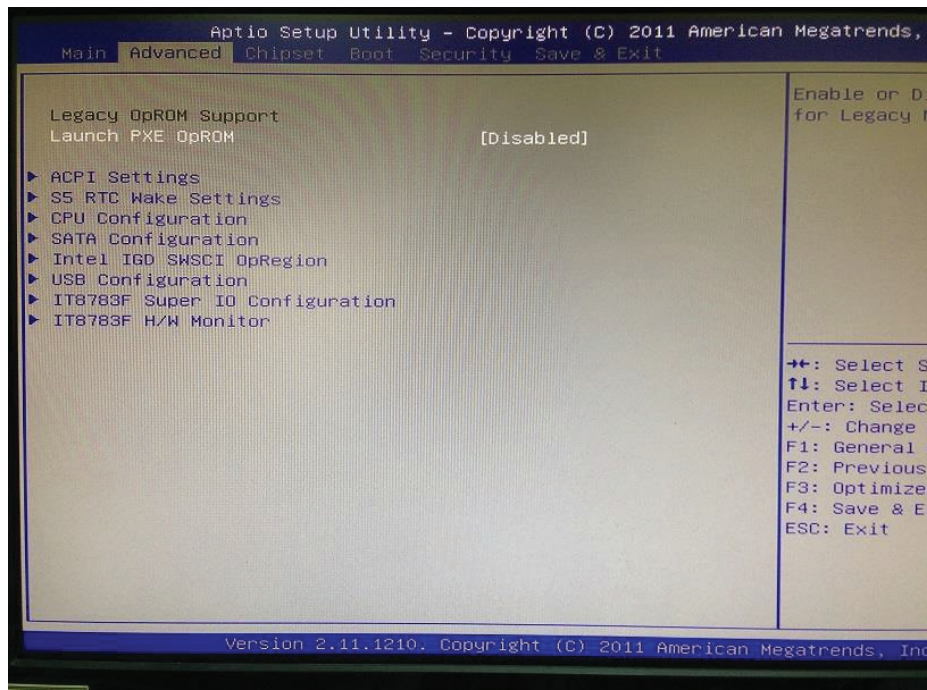
The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

WARNING!

Setting the wrong values in the sections below may cause the system to malfunction. Make sure that the settings made are compatible with the hardware.

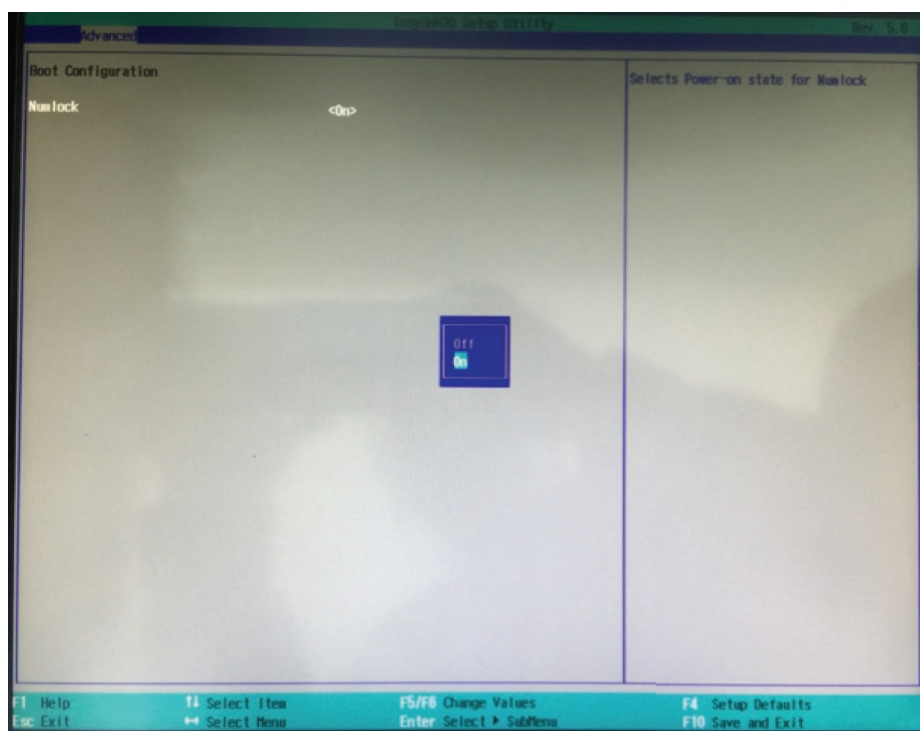
7-1 Advanced

Use the Advanced menu to configure the CPU and peripheral devices through the following sub-menus:



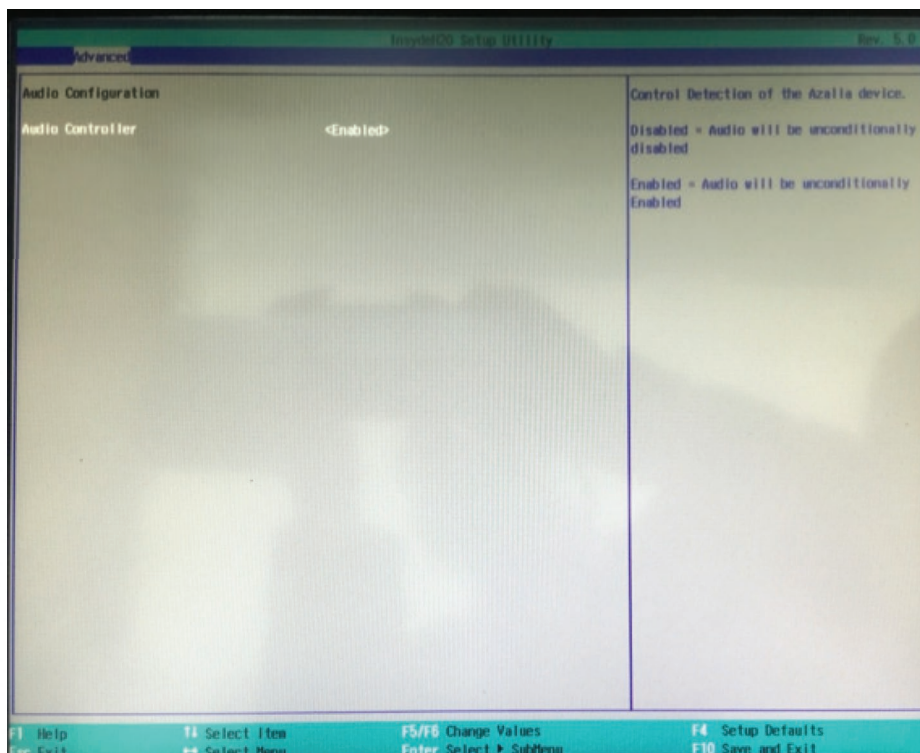
7-1-1 Boot Configuration

Use the Boot Configuration menu to select power-on state for Numlock



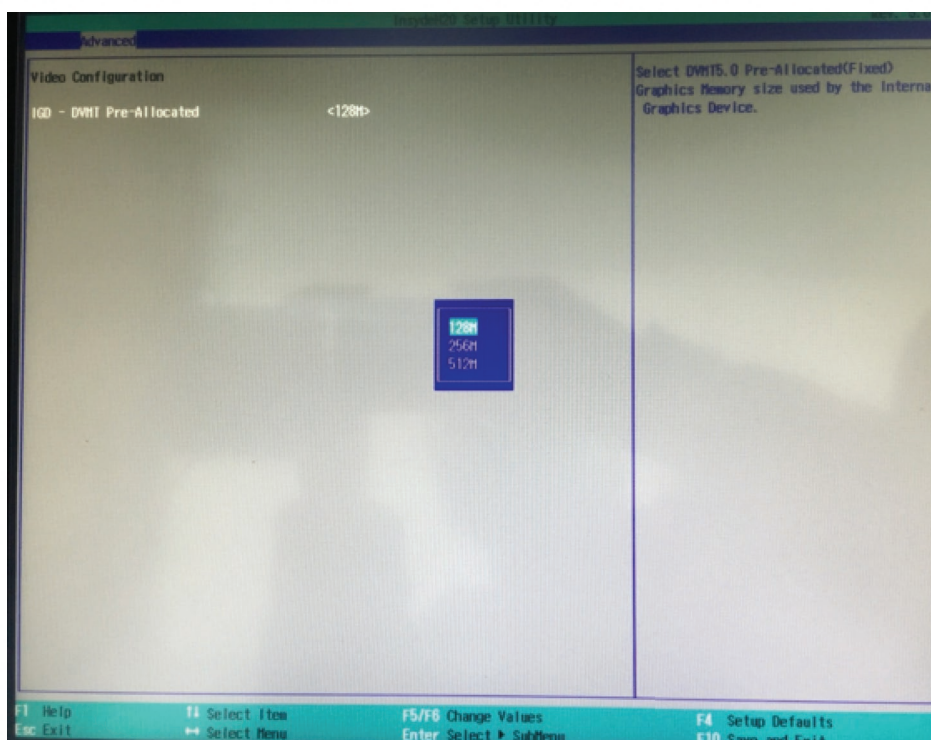
7-1-2 Audio Configuration

Use the Audio Configuration menu to read Audio configuration information and configure the Audio settings



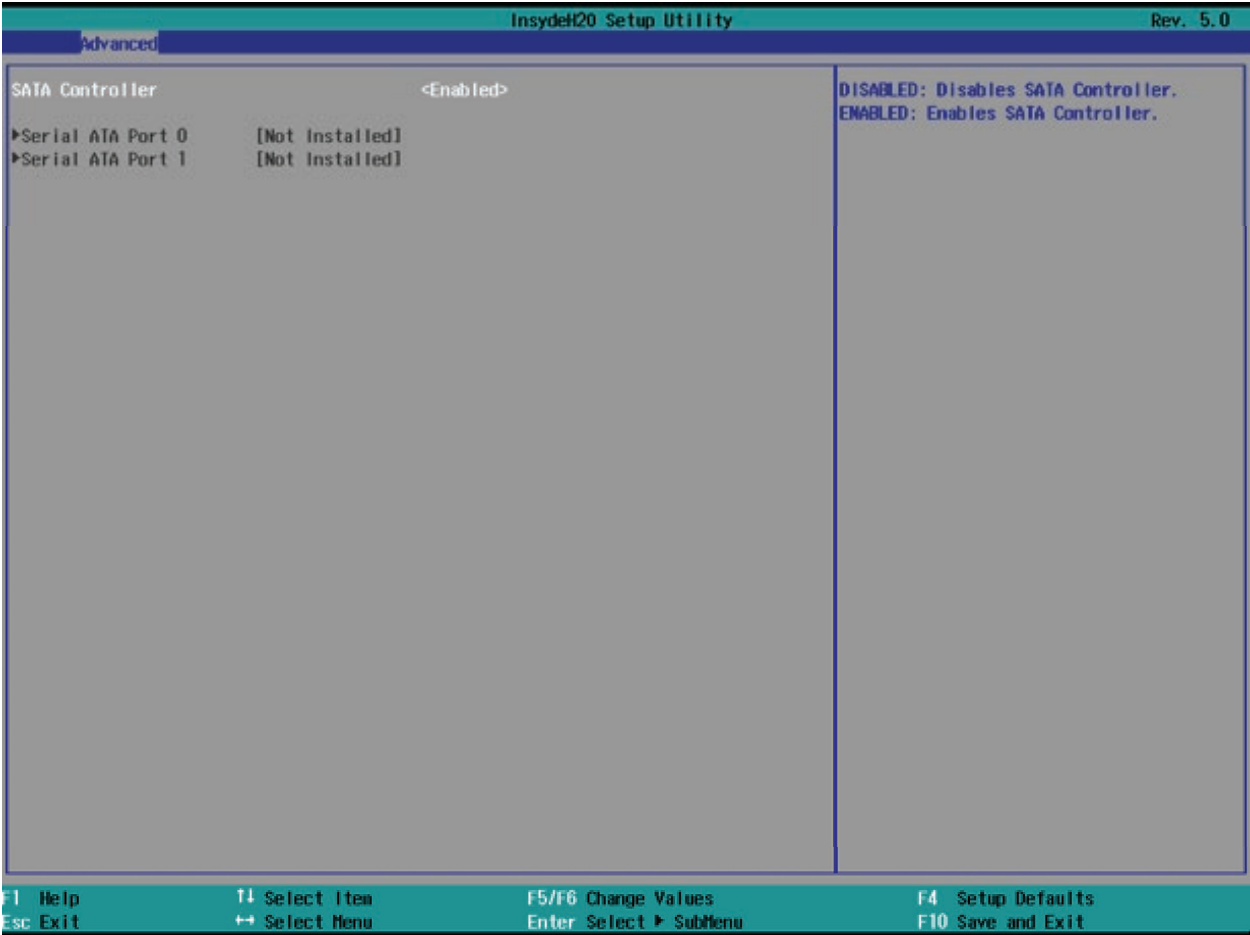
7-1-3 Video Configuration

Use the Video Configuration menu to read Video configuration information and configure the Video settings



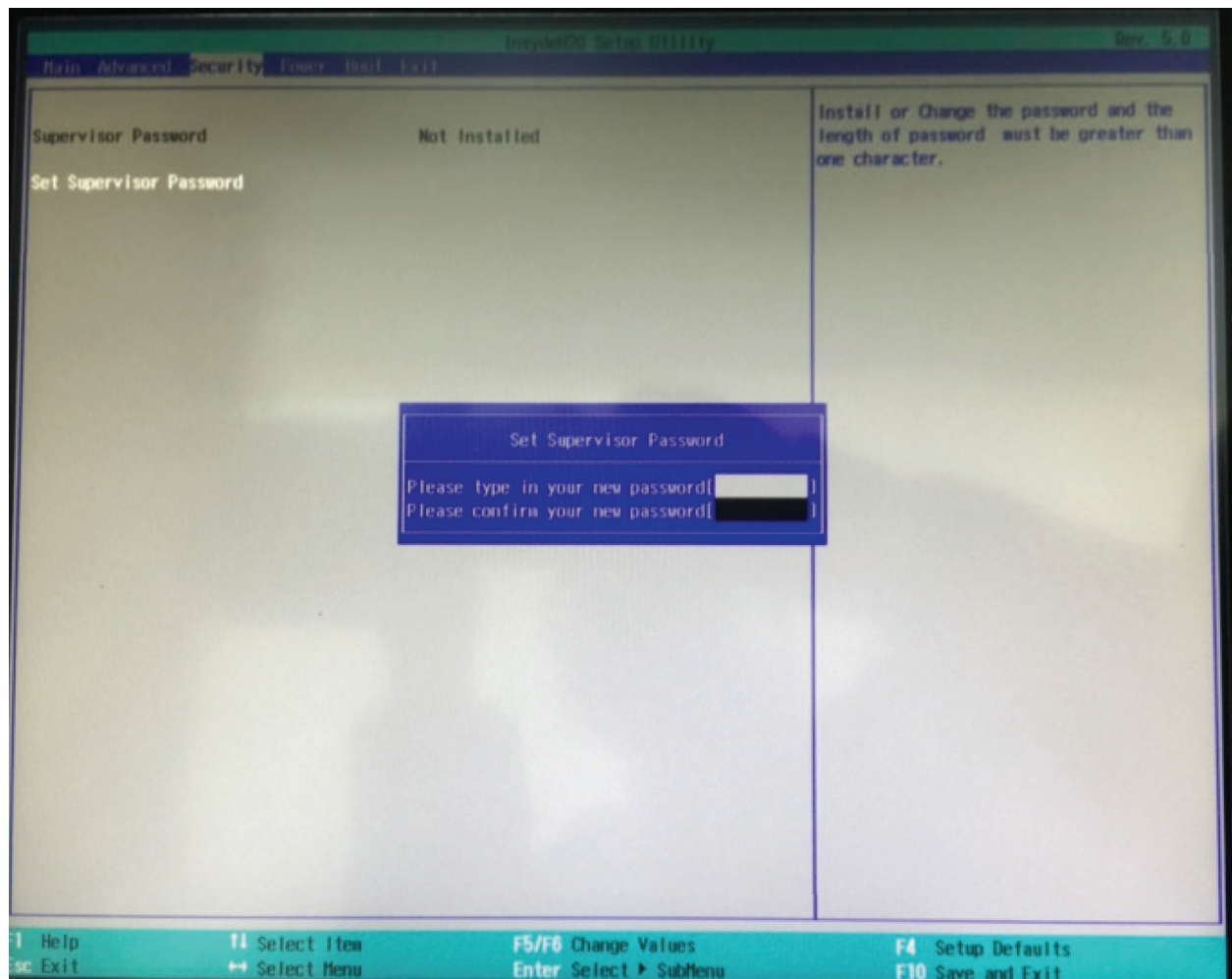
7-1-4 SATA Configuration

Use the SATA Configuration menu to read SATA configuration information and configure the SATA settings



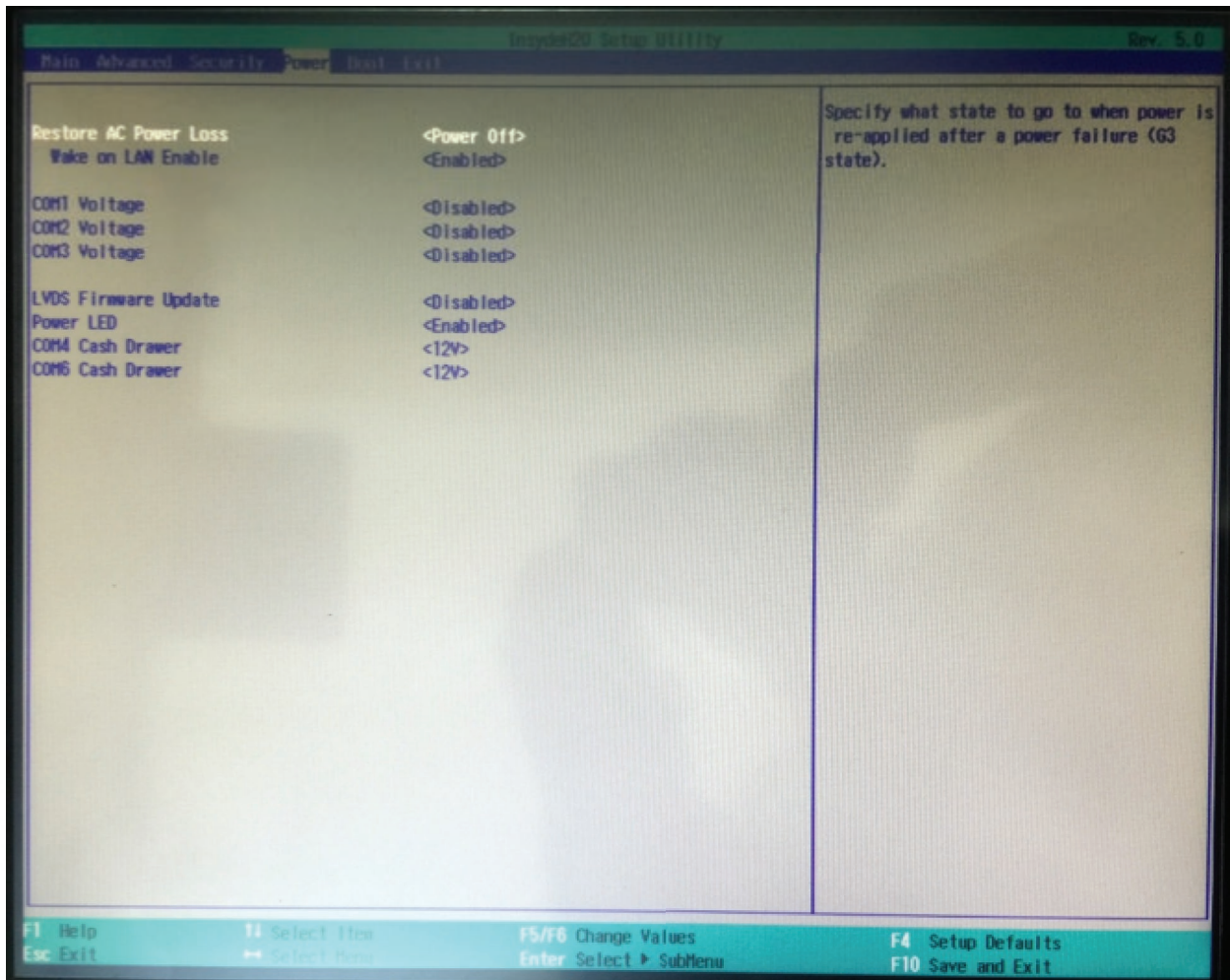
7-2 Security

Use the Security menu to install or change the password



7-3 Power

Use the Power menu to install or change the password



AC Loss Auto Restart

Enable or disable system power on automatically after AC power restored

Wake on LAN

Enable or disable system wake by onboard LAN chip

Power LED

Enable or disable Power LED light

COM Voltage

This item allows you to select off, 5V or 12V powered COM

COM4/6 Cash Drawer

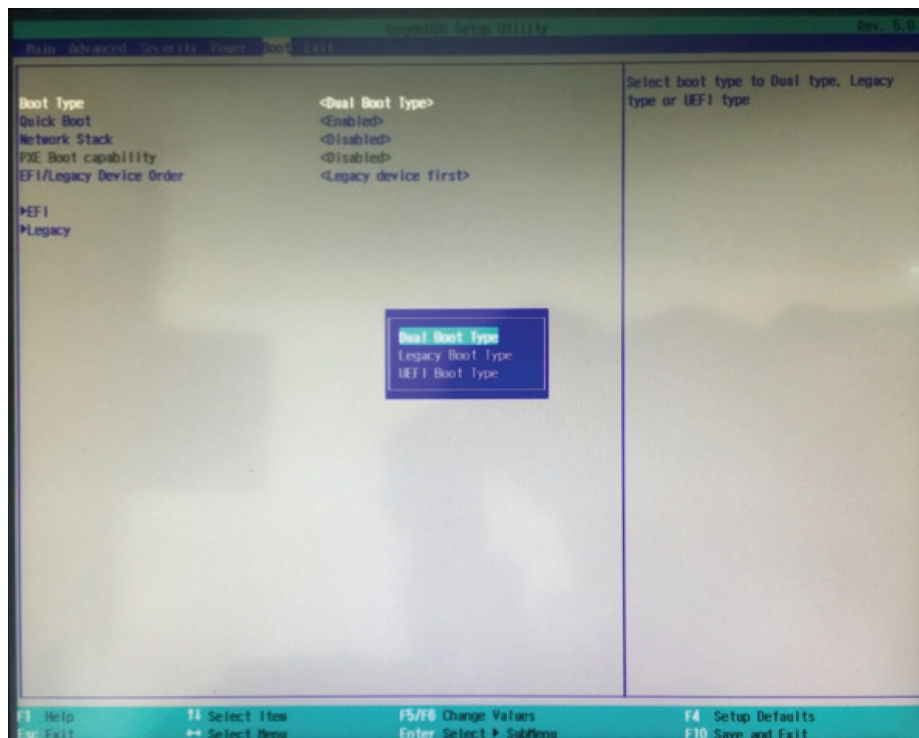
This item allows you to select 12V or 24V cash drawer port voltage output

LVDS Firmware update

This item allows you to enable or disable LVDS Firmware update

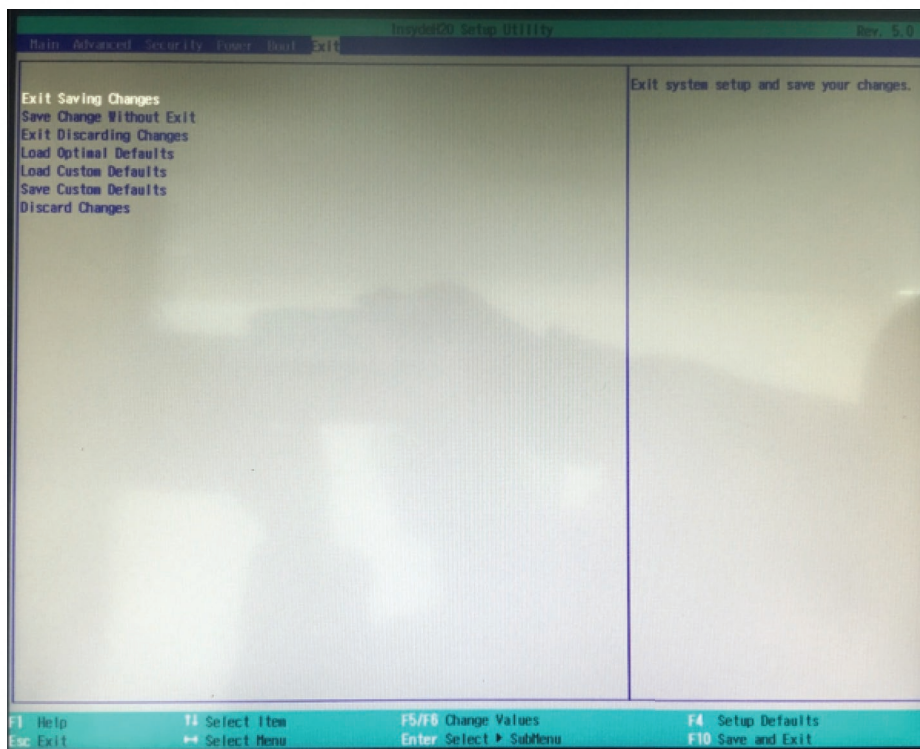
7-4 Boot

Use the Boot menu to select type to Dual type, Legacy type or UEFI type.



7-5 Save & Exit

Use the Save & Exit menu to load default BIOS values, optimal failsafe values and to save configuration changes.





LCD Surface Cleaning

1. How to clean the LCD surface properly?

Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.

Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.

Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. What are some of the basic supplies needed to clean an LCD screen?

A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.

Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.

Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. What types of cleaners are acceptable?

- Water
- Vinegar (mixed with water)
- Isopropyl Alcohol

NOTICE: The following cleaners are unacceptable:

- Acetone
- Ethyl alcohol
- Ethyl acid
- Ammonia
- Methyl chloride

CE Notice

This device complies with the requirements of the CE directive.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B 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 receiver.
- Connect the equipment into 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.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WEEE Notice

This appliance is labelled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

