



**NLS-PT80**  
**Portable Data Collector**  
**User Guide**



## Disclaimer

Please carefully read the manual before use the product, and effectively to protect the safety of products operation. Please keep this manual after reading properly and save for the next reading.

Do not disassemble the terminal or tearing the seal label on the terminal. Otherwise, Fujian Newland Auto-ID Tech Co., Ltd. does not assume responsibility for the warranty or replacement.

The pictures in this manual are for reference only. If the individual picture from the actual product was different with this manual, please refer to actual product. Regarding to the product modification and update, Fujian Newland Auto-ID Tech Co., Ltd. reserves the right to make changes to any software or product to improve reliability, function, or design at any time without notice.

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## **Revision History**

Changes to the original manual are listed below:

Reversion	Description	Changed Date
V 1.0	Initial release.	2012-05-28

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# Chapter I About This Manual

## Introduction

The user manual describes how to use NLS-PT80 Portable Data Collector (hereinafter referred to as “the terminal” or “the NLS-PT80”) and its accessories.

## Cautions

### Disassembly and Modifications

Please do NOT disassemble or modify the terminal. As a company, we are not responsible of it if the terminal failure is caused by user's arbitrary disassembly or modifications.

### External Power Adapter

Please use the original external power adapter comes with the terminal, or it might damage the terminal.

### Unusual Conditions

Please power off the terminal and pull the plug out immediately when you find any abnormal smell, overheat or any smoke. There would be danger if you continue to use the terminal without any check or repair by Newland's technicians.

### Drop Damage

If the terminal drops to the floor and gets damaged, please power off the terminal and contact with your supplier or Newland's user service center as soon as possible.

### Laser Beam

Do NOT look the laser beam in the eye so as to avoid damage on eyes.

### Li-Polymer battery

Battery in fire might cause explosion!

Only use the chargers recommended by the manufacturer to charge battery.

Please do NOT use the damaged or abnormal battery or adaptor already.

### Screen

Please do NOT press or strike the screen so as to avoid screen break.

If the screen is broken, do NOT touch the fluid exuded so as to avoid skin burn or infection.

### Placement

Please do NOT place the terminal on an unstable or uneven surface as it might fall down and cause some unwanted damage.

Please do NOT put the terminal in places that have too much damp or dust, nor leave the terminal in direct sunlight for a long time.

### Application Occasions

Since some electromagnetic wave may be radiated from wireless module of the terminal, the terminal is forbidden to be used in some certain occasions like airplane and gas station. Neither charging nor communication is allowed in hazardous sites.

- ✧ The terminal should not be thrown, fallen down or hit; otherwise, the screen might be broken, program might be interrupted and data might be lost.
- ✧ Please do NOT use sharp-pointed item to touch keypad; otherwise the keys might be damaged or short circuit might occur.
- ✧ Please use a soft and dry cloth to wipe the terminal, and do not use a damp cloth, benzene, thinner or other volatile chemicals to avoid the terminal keyboard and shell variant of aging.
- ✧ Do not put the terminal face down in order to avoid the keyboard disoperation.
- ✧ The battery should not be taken out when the terminal is still powered on, otherwise data in memory might be lost.
- ✧ Condensation on the housing, which might caused by sharp change in temperature, will affect the terminal's normal work. Therefore, please do NOT operate the terminal until it gets dry.

### Specifications

Performance		
Processor	ARM9 400MHz CPU	
Operation System	Linux compliance operation system	
Memory	32MB SDRAM	
	128MB FLASH (80MB for user area)	
Interface	RS-232, USB 1.1, support USB charge	
Physical		
Dimensions (L x W x H)	168.5 x 65 x 39.5 mm / 6.6 x 2.5 x 1.5 inch	
Weight	270g (Including battery)	
Display	8 level gray monochrome screen, 160 x 160 resolutions	
Keyboard	26 Keys Numeric with auto backlight	
Notification	Vibrator, Speaker and LED	
Battery	Main	3.7V, 2300mAh, Rechargeable Li-Polymer battery
	Backup	3.7V, 150mAh, Rechargeable Li-Polymer battery
Power Adaptor	Output: DC 5V/1.5 A; Input: AC 100~240V, 50~60Hz 0.4A	
Environmental		
Operation Temperature	-20°C ~ 45°C	
Storage Temperature	-20°C ~ 60°C	
Humidity	5% ~ 95% (Non-condensing)	

Drop	1.2 m drop to concrete
Environmental Sealing	IP54 sealing
Barcode	
1D Laser (≥ 6 mil)	Code128, EAN-13, EAN-8, Code-39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5,
1D CCD (≥ 4 mil)	ISBN/ISSN, Code 93... etc.
2D CMOS (≥ 5 mil)	ALL 1D and PDF-417, QR Code, Data Matrix, Maxicode, Azte, etc.
Wireless	
WLAN	IEEE 802.11 b/g, security support EAP, WEP, WPA, WPA2, 802.1X
Application Tool Kits	
Support Microsoft Virtual Studio 2005 Embedded add-on kits and Emulation tool	
Certificates	
FCC Part15 Class B, CE EMC Class B,	
Accessories	
Cradle, Battery, Adaptor, USB cable	

## Hardware & Software Version

Click “System Message” under “System Menu”, check the terminal’s hardware and software version and other information, see below



## Chapter Description

- ✧ Chapter I: Description of User Manual and related items
- ✧ Chapter II: List NLS-PT80 terminal’s accessories, indicate how to install, move battery and use NLS-PT80
- ✧ Chapter III: Introduce NLS-PT80 settings.
- ✧ Chapter IV: Introduce how to connect NLS-PT80 and PC as well as how to realize data transmission.
- ✧ Chapter V: Provides troubleshooting solutions for potential problems during NLS-PT80 Series operation.

## More Information

For more product and support information, please visit our website [www.nlscan.com](http://www.nlscan.com) .

## Service Information

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Newland North America	
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## Chapter II Getting Started

### Introduction

List NLS-PT80 terminal's accessories, indicate how to install, move battery and use NLS-PT80

### Standard Package

Please ensure following items are in the package when you received it:

#### Standard Package

- 1 NLS-NLS-PT80 Mobile Data Terminal: 1pc
- 2 Li-Polymer: 1 pc
- 3 Hand-strap: 1 pc
- 4 User Manual: 1 pc

#### Optional Accessories

- 1 External Power Adapter: 1 pc
- 2 USB Cable: 1 pc
- 3 Cradle: 1 pc

**Caution: Please check the package accessories when package is received. If there is any damage, please contact us or the distribution we assigned. The actual product terminal might be different from the product photo. Actual product terminal is the terminal to be considered with.**

### First Time to Operate NLS-PT80

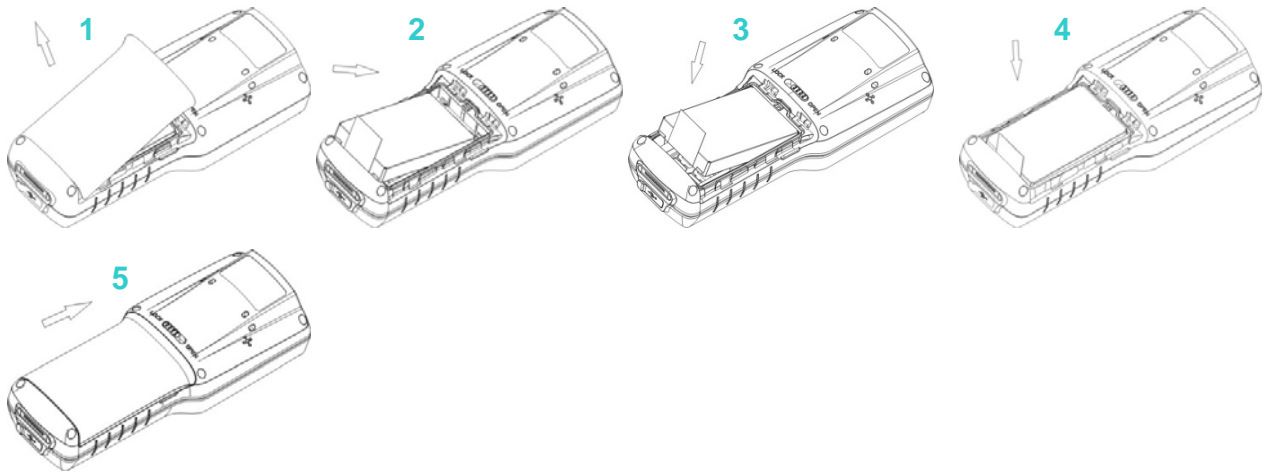
For the first time to operate NLS-PT80 terminal:

- 1 Install battery
- 2 Press battery button, and turn on NLS-PT80
- 3 Configure NLS-PT80

### Install Battery

Please follow below steps:

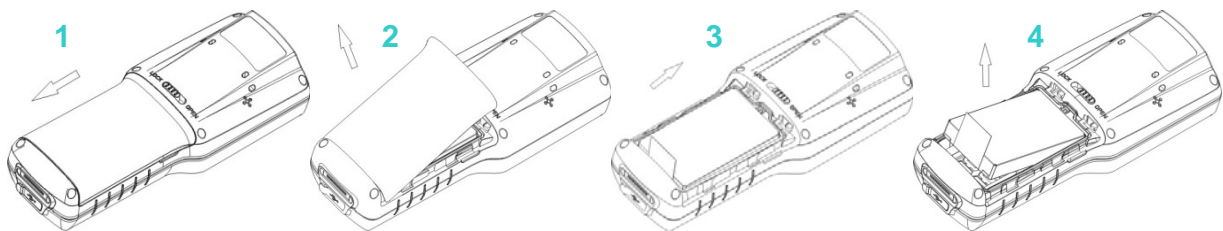
- 1 Push the battery lock to "open" position;
- 2 Pull up and take out the battery cover;
- 3 Follow the arrow direction to place battery;
- 4 Close battery cover and push the battery lock to "lock" position



## Remove Battery

Please follow steps below to remove battery:

- 1 Please "turn off" NLS-PT80;
- 2 Push the battery lock to "open" position
- 3 Pull up and take out the battery cover
- 4 Follow the arrow direction to remove battery



## Install Hand-strap

Please follow steps below to install the hand-strap:

- 1 Draw the thin part of the hand-strap to pass through the axis
- 2 Pull tight the hand strap

## Turn On NLS-PT80

Press power button to turn on NLS-PT80. The NLS-PT80 goes into initialization and a progress bar on the display. After 30-50 seconds, NLS-PT80 goes to "System Menu" as the main page.

## NLS-PT80 Sleeping Mode

- 1 After terminal is on, press "power" button, NLS-PT80 goes to sleeping mode in the condition of sleeping mode function is on.
- 2 Available to set automatically goes into sleeping mode after certain period.
- 3 Press "power" button again; the terminal is back to power mode.

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## Turn Off NLS-PT80

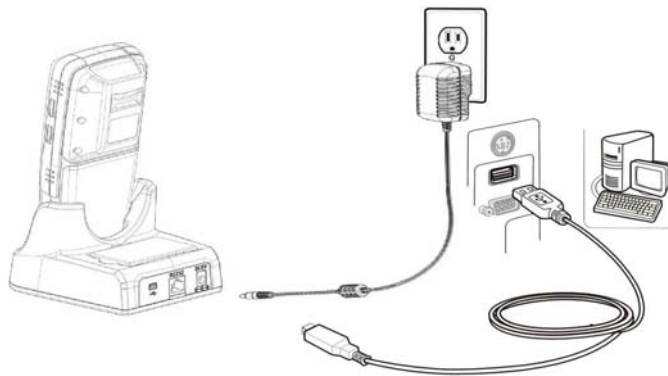
- 1 Press and hold the “power” button for 3 seconds at least
- 2 Display shows: “ Shutting Down....”, then release the power button
- 3 After message on the display is off, the terminal is power off.

**\* If NLS-PT80 is crash, press and hold the “power” button for 10 seconds to turn off system.**

**\* If NLS-PT80 is connected with a USB cable, system will NOT be off.**

## Charging NLS-PT80

- 1 NLS-PT80 uses mini USB cable to charging power and it also support connection to a power adapter or PC via cradle.
- 2 During charging power process, the terminal indicator is blinking in red. To fully charge battery, time consuming is different between power adapter and PC. When the green LED indication is on for a while, it means the terminal battery is fully charged.
- 3 Charging via Cradle:



**\* During sleeping mode, connecting via USB cable would wake up the terminal.**

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## Indicators & Keyboard



### 1. Indicators

2 indicators on the right top of NLS-PT80

Red indicator: when terminal is charging power, the red indicator is on. When battery is fully charged, the red indicator is slightly darker. Red indication is off when not connecting to power adapter or cradle.

Green indicator: User can define it

Left side indicator: Light-sensor (for adjusting the display lightness)

### 2. Scanning Button

SCAN button: press the button to scan bar code

### 3. Confirm and Cancel Buttons

OK button: click on OK to confirm or go to the setting

ESC button: cancel the previous setting

### 4. Arrow Buttons

There are up, down, right and left arrow buttons which are used to move target

### 5. ENT Button

Enter Key

### 6. Function Button

ALPHA: ALPHA+ESC force the terminal to terminate running program

SPACE: space key

BASP: delete function – delete last character

Backlight: press backlight button to control the display backlight lightness

### 7. Power Button

Control terminal on, sleeping mode and off.

8. There are different colors on the keypads – please be aware blue color is corresponding to “FUNC” key and “orange color is corresponding to “ALPHA” key.
9. Default setting is “numeric” keys – when press keypads, the default output is number. If the editing output is allowed for numeric key only - “ALPHA” key is not applicable.
10. Press “ALPHA” key to switch numeric, English and Chinese- the status is on the bar which is at the bottom of display screen.. Once getting into editing mode, press “ALPHA” key for once is English in low caps, twice is Chinese and 3 times is numeric and then follow the circulation.
11. ALPHA+SHIFT: enter to editing mode, press “ALPHA” key for once – English in small caps, twice – Chinese, 3 times-numeric and follow the circulation. It effects all the time once witch to SHIFT
12. The blue color functions are carried out when it is under “FUNC” – effective one time when it is pressed. For example, if the data output is “F7F8”, need to press “FUNC” key - press 7 - press “FUNC” key –press 8, then get “F7F8”.
13. Press “ALPHA” to switch Numeric, English and Chinese. Enter to editing mode, press “ALPHA” to switch to English small caps. Press “.”key, switch to symbols mode.

## Chapter III How to Use NLS-PT80

### Introduction

This chapter introduces how to operate NLS-PT80.

### System Menu



- 1 Start up App: execute the current application program in terminal. Please check "System Setup" for application program setting
- 2 System Setup: the system setting parameter includes system time, power management, bar code reading, and service management.etc. which is similar function to control panel of PC's.
- 3 Bar code Test: this is a bar code reading test application program
- 4 Self-test: test each function on the terminal
- 5 System Info: display terminal's hardware and software information.

### Start up App



- 1 Enter into "Start up App" from "System Menu" on the main page
- 2 The terminal doesn't include any default program under Start up App. If user has installed the application program, please execute it.

Notice: If automatically run program is chose when terminal is on, after the terminal is restart, terminal will execute the pre-set application program, the page of start up app will not appear again.

## System Setup



Items Introductions		
1	Program	Custom made application program
2	Date & Time	System clock
3	Document Manage	Hard disk and program category manage
4	Communication	USB, WiFi setting
5	Keypad	Keypad with backlight and keypad lock
6	Screen	LCD backlight and contrast setting
7	Sound	Reminder volume setting
8	Volume	Keypad and Scanning volume setting
9	Power Management	Sleeping mode and terminal shut down setting
10	Service Manage	Network setting
11	Change Password	Modify system password
12	CHIN/EN Switch	Multi language setting
13	Bar code	Bar code scanner setting
14	Manufacturer Default	Manufacturer default setting

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## Assign Program



- 1 Enter into program set up from "System Setup"
- 2 Click OK to open the program list, choose the program needed and click OK to confirm. It also indicates the program information.
- 3 It is available option to set automatically run the application program when terminal is turned on
- 4 Move arrow to Set and click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

## Data & Time



- 1 Enter into Date & Time setting from System Setup
- 2 Click OK to open the list of time zone. Choose the time zone needed and click OK to confirm. The time can be modified as well by following same process.
- 3 Move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

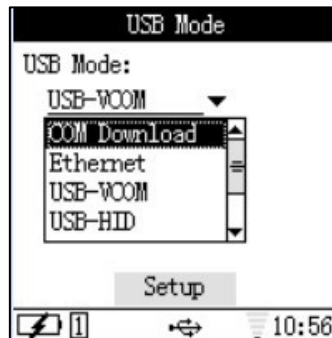
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## Communication



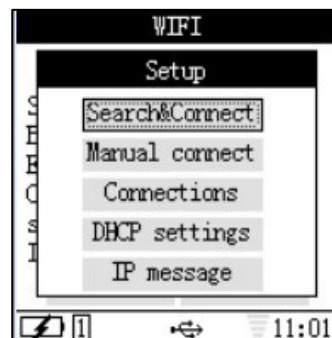
- 1 Enter into Communication page from System Setup
- 2 Choose the item from the list as shown below

### USB Modes



- 1 Enter into USB Mode page from Communication
- 2 Click OK to open the list and choose the USB mode and click OK to confirm
- 3 Move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

### WIFI



- 1 Enter into WIFI page from Communication
  - 2 The page indicates whether terminal is connected to WIFI and its information. If WIFI is off, please turn on WIFI setting first
  - 3 Once WIFI is on, please click on "Setup" button to start the setting.
-



- 
- 4 AP Search connect: search AP connection close by
  - 5 AP Manual connect: connect to assigned AP
  - 6 AP Connections: display all AP which are connected before
  - 7 DHCP settings: set DHCP or manual set IP
  - 8 IP message: display current connect IP message

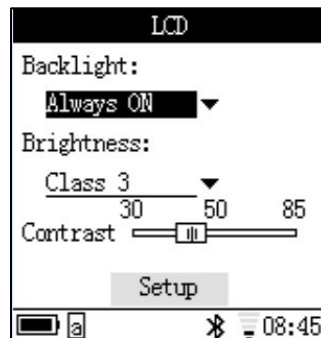
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## Keypad



- 1 Enter Keypad from System Setup
- 2 Set up the time frame of backlight last for
- 3 Choose ON or OFF for auto-lock the keypad
- 4 After setting, move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

## Screen



- 1 Enter Screen from System Setup
- 2 Select the options for the time to open backlight.
- 3 Select the brightness.
- 4 Select the contrast degree.
- 5 After setting, move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

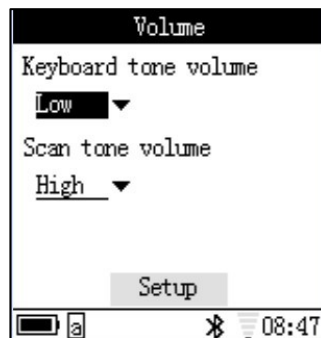
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## Sound



- 1 Enter into sound page from System Setup
- 2 Choose On or OFF for the keypad sound. Set up reminder sound when bar code engine scan the bar code. If choose mute, that mean no reminder and no keypad sound when keypad pressed and bar code read.
- 3 After setting, move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

## Volume



- 1 Enter into volume page from System Setup
- 2 Choose the volume for the keypad sound.
- 3 Choose the volume for the scanning.
- 4 After setting, move arrow to Setup, click OK key to confirm the setting and quit from current page. Click on ESC key to cancel the setting and eject from the setting page.

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## Power Management

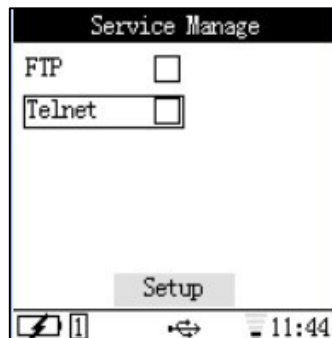


- 1 Enter power management page from System Setup
- 2 Choose the sleep mode from the list. Choose terminal off time from Half mode.

**Click Setup to confirm the setting and quit from current page. Click on ESC key to cancel the setting and quit from the setting page.**

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## Service Manage



- 1 Enter into service manage page from System Setup
- 2 Click on arrow key(s) to choose network service. Click OK to turn on or off the service.
- 3 After setting, move arrow to Setup, click OK to confirm setting and quit from current page. Click ESC to cancel the setting and quit from current page.

## Change Password



- 1 Enter change password page from System Setup
- 2 Input old PW, New PW and Confirm PW.
- 3 After setting, move arrow to Setup, click on OK key to confirm setting and quit from current page. Press ESC key to cancel the setting and quit from current page.

**Note: default password is 159951**

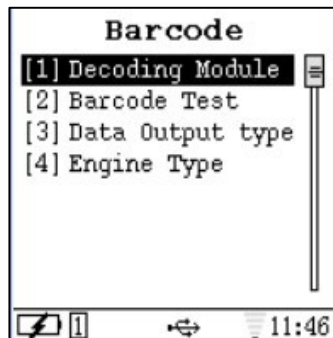
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## CHIN/EN Switch



- 1 Enter CHIN/EN Switch page from System Setup
- 2 set the language to Chinese or English
- 3 After setting, move arrow to Setup, click on OK key to confirm setting and quit from current page. Press ESC key to cancel the setting and quit from current page.

## Bar code



- 1 Enter into Bar code page from System Setup
- 2 Allow to set under USB Mode page

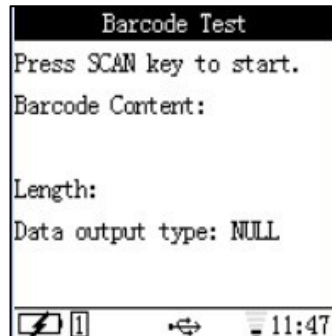
## Reset to Default



- 1 Enter into Reset to Default page from System Setup
- 2 After setting, move arrow to Setup, click on OK key to confirm setting and quit from current page. Press ESC key to cancel the setting and quit from current page.

- 
- Note: If the terminal is back to default, all the settings were set previously by user are cancelled.

### Bar Code Test



- Enter into Bar code Test page from System Setup
- Press SCAN key to scan the bar code and bar code data and length is displayed on this page.
- Click on ESC key to cancel and quit from current page.
- Note: Bar code output data transferring method is able to be set under Bar code setting menu.

### Self Test

#### Self Test Menu



Note: If terminal is out of order, please enter into Self Test page to re-align the terminal.

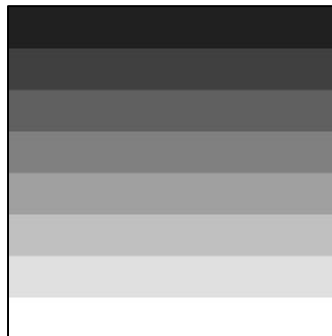
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## Keypad test

Keypad test			
SCAN			
ESC	UP	OK	LIGHT
LEFT	DOWN	RIGHT	FUNC
7	8	9	ALPHA
4	5	6	POWER
1	2	3	
0	dot	ENT	
BASP	SPACE	SHIFT	
Press any key to test			

- 1 Enter into Keypad test page from Self Test
- 2 All keys show up on screen is corresponding to the actual keypad. When press certain key, if the keypad is working properly, that particular key should be disappeared from screen. If not, that particular key is failure.
- 3 Press twice ESC key to leave from current Keypad test page.

## LCD Test



- 1 Enter into LCD page from Self Test
- 2 System will automatically test the LCD. User can find whether there is a dot on the LCD screen via the test
- 3 Click on ENT key to leave from current page after testing.



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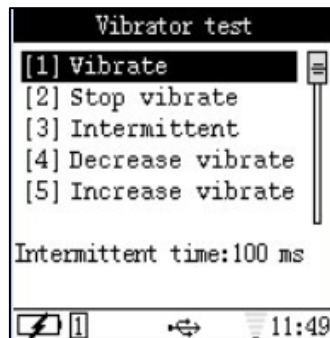
## Beep test



- 1 Enter into Beep test page from Self Test
- 2 Choose short, middle and long beep to test the beep.
- 3 Click ESC key to leave from the current page

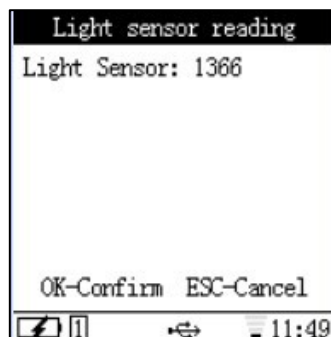
**Note: the option of "All Mute" must be OFF under System Setup menu in order to proceed Beep test**

## Vibrator test



- 1 Enter into Vibrator test page from Self Test.
- 2 Choose the option from list to proceed test
- 3 Click ESC key to leave from current page.

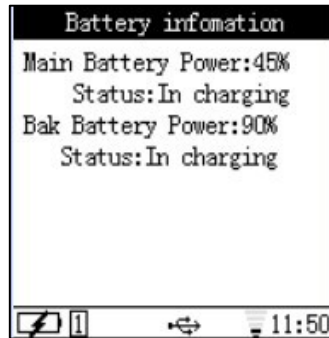
## Light sensor reading



- 1 Enter into Light sensor reading page from Self Test.

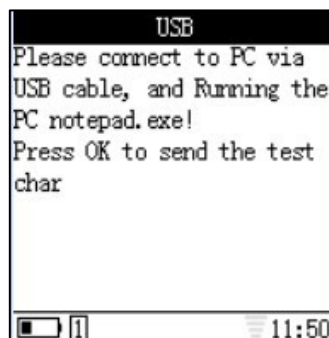
- 
- 2 System shows the brightness value from current environment. Click OK or ESC key to leave from current page.

### Battery Information



- 1 Enter into Battery information page from Self Test
- 2 The page shows main and back up battery information
- 3 Click ESC key to leave from current page

### USB Test



- 1 Enter into USB page from Self Test
- 2 If terminal is not connected with a USB cable to PC, system will have warning message on the screen (see left)
- 3 Open the Notepad from PC, then click OK key on the terminal, the data will be sent to Notepad via HID communication.

**Note: under USB test, the USB working mode is set up HID as default. User is able to set to different communication mode in Communication page which is under System Menu.**

---

## WIFI Test



- 1 Enter into WIFI page from Self Test.
- 2 Choose Scan to proceed test
- 3 Click ESC key to leave from current page.

**Note: WIFI service MUST be ON when proceed WIFI test. Please turn on WIFI from Communication page which is under System Menu.**

## System Info

It includes NLS-PT80 system information, such as hardware version, software version, manufacturing date, etc.



# Chapter IV Data Transmission

## Introduction

This chapter will illustrate how to connect NLS-PT80 to a PC and how to realize data transmission between them.

## Connect NLS-PT80 to a PC

The bottom of NLS-PT80 has a rubber to protect USB port. Please open this rubber and connect NLS-PT80 to a PC via USB cable.

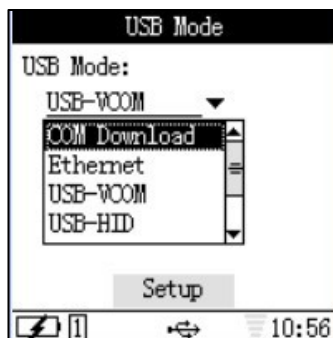
## Data Transmission

There are three ways for data transmission, i.e. USB, WIFI , which will be illustrated respectively as follows. Please setup in the “Communication” of NLS-PT80 as shown below:



## USB Connection

Select “[1] USB” in the “Communication” and then click “OK” to enter “USB Mode” configuration. There are 6 items under “USB Mode”, including “COM Download”, “Ethernet”, “USB-VCOM”, “USB-HID”, “Flash Disk” and “Flash Disk (Read Only)”:

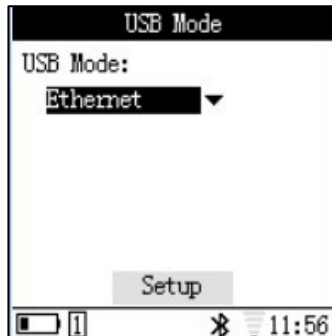


## Ethernet

Select “System Setup”-> “Service Management”-> “FTP Service”, and then click “Setup”. Select the mode below:

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Click "Setup" and then connect NLS-PT80 to the PC via USB cable.

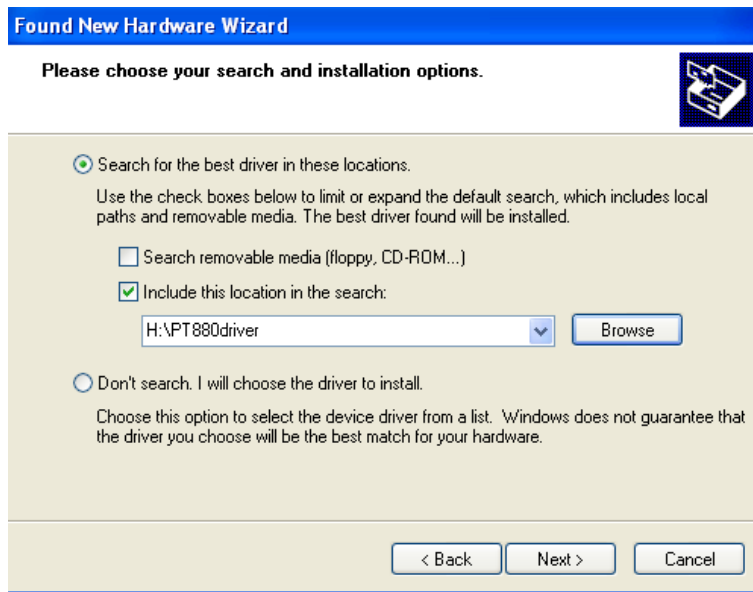


### Linux USB Ethernet /RNDIS Gadget

When the NLS-PT80 is connected via USB, there will come up a box on PC for installing "RNDIS/Ethernet Gadget". Right click "Linux USB Ethernet/RNDIS Gadget" and then select "Update the driver files (P)". And thus the below page will appear. Please select "Install from a list or specific location (Advanced)":



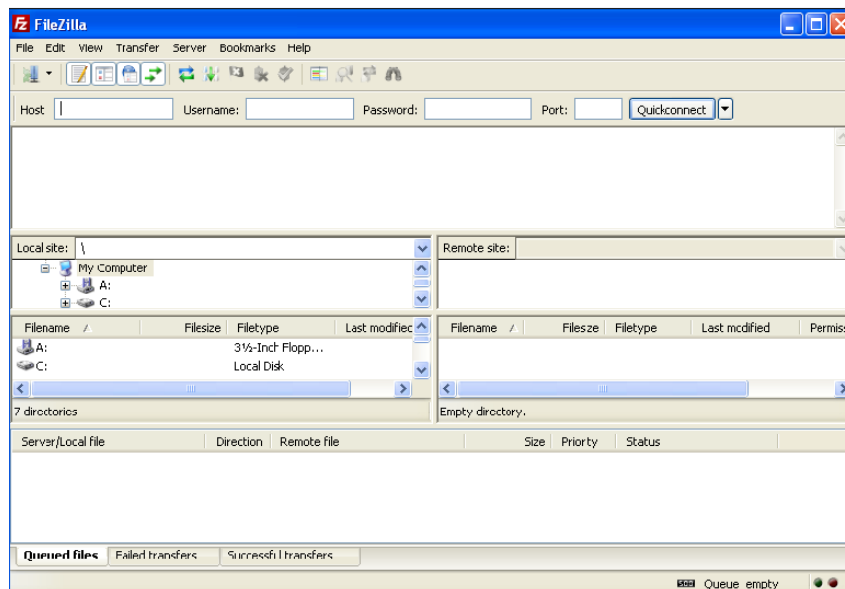
Click "Next" and browse the location of "NLS-PT80 driver" as shown below:



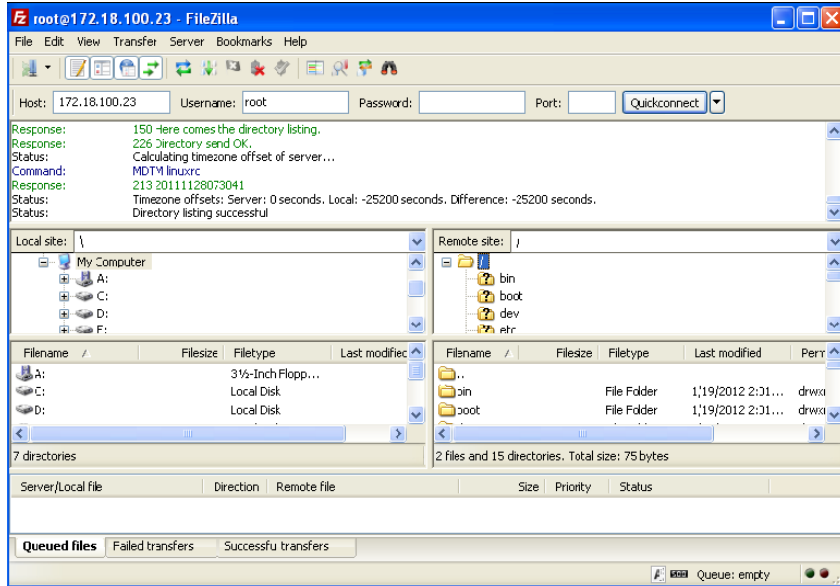
Click "Next" and wait for the completion of the driver installation.

### Data Transmission under Ethernet

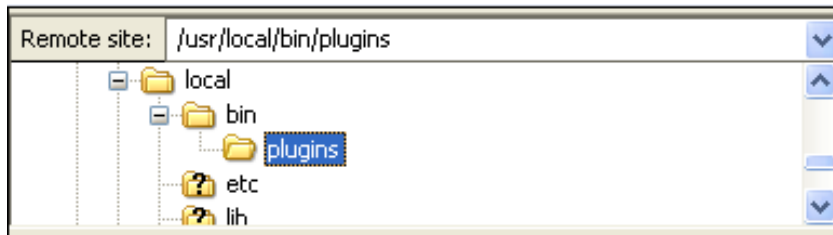
After the completion of driver installation, NLS-PT80 will be assigned a fixed IP address: 192.168.0.1, which can be visited via remote tools for managing files on NLS-PT80 (such as copy, paste and delete). NLS-PT80 can support various remote tools and this manual will use "FileZilla". Open the remote tool and will come up a page like below:



Enter "192.168.0.1" in Host and "root" in Username. No password needed. Click "Quickconnect". For successful connection, the below page will appear:



Select "/usr/local/bin/plugins" from Remote site, which includes add-on kits for NLS-PT80 as shown below:



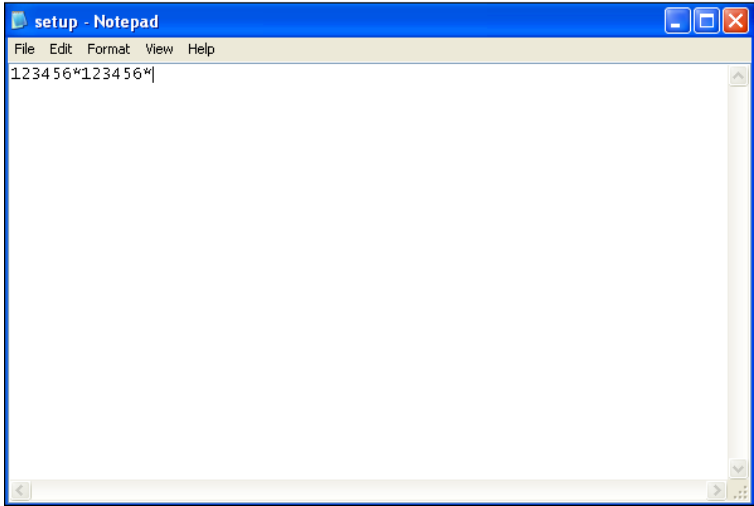
## USB-HID

Select the USB-HID mode as shown below:



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Click “Setup” and then connect NLS-PT80 to the PC via USB cable. In this mode, the bar codes read by NLS-PT80 can be shown on PC in txt file, as shown in illustration below:



**Flash Disk**

Select “Flash Disk” as shown in the illustration below:



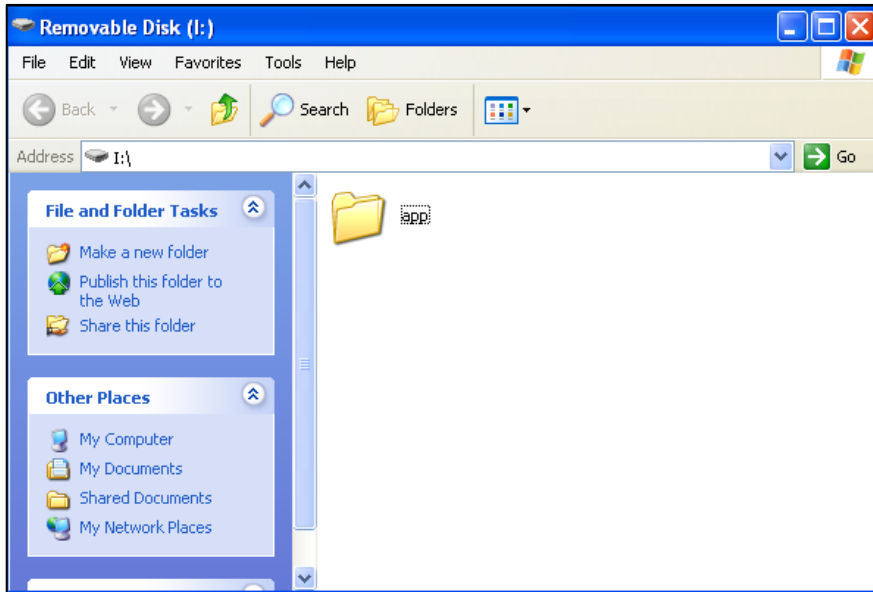
Click“Setup” and then connect NLS-PT80 to the PC via USB cable.

Local Disk (C:)	Local Disk	9.21 GB	6.48 GB
Local Disk (D:)	Local Disk	100 MB	70.6 MB
Local Disk (E:)	Local Disk	18.6 GB	16.5 GB
Local Disk (F:)	Local Disk	18.6 GB	10.3 GB
Local Disk (G:)	Local Disk	27.9 GB	21.1 GB
<b>Devices with Removable Storage</b>			
3½ Floppy (A:)	3½-Inch Floppy Disk		
Removable Disk (...)	Removable Disk		



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In this mode, NLS-PT80 can be used as a flash disk under read-write state. Double-click the Flash Disk to open it, and an interface as below will show up:



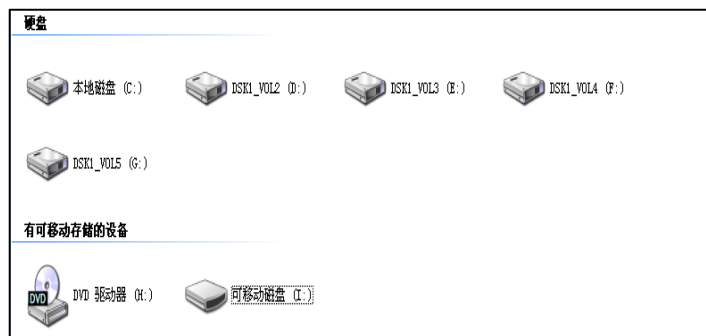
The app folder includes the plug-ins (i.e. programs) for NLS-PT80 and thus any program needed can be copied in this folder and any program in this folder can be revised, deleted and so forth.

### Flash Disk (Read Only)

Select the "Flash Disk (Read Only)" mode as shown below:



Click "Setup" and then connect NLS-PT80 to the PC via USB cable. A symbol of Flash Disk will appear in the "Computer" of PC:

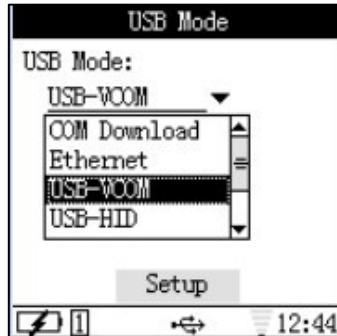


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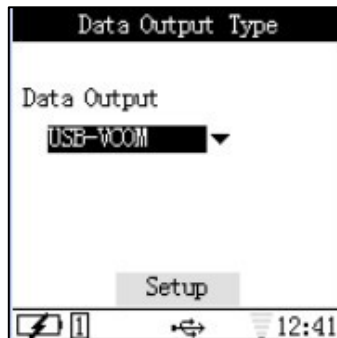
In this mode, NLS-PT80 can be used as a Read-Only Flash Disk.

## USB-VCOM

Select the “USB-VCOM” mode as shown below:



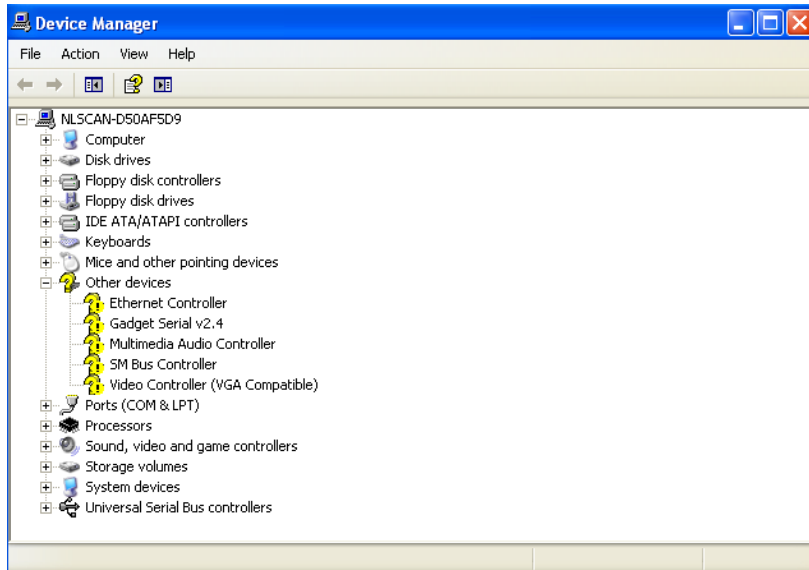
Click “Setup” and connect NLS-PT80 to the PC via USB cable. Then select “USB-VCOM” in the “Data Output Type” under “Bar code Scanner” to program the data output mode.



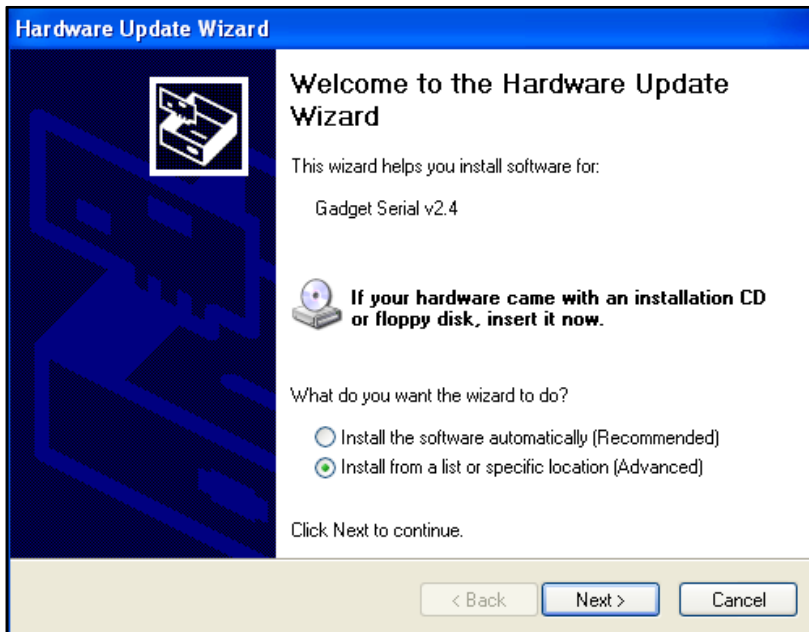
Click “Setup” to finish the configuration.

### Installation of Virtual COM Driver

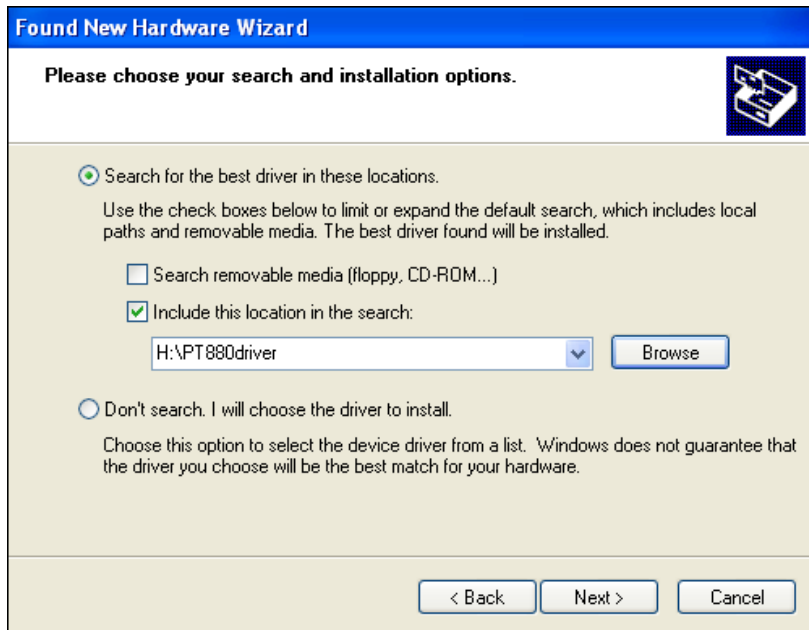
After connection between PC and NLS-PT80 via USB cable, the Terminal Manger will have similar page as below:



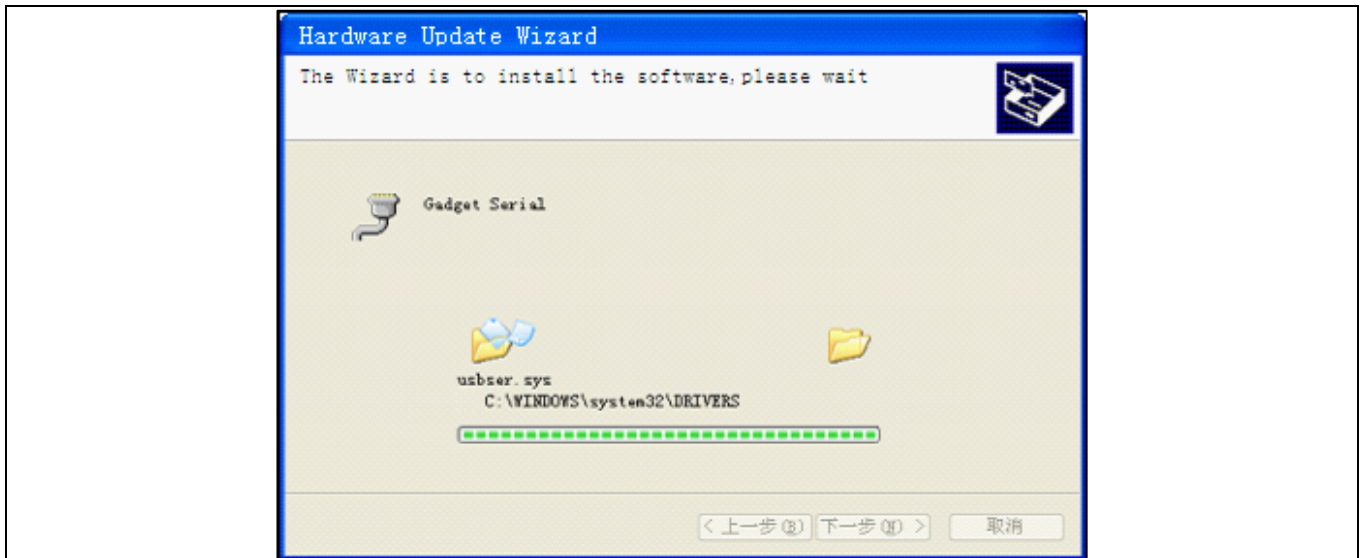
Right click "Gadget Serial v2.4", and select "Update the driver files(P)" as shown below:



Click "Next" and browse the location of "NLS-PT80 driver" as shown below:

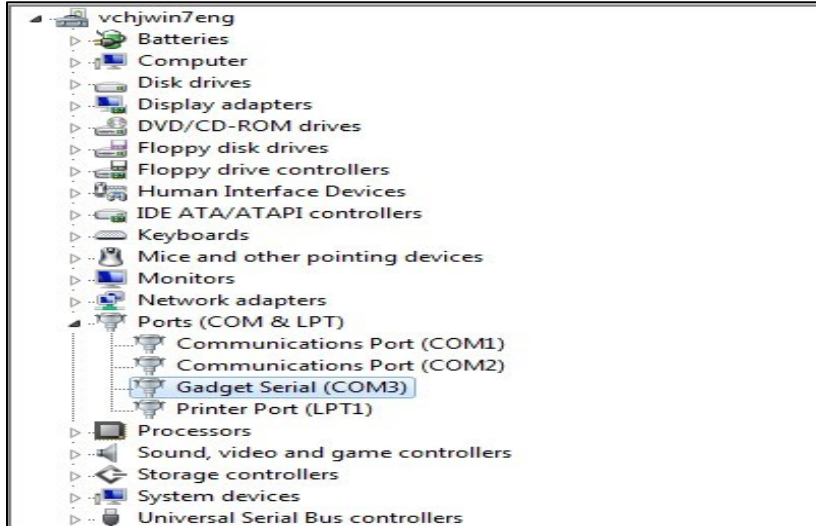


Click "Next" and the installation page will appear as shown below:



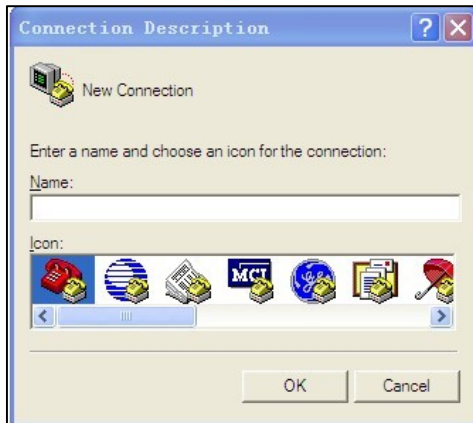
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The Gadget Serial(COM3) is ready to use after installation. The Gadget Serial (COM3) can be found in Terminal Manager as shown below:

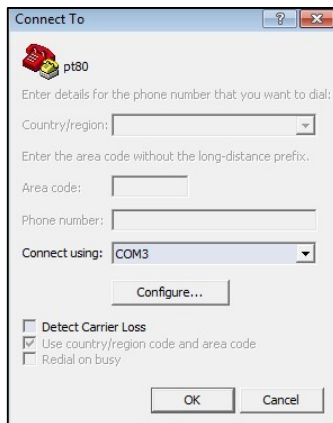


### Use of Virtual COM

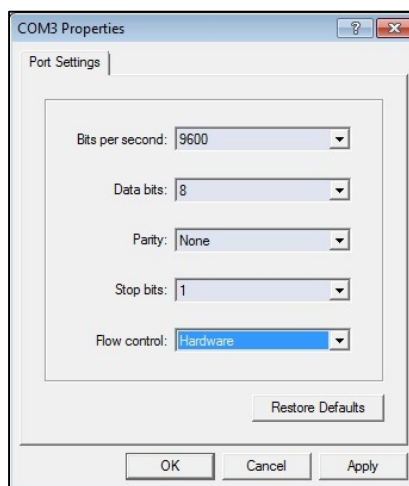
Open HyperTerminal via "Start" -> "Programes" -> "Accessories" -> "Communication" -> "HyperTerminal" as shown below:



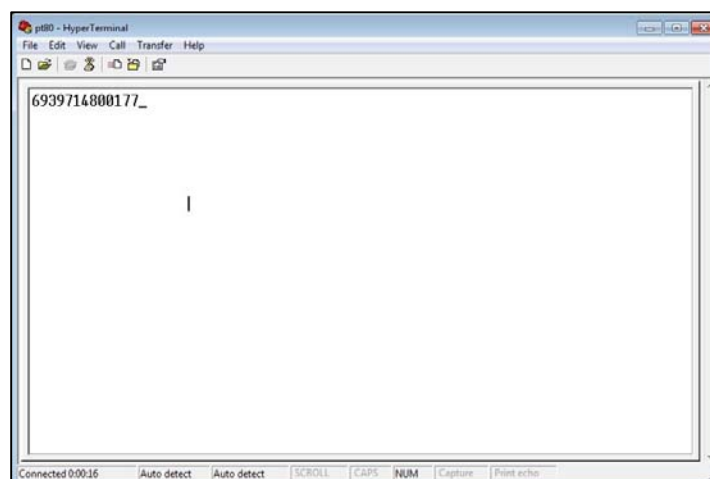
Type the custom name in "Name" column, and click "OK". Choose the port with "Gadget Serial" that the connected PC has (COM3 in this example) in "Connect To" pop-box.



Click “OK” to enter into the port property setting, the default settings are shown below:



Then click “OK”. Use USB cable to connect PC and NLS-PT80, and then open the bar code test of NLS-PT80 (data output mode should be “USB-VCOM”) and thus the bar code will show on the HyperTerminal on PC after being read.



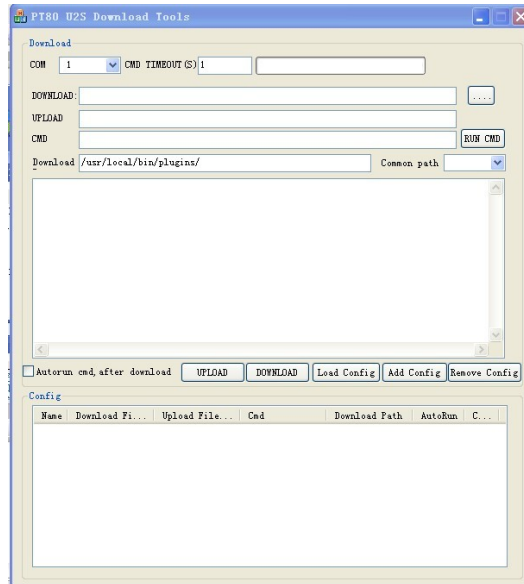
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## COM Download

Select “COM Download” mode as shown below:



Click “Setup” and then connect NLS-PT80 to PC via USB cable after the completion of setup. This mode supports download from PC to NLS-PT80. Open the “NLS-PT80 U2S Download Tools” as shown below:



Choose the port with “Gadget Serial” that the connected PC has (COM3 in this example);  
Download the program you need to NLS-PT80 (Generally, the programs will have suffix of .so);  
“Upload File” is reserved;  
“AutoRun” is reserved;  
The download path is default as “/usr/local/bin/plugins/”;  
Click “UPLOAD” or “DOWNLOAD” after setup.

## WIFI Connection

### Turn On WIFI

Select “System Setup”-> “Service Management”-> “FTP Service”, and then click “Setup”.  
Next, select “WIFI” under “Communication” and then the illustration as below will show up:



Then select "Turn ON" and click "Yes" in the pop-up box as shown below:



If no WIFI connection is setup before, please click "Setup" to establish a WIFI connection as shown below:



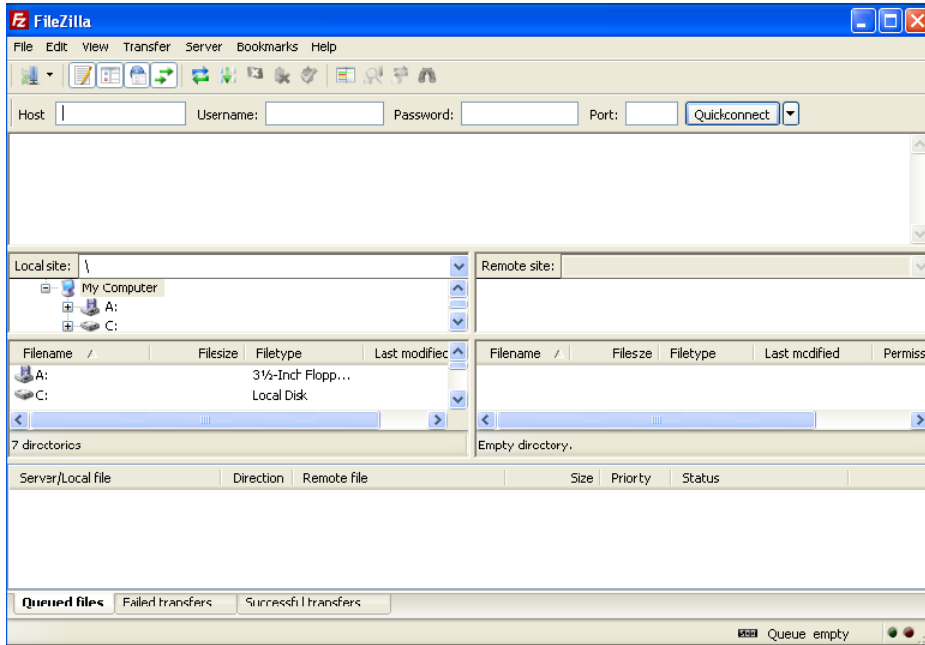
When WIFI is connected successfully, WLAN will assign an IP address to NLS-PT80. The IP address can be checked in "Setup"-> "IP Message".



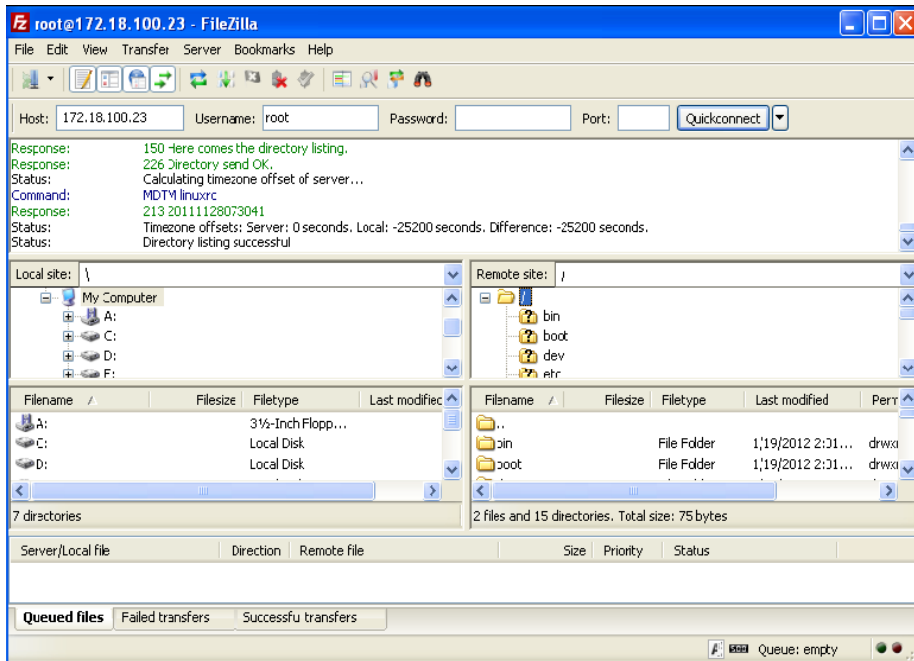
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## WiFi Communication

Suppose the IP address assigned for NLS-PT80 is 172.18.100.23, then files on NLS-PT80 can be managed by filezilla just like Ethernet mode.



Input "172.18.100.23" in Host and "root" in Username; no password is needed; Click Quickconnect and then the below page will appear:



## Chapter V Troubleshooting

### Cannot Start

If the NLS-PT80 cannot be turned on, please check that:

- ✧ The battery is installed properly with enough electricity
- ✧ The USB cable is pulled out

### No Display

If the screen does not display, please check that:

- ✧ The power is on and NLS-PT80 is not under hibernation
- ✧ The battery is connected properly with enough electricity
- ✧ The downloaded applications are compatible

### Low Battery

If the battery is alarmed low level after just a short time of use, please check that:

- ✧ The battery is fully charged
- ✧ The battery is under good condition. If the battery fails to work, please replace one.

### NLS-PT80 Crash

If the NLS-PT80 crashed, please:

- ✧ Press the RESET button on the back of NLS-PT80 with a pin

### No LED Indicator

If no LED is lighted on during charging:

- ✧ Please ensure the power adapter of NLS-PT80 or cradle is connected correctly

### USB Connection

If the USB communication cannot work:

- ✧ The USB cable may not be connected correctly
- ✧ Please check whether the USB configurations of NLS-PT80 is correct

### WIFI Connection

If WIFI cannot be connected:

- ✧ Please check whether the battery has enough electricity.
- ✧ Please ensure the wireless network covers where you locate
- ✧ Please rescan the network and reconnect the WIFI
- ✧ Please check the configurations of network, including SSID (SSID with any Chinese symbol is not supported), encryption and password

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## Disable of Bar Code Reading

If the NLS-PT80 is disable of reading a bar code:

- ✧ Please ensure the bar code is read in a correct way
- ✧ Please check whether this kind of bar code is programmed readable
- ✧ The terminal might not be able to read this kind of bar codes.

## Caution

- ✧ If the terminal lost power or abnormal cause can not boot up, try a hardware reset to start it, the method is to press the reset button with needles. The location of reset button, please refer to the related chapter.
- ✧ Please do not throw or drop the terminal to avoid the LCD screen is damaged or cause the program interrupt execution to make the memory data loss, or other consequences of affecting the normal operation.
- ✧ Clean the reading window periodically. Do not touch the transparent glass of the scanning window to avoid scratch or stain glass affecting reading performance.
- ✧ Please do not use sharp objects to touch the screen, it may cause the screen is damaged or the internal short circuit.
- ✧ Please use a soft and dry cloth to wipe the terminal, and do not use a damp cloth, benzene, thinner or other volatile chemicals to avoid the terminal keyboard and shell variant of aging.
- ✧ Do not let the terminal face down in order to avoid the keyboard disoperation.
- ✧ The environment temperature great change will lead to the terminal surface condensation, please dry the terminal before use.
- ✧ Adapter shall be installed near the equipment and shall be easily accessible. The plug considered as disconnect device of adapter. The power adapter shall be considered as safety approval by CE(Adapter AC input: 100-240V~, 50/60Hz 0.4A; Output: 5Vdc/1.5A  
Manufacturer of Adapter: Kuantech (Beihai) Co.,Ltd      Model No.: KSAS0120500150D5
- ✧ Extreme Temperature: -20~+45
- ✧ CAUTION : RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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### **FCC Warning:**

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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.