

YN-4561

6 in 1 USB/485/422/232/TTL

Convector Tool

User Manual

Chapter 1 Overview

1.1 Introduction

Your Neighbor's YN-4561 allows users make conversion and connection between USB/RS232/RS485/RS422/TTL without any jumper or switches.

YN-4561 gets power from a standard USB port. It also can give power to other devices for 5V@500mA and 3V@500mA.

Compliant with USB v2.0 standard, the YN-4561 support almost all types of OS, such as Windows/MAC/Linux/Android.

1.2 Features

- No jumper or switches, plug-and-play installation
- USB to RS-232/422/485/TTL converter
- TTL to RS232/422/485 converter
- RS232 to RS-422/485 converter
- LED indication for all channels
- Transmission speed up to 115.2Kbps
- Automatic RS-485 data flow control
- No external power supply necessary, only from the USB port.
- Drivers for Windows 2000/2003/XP/Vista/7 (32bit and 64bit)
MAC/Linux/Wince

1.3 Specifications

- Compatibility: USB v2.0 standard
- Connector: USB:USB-type B connector
RS232: DB9 Male connector
RS485/422: Screw terminal
TTL: Screw terminal
- Transmission speed: 1200bps to 115.2Kbps
- Parity bit: odd, even, none
- Data bit: 5, 6, 7, 8
- Stop bit: 1, 1.5, 2
- RS232: 5 wire TX,RX,RTS,CTS,GND
- RS485: 2 wire D+, D-
- RS422: 4 wire T+, T-, R+, R-
- TTL: 5 wire RIN,TOUT,RTS,DTR,GND
- Power output: 5V,3V,GND
- Max. Distance: RS-232: 50ft (15m) @ 19.2Kbps
RS-422, RS-485: 4000ft (1200m) @ 57.6Kbp
TTL: 2ft (0.5m) @ 19.2Kbps

- Driver Support: Windows XP/Server 2003/Vista/7/8/8.1
MAC/Linux/Wince
- Case: Light blue ABS
- Operating Temperature: 0° to 60° C (32 ~ 140° F)
- Storage Temperature: -25° to 80° C (-13 ~ 176° F)
- Operating Humidity: 20% to 95% (non-condensing)
- Storage Humidity: 0% to 95% (non-condensing)

1.4 Package Checklist

- YN-4561 x1
- Driver & Manual CD x1
- Type A to Type B USB cable x1
- Dupont Line x5
- DB9 to Screw terminal Converter Board x1

Chapter 2 Installation & Setup

2.1 Driver Installation

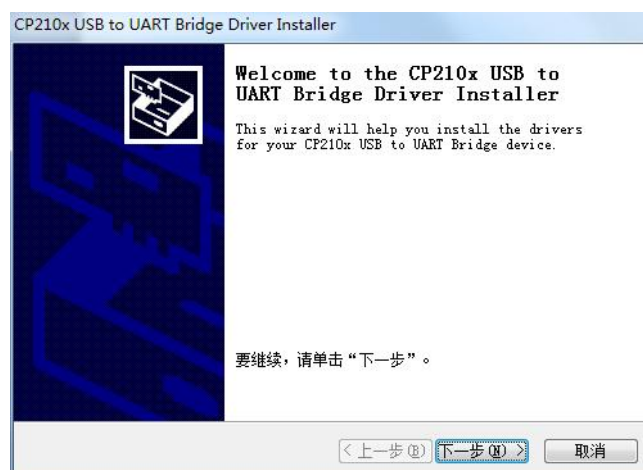
In order to use a PC to control serial devices connected to the YN-4561. Following are the installation instructions to set up the YN-4561 on Windows 7 64 bit system.

Note: The newest driver can be found at <http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx>

Step1: Insert driver CD into the CD-ROM drive on the host PC and unzip **CP210x_VCP_Windows.zip** file from the link of **driver\CP210x** folder. Double click "**CP210xVCPInstaller_x64.exe**".



Step 2: Click "Next" to continue the installation.



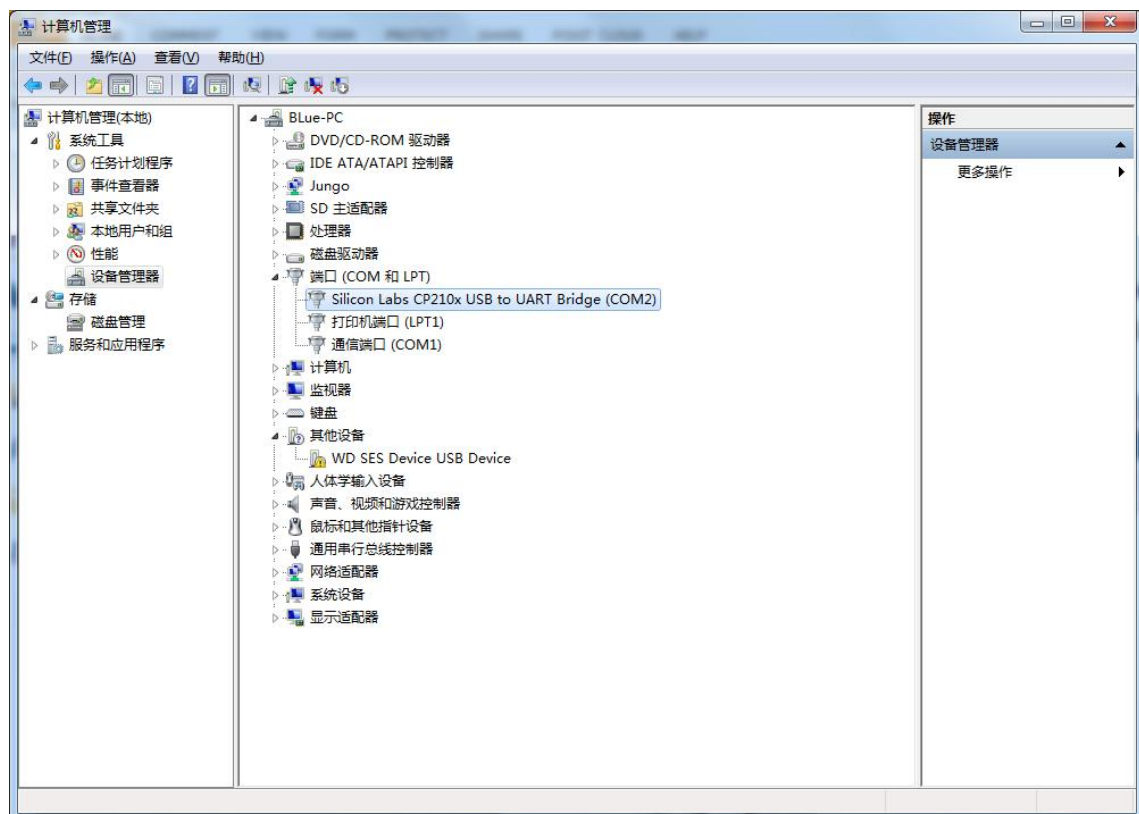
Step3: Click "Next" to continue the installation.



Step4: Click “OK” to finish the installation.



Step5: Plug the YN-4561 to USB port. The green LED will on and the driver will be installed automatically.

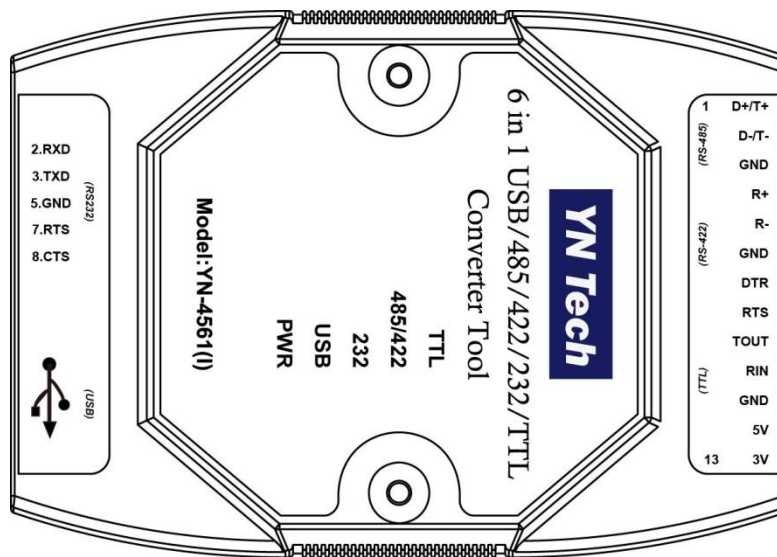


Step6: In the Hardware Device Manager in the system, you will see device “Silicon Labs CP210x USB to UART Bridge (COM##)” in Ports category. Then YN-4561 is working normally.



2.2 Hardware Connection

Following picture show all the ports on the YN-4561 front panel:



1.RS232

DB9 male, 2.RXD, 3.TXD, 5.GND, 7.RTS, 8.CTS.

2.RS485/422

RS485: D+, D-

RS422: T+, T-, R+, R-

3.TTL

5V,3V: Power(Output)

GND: Signal/Power Ground

RIN: TTL RX(Input)

TOUT: TTL TX(Output)

RTS: TTL TX(Output)

DTR: TTL TX(Output)

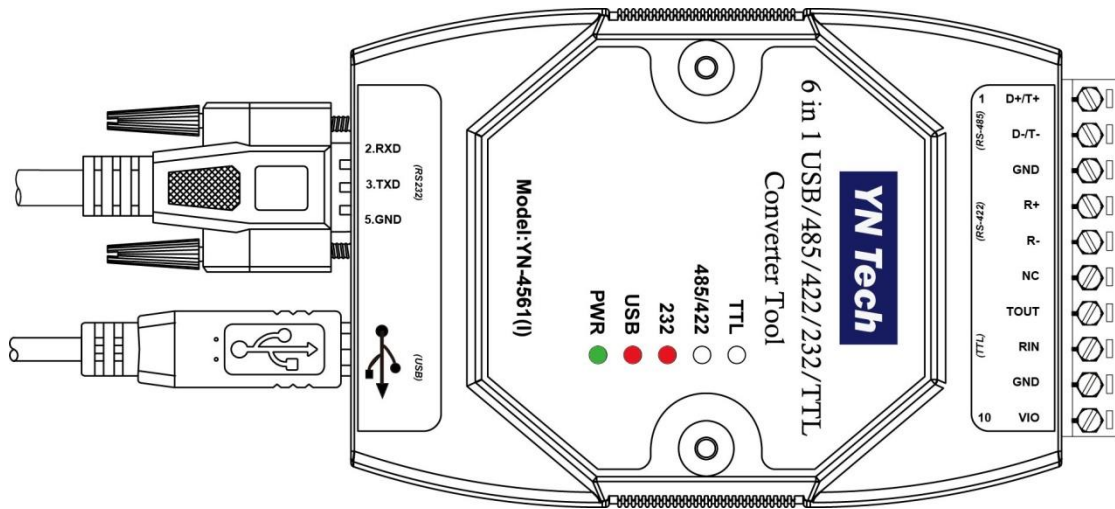
4.USB

USB B port.

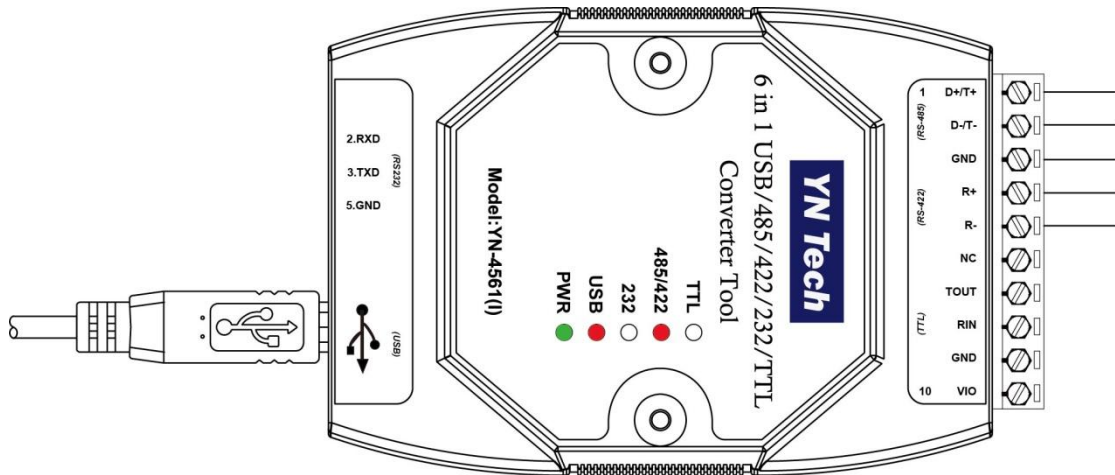
After the USB port is connected, Green PWR LED will on. In case any channel has data input, the corresponding channel LED will flash. For example, if we use YN4561 as USB-RS232 converter. when we send data from PC to RS232 port, the USB LED will flash. On the contrary, if device send data from RS232 port to PC, the RS232 LED will flash.

YN-4561 can working under the following six mode, make sure the useless pins or ports are not connected. The USB port must be connected as the 5V power supply.

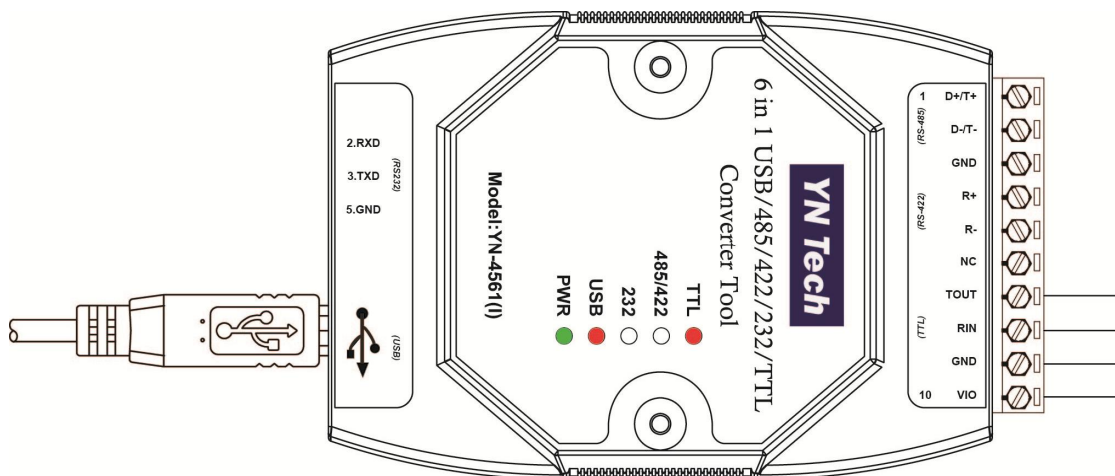
1.USB to RS232



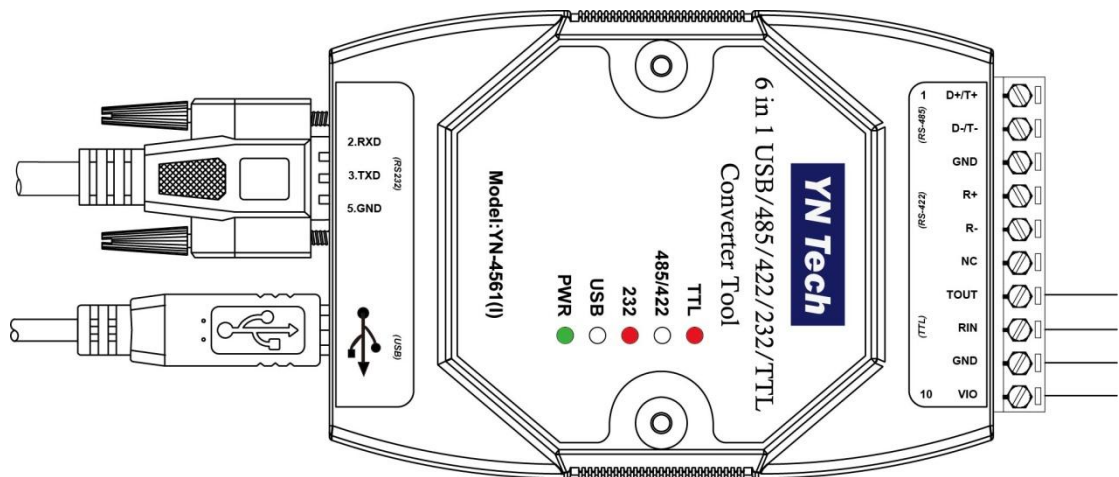
2.USB to 2 wire RS485 or 4 wire RS422



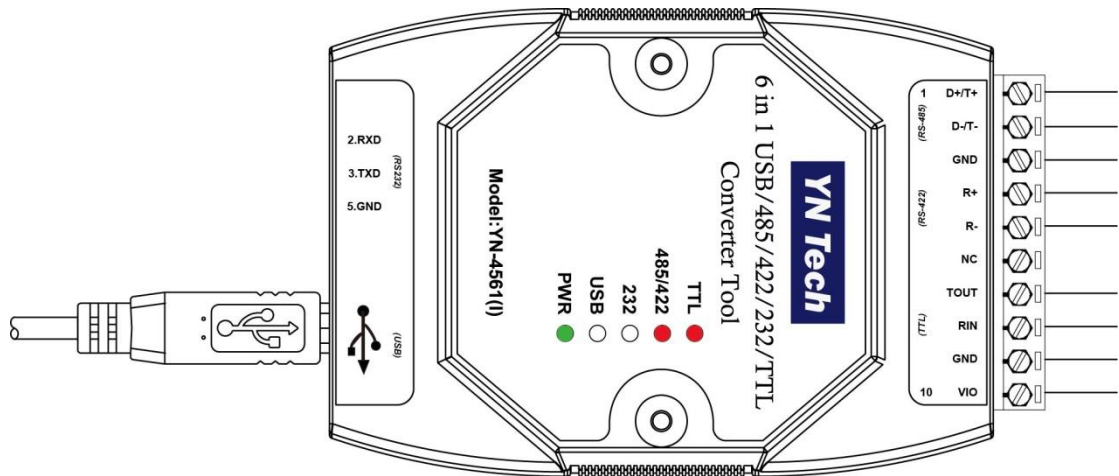
3.USB to TTL



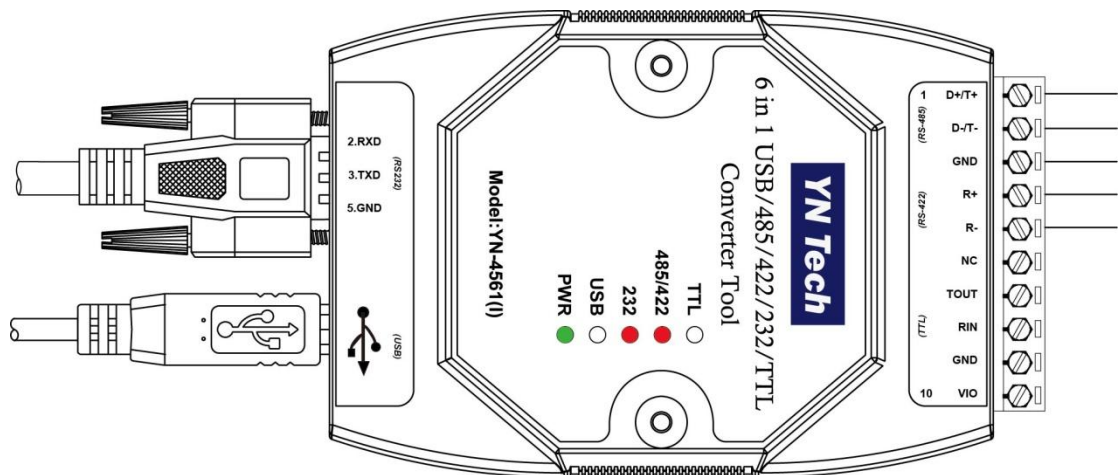
4. TTL to RS232, USB supply power only.



5. TTL to 2 wire RS485 or 4 wire RS422, USB supply power only.



6. RS232 to 2 wire RS485 or 4 wire RS422, USB supply power only.



Revision History:

Date	Version	Revision
2014-6-13	1.0	Initial release.
2014-12-22	1.1	Add more details about the port definition and connection.