SYRIS SYSR86N-HBX1 Standard TCP/IP Reader Instruction Manual

SYSR86N-HBX1
Standard TCP/IP Reader
Manual

Version 01.04
2016/04/25

Contents

Features & Specification

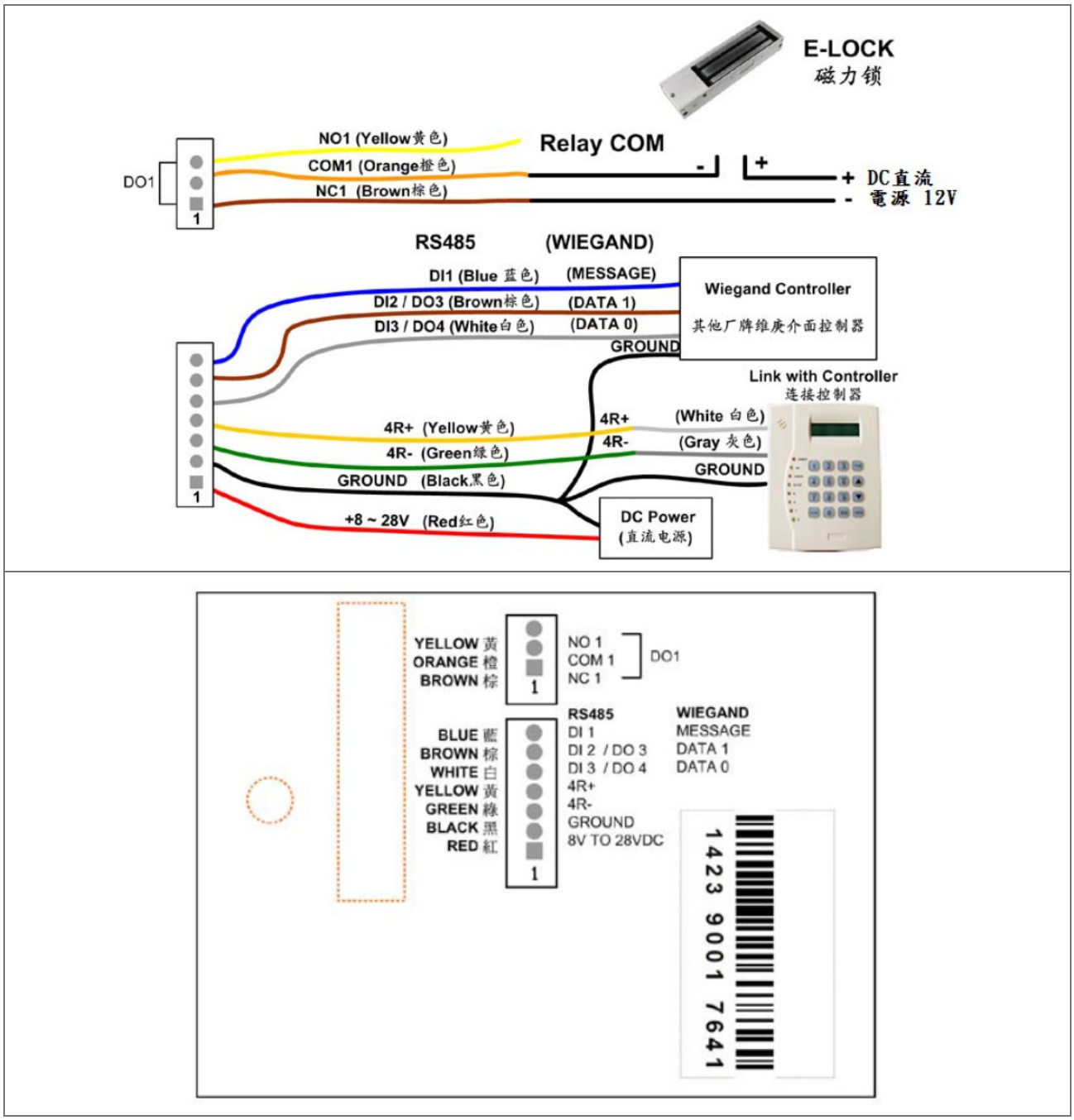
Feature:

- Standard 86.0(W)x86.0(H) mm
- Waving Hand / Touch Panel to Access Door
- Support to read standard 13.56MHz RFID card
- Relay for door bell light or EM lock
- Quick Setup via Micro USB
- Support Standard Wiegand interface
- Door sensor detective (Door Open Timeout Forcible Entry Alarm)
- Support Black card List
- Support to access door via Bluetooth Xtive RFID Tag

Specification:

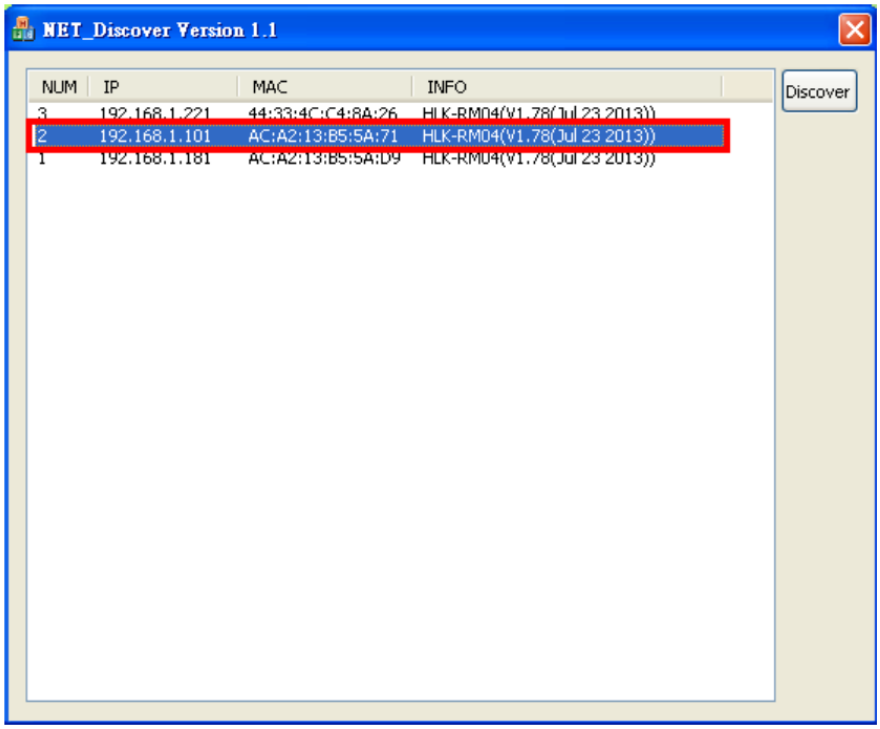
Card Frequency	13.56MHz
Card Types	ISO14443A/B / ISO15693 / Mifare / NTAG203/ DESFire
Card Read Range	1~5 cm
Ethernet	10/100 base-T Ethernet
Wi-Fi	802.11 b/g/n
Black/White List	500
Event Log	1180
Baud Rate	19,200 bps (4,800~230,400 bps)
Read Card Time	0.1 second
Keypad	1 Key (Capacitive Touch)
IR Sensor	1 IR Sensor, adjustable range 0-10 cm
Status Indicator	Tricolor LED(RGB)
Touch Status Indicator	Tricolor LED(RGB)
Interface	Ethernet, Wi-Fi, Wiegand, RS-485, USB
Device ID	0001~9999
Digital Input	Up to 3 (1 no-voltage DI +2 no-voltage DI share the same port with
Digital Output	Up to 4 (2 Relay + 2 output share the same port with Wiegand)
Voice Output	On-Board Buzzer
Operation/Storage Temperature	-10℃~+60℃ / -20℃~+70℃
Power	8V ~ 28V DC / 1W ~ 6W
Size(mm)	86(W) x 86(H) x 41.6(D) mm (No Wire Included)

Wiring Diagram

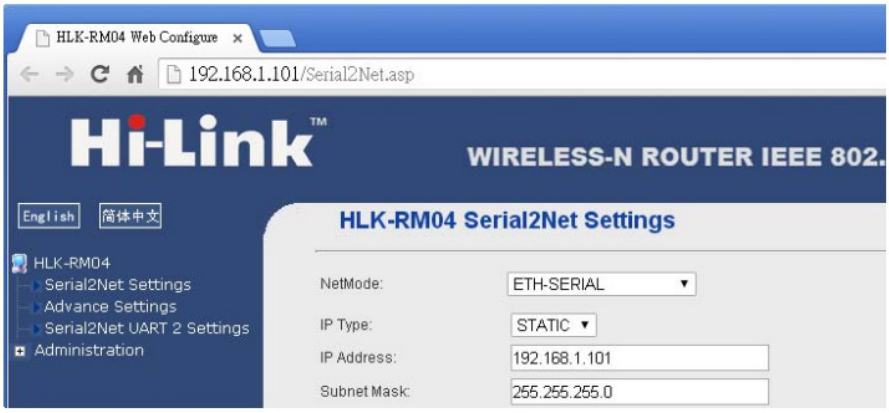


Network Parameter Setting

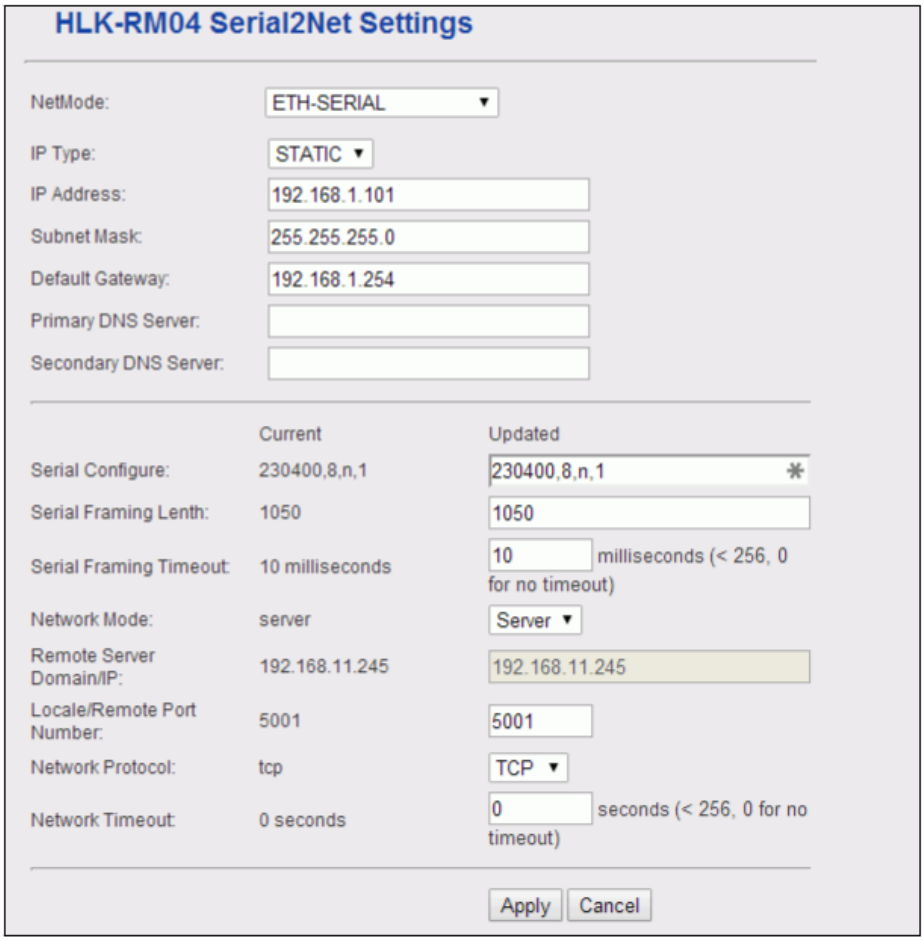
1. Execute “NET_Discover_V0110.exe” and press Discover to search SY86N series product.
2. Factory default IP is “192.168.1.101”. Users can check the MAC address from the product sticker with IP to confirm the device.



3. Double click IP (192.168.1.101) to open the web configure page(http://192.168.1.101)
   Default login ID / Password : admin / admin



4. Default Net Mode is the same as the following. Users can modify Net Mode and other parameters. If the device cannot communicate properly after setting, the user can reset the NET module via Micro USB.

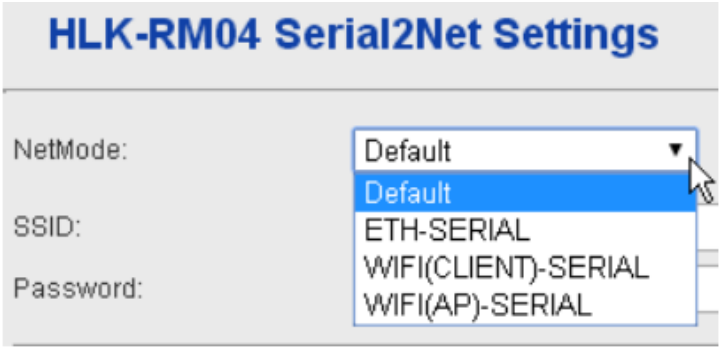


Communication Parameter	**Factory Default**
Serial Configure	230400,8,n,1
Serial Framing Length	1050
Locale/Remote Port Number	5001

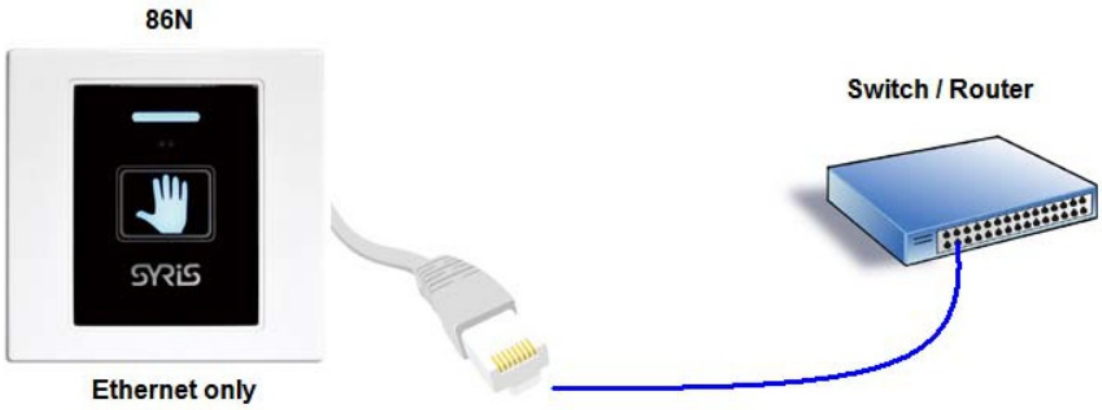
Network Mode Switch

86N series device support 4 network modes: Dual mode ETH(Ethernet) Wi-Fi AP Wi-Fi client.

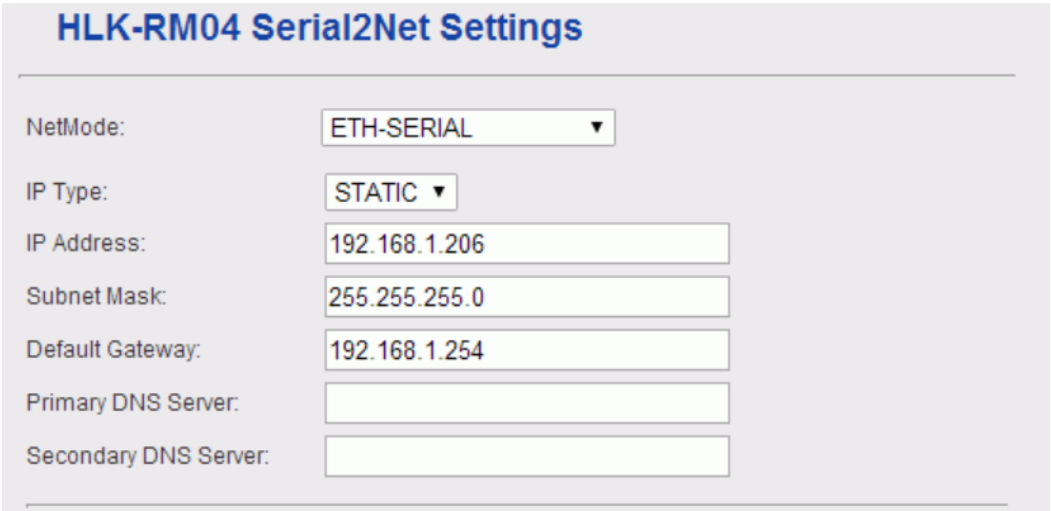
Default	Ethernet (DHCP) +Wi-Fi AP mode
ETH-SERIAL	**Ethernet only (Factory Default)**
WIFI(CLIENT)-SERIAL	Wi-Fi client mode
WIFI(AP)-SERIAL	Wi-Fi AP mode



1. **ETH-SERIAL** Factory default is **ETH-SERIAL. (Standard TCP/IP Reader)**



When the user modifies the IP and clicks on Apply button, the device will reboot and apply the setting after 30 seconds**.**



2. Wi-Fi client mode 86N can be set to communicate via Wireless AP without Ethernet.

SSID: Enter the SSID from AP you will connect to the network.

Scan: The user can scan AP in the range of 86N and select one to connect. But user cannot scan the AP after changing the default network mode (Ethernet only) to Wi-Fi (Client). 86N need to power off / on to enable the scan function.

Encrypt Type: Select Encrypt type for AP connection.

Password: Enter the password for AP.

IP Type: DHCP is the default mode. If the user has to set up a static IP, please select Static.

PS: Wi-Fi MAC address is Ethernet MAC subtract 1.

Ex. Ethernet MAC : AC:A2:13:B5:5A:B5 Wi-Fi MAC : AC:A2:13:B5:5A:B4

3. Wi-Fi AP mode Setup 86N as AP(Wireless Access Point) for a client device to communicate. This mode is usually for setting devices.

SSID: Setup 86N device's SSID.

Encrypt Type: Select Encrypt Type for the AP.

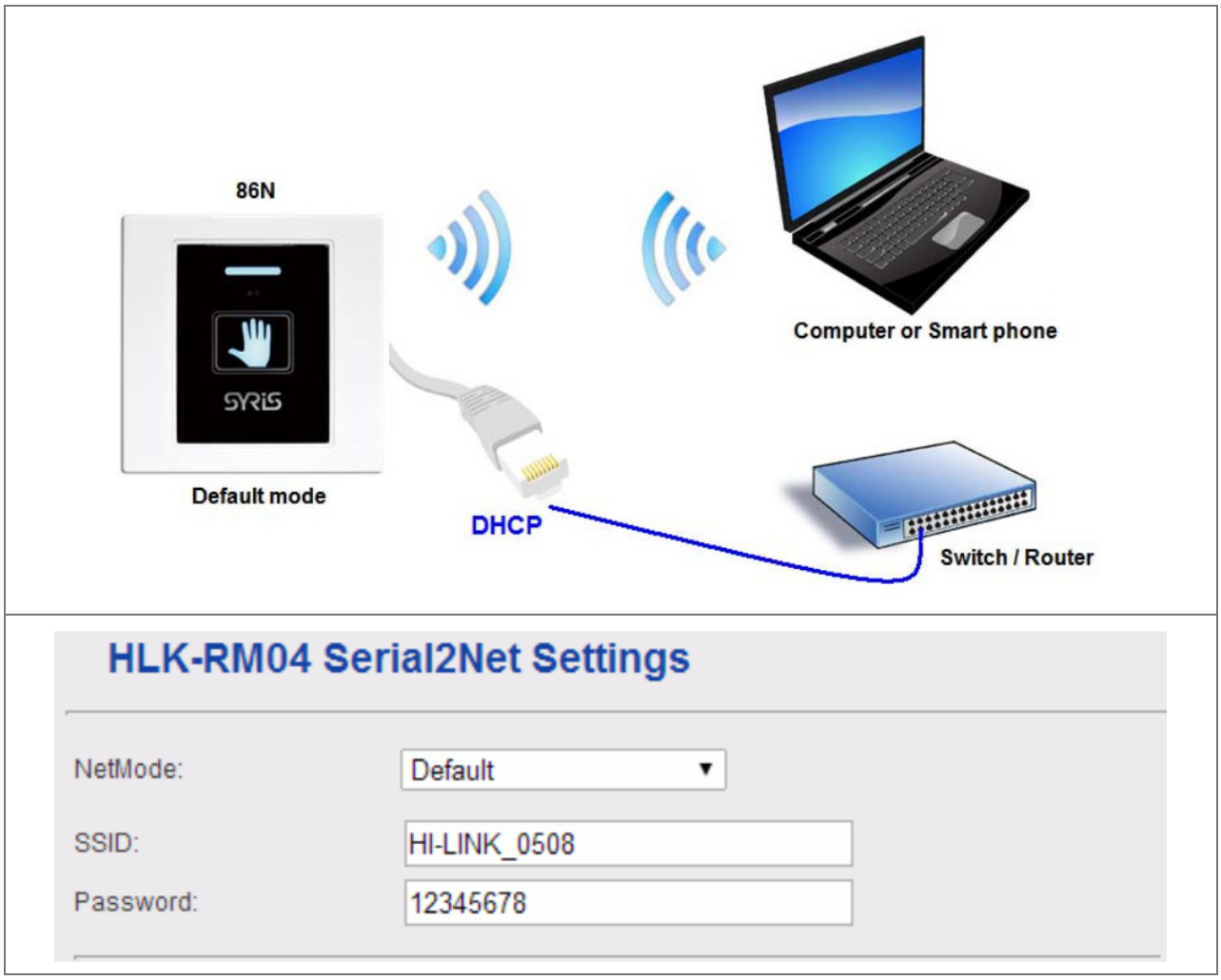
Password: Setting 86N device's Wi-Fi password.

IP address: Setting 86N device's Wi-Fi IP address.

Subnet Mask: Setting 86N device's Wi-Fi subnet mask.

4. **Default mode** Ethernet (DHCP) +Wi-Fi AP mode.

   It's Dual-Mode (Ethernet and Wi-Fi AP but Ethernet only supports DHCP.)

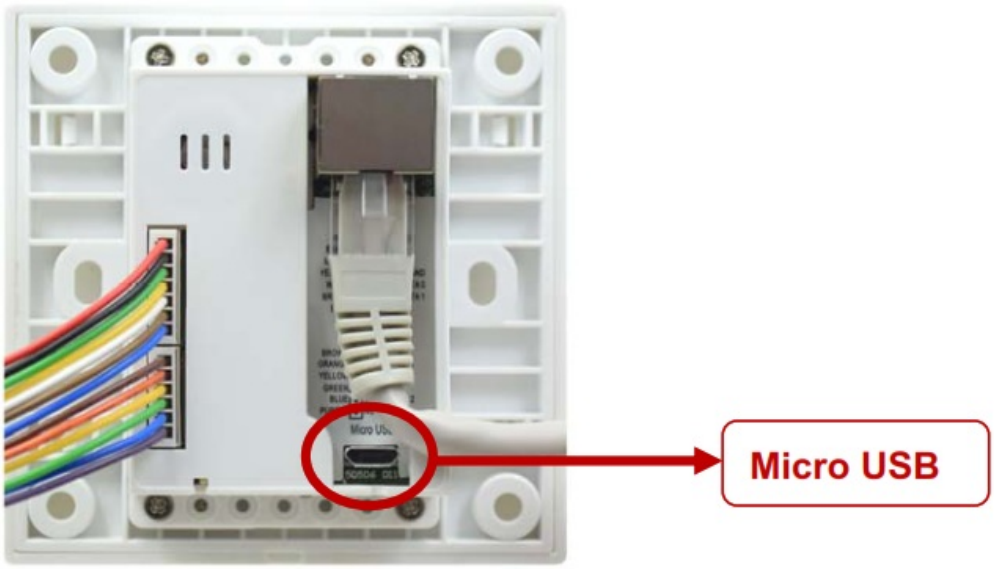


SSID: Setup 86N device's SSID.

Password: Setting 86N device's Wi-Fi password.

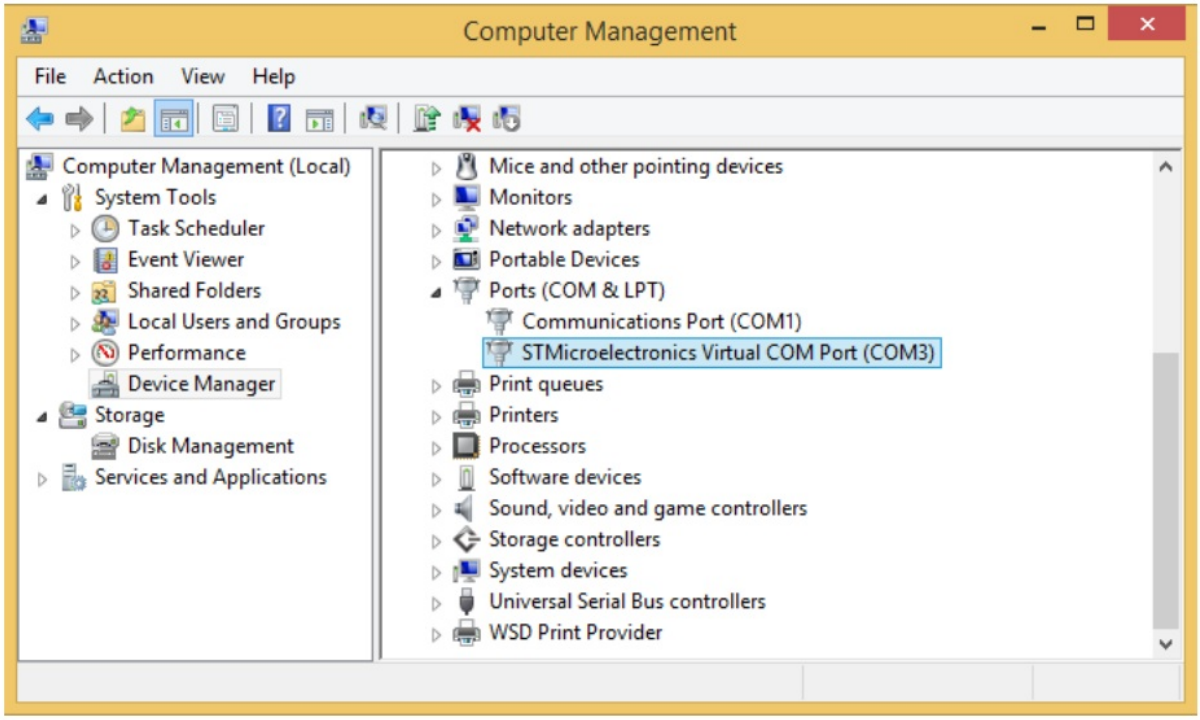
USB Connectio

Setup 86N parameter via Micro USB.

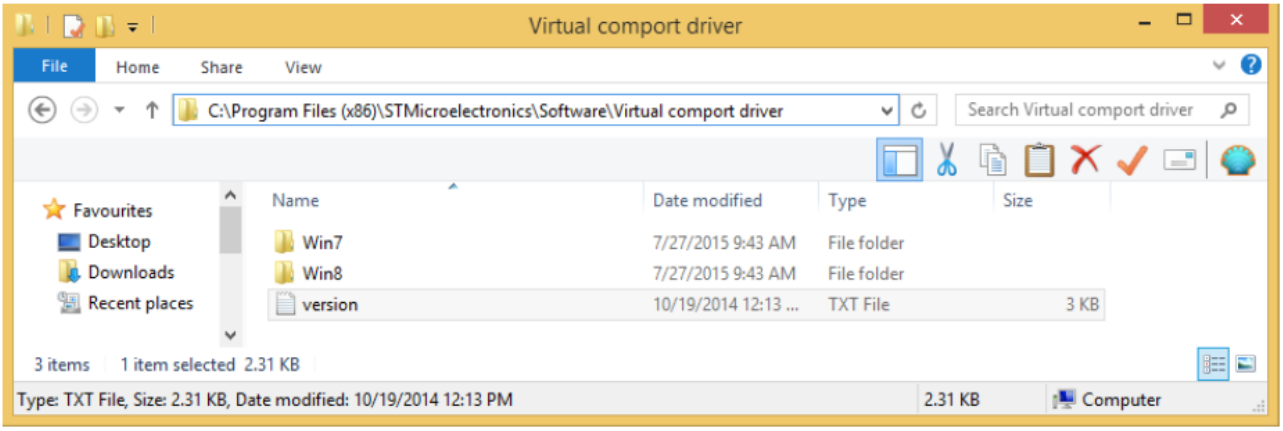


1. Install USB driver "CDC_USB_Driver_VCP_V1.4.0_Setup.exe"
2. System will generate a virtual COM port.

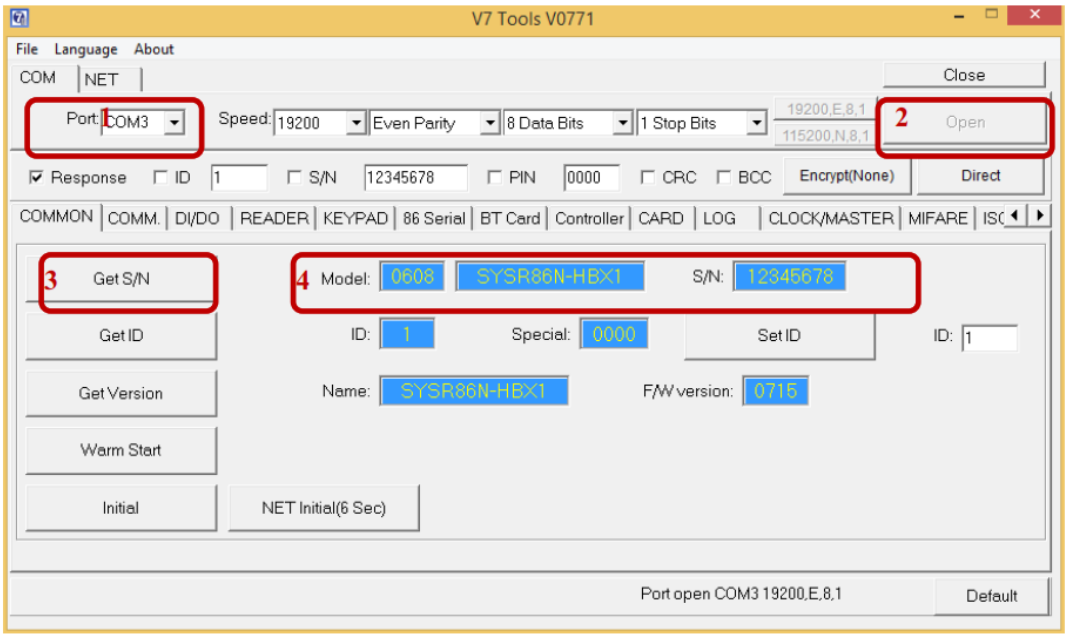
For example. Check port in device manager. (below picture is COM 3)



Users also can update drivers manually. The driver is saved in the folder that is the same as the following.



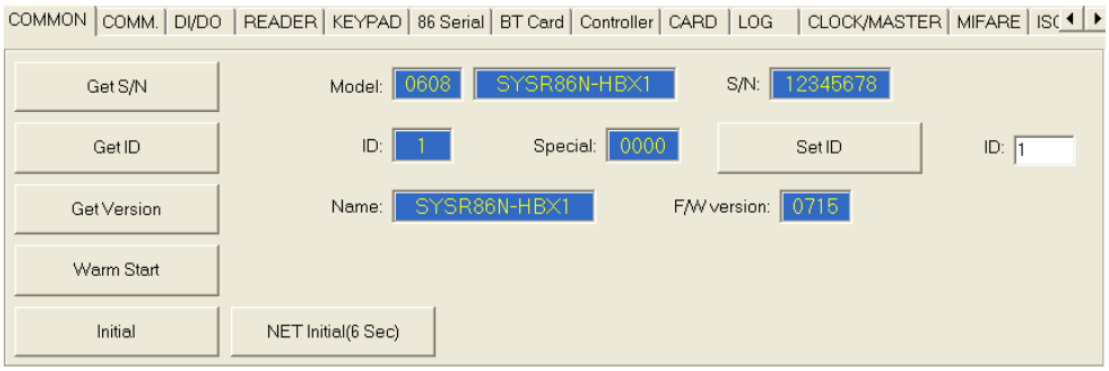
3. Get device Model information and serial number by using V7 Tools with the correct COM port.



4. V7 Tools also provides Ethernet mode. The user only needs to fill in the correct IP and Port and click Connect to set up.

V7 Tools Tool Parameter Setting

1. **Basic:**



Basic: Get device serial number device ID and firmware version

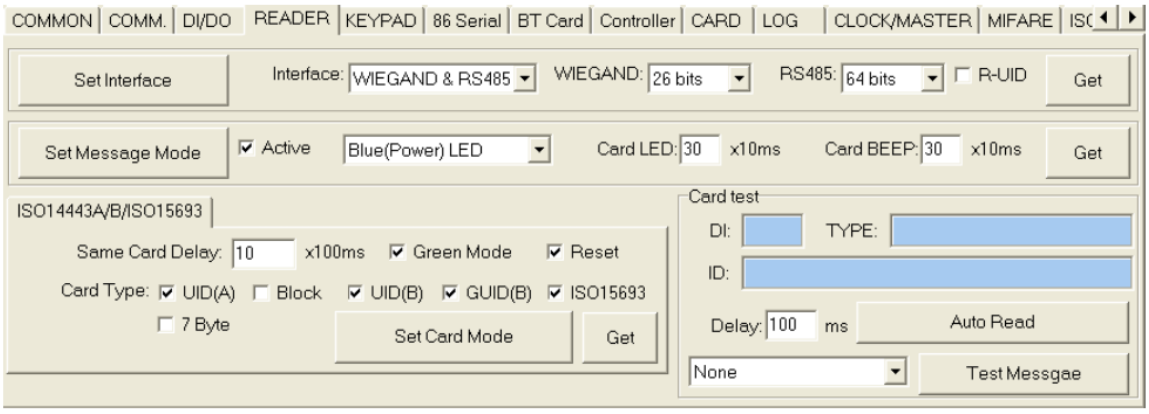
Warm Start: Reboot 86N

Initial: Restore 86N to factory default (It does NOT include network setting).

NET Initial (6 sec): Restore network parameter of 86N to Default mode. The user has to set up by referring to the following information after restoring the device to factory default.

Communication Parameter	**Factory Default**
Serial Configure	230400,8,n,1
Serial Framing Length	1050
Locale/Remote Port Number	5001

2. Reader



Set Interface: Setup reader's communication interface. Default is "Wiegand & RS485".

Set Message Mode: Click on the option active to enable the message mode setting. Users can set up an 86N message display on the panel.

Card LED: Time for reading card LED ON, default is 30 x 10ms

Card Beep: Time for reading card beep on, default is 30 x 10ms

ISO14443A/B/ISO15693 :

Same Card Delay: Setup time gap for reading the same card, default is 10 x100ms (1 second)

Green Mode: Slow down the card read speed to power saving.

Reset: Reset RF IC after reading the card.

Card Type: Choose card type to enable 86N read specific card.

UID(A): Read ISO14443A Card UID.

Block: Read Block data (Must disable another card type).

UID(B): Read ISO14443B Card UID.

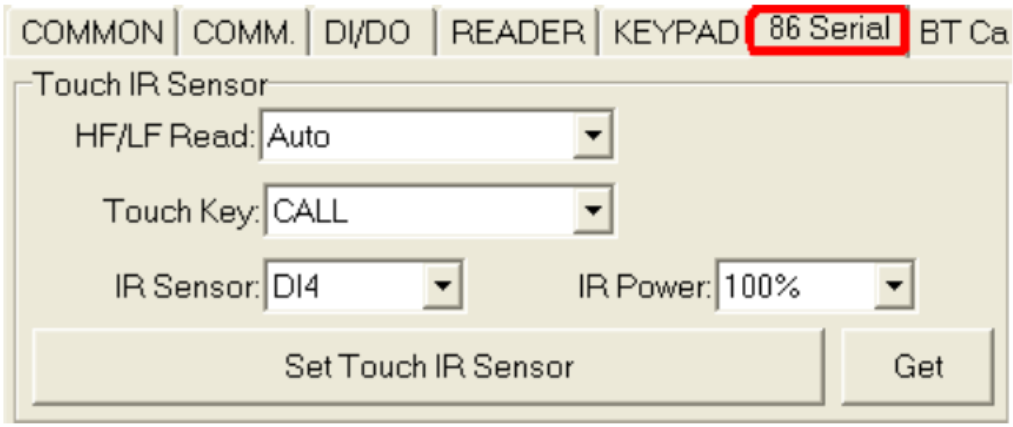
GUID(B): Read the China second generation of resident identification card.

ISO15693: Read ISO15693 Card UID

7 byte: Read 7byte format Card UID

Card Test: Test the reader function.

86 Series-Touch IR Sensor:



HF/LF Read: Setup read card mode

Auto Read card automatically. Users do not have to touch the 86N panel or trigger the IR sensor.

Touch Key Only read the card when the device panel is touched. Flashcard time is within 10 seconds. The LED indicator will turn red in the period.

IR Sensor Only read the card when IR is triggered. Flashcard time is within 10 seconds. The LED indicator will turn red in the period.

Touch Key or IR Sensor Users can flashcards when the device panel is touched or IR is triggered. Flashcard time Bluetooth within 10 seconds. The LED indicator will turn red in the period.

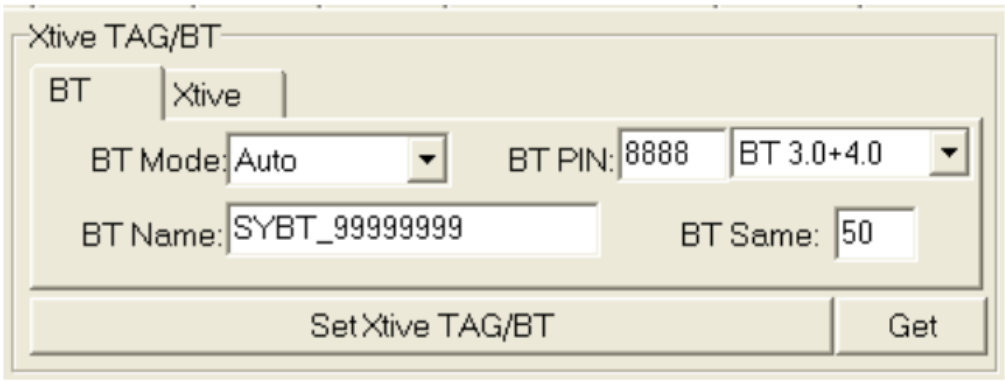
Off Turn off the read card function.

Touch Key: Setup output mode when Touch Key is triggered.

IR Sensor: Setup output mode when IR is triggered.

IR Power: Setup IR sensor power. It's related working range. (100% is farthest 10% is closest).

3. **86 Series-**



Bluetooth Mode: Setup receiving mode for Bluetooth signal.

Auto Receive Bluetooth signal automatically.

IR Sensor Receive Bluetooth signal after triggering IR sensor. The initial time is 10 seconds. (the time is fixed)

Off Turn off Bluetooth.

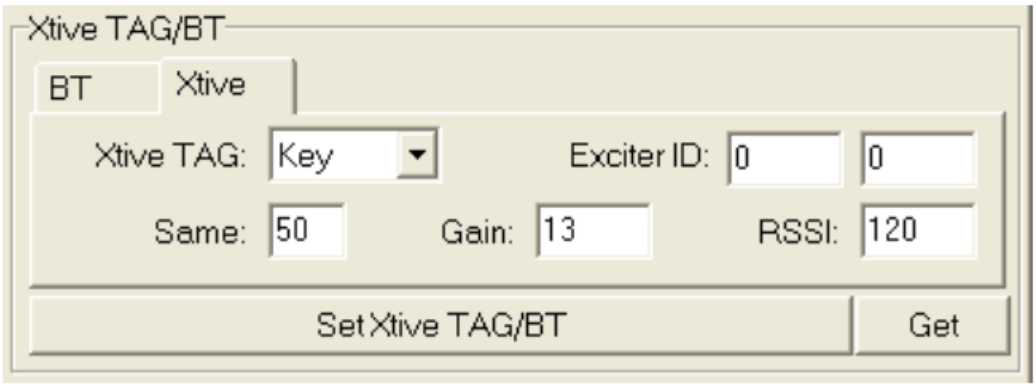
Bluetooth PIN: The default pin is **8888**

BT3.0+4.0: Setup Bluetooth working mode. Default is BT3.0+4.0.(Auto-detect)

BT Name: Setup device Bluetooth name. Default is SYBT_(+S/N). It's the name for searching with Bluetooth.

BT Same: Setup Bluetooth Open Door time of the same card. Default is 50 (50 x 0.1=5 second).

4. **86 Series-Xtive TAG**



Xtive TAG: Setup read mode for the active RFID tag.

Key Only receive a signal from the active RFID tag that pressed the button.

Auto Receive active RFID Tag signal automatically.

IR Sensor 86N only receives strive RFID Tag signal when IR is triggered. Start read time is about 10 seconds.

Off Turn off the function to read Active RFID tag

Exciter ID: This parameter should use with SYRIS exciter, default values are "0" which means disable. If this function enables, the reader will only receive the tag's signal which includes a set exciter ID.

Same: Same card time. Default is 50 (50 x 0.1=5 second)

Gain: Set Gain (1~13) to control the reader's read range.

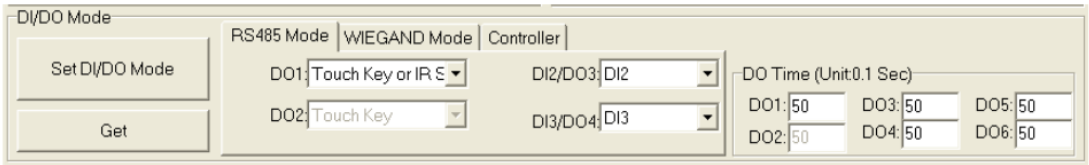
Level 13 is the max range (default setting), Level 1 is the shortest read range.

RSSI: Adjust RSSI level (0~250) to filter TAG which has a low RSSI signal in the reader.

Ex. Set RSSI Level to 120, Reader will receive tag which RSSI is stronger than 120.

5. **86 Series-DI/DO Mode**

DI/DO Mode Setting-RS485 Mode (Communication interface have to switch into RS485)



DO1: Setup DO1 motion parameter

RS485 Control DO1 motion via RS485.

Touch Key To activate DO1 by using a touch panel keypad.

IR Sensor To activate DO1 by using an IR sensor.

Touch Key or IR Sensor To activate DO1 by using a touch panel keypad OR IR sensor. (Default)

DI2/**DO3**: Setup the contact mode (DI2 or DO3)

DI2 Setup the contact does work as DI2 (Default)

DO3 RS485 Setup the contact does work as DO3. It is triggered via RS485.

DO3 Touch Key The contact does work as DO3. It is triggered by a touch key.

DO3 IR Sensor The contact does work as DO3. It is triggered by IR.

DO3 Touch Key or IR Sensor The contact does work as DO3. It is triggered by a touch key or IR.

DI3/DO4: Setup the contact mode (DI3 or DO4)

DI3 Setup the contact does work as DI3 (Default)

DO4 RS485 Setup the contact does work as DO4. It is triggered via RS485.

DO4 Touch Key The contact does work as DO4. It is triggered by a touch key.

DO4 IR Sensor The contact does work as DO4. It is triggered by IR.

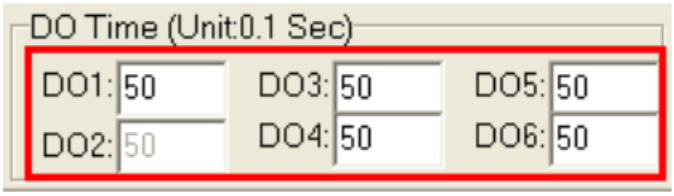
DO4 Touch Key or IR Sensor The contact does work as DO4. It is triggered by a touch key or IR.

PS. DO3 and DO4 need to connect an extra Relay module (MDRL02) to work.

MDRL02 WD0 connects DO3(86N). MDRL02 WD1 connects DO4(86N).

DI/DO Mode Setting – Wiegand Mode (Communication interface have to switch into Wiegand)

DO1: Setup DO1 motion parameter
Touch Key To activate DO1 by using a touch panel keypad.
IR Sensor To activate DO1 by using an IR sensor.
Touch Key or IR Sensor To activate DO1 by using a touch panel keypad OR IR sensor. (Default)
MESSAGE →Setup contact motion mode
LEDGI MESSAGE contact is grounding, reader indicator green on (Default).
LEDRI MESSAGE contact is grounding, reader indicator red on.
BEEPI MESSAGE contact is grounding, reader buzzer on.
DO1 MESSAGE contact is grounding, reader DO1 on.
DO2 MESSAGE contact is grounding, reader DO2 on.
DO Time: DO outputs activate time



Setup activated time to each DO point. DO1 DO2 are reader Relay. DO3 DO4 are extra Relay modules.
All of the default time is 50 x 0.1 sec (5 seconds).

Documents / Resources

SYSR86N-HBX1 Standard TCP/IP Reader Manual 	**SYRIS SYSR86N-HBX1 Standard TCP/IP Reader** [pdf] Instruction Manual SYSR86N-HBX1, Standard TCP IP Reader