

# USB-87P1/2/4/8

## Package Checklist

Items	Quantity	Model No.	Description
USB-87Pn	1	USB-87P1	Hardware module: USB-87Pn I/O Unit P1: 1 Slot      P2: 2 Slots P4: 4 Slots      P8: 8 Slots
		USB-87P2	
		USB-87P4	
		USB-87P8	
Cable	1	CA-USB18	USB connector cable
Manual	1	-	Quick Start Manual (this manual)
CD	1	-	Software utility, USB-87Pn User Manual
Screw Driver	1	-	2.4 mm Screw driver (minus style)

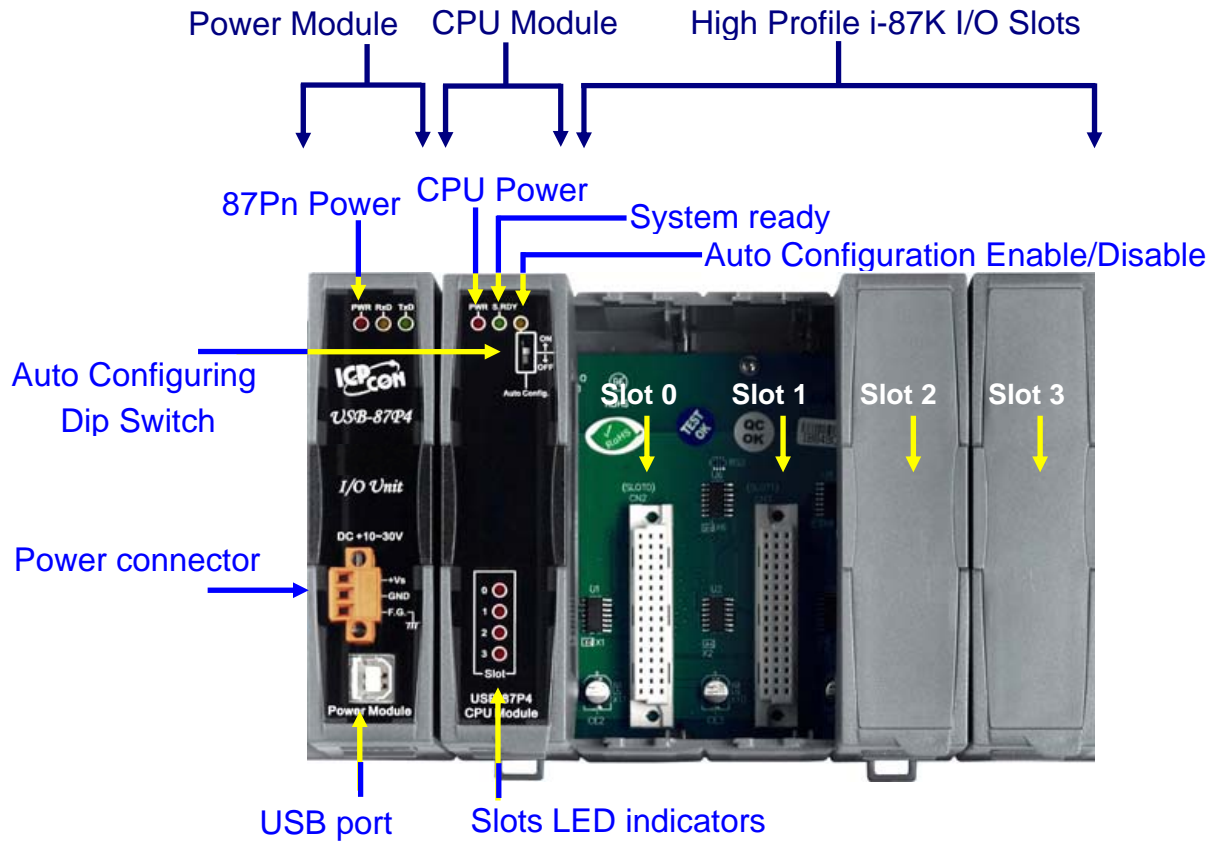
**Note :** USB-87Pn is only for High Profile I-87K I/O modules, please **DO NOT** use Low Profile I/O modules. For more information, please refer to Chapter 2.2.5 & Appendix B of “USB-87P1/2/4/8 User Manual”.

## Preparation

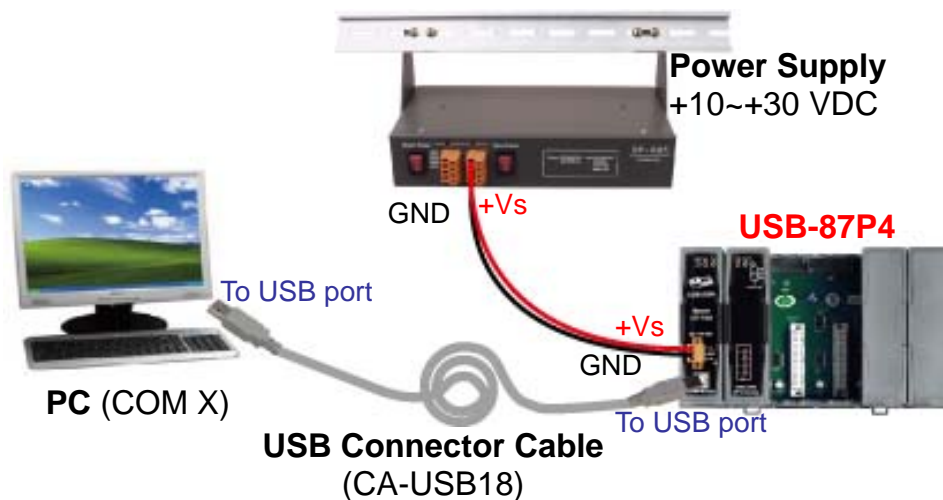
- Power Supply: +10V ~ +30V /DC (Ex: DP-665)
- Install USB-87Pn DriverInstaller to PC  
CD:\NAPDOS\87pn\_io\_unit\USB-87Pn
- Install DCON Utility to PC  
(Version 4.5.2 or above version. Please remove the old version before install the new version) CD:\Napdos\Driver\DCON\_Utility

## Hardware Configuration

### 1. **View** of the USB-87Pn



### 2. **Wire** the 87Pn to power and PC



## 3. Configure CPU module

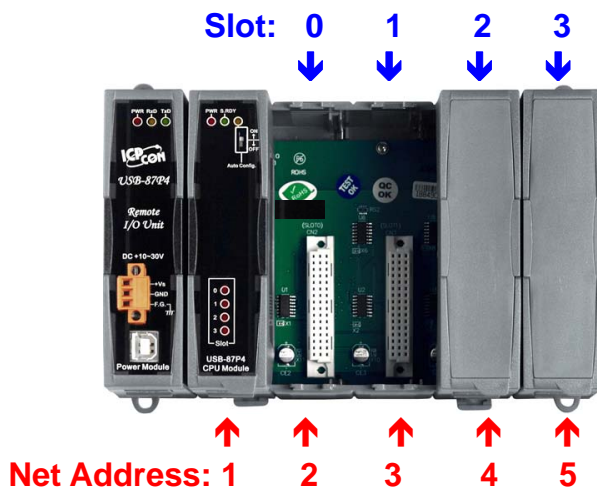
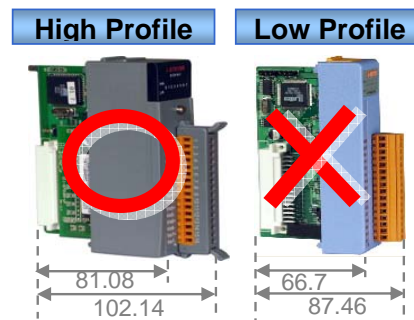
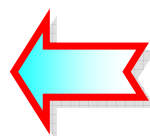


Switch	Label	Setting	Description
Dip Switch	Auto Config.	ON	Enable (Switch to ON)
		OFF	Disable

## 4. Plug in the High Profile I/O modules

Example: Plug in i-87019R to Slot 0.

p.s. i-87019R is an AI (Analog Input) High Profile module



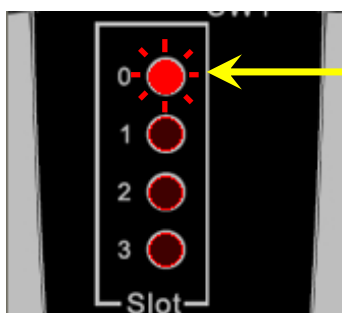
**i-87019R is auto-configured:**

**Baud Rate: 115200**

**Checksum: Disable**

**Net Address: 2**

**Note: The Net Address of USB-87PN is always 1.**



- After plugged in, the slot indicator is flashing per 100 ms.
- When software configuration is completed, the LED becomes off.
- If configuration is failed, the LED is always on.

## Software Configuration

### 1. Run DCON Utility to **Search** the USB-87Pn (Ex: USB-87P8)

**Note :** Please finish the "Preparation" (P.1) before Software Configuration.


The image shows two windows. The top window is 'DCON UTILITY [VER452] Searching for I-7000/8000 Modules...'. It has a menu bar (File, COM Port, Search, Run, Terminal, Help) and a toolbar with icons for file operations and a 'WIN CE' button. A red circle with the number '1' highlights the 'COM Port' menu. The bottom window is 'Device Manager'. A red circle with the number '2' highlights the 'USB-87Pn (COM7)' entry under the 'Ports (COM & LPT)' category. A red arrow points from this entry to the 'COM7' selection in the 'Select the COM Port and Baud Rate...' dialog box. This dialog box has fields for 'COM to search:' (set to COM7), 'Time Out Setting:' (500 ms), and sections for 'Baud Rate Option', 'Protocol Option' (with 'DCON' selected), 'Checksum Option' (with 'Disable' selected), and 'Parity Option' (with 'None' selected). Buttons for 'Select All', 'Clear', 'Cancel', and 'OK' are at the bottom.

Check "Device Manager" of your PC to see the connecting COM.

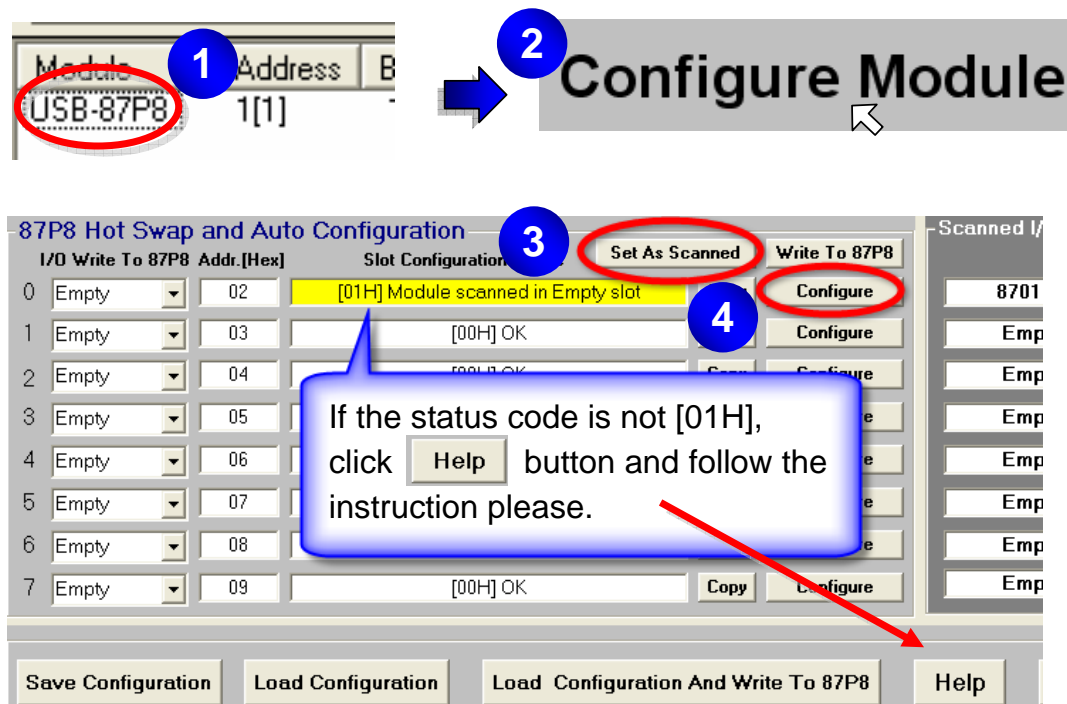
The image shows the 'DCON UTILITY\_VER[452] The I/O Modules Found ...' window. It has a menu bar (File, COM Port, Search, Run, Terminal, Help) and a toolbar. A red circle with the number '3' highlights the 'Run' button (a yellow play icon). Below the toolbar is a table with the following data:

Module	Address	Baudrate	Checksum	Format	Status	Description
USB-87P8	1[1]	115200	Disable	N,8,1	Auto Config. Enable [X,0,0,0,0,0,0]	8*Slot Auto Config

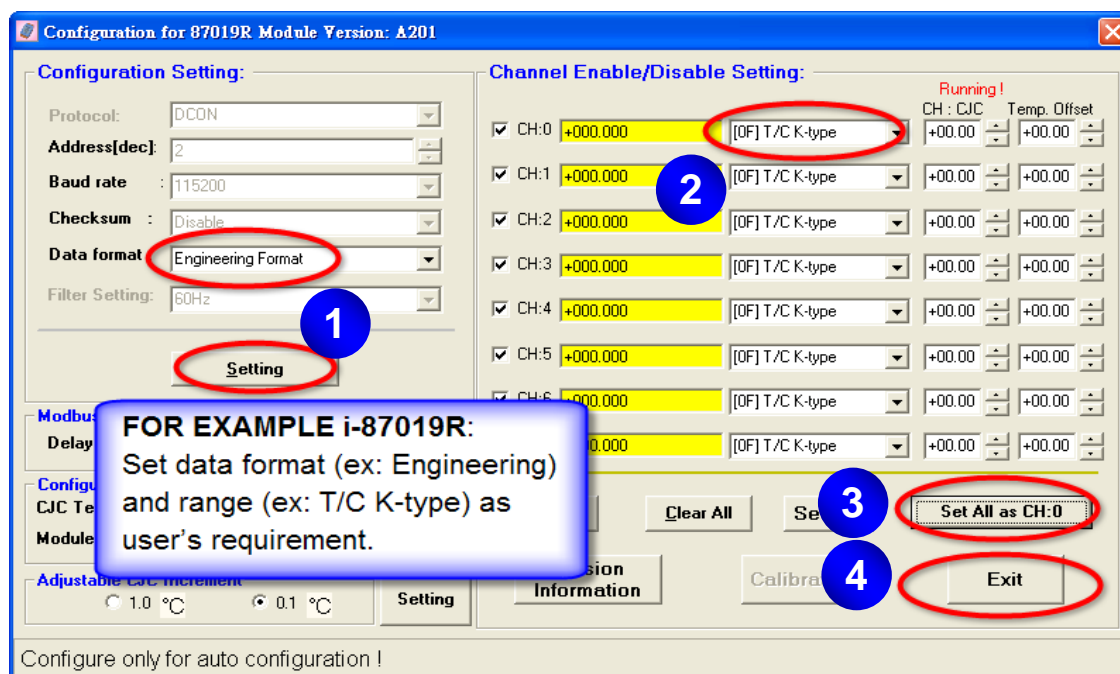
The 'Module' and 'Status' columns are circled in red. The 'Status' value '[X,0,0,0,0,0,0]' is also circled in red.

When the USB-87Pn is found, click  to stop the searching.  
The "X" of "[X,0,0,0,...]" means "The configuration of that slot is not completed or not correct."

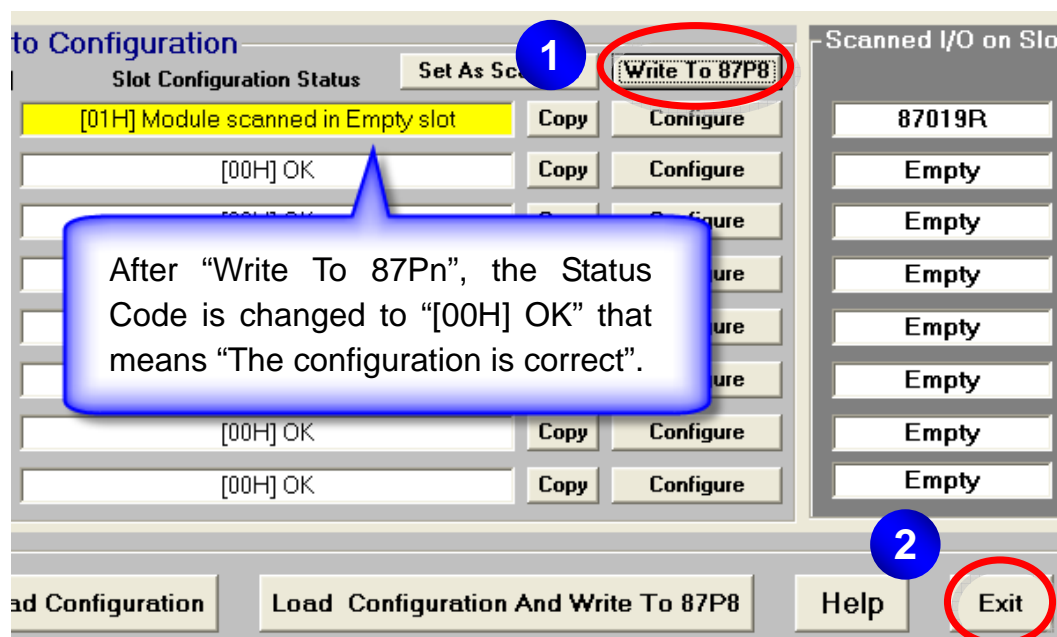
## 2. Click “USB-87Pn” to setup slots



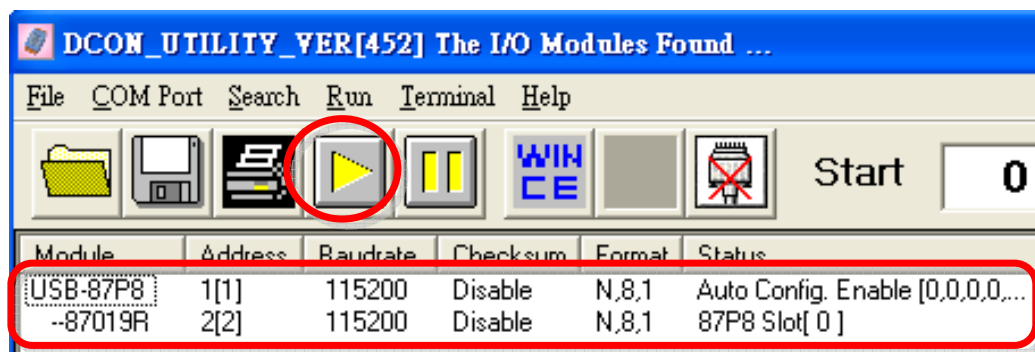
## 3. Configure the 87K I/O module



## 4. Click “Write To 87Pn” button



## 5. Click “Start Search” button



### Now the configuration is done!

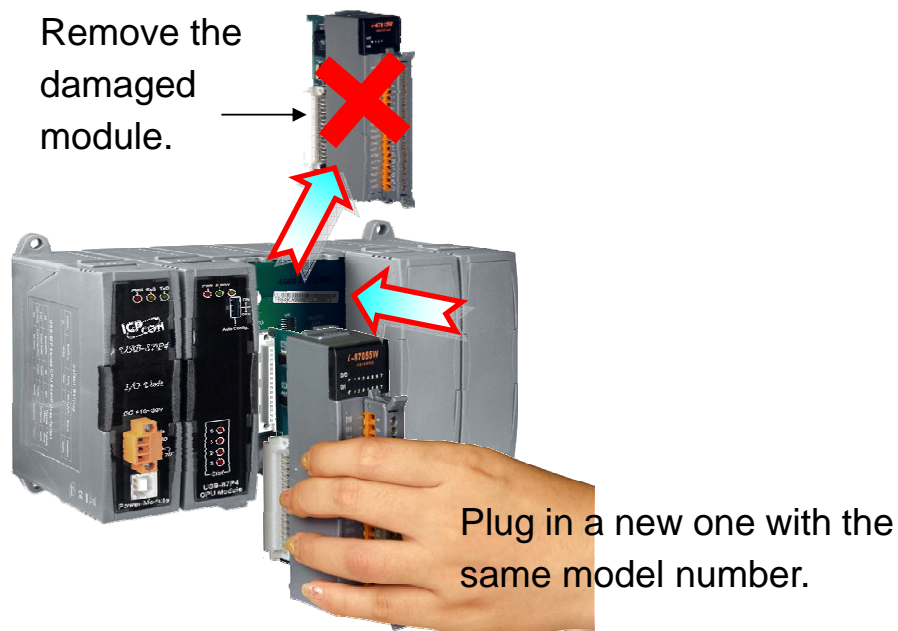
“[0,0,0,0...]” of “Status” means “The I/O configuration of each slot is correct”. Each plugged I/O module will be listed under the USB-87Pn. User can click the name of I/O module to watch its configuration.

### Note:

1. For changing the configuration of 87K I/O module, please repeat from the STEP 2 of the Software Configuration.

## Change the hardware I/O module

User doesn't need to configure I/O module again!



**Easy! Convenient!**