

WF-2000 series FAQ

APPLICATION

ICP DAS Co., Ltd.

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Q1: How to increase the connection distance?

A1: We suggest replacing the High-power antenna as follow to increase the connection distance, such as ANT-8 / ANT-15 / ANT-18, etc.

ANT-8(<https://www.icpdas.com/en/product/ANT-8>)

ANT-15(<https://www.icpdas.com/en/product/ANT-15>)

ANT-18(<https://www.icpdas.com/en/product/ANT-18>)

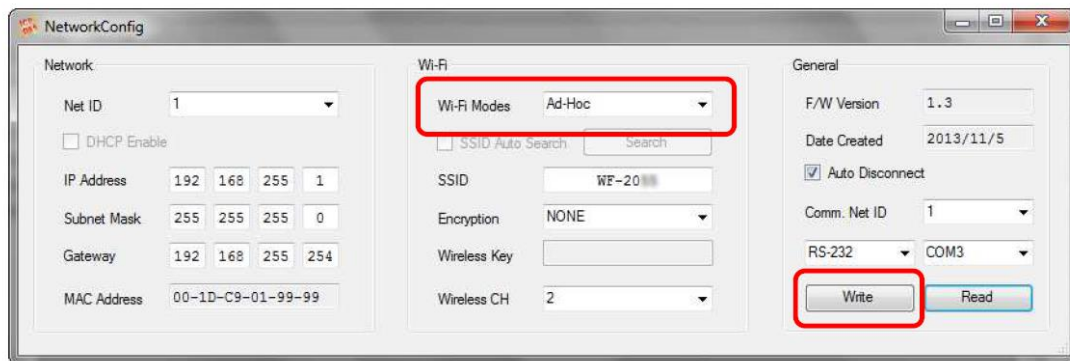
Q2: How to establish a connection with the smart phone?

A2:

A. Smartphone support Ad Hoc Connectivity

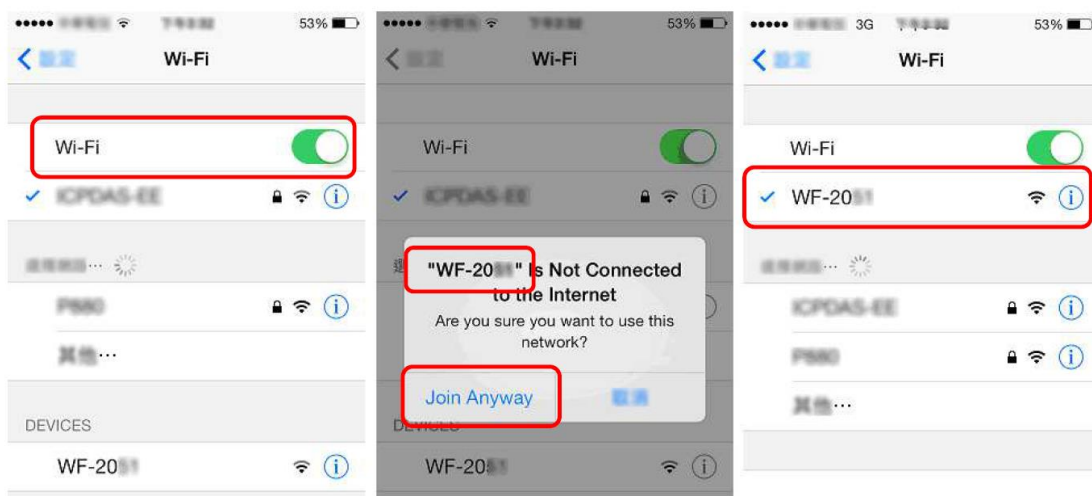
a. WF-2000 Wi-Fi network configuration (CONFIGURATOIN)

a1. Set the Wi-Fi Mode as "Ad-Hoc", the rest are reserved factory default settings



b. Smartphone Wi-Fi network configuration

b1. Open the Smartphone Wi-Fi interface, select the WF-20xx devices join the network and confirmed



c. Smartphone network IP address and subnet mask settings

c1. Entry the IP address as "192.168.255.x", where "x" is a number between 1 and 254 except WF-2000's IP address.

c2. Subnet mask as "255.255.255.0"



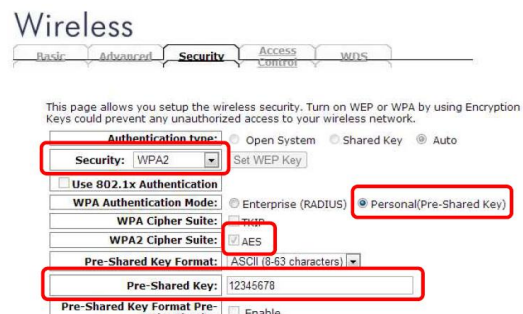
d. After the above settings, you can use your Smartphone to connect to the WF-2000 (IP address "192.168.255.1")

B. Smartphone does not support Ad Hoc connection method (need to use with a wireless AP)

a. Configuration of wireless AP

a1. Set SSID as "ICPDAS"(Can be arbitrarily set)

a2. Set Encryption as "WPA2-PSK(AES)", Key as "12345678"(If you cancel this setting without encryption)



b. WF-2000 Wi-Fi network configuration (CONFIGURATOIN)

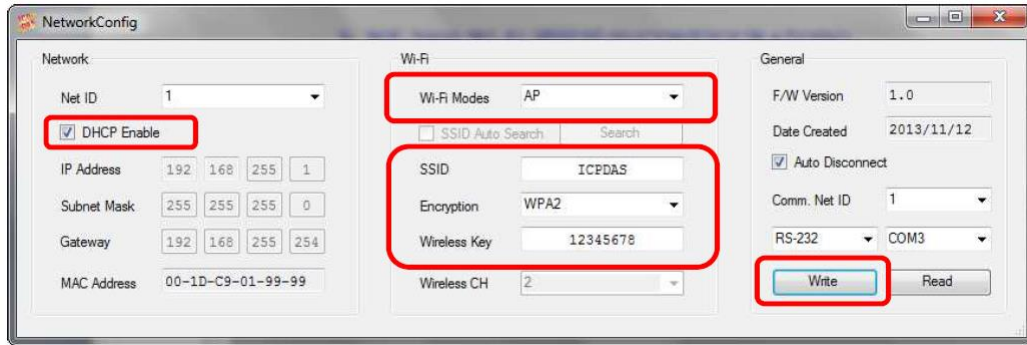
b1. Checked "DHCP Enable" checkbox to enable DHCP function

b2. Set Wi-Fi Mode as "AP"

b3. Set SSID as "ICPDAS"

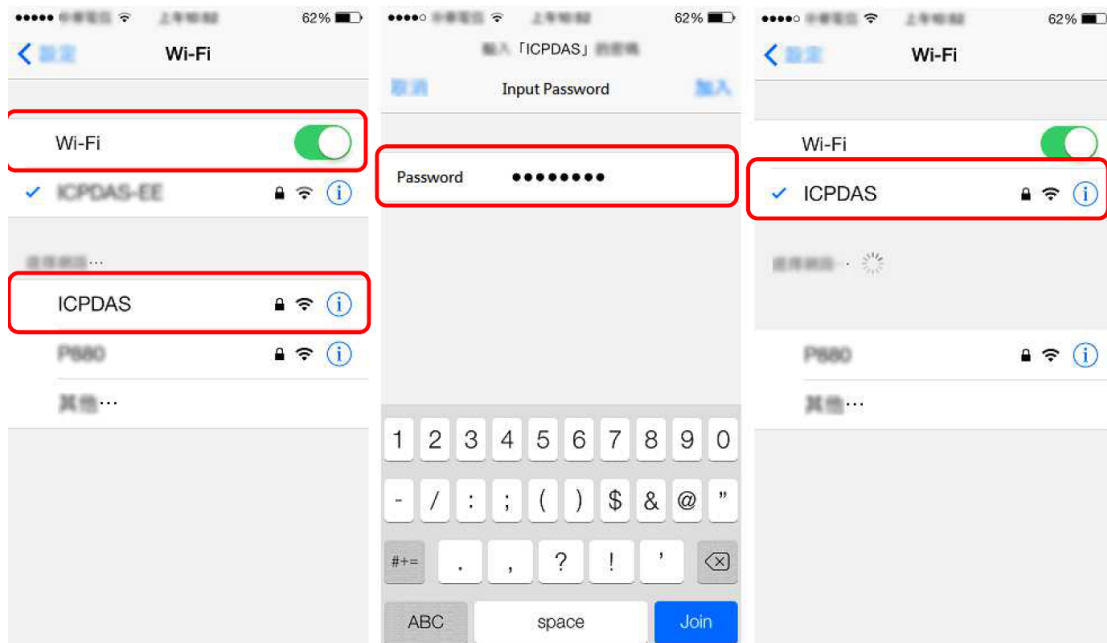
b4. Set Encryption as "WPA2", Wireless Key as "12345678"(If you cancel this setting without encryption)

b5. The rest are reserved factory default settings



c. Smartphone Wi-Fi network configuration

c1. Open the Smartphone Wi-Fi interface,, select "ICPDAS" network, set key as "12345678"and join the network



d. Network configuration of Smartphone

d1. Set as "DHCP" mode



e. Search WF-2000 IP address

e1. Please connect the computer to the wireless AP

e2. Open the Wi-Fi interface, select "ICPDAS" network and set key as "12345678" to join the network



e4. Open "WF-2000 Utility v2.0"

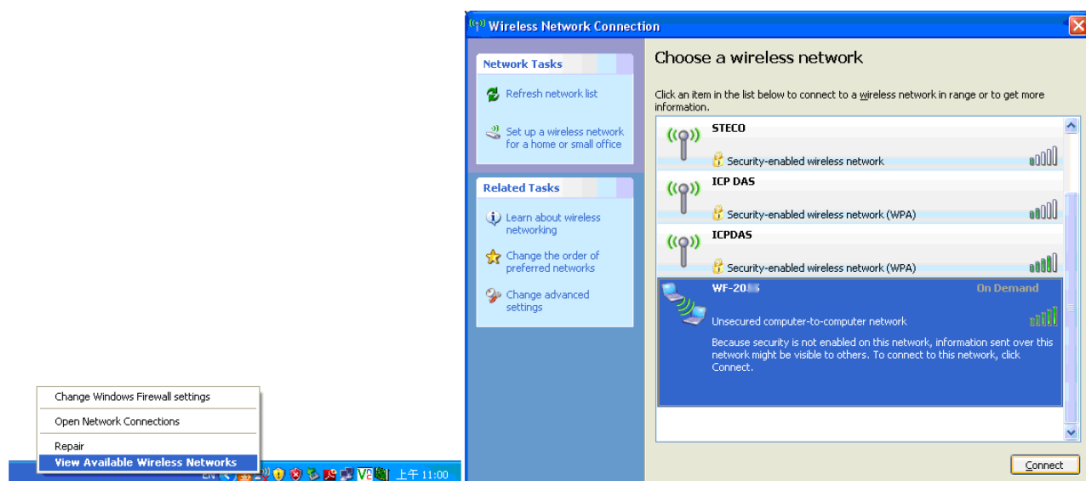
e5. Click "Search" button to search WF-2000 devices, it will obtain an IP address as the device list

f. After the above settings, you can use your Smartphone to connect to the WF-2000 (IP address "192.168.0.248")

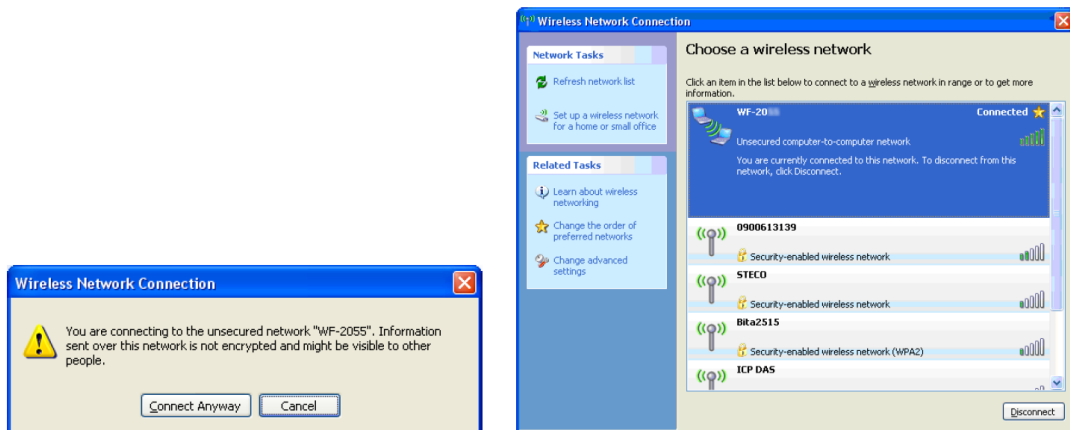
Q3: How to establish a connection between WF-2000 I/O modules and personal computer?

A3:

a. View available wireless networks and you can see the "WF-20xx" wireless network in the list. Select the "WF-20xx" and press the "Connect" button.



b. Press the "Connect Anyway" button for the next step. After waiting for a while, there will appear connection success screen.



Q4: How to configure the WF-2000 DI / DO series to Pair Connection mode?

A4: Use two WF-2055 devices for operation example

A. The configuration of first WF-2055

a. CONFIGURATOIN Setting

a1. Set the Local IP as "192.168.255.1"

a2. The rest are reserved factory default settings

a3. Click the "Write Para." button to take the parameters effect.



b. PAIR CONNECTION Setting

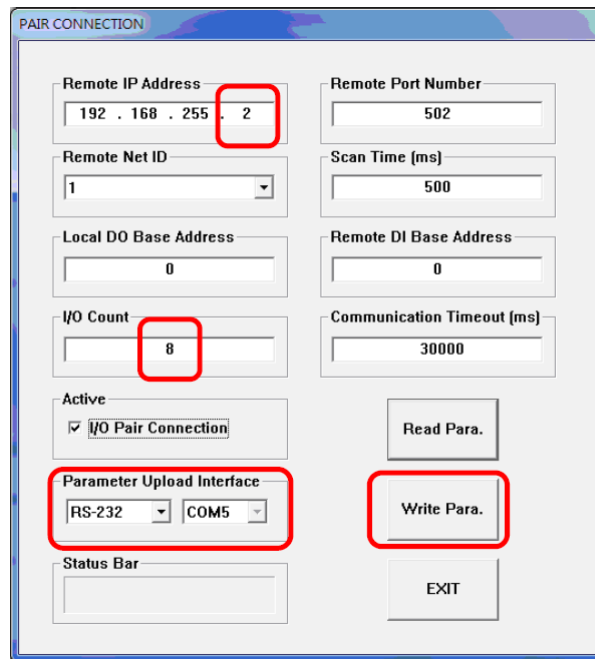
b1. Set the Remote IP as "192.168.255.2"

b2. Set the I/O count as "8"

b3. Checked "I/O Pair Connection" checkbox to enable pair connection

b4. The rest are reserved factory default settings

b5. Click the "Write Para." button to take the parameters effect.



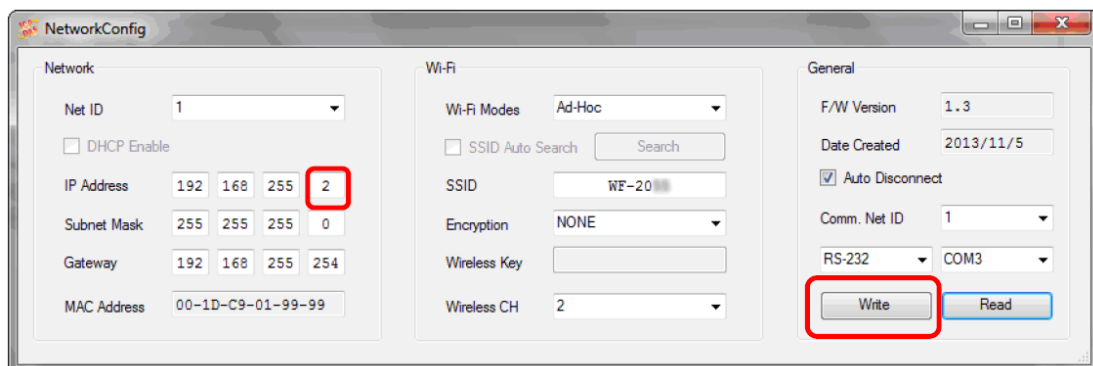
B. The configuration of second WF-2055

a. CONFIGURATOIN Setting

a1. Set the Local IP as "192.168.255.2".

a2. The rest are reserved factory default settings.

a3. Click the "Write Para." button to take the parameters effect



b. PAIR CONNECTION Setting

b1. Set the Remote IP as "192.168.255.1".

b2. Set the I/O count as "8".

b3. Checked "I/O Pair Connection" checkbox to enable pair connection.

b4. The rest are reserved factory default settings.

b5. Click the "Write Para." button to take the parameters effect.

PAIR CONNECTION

Remote IP Address: 192 . 168 . 255 . 1

Remote Port Number: 502

Remote Net ID: 1

Scan Time (ms): 500

Local DO Base Address: 0

Remote DI Base Address: 0

I/O Count: 8

Communication Timeout (ms): 30000

Active: I/O Pair Connection

Parameter Upload Interface: RS-232 COM5

Status Bar

Buttons: Read Para., Write Para., EXIT

C. Connection Test of Pair Connection

- c1. After completion of the above settings, re-power on the two sets of WF-2055.
- c2. The connection will established automatically after about 10 seconds.
- c3. Any one of WF-2055's DI is triggered, then another WF-2055's corresponding DO will automatically output.

Q5. How can I make Wi-Fi connection range larger than 1km?

A5. External antenna and PA are required. We test with ANT-15 and ALFA APAG05-PoE. We make the connection test with WF-2571 and its diagram is show below. The both NB(Notebook) make the remote desktop connection with each other. The communication environment is LOS.

NB1 + WF-2571 + PA + ANT-15 <----- Ad-Hoc -----> ANT-15 + PA + WF-2571 + NB2 (NB: Notebook)

The connection failed on 2020m. That is larger than 1km. ALFA APAG05-PoE:

<https://www.alfa.com.tw/products/apag05-poe?variant=36473964003400>

ANT-15:

<https://www.icpdas.com/en/product/ANT-15>