



Quick Start for ET-2251 Module

English / Nov. 2015 / Version 1.0

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What's in the Shipping Package?

The package includes the following items:

❶ ET-2251 Module



❷ Quick Start Guide (This Document)



❸ Companion CD



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Installing the Software

The eSearch Utility can be obtained from either the companion CD-ROM or from the ICPDAS website, as indicated below:



CD:\NAPDOS\software\eSearch\Windows\





<http://ftp.icpdas.com/pub/cd/6000cd/napdos/software/esearch/windows/>

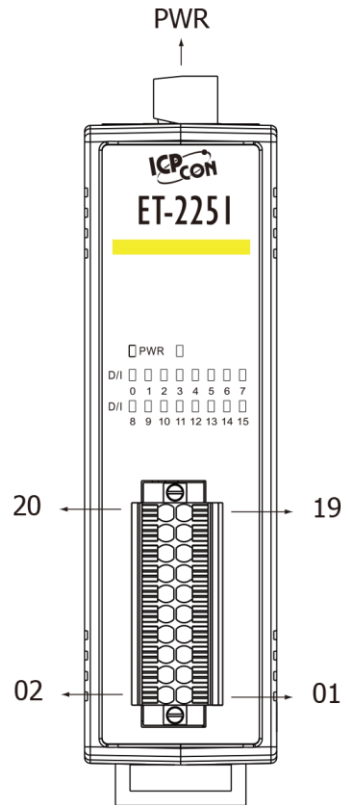
- ❶ Double-click the “eSearch_vxxx_setup.exe” file icon to execute the driver installation.
- ❷ Click the “**Next>**” button to start the installation.
- ❸ Select the destination location. The default path is **C:\ICPDAS\eSearch**. Verify that the destination path is correct and click the “**Next>**” button.
- ❹ Click the “**Next>**” button to continue.
- ❺ Click the “**Finish**” button to complete the installation.

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Pin Assignments and Wiring Notes

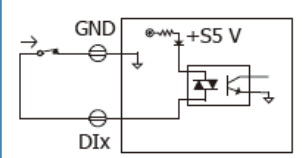
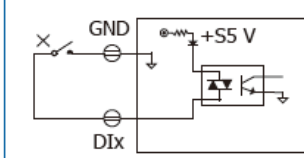
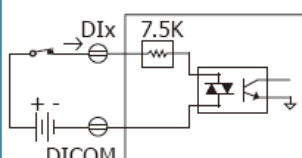
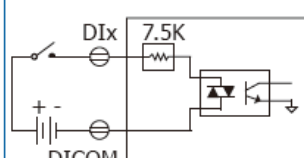
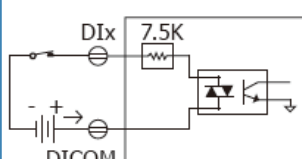
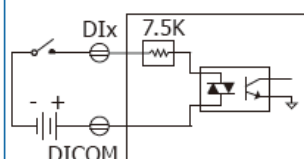
➤ Pin Assignments:

Terminal No.	Pin Assignment
PWR	F.G.
	GND
	+ Vs
ETH1	
ETH2	



Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
20	DI.GND	DI.GND	19
18	DI8	DI0	17
16	DI9	DI1	15
14	DI10	DI2	13
12	DI11	DI3	11
10	DI12	DI4	09
08	DI13	DI5	07
06	DI14	DI6	05
04	DI15	DI7	03
02	DI.COM	DI.COM	01

➤ Wire Connections:

Digital Input/Counter	Readback as 1	Readback as 0
Dry Contact	Close to GND	Open
		
Sink	+5 ~ +50 Vdc	OPEN or <1 Vdc
		
Source	+5 ~ +50 Vdc	OPEN or <1 Vdc
		

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DI Modbus Addresses

The nDI parameters in the following Modbus Address Tables are as follows:

Model Name	Universal DIO	Number of DO channels (nDO)	Number of DI channels(nDI)
ET-2251	-	-	16

➤ **(0xxxx) DO Address:**

Starting Address	Points	Description	Bits Per Point	Range	Access Type
32 (0x20)	1	Clears the status of all high latched DI Channels	1	1 = Clear	W
33 (0x21)	1	Clears the status of all low latched DI Channels	1	1 = Clear	W
34 (0x22)	1 ~ nDI	Clears the high speed digital counter for all DI Channels	1	1 = Clear	W
150 (0x96)	1	Enables the high and low latches for all DI Channels	1	0 = Disable 1 = Enable (Default= 0)	R/W/F
151 (0x97)	1 ~ nDI	Enables the high speed digital counter for all DI Channels	1	0 = Disable 1 = Enable (Default= 0)	R/W/F
190 (0xBE)	1 ~ nDI	Enables frequency measurement for all DI Channels	1	0 = Disable 1 = Enable (Default= 0)	R/W/F

“R”: Read, “W”: Write, “F”: Settings are recorded in flash by default

➤ **(1xxxx) DI Address:**

Starting Address	Points	Description	Bits Per Point	Range	Access Type
0 (0x0)	1 ~ nDI	Digital Input	1	0: OFF, 1: ON	R
32 (0x20)	1 ~ nDI	Digital Latched Status (High)	1	0: NO 1: Latched	R
64 (0x40)	1 ~ nDI	Digital Latched Status (Low)	1	0: NO 1: Latched	R

“R”: Read



For detailed information related to DI Modbus Addresses, refer to Section 6.3 "Modbus Register Table" in the ET-2200 User Manual, which can be found at:

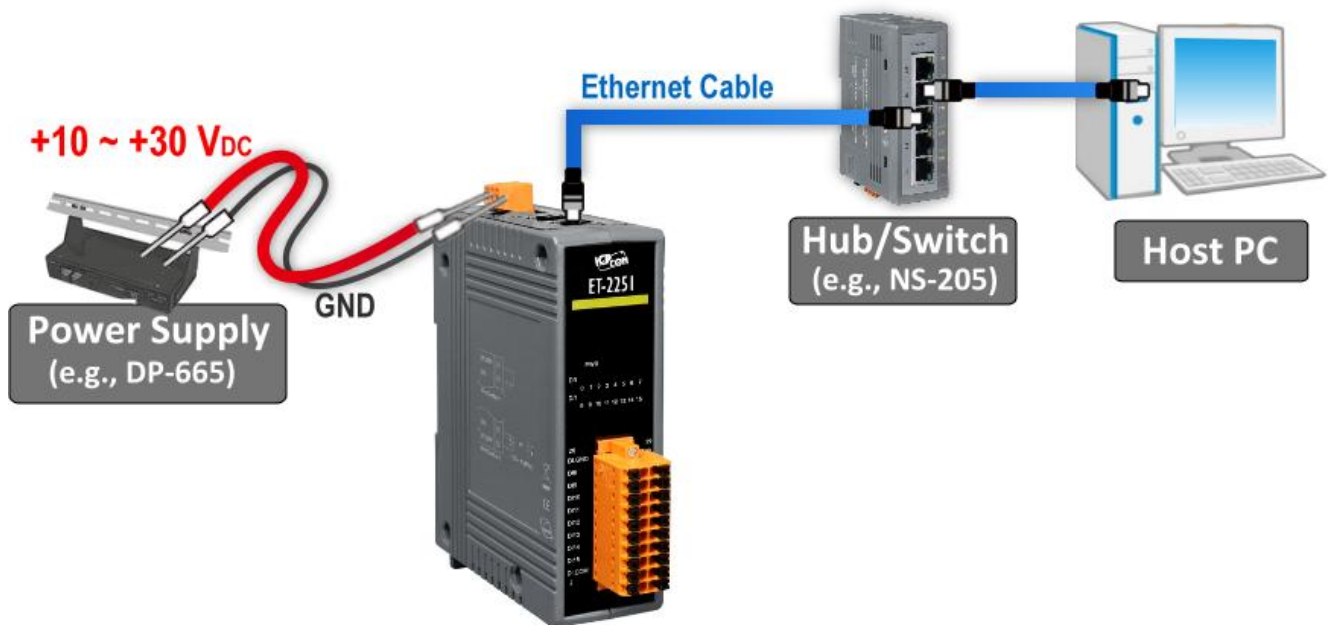
CD:\NAPDOS\ET2200\document\

<http://ftp.icpdas.com/pub/cd/6000cd/napdos/et2200/document/>

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Connecting the Power and the Host PC

- 1 Ensure that the network settings on the Host PC have been correctly configured and are functioning normally. Ensure that the Windows firewall or any Anti-Virus firewall is properly configured to allow incoming connections, or temporarily disable these functions, otherwise the **“Search Servers”** function in the eSearch Utility described in **Section 7** may not perform as expected. Contact the System Administrator for instructions of how to do this.
- 2 Connect both the ET-2251 module and the Host PC to the same sub network or the same Ethernet Switch.
- 3 Apply power to the ET-2251 module. The valid power voltage range is from **+10 to +30 V_{DC}**.



- 4 Verify that the **“PWR”** LED indicator on the ET-2251 module is flashing.

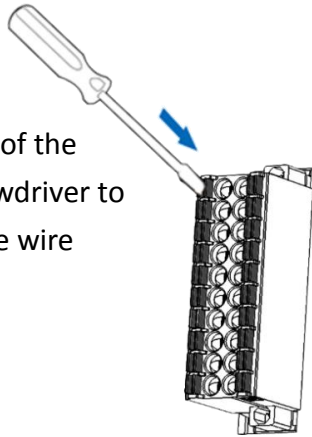
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Wiring the DI for Self-Test

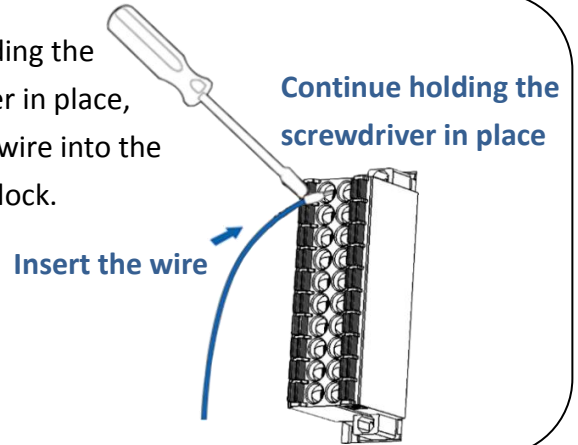


A tip for connecting the wire to the connector

1. Use the blade of the flat-head screwdriver to push down the wire clamp.

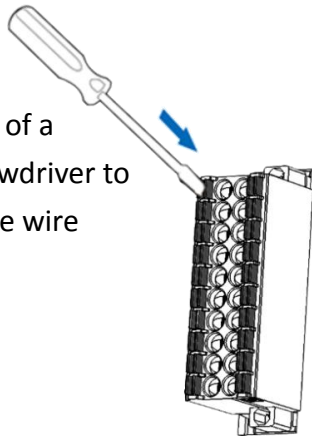


2. While holding the screwdriver in place, insert the wire into the terminal block.

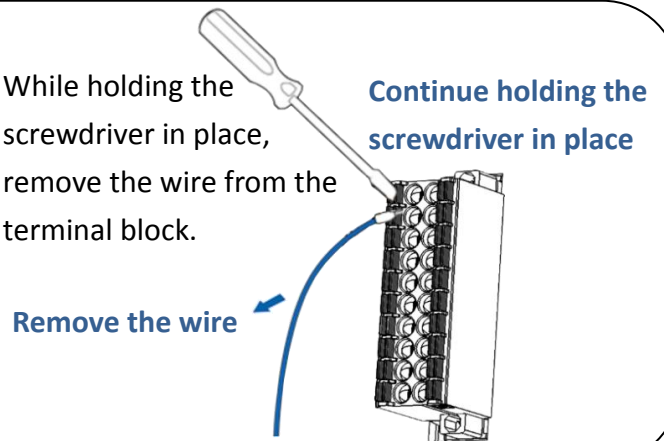


A tip for removing the wire from the connector

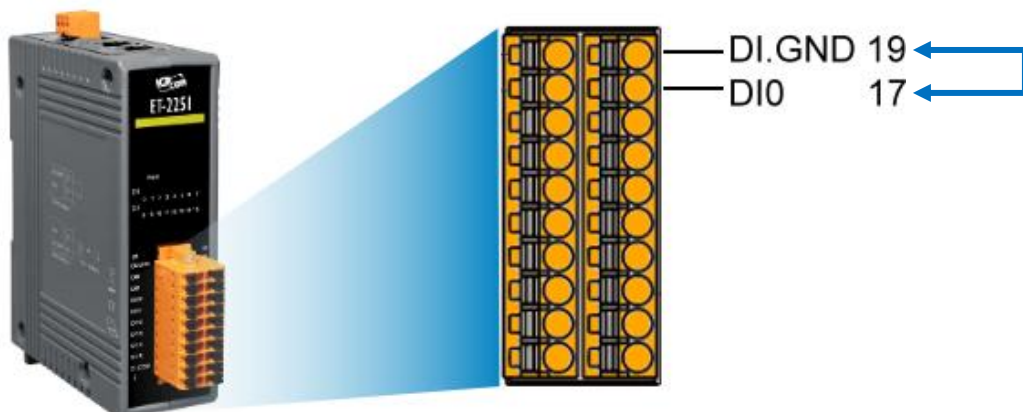
1. Use the blade of a flat-head screwdriver to push down the wire clamp.



2. While holding the screwdriver in place, remove the wire from the terminal block.



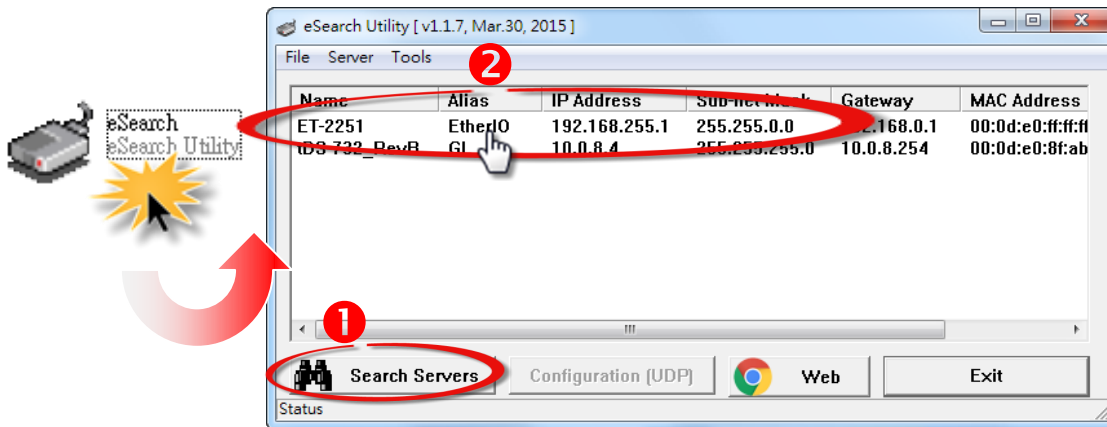
1. Connect the **DI0 pin** (Pin17) to the **DI.GND pin** (Pin19).



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Configuring the Correct Network Settings

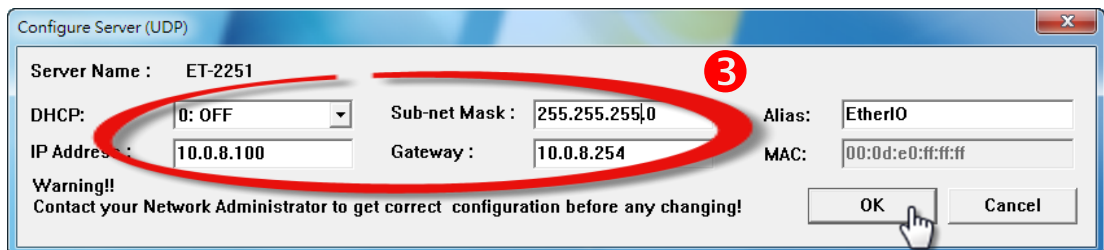
- 1 Execute the eSearch Utility and click the **“Search Servers”** button to search for the ET-2251 module.
- 2 Once the search process is complete, double-click the name of the ET-2251 module to open the **“Configure Server (UDP)”** dialog box.



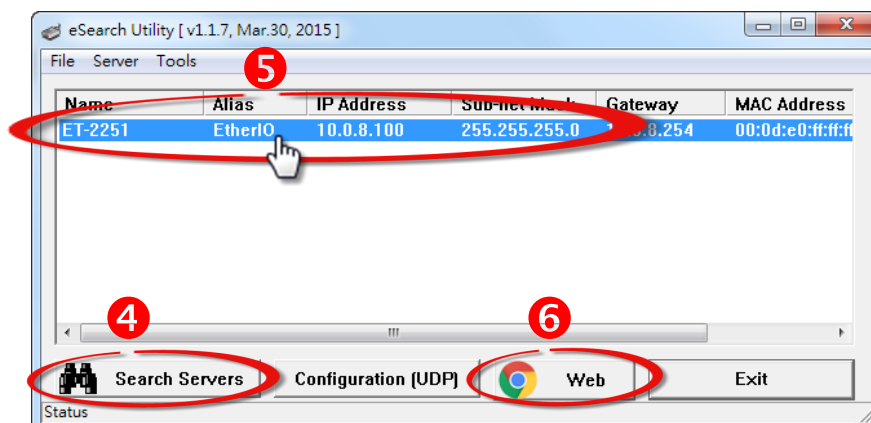
Factory Default Settings for the ET-2251 Series:

IP	192.168.255.1
Gateway	192.168.0.1
Mask	255.255.0.0

- 3 Enter the relevant values for the IP Address, Subnet Mask and Gateway, etc., and then click the **“OK”** button. The new settings for the ET-2251 module will take effect within 2 seconds. If the correct network configuration information is unknown, contact the Network Administrator to obtain the relevant details.



- 4 Wait for 2 seconds and then click the **“Search Servers”** button again to ensure that the ET-2251 module is operating correctly using the new configuration.
- 5 Click the name of the ET-2251 module to select it.
- 6 Click the **“Web”** button to log in to the web configuration pages.



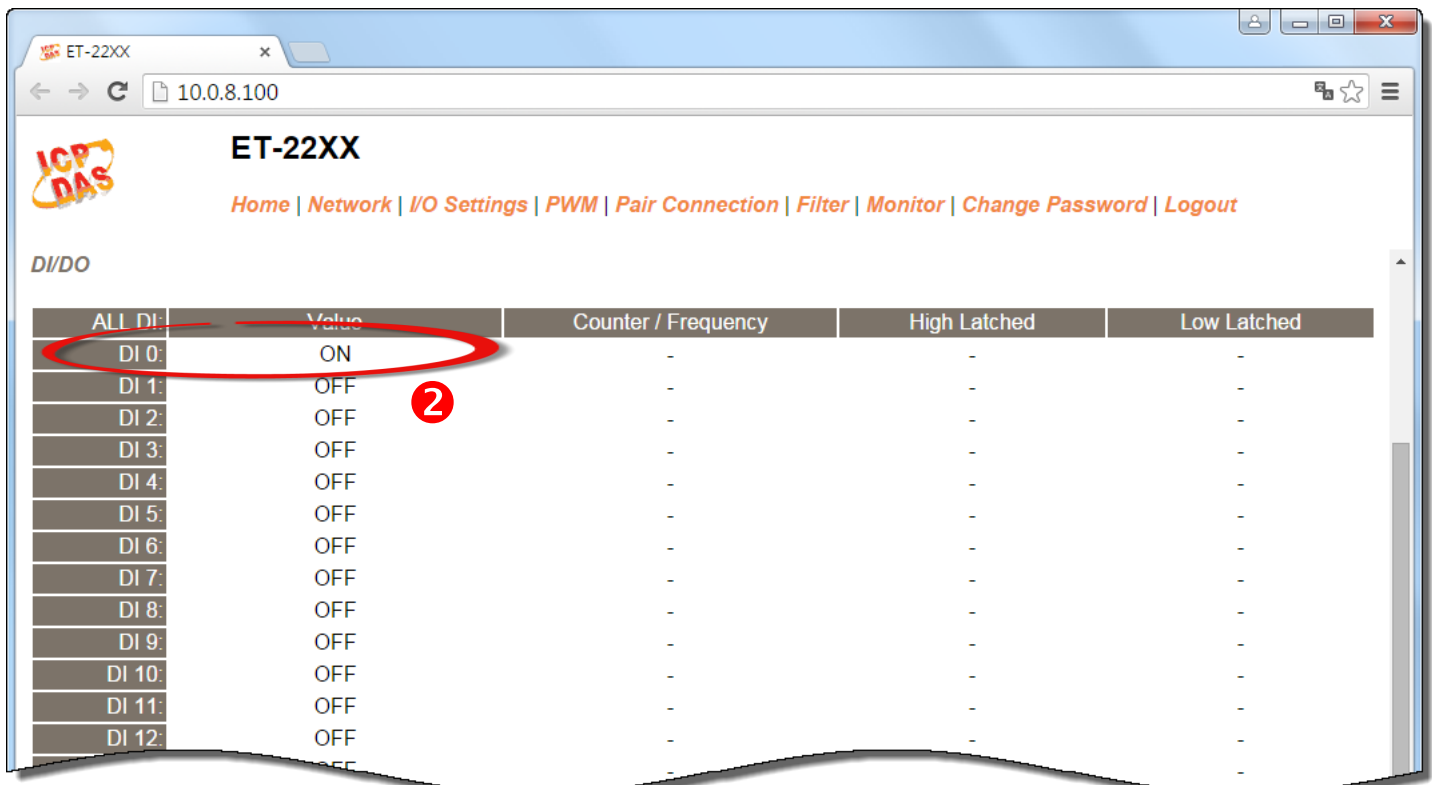
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Performing the Self-Test

- 1 Once the login screen is displayed, enter the password in the login password field (use the default password is “Admin”), and then click the “Submit” button to enter the configuration web page.



- 2 Click the “Home” tab to access the DI/DO settings page for the ET-2251 module.
- 3 Verify that the status for the both **DIO** is shown as “ON”.



Related Information

➤ ET-2251 Product Page:

http://www.icpdas.com/root/product/solutions/remote_io/ethernet_io/petl-7000_tpet_tet/et-2251.html

➤ Documentation:

CD:\Napdos\ET2200\Document

<http://ftp.icpdas.com/pub/cd/6000cd/napdos/et2200/document/>

➤ Firmware:

CD:\Napdos\ET2200\Firmware

<http://ftp.icpdas.com/pub/cd/6000cd/napdos/et2200/firmware/>

➤ NS-205 and DP-665 Product Page (Optional):

http://www.icpdas.com/root/product/solutions/industrial_ethernet_switch/ns-205.html

http://www.icpdas.com/products/Accessories/power_supply/dp-665.htm