EIP-2019 Quick Start



What's in the shipping package?

The package includes the following items:



EIP-2019

165as EIP-2019



CD



Quick Start (This document)



Screw Driver

CN-1824

1



Install EIP-2000 Utility:

The software is located at: Fieldbus_CD:\EtherNetIP\remote-io\EIP-2019\Utility



- **1.** Make sure your PC has workable network settings.
- 2. Disable or well configure your Windows firewall and anti-virus firewall first, else the "Network Scan" on step 4 may not work. (Please contact with your system Administrator)
- **3.** Check FW/OP DIP switch if it is on **OP** position(Figure 3-1).



Figure 3-1 Mode Switch

4. Connect both the EIP-2000 and your computer to the same sub network or the same Ethernet switch, and power the EIP-2000 on. Please refer to figure 3-2.



Figure 3-2 EIP-2000 module installation

EIP-2019 Quick Start

5. I/O connector - EIP-2019

I. D-Sub Terminal Pin Pin No. +5V 01 14 AGND CJC 02 CH 0+ 15 CH 0-03 16 CH 1+ CH 1-04 CH 2+ 17 CH 2-05 18 CH 3+ CH 3-06 CH 4+ 19 CH 4-07 CH 5+ 20 CH 5-08 21 CH 6+ CH6-09 CH 7+ 22 CH7-10 23 N.C. N.C. 11 N.C. 24 N.C. 12 25 N.C. N.C. 13 SHIELD F.G.

II. CN-1824

Pin	Description
01	CH0+
02	CH0-
03	CH1+
04	CH1-
05	CH2+
06	CH2-
07	CH3+
08	CH3-
09	CH4+
10	CH4-
11	CH5+
12	CH5-
13	CH6+
14	CH6-
15	CH7+
16	CH7-
17	AGND
18	AGND



EIP-2019 Quick Start

III. I/O Wire Connection

Voltage Input	Thermocouple Input
mV/V + V □⊖ CH+ □⊖ CH-	 + - □⊖ CH+ CH-

Using the EIP-2000 Utility

- 1. Double click the "EIP-2000 Utility" shortcut on the desktop.
- 2. Click the "Network Scan" button to search your EIP-2000 modules(Figure 4-1).

	Network Scan						
Γ			Module Name	Version	IP	Descripition	
		1	EIP_2019	1.1	192.168.255.1	8-ch Thermocouple Input	

Figure 4-1 EIP-2000 Utility network scan

- **3.** Click the **EIP-2019 or other EIP-2000 modules** on the device list below to open the configuration dialog of **EIP-2000**. Each EIP-2000 module has its own configuration interface. Please refer to Figure 4-2.
 - (1) In the "Analog Input Status", users can select AI type of every channel.
 - (2) In the "AI Parameters", users can select the AI filters and AI representations here. There are two different AI filters 50Hz and 60Hz. The selection of filters must correspond with the frequency of AI sensors. Users have to check what are the requirements of AI sensors. We provide two AI representations engineer and hex. If users change the AI representation, all AI status will become to it.
 - (3) In "CJC Settings Users" can set the CJC enable or not by the CJC Switch, and adjust CJC value with CJC Offset.
 - (4) If the network settings have been changed, please click the "Update Network Settings" button to update the configuration and reboot the module.

🏷 Configuration for EIP_2019 Module Version:1.1(2013/11/5)						
Analog Input Status (1)	EIP-201	9 Firmware Version: 2013/11/5 ∨1.1				
Select All Channel	Type Code	CJC Offset				
CH0 0.065	mV +/-15mV 💌	0 AI Paremeters (2)				
CH1 -0.03	mV +/-15mV ▼	0 ♀ Filter 50Hz ♥				
CH2 0.078	mV +/-15mV 🗸	Unit Engineer				
CH3 -0.035	mV +/-15mV ∨					
CH4 0.075	mV +/-15mV 💟					
CH5 -0.032	mV +/-15mV ∨					
CH6 0.076	mV +/-15mV ∨	CJC Increment				
CH7 -0.027	mV +/-15mV ∨					
Network Settings (4)		Module Status				
MAC Address 00-0D-	E0-80-00-14	Save				
Address Type Static IP	*	LOg (12-04 06:02.54)				
Static IP Address 192 1	68 255 1	Clear				
Submet Mask 255 255 0 0		Log				
Default Gateway 192 1	68 0 1	Setting Files				
Update Network	Settings	Load Save Exit				

Figure 4-2 EIP-2000 Utility configurations

4. Configuration settings of EIP-2000

Table 4-1	Network	Settings

Network Settings				
Item	Settings (default)			
IP	192.168.255.1			
Gateway	192.168.0.1			
Mask	255.255.0.0			

For configuration of the <u>Address Type</u>, <u>Static IP Address</u>, <u>Subnet Mask</u> and <u>Default Gateway</u> of the EIP-2000. Please refer to section "4.2.1 Network Settings"

LED Indicator				
LED	LED Status	Description		
Power LED	Always On	Module is in Run mode.		
	Flashing	Module is in Init mode.		
Status LED	Always On	EtherNet/IP connection is failed.		
	Blink per second	EtherNet/IP connection is successful.		
	Blink per 300 ms	EtherNet/IP disconnected during communication but still in Safe-		
		Delay time.		
	Blink per 100 ms	Module is about to reboot.		
Ennon LED	On/Flashing	AI status is close to full or out of range.		
EIIOP LED	Off	AI status is within the range of input type.		

Table 4-2 LED Indicator



1. Open RSLogix 5000 and create a new project.

器R	SLog	ix 500	0						
File	Edit	∐iew	Search	Logic	Communications	Tools	Window	Help	
			5 8						
NG	tro	ller	D. D	BUN					
ING	W			l or	L	-@			

Figure 5-1. Create a new project.

2. Select the PLC type and give the project a name.

New Controlle	Ē		×
Vendor:	Allen-Bradley		
<u>T</u> ype:	1769-L32E CompactLogix5332E Controller	•	ОК
Re <u>v</u> ision:	17 💌		Cancel
	F Bedundancy Enabled		Help
Na <u>m</u> e:	EIP-2000		
Description:		~	
		~	
<u>C</u> hassis Type	(none)	*	
Sl <u>o</u> t	0 🚊 Safety Partner Slot.		
Cr <u>e</u> ate In:	C:\RSLogix 5000\Projects\EIP-2000		Browse

Figure 5-2. Set the PLC type and project name.

3. Create a new module in the "Ethernet" item.



Figure 5-3. Create a new module.

4. Select the "ETHERNET-MODULE" below "Communications" in the Select Module window.



Figure 5-4. Select "ETHERNET-MODULE".

5. Configure the new module parameters. The I/O length of new module must be the same with the length of EIP-2019 I/O data(Table 5-1). The input data size is 41 bytes and output data size is 23 bytes. The instance ID please refer to Table 5-2.

Type: Vendor: Parent:	ETHERNET-MODULE Generic Ethernet Module Allen-Bradley					
Name: Description:	EIP-2000	Connection Para	Assembly Instance: 101	Size:	(8-bit)	
Comm <u>F</u> ormal Address / H	t: Data - SINT	Configuration:	102		(8-bit)	
C Host Na	ame: ule Properties	Status Output.	Can	cel	Help	

Figure 5-5. The settings of EIP-2019 module

Tuble e It Duu Hissenhory of Dif 2013					
Data Assembly	Byte count	Description			
		$1^{st} \sim 16^{th}$ Byte: AI status (AI0~AI7).			
		$17^{\text{th}} \sim 18^{\text{th}}$ Byte: The broken wire status.			
		$19^{\text{th}} \sim 20^{\text{th}}$ Byte: CJC status.			
		$21^{st} \sim 28^{th}$ Byte: AI type code (AI0~AI7).			
Innut Assambly	41	29 th Byte: AI filter status.			
Input Assembly	71	30 th Byte: AI representation.			
		31 st Byte: Wire break detector.			
		32 nd Byte: CJC switch.			
		33 rd Byte: CJC increment.			
		$34^{\text{th}} \sim 41^{\text{st}}$ Byte: CJC offset (AI0~AI7).			
		1 st Byte: Set value to the module.			
		$2^{nd} \sim 9^{th}$ Byte: Set type code to Ch0~Ch7.			
		10 th Byte: Filter selection of AI			
		11 st Byte: Wire break detector			
Output Assembly	23	12 nd Byte: AI representation			
		13 rd Byte: Select AI channel to be short			
		14 th Byte: CJC switch			
		15 th Byte: CJC increment			
		$16^{\text{th}} \sim 23^{\text{rd}}$ Byte: CJC Offset			

Table 5-1. Data Assembly of EIP-2019

Table 5-2. Instance ID table of EIP-2000

Implicit Message Information of EIP-2000					
Instance	Instance ID	Data length			
Input(T->O)	65 _{hex} (101)	Depends on modules. e.g.41			
Out(O->T)	66 _{hex} (102)	Depends on modules. e.g.23			
Configuration	$64_{hex}(100)$				