

Quick Start
for ECAT-2050

English / Nov.2016/ Ver 1.0

1 Shipping Package

This shipping package contains the following items

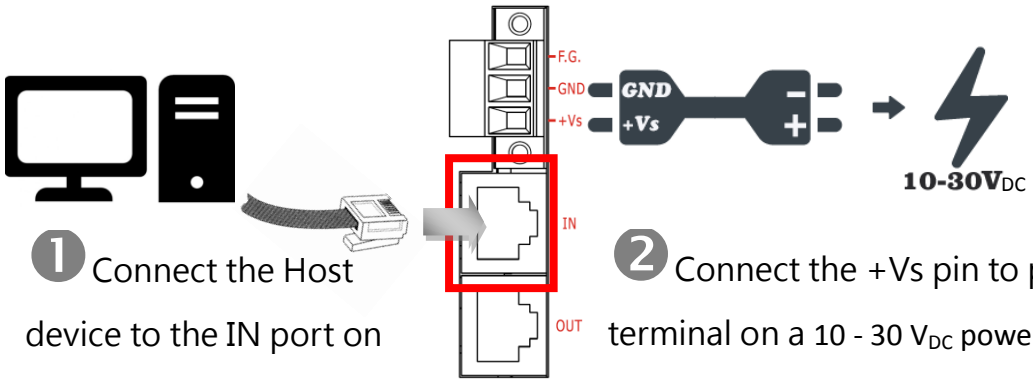
1 x ECAT-2000 module



1 x Quick Start Guide (This Document)

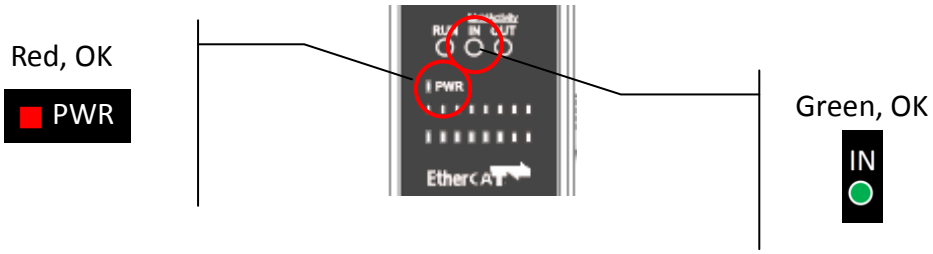
2 Connecting the Power and Host device

Switch on module and connect it to an EtherCAT network



❶ Connect the Host device to the IN port on ECAT-2000 module.

❷ Connect the +Vs pin to positive terminal on a 10 - 30 V_{DC} power supply, and connect the GND pin to the negative terminal.



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3 Search Modules

ESI file

The latest ESI file (ICPDAS ECAT-2000.xml) can be downloaded from ICP DAS website at

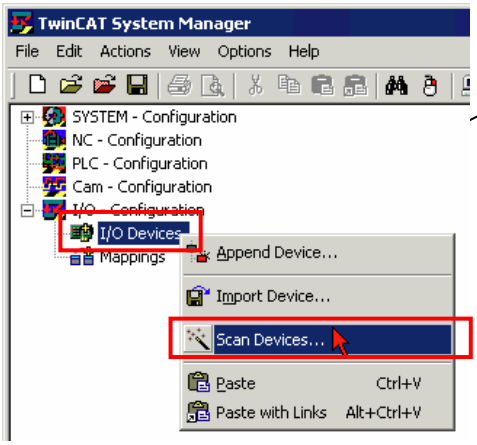
http://ftp.icpdas.com/pub/cd/fieldbus_cd/ethercat/slave/ecat-2000/software/

Install the ESI file

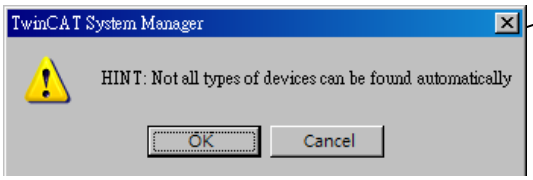
Copy the “ICPDAS ECAT-2050.xml” file to the Master Tools installation folder, as indicated in the table below.

Software	Default Path
Beckhoff EtherCAT Configuration	C:\EtherCAT Configurator\EtherCAT
Beckhoff TwinCAT 3.X	C:\TwinCAT\3.x\Config\Io\EtherCAT
Beckhoff TwinCAT 2.X	C:\TwinCAT\Io\EtherCAT

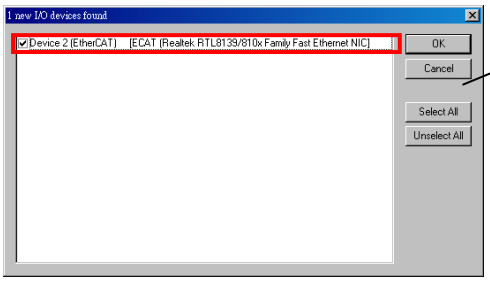
Run the EtherCAT Master software (Beckhoff TwinCAT 2.X)



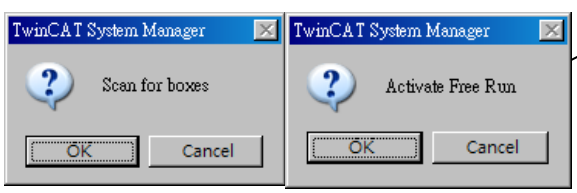
Switch on power
Execute the TwinCAT System Manager(Config mode)
I/O Devices-> Right click-> Scan Devices…



Click OK



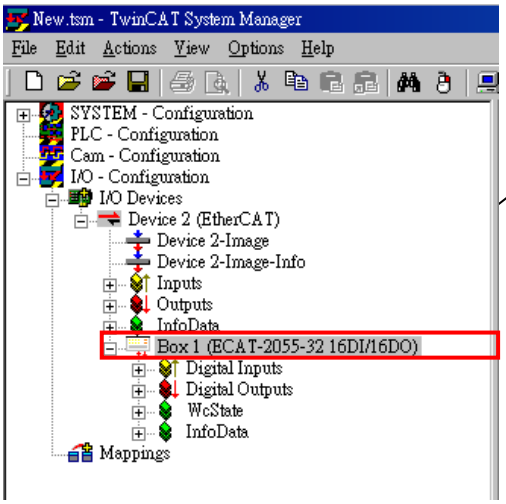
Choose the correct network device which is connected to ECAT-2000



Click Yes to start scanning and click Yes to activate the free run mode for TwinCAT system manager

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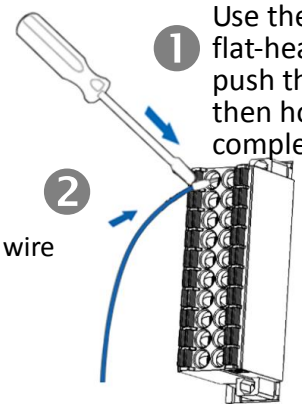


ECAT-2000 is now shown in the TwinCAT system Manager

4 Wiring to the connector

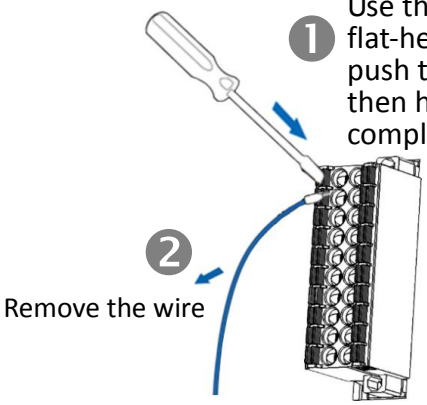
Wiring Tip

Connection the Wire



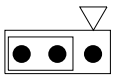
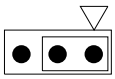
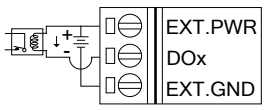
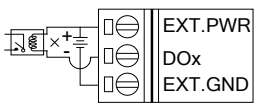
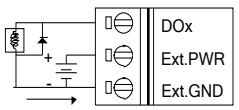
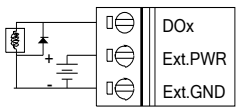
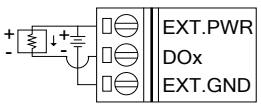
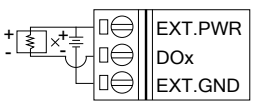
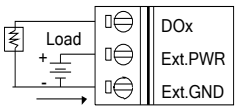
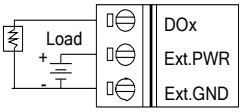
1 Use the blade of a flat-head screwdriver to push the wire clamp, then hold until step 2 complete.

Removing the wire



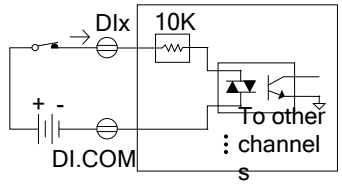
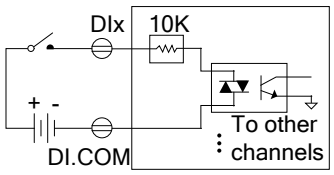
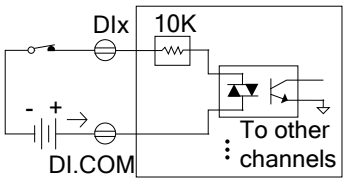
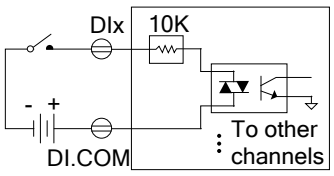
1 Use the blade of a flat-head screwdriver to push the wire clamp, then hold until step 2 complete.

Wire Diagrams and Jumper Selectable

	Open Collector (Sink) **(Default)**		Open Emitter (Source)	
Jumper Selectable	JP2 ~ JP5 		JP2 ~ JP5 	
Output Type	Readback as 1 (ON State)	Readback as 0 (OFF State)	Readback as 1 (ON State)	Readback as 0 (OFF State)
Drive Relay				
Resistance Load				

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Digital Input/Counter	Readback as 1 (+10 ~ +50 VDC)	Readback as 0 (Open or < 4VDC)
Sink		
Source		

Wiring the DO0 and DI0 Pins

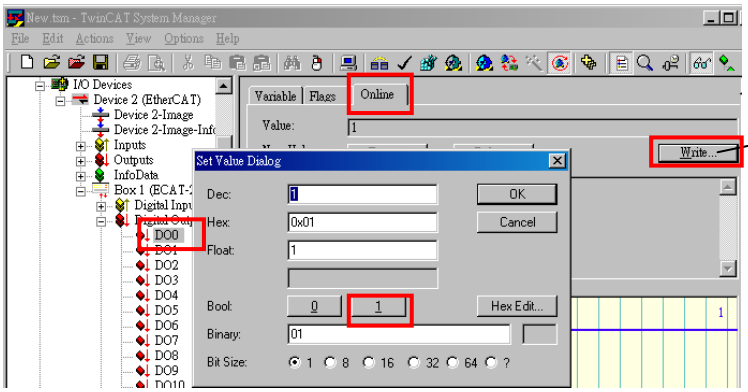
❷ Connect +24V external power supply to the DI.COM (Pin1) and EXT.PWR(pin19)

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
1	DI.COM	DI0	2
3	DI1	DI2	4
5	DI3	DI4	6
7	DI5	DI6	8
9	DI7	DI8	10
11	DI9	DI10	12
13	DI11	DI12	14
15	DO3	DO2	16
17	DO1	DO0	18
19	EXT.PWR	EXT.GND	20

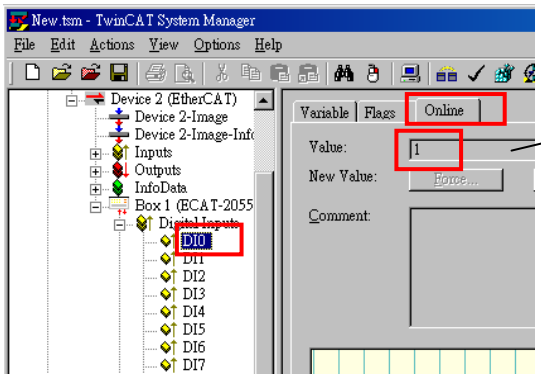
❶ Connect the DO0(Pin18) to the DI0 (Pin2)

❸ Connect the GND on external power supply to the EXT.GND(Pin20)

Verifying the DI and DO functionality



In the left-hand of the window, click on the DO0.
In the right-hand of the windows, click the online.
Click Write.
Click 1 (Configure DO0 to Logic1).



In the left-hand of the window, click DI0.
In the right-hand of the windows, click the online.
Check Value is 1.

Related Information

Product Page/Documentation:
http://www.icpdas.com/root/product/solutions/industrial_communication/fieldbus/ethercat/io_module/ecat-2050.html
ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/ethercat/slave/ecat-2000/

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