

DH Communication Transfer system

(CTS-B1.0)

Manual

V1.1



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1、 Overview

Communication transfer system (CTS-B1.0) can transfer several protocol to CAN2.0A.

Like: TCP/IP, USB, RS485, I/O;

Only one mode can be used at a same time.

2、 Mode Select

CTS-B1.0 use DIP switch to select mode.

The switch is up to “ON”, replaced by 1; The switch is down to “OFF”, replaced by 0.



Example: Mode 1, the first switch need to be “ON”, DIP switch status must be “1 0 0 0”

As shown in the table below:

Switch status(index)	Mode	Switch status(index)	Mode
0 0 0 0 (0)	Setting mode	0 0 1 0 (4)	RS485 mode
1 0 0 0 (1)	USB mode	1 0 1 0 (5)	Reserve
0 1 0 0 (2)	TCP Client mode	0 1 1 0 (6)	I/O mode
1 1 0 0 (3)	TCP Server mode	1 1 1 0 (7)	CAN2.0A mode

After you switch it to another mode, you must to reboot it (include unplug USB cable).

Before using, you need to connect all the cables first, and switch to the appropriate mode, finally turn on the power (CTS-B1.0 will recognize the gripper during the boot process).

(Note: under USB mode, the USB cable must be plugin last after turn on the power)

Some modes have some parameters that can be set, you can switch it to “Setting mode”, and then use the “Tester.exe” to set them.

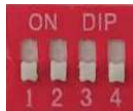
3、 Default parameter

Here are some default parameters, TCP parameters which can be set by using "* _Tester.exe".

Setting mode (Virtual COM port):

Baud Rate: 115200

In the mode ,you can Connect the Box via USB cable and use the "Tester.exe" to set the TCP parameters .



TCP Server mode:

IP address: 192.168.1.29 (Box static IP address)

Gateway: 192.168.1.1 (Box network gateway)

Port: 8888 (Box listen the Port)

When the box is in TCP server mode, the box is the server , and the PC(or Robot,PLC) should be the Client. The Box'Server will listen for incoming connections on the port.

Note:The PC(or Robot,PLC) 's IP Address and Gateway should on the same network segment with the Box;



TCP Client mode:

IP address: 192.168.1.30 (Box's static IP address)

Gateway: 192.168.1.1 (Box's network gateway)

Remote IP: 192.168.1.60 (Remote control device's static IP address)

Remote Port: 8888 (Remote control device's listen the port)

When the box is in TCP Client mode, the box is the Client , and the PC(or Robot,PLC) should be the Server.

Note:The PC(or Robot,PLC) 's IP Address and Gateway should on the same network segment with the Box;



Note: In Aubo Robot, When the Box is in Tcp Server mode.The plugin interface should be selected the TCP Client. When the Box is in Tcp Client mode.The plugin interface should be selected the TCP Server.

Communication box	
TCP Server	
IP Address:	192.168.1.29
Gateway:	192.168.1.1
Port:	8888
Save	
TCP Client	
IP Address:	192.168.1.30
Gateway:	192.168.1.1
Remote IP:	192.168.1.60
Remote Port:	8888
Save	

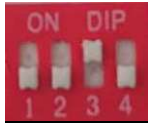
USB mode (Virtual COM port):

Baud Rate: 115200
Data Bits: 8bits
Parity: No Parity
Stop Bits: One Stop bit



RS485 mode:

Baud Rate: 115200

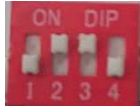


CAN2.0A mode:

CAN ID: 1
CAN Baud Rate: 500Kbps



4. I/O mode



DIP Swith	Mode
0 1 1 0 (6)	I/O Mode

Notice: Before use , You should confirm the I/O hardware status .like NPN or PNP;

1、 Input control

Input status(IN1 IN2)	action
0 0	Group 1 position 1(Group 1 force 1)
1 0	Group 1 position 2(Group 1 force 2)
0 1	Group 2 position 1(Group 2 force 1)
1 1	Group 2 position 2(Group 2 force 2)

2、 output feedback

Output status (OUT1 OUT2)	Gripper status
0 0	Defalut or moving
1 0	Arrived postion
0 1	Catch object

3、 setting hardware mode

you can open the connimication transfer box to select I/O hardware mode.



DIP index	status	Hardware mode
1	ON	PNP output
1	OFF	NPN output
2	ON	Leakage input
2	OFF	Source input

Status description:

① PNP output:

Logic 1: output 0V or GND;

Logic 0: output 24V;

② NPN output:

Logic 1: output 24V;

Logic 0: output 0V or GND;

③ Leakage input:

Z(High resistance state): Logic 0;

0V / GND : Logic 1;

④ Source input:

Z(High resistance state): Logic 0;

24V : Logic 1;