



Communicate with VB Inverter



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1.General

This example introduces how to establish communication between Wecon VBOX and Wecon VB inverter. And the communication protocol is Modbus RTU RS485.

2.Operation Steps

2.1 VBOX communication settings

Configuration>>Communication>>Add new port>>Set the communication parameter as below:

Edit Port
✕

Port	COM1	Device Type	ModBus
Protocol	ModBus RTU Slave(All Fuction)	Device Station No.	0
Device Station No.		Retry Count	2
Receive Timeout	ms	Wait Timeout	300 ms
Length		Integration interval	0
Retry Timeout	ms	Delay Time	0 ms
Stop Bit	1	Baud Rate	9600
Parity	NONE	Port	RS485
		Data Bit	8

Cancel
OK

2.2 VB inverter communication address

Parameter description	Parameter address	Unit	Read/Write character
Operating frequency	1001H	0.01Hz	Read
Bus voltage	1002H	0.1V	Read
Output voltage	1003H	1V	Read
Output current	1004H	0.01A	Read
Output power	1005H	0.1kW	Read
Output torque	1006H	0.1%	Read
Running speed	1007H	0.01Hz	Read
DI Input sign	1008H	1	Read
DO Output sign	1009H	1	Read
AI1 Voltage	100AH	0.01V	Read
AI2 Voltage	100BH	0.01V	Read
Reserved	100CH	-	Read
Count value input	100DH	1	Read
Length value input	100EH	1	Read
Load speed	100FH	1rpm	Read
PID Setting	1010H	0.10%	Read
PID Feedback	1011H	0.10%	Read
PLC Step	1012H	1 (0~15)	Read
Reserved	1013H	-	Read
Reserved	1014H	-	Read
Remained running time	1015H	1min	Read
AI1 voltage before correction	1016H	0.001V	Read
AI2 voltage before correction	1017H	0.001V	Read
Reserved	1018H	-	Read
Linear speed	1019H	1m/min	Read
Current power-on time	101AH	1min	Read
Current running time	101BH	0.1min	Read
Reserved	101CH	-	Read
Communication set value	101DH	1 (-10000~10000)	Read
Reserved	101EH	-	Read
Main frequency X display	101FH	0.01Hz	Read
Auxiliary frequency Y display	1020H	0.01Hz	Read

Function	Address definition	Data meaning	Read/Write character
Communication set value	1000H	-10000~10000 (decimal) -10000 correspond -100.00% 10000 correspond 100.00%	Read/Write
Communication control command	2000H	0001: Forward running	Write
		0002: Reverse running	
		0003: JOG forward	
		0004: JOG reverse	
		0005: Free stop	
		0006: Deceleration stop	
		0007: Fault reset	
Digital output terminal	2001H	BIT0~BIT1: Reserved	Write
		BIT2: Relay1 output control	
		BIT3: Relay2 output control	
		BIT4: FMR Output control	
		BIT5:VD0	
		BIT6~BIT9: Reserved	
Analog output AO1 control	2002H	0~7FFF correspond 0%~100%	Write
Analog output AO2 control	2003H	0~7FFF correspond 0%~100%	Write
Reserved	2004H	0~7FFF correspond 0%~100%	Write

2.3 Establish connection

The VBOX uses the COM1 port, and the inverter uses the RS485 port(RS+ and RS-)

VBOX COM1 port pin 1 is connected to Inverter RS+ terminal

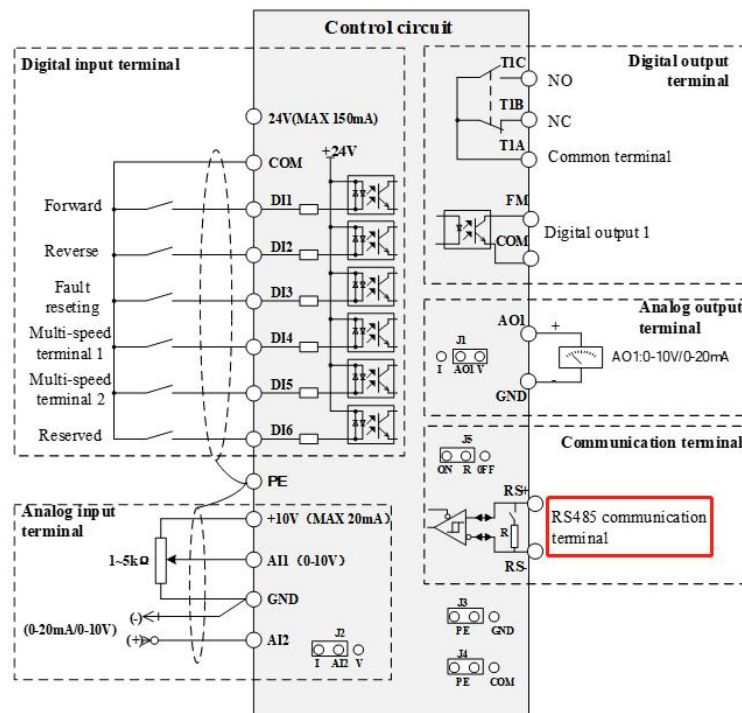
VBOX COM1 port pin 6 is connected to Inverter RS- terminal

The pin connections are as follows:

COM1 PIN Definition

PIN	Definition	PIN	Definition
1	RS422 TX+ (RS485+)	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX- (RS485-)	8	RS422 RX-
9	RS422 RX+		

H series VBOX COM1 Pin Definition



VB inverter terminals