



BAC Net Gateway Intruction Manual



1. Brief introduction

The BACnet gateway uses the BACnet IP protocol. By converting the MODBUS protocol to BACnet IP protocol, the computer can be accessed via Ethernet.

Default IP: 192.168.1.233

Port: 47808

Device ID:	123	☒ Enable BACnet IP service
Device name:	bacnet	Port: 47808
Object description:	LM	Bind network port: eth0
Manufacturer name:	LM	
Manufacturer ID:	123	
Location:	CN	

2. Connection

Power supply output: DC 9-36V.

The network cable connects to port Eth0.

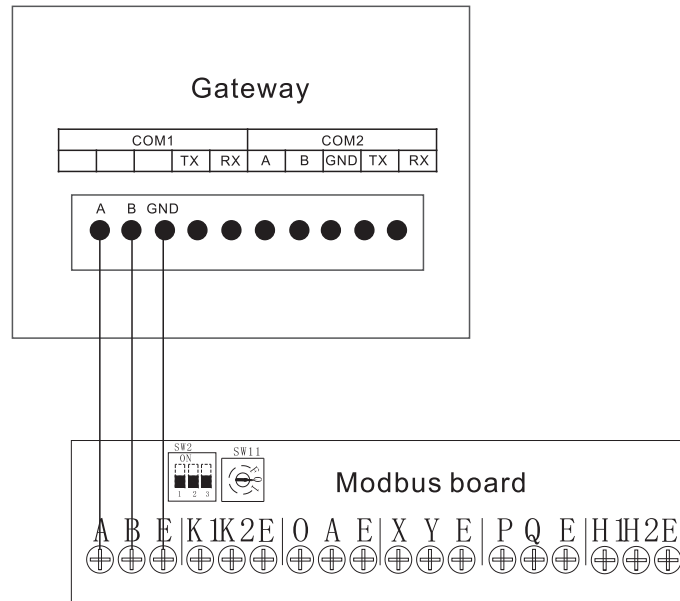


After power on successfully, POWER/RUN indicator is ON. Connect the network cable, the network cable port light is ON.

2.1 Connect the Modbus board

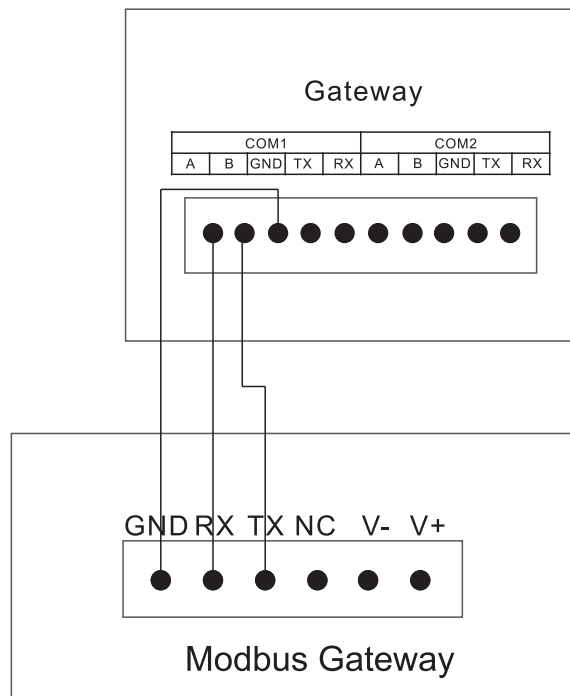
A, B, GND on gateway COM1 connect to A, B, E on the Modbus board.

Successfully connect the devices and the system operates normally, two lights on the COM1 port on the gateway flash.



2.2 Connect the Modbus Gateway

A, B, GND on gateway COM1 connect to RX, TX, GD on the Modbus gateway.

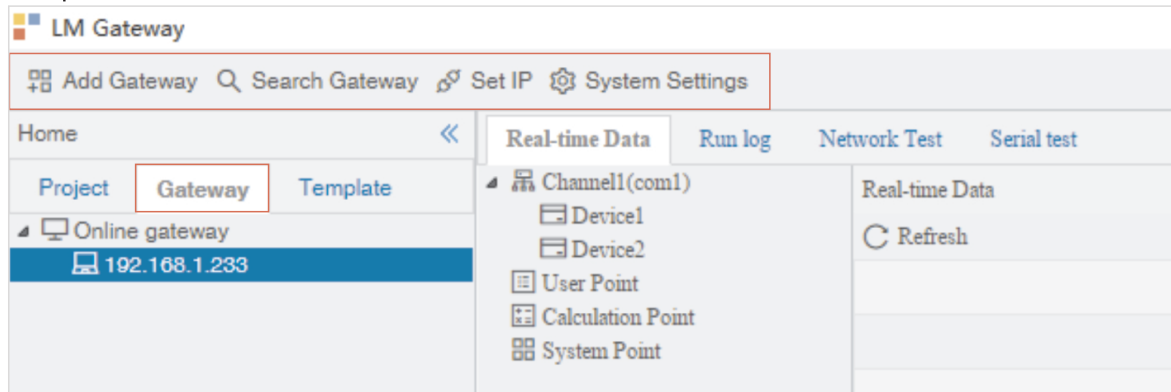


3. Connect to computer

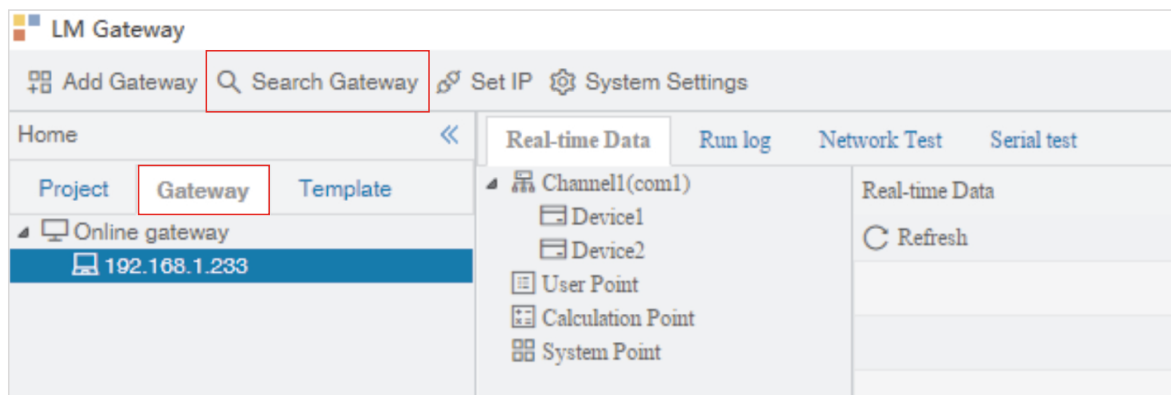
To establish the connection between computer and the BACnet gateway, it needs to add an address of the 192.168.1.X network segment in the IPv4 settings.

IP setting:

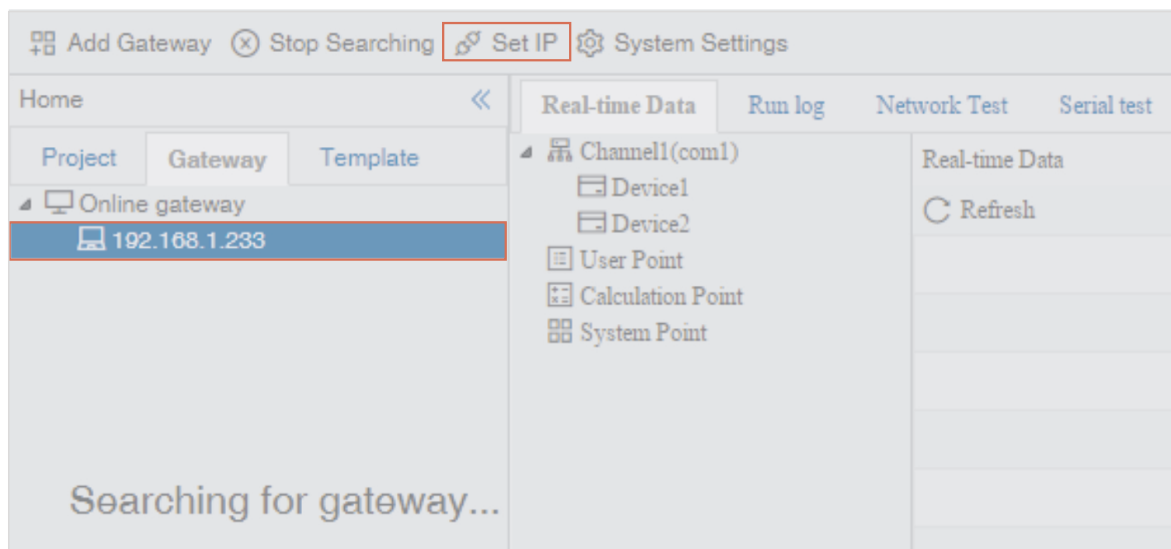
a. Open the software



b. Click 'Gateway' — click 'Search Gateway'



c. Click the currently connected gateway — click 'System settings'



d. Set IP address — Enter the IP address to be set and apply to the gateway.

IP address configuration

Wired Network

WIFI

DHCP:

☐ No

Network port:

ETH0

IP address:

192.168.1.233

Subnet mask:

255.255.255.0

Default gateway:

192.168.1.1

Preferred DNS:

114.114.114.114

Alternate DNS:

114.114.115.115

MAC address:

C6:99:A1:3C:8E:3C

Copy

Apply to the gateway

4.Variable table

Variable table of connecting Modbus board

AI variable				
Indexnumber	Description	Unit	Modbusfunction code	Modbusaddress
#00 IDU Inputregister				
0	Indoorair return temperature	0.1℃	0x04	0
1	Inlettemperatureof evaporator	0.1℃	0x04	1
2	Middletemperatureof evaporator	0.1℃	0x04	2
3	N/A	N/A	0x04	3
4	Indoorcapacity demand	N/A	0x04	4
5	Fanspeed	N/A	0x04	5
6	IDU errorcode	N/A	0x04	6
7	Modelinformation	N/A	0x04	7

AI variable				
Indexnumber	Description	Unit	Modbusfunction code	Modbusaddress
#01 IDU Inputregister				
8	Indoorair return temperature	0.1℃	0x04	8
9	Inlettemperatureof evaporator	0.1℃	0x04	9
10	Middletemperatureof evaporator	0.1℃	0x04	10
11	N/A	N/A	0x04	11
12	Indoorcapacity demand	N/A	0x04	12
13	Fanspeed	N/A	0x04	13
14	IDU errorcode	N/A	0x04	14
15	Modelinformation	N/A	0x04	15
.....				
#n IDU Inputregister				
n*8+0	Indoorair return temperature	0.1℃	0x04	n*8+0
n*8+1	Inlettemperatureof evaporator	0.1℃	0x04	n*8+1
n*8+2	Middletemperatureof evaporator	0.1℃	0x04	n*8+2
n*8+3	N/A	N/A	0x04	n*8+3
#63 IDU Inputregister				
504	Indoorair return temperature	0.1℃	0x04	504
505	Inlettemperatureof evaporator	0.1℃	0x04	505
506	Middletemperatureof evaporator	0.1℃	0x04	506
507	N/A	N/A	0x04	507
508	Indoorcapacity demand	N/A	0x04	508
509	Fanspeed	N/A	0x04	509
510	IDU errorcode	N/A	0x04	510
511	Modelinformation	N/A	0x04	511

AO variable					
Indexnumber	Description		Modbusfunctioncode		Modbusaddress
#00 IDU					
0	#0 IDU controlregister		0x03, 0x6		0
	B0	Temperature setting	B9	Mode setting	Referto Modbustable
	B1		B10		
	B2		B11		
	B3		B12		
	B4		B13		
	B5	Fan speed setting	B14	ON/OFF	
	B6		B15		
	B7				
	B8				
1	#0 IDU lock register		0x03, 0x6		1
	B0	N/A	B8	N/A	Referto Modbus table
	B1		B9		
	B2		B10	Remotelock	
	B3		B11	N/A	
	B4		B12		
	B5		B13	Mode lock	
	B6		B14		
	B7		B15	N/A	
#01 IDU					
2	#1 IDU controlregister		0x03, 0x6		2
3	#1 IDU lock register		0x03, 0x6		3
#02 IDU					
4	#2 IDU controlregister		0x03, 0x6		4
5	#2 IDU lock register		0x03, 0x6		5
.....					
.....					
# n IDU					
n*2	#n IDU controlregister		0x03, 0x6		n*2
n*2+1	#n IDU lock register		0x03, 0x6		n*2+1
.....					
#63 IDU					
126	#63 IDU controlregister		0x03, 0x6		126
127	#63 IDU lockregister		0x03, 0x6		127

AO variable						
Indexnumber	Description			Modbusfunctioncode	Modbusaddress	
GroupcontrolIDU						
128	Groupcontrolregister			0x03, 0x6		3840
	B0	Temperature setting	B9	Mode setting	Refer to Modbus table	
	B1		B10			
	B2		B11			
	B3		B12			
	B4		B13			
	B5	Fan speed setting	B14	ON/OFF		
	B6		B15			
	B7					
	B8					
GrouplockIDU						
129	Grouplock			0x03, 0x6		3841
	B0	N/A	B8	N/A	Refer to Modbus table	
	B1		B9			
	B2		B10	Remote lock		
	B3		B11	N/A		
	B4		B12			
	B5		B13	Mode lock		
	B6		B14			
	B7		B15	N/A		