

WG-BC900M Series Communication Protocol

V1.0.2 | British English edition with cross-document review

1 Overview

This protocol defines communication between the WG-BC900M charger and a host computer using Modbus RTU. The host computer can read operating data and fault status in real time, and set the charger's operating mode and parameters.

2 Physical interface

RS485 (baud rate: 9600 bps; parity: none; data bits: 8; stop bits: 1; flow control: none).

3 Communication protocol description

3.1 Reading data

- (1) Description: the read function reads one register or several consecutive registers.
- (2) Query: use address 01H/FFH. The following example reads addresses 0200-0201.

Request data

Field	Size	Range
Address	BYTE	1-93H
Function code	BYTE	03H
Starting address	WORD	0000H-FFFFH
Read length	WORD	0000H-00FAH
CRC	WORD	0000H-FFFFH

Example: 01 03 0200 0002 C5B3

Reads two WORD (uint16) values starting at address 0200. Address 01 is the user address; FF is the broadcast address.

Response data

Field	Size	Range
Address	BYTE	1-93H
Function code	BYTE	03H
Data length	BYTE	00H-FAH
Register data 1 ... N	WORD each	0000H-FFFFH
CRC	WORD	0000H-FFFFH

Example: 01 03 04 0064 03E8 BB52

Returns 0064 and 03E8 from the two registers starting at 0200. Multiple values may be read.

3.1 Reading data (continued)

Address: FFH is the manufacturer's broadcast address for development and debugging. It has the highest access level and can access all data and configure all address parameters. 01H is the customer access address.

Function code: 03H reads data.

Starting address: the first address to read.

Read length: the number of 16-bit (2-byte) values to read from the starting address.

CRC: checks the preceding data for transmission errors that could cause unintended operation.

Response data length: read length $\times$ 2.

The suffix H indicates hexadecimal data.

3.2 Writing a single value

Function code 06H writes one register. Function code 10H writes multiple consecutive registers. Use address 01H/FFH. The example writes 03E8 to address 0810.

Request and response data

Field	Size	Range
Address	BYTE	1-93H
Function code	BYTE	06H
Starting address	WORD	0000H-FFFFH
Write data	WORD	0000H-00FAH
CRC	WORD	0000H-FFFFH

Request and response: 01 06 0810 03E8 8AD1

Writes one WORD (uint16), 03E8, to 0810. The response echoes the written value.

3.3 Writing multiple values

Use function code 10H to write consecutive registers. The example uses address 01H/FFH and writes 0064, 03E8 and 04D2 to 0810-0812.

Request data

Field	Size	Range
Address	BYTE	1-93H
Function code	BYTE	10H
Starting address	WORD	0000H-FFFFH
Write length (register count)	WORD	0000H-00FAH
Write length (byte count)	BYTE	00H-FAH
Write data 1 ... N	WORD each	0000H-FFFFH
CRC	WORD	0000H-FFFFH

Example: 01 10 0810 0003 06 0064 03E8 04D2 BE50

Writes three WORD (uint16) values: 0064, 03E8 and 04D2.

3.3 Writing multiple values (continued)

Response data

Field	Size	Range
Address	BYTE	1-93H
Function code	BYTE	10H
Starting address	WORD	0000H-FFFFH
Data length	WORD	0000H-FFFFH
CRC	WORD	0000H-FFFFH

Example: 01 10 0810 0003 83AD

Returns starting address 0810 and the number of consecutive WORD (uint16) registers written.

4 Communication protocol

WG-BC900M register map. Each entry occupies one u16 register. R = read-only; R/W = read/write. Scale and display formats are retained from the source. Repeated copies of this map in section 8 have been replaced with references.

P01 Real-time data

Address	u16	Function	R/W	Scale	Format	Unit	Notes
0x0200	1	A-side voltage	R	100	%.2f	V	Display only; cannot be modified.
0x0201	1	A-side current	R	100	%.2f	A	Display only; cannot be modified.
0x0202	1	A-side power	R	1	%d	W	Display only; cannot be modified.
0x0203	1	B-side voltage	R	100	%.2f	V	Display only; cannot be modified.
0x0204	1	B-side current	R	100	%.2f	A	Display only; cannot be modified.
0x0205	1	B-side power	R	1	%d	W	Display only; cannot be modified.
0x0206	1	T1 temperature	R	1	%d	°C	T1 temperature display.
0x0207	1	T2 temperature	R	1	%d	°C	T2 temperature display.
0x0208	1	Power mode	R	-	-	-	2: Battery 1: Custom 0: Standard

4 Communication protocol (continued)

P01 Real-time data (continued)

Address	u16	Function	R/W	Scale	Format	Unit	Notes
0x0209	1	Charging mode	R	-	-	-	9: External manual reverse 8: External manual forward 7: External automatic reverse 6: External automatic forward 5: Manual reverse 4: Manual forward 3: Automatic reverse 2: Automatic forward 1: Reverse 0: Forward
0x020A	1	Fault signals	R	-	-	-	bit9: T2 temperature bit8: T1 temperature bit7: Ta temperature bit6: Overtemperature protection bit5: B-side undervoltage bit4: B-side overvoltage bit3: B-side short circuit bit2: A-side undervoltage bit1: A-side overvoltage bit0: A-side short circuit
0x020B	1	Warning signals	R	-	-	-	bit4: RTM warning; green = on, blue = off bit3: PG warning; green = on, orange = off bit2: Module shutdown; green = on, red = off bit1: B-side derating bit0: A-side derating
0x020C	1	A-side compensation	R	-	-	-	For A-side input compensation. Earlier Chinese protocol: ACC voltage; see Appendix A.
0x020D	1	B-side compensation	R	-	-	-	For B-side input compensation. Earlier Chinese protocol: RMT voltage; see Appendix A.
0x020E	1	Ta temperature	R	1	%d	°C	Ta temperature display.
0x020F	1	Charging status	R	-	-	-	0: DC-DC power supply mode 1: Precharge 2: CC constant-current charging 3: CV constant-voltage charging 4: Float charging 5: Fully charged; stopped
0x0210	1	Reserved	R	100	%.2f	V	Earlier Chinese protocol: ADD auxiliary supply voltage; see Appendix A.

4 Communication protocol (continued)

P02 Control settings

Address	u16	Function	R/W	Scale	Format	Unit	Notes
0x0400	1	Restore factory settings	R/W	-	-	-	1: Reset 0: Normal
0x0401	1	On/off status	R/W	-	-	-	1: Off 0: On
0x0402	1	Power mode	R/W	-	-	-	2: Battery 1: Custom 0: Standard
0x0403	1	Charging mode	R/W	-	-	-	4: External control 3: Manual 2: Automatic 1: Reverse 0: Forward
0x0404	1	A-side battery type	R/W	-	-	-	Bits 15-8: Battery type [corrected; see Appendix A] 4: DC; 3: Li-NCM; 2: Li-LFP; 1: La-GEL; 0: La-AGM Bits 7-0: Battery voltage [corrected] 0: 12 V; 1: 16 V; 2: 24 V; 3: 36 V; 4: 48 V; 5: 60 V; 6: 72 V; 7: 10-50 V
0x0405	1	B-side battery type	R/W	-	-	-	Bits 15-8: Battery type [corrected; see Appendix A] 4: DC; 3: Li-NCM; 2: Li-LFP; 1: La-GEL; 0: La-AGM Bits 7-0: Battery voltage [corrected] 0: 12 V; 1: 16 V; 2: 24 V; 3: 36 V; 4: 48 V; 5: 60 V; 6: 72 V; 7: 10-50 V
0x0406	1	A-side start-up delay	R/W	1	%d	s	Reverse A-side output start-up delay.
0x0407	1	B-side start-up delay	R/W	1	%d	s	Forward B-side output start-up delay.
0x0408	1	A-side current soft-start time	R/W	1	%d	s	Reverse A-side output current soft start.
0x0409	1	B-side current soft-start time	R/W	1	%d	s	Forward B-side output current soft start.
0x040A	1	Zero-current calibration	R/W	1	%d	-	Forward and reverse zero-current calibration.
0x040B	1	Restore manufacturer data	R/W	1	%d	-	1: Store 0: Normal

4 Communication protocol (continued)

P03 Parameter settings

Address	u16	Function	R/W	Scale	Format	Unit	Notes
0x081A	1	A-side voltage	R/W	100	%.2f	V	Readable and adjustable parameter.
0x081B	1	A-side current	R/W	100	%.2f	A	Readable and adjustable parameter.
0x081C	1	A-side power	R/W	1	%d	W	Readable and adjustable parameter.
0x081D	1	B-side voltage	R/W	100	%.2f	V	Readable and adjustable parameter.
0x081E	1	B-side current	R/W	100	%.2f	A	Readable and adjustable parameter.
0x081F	1	B-side power	R/W	1	%d	W	Readable and adjustable parameter.
0x0820	1	A-side undervoltage protection	R/W	100	%.2f	V	Stops charging and raises an undervoltage warning when the set voltage is below the protection threshold.
0x0821	1	A-side undervoltage recovery	R/W	100	%.2f	V	Starts charging and clears the undervoltage warning when the set voltage exceeds the recovery threshold.
0x0822	1	A-side overvoltage protection	R/W	100	%.2f	V	Stops charging and raises an overvoltage warning when the set voltage exceeds the protection threshold.
0x0823	1	A-side overvoltage recovery	R/W	100	%.2f	V	Starts charging and clears the overvoltage warning below the recovery threshold (main source map; repeated map says above).
0x0824	1	B-side undervoltage protection	R/W	100	%.2f	V	Stops charging and raises an undervoltage warning when the set voltage is below the protection threshold.
0x0825	1	B-side undervoltage recovery	R/W	100	%.2f	V	Starts charging and clears the undervoltage warning when the set voltage exceeds the recovery threshold.
0x0826	1	B-side overvoltage protection	R/W	100	%.2f	V	Stops charging and raises an overvoltage warning when the set voltage exceeds the protection threshold.
0x0827	1	B-side overvoltage recovery	R/W	100	%.2f	V	Starts charging and clears the overvoltage warning below the recovery threshold (main source map; repeated map says above).

4 Communication protocol (continued)

P03 Parameter settings (continued)

Address	u16	Function	R/W	Scale	Format	Unit	Notes
0x0828	1	T1 temperature setting	R/W	1	%d	°C	Sets the T1 temperature protection threshold.
0x0829	1	T2 temperature setting	R/W	1	%d	°C	Sets the T2 temperature protection threshold.
0x082A	1	A-side charging indicator current	R/W	100	%.2f	A	Red light when current exceeds the charging-current threshold.
0x082B	1	A-side fully charged indicator current	R/W	100	%.2f	A	Green light when current is below the charging-current threshold.
0x082C	1	B-side charging indicator current	R/W	100	%.2f	A	Red light when current exceeds the charging-current threshold.
0x082D	1	B-side fully charged indicator current	R/W	100	%.2f	A	Green light when current is below the charging-current threshold.
0x082E	1	Automatic forward A-side switch-on voltage	R/W	100	%.2f	V	In automatic mode, starts forward charging above the switch-on voltage.
0x082F	1	Automatic forward A-side changeover voltage	R/W	100	%.2f	V	In automatic mode, changes from forward to reverse when forward voltage falls below the changeover voltage.
0x0830	1	Automatic forward A-side switch-off voltage	R/W	100	%.2f	V	In automatic mode, stops forward charging below the switch-off voltage.
0x0831	1	Automatic reverse B-side switch-on voltage	R/W	100	%.2f	V	In automatic mode, starts reverse charging above the switch-on voltage.
0x0832	1	Automatic reverse B-side switch-off voltage	R/W	100	%.2f	V	In automatic mode, stops reverse charging below the switch-off voltage.
0x0833	1	Ta temperature setting	R/W	1	%d	°C	Sets the Ta temperature protection threshold.

END

5 P01 Real-time data

P01 data can only be read; it cannot be written. Repeated mode and status definitions refer to section 4.

5.1 A-side input voltage

Request: 01 03 0200 0001 85B2

Response: 01 03 02 0B86 3ED6

0x0B86 = 2950; $2950 \times 0.01 = 29.50$ V.

5.2 A-side input current

Request: 01 03 0201 0001 D472

Response: 01 03 02 041A 3B4F

0x041A = 1050; $1050 \times 0.01 = 10.50$ A.

5.3 A-side input power

Request: 01 03 0202 0001 2472

Response: 01 03 02 0136 39C2

0x0136 = 310; $310 \times 1 = 310$ W.

5.4 B-side input voltage

Request: 01 03 0203 0001 75B2

Response: 01 03 02 0B86 3ED6

0x0B86 = 2950; $2950 \times 0.01 = 29.50$ V.

5.5 B-side input current

Request: 01 03 0204 0001 C473

Response: 01 03 02 041A 3B4F

0x041A = 1050; $1050 \times 0.01 = 10.50$ A.

5.6 B-side input power

Request: 01 03 0205 0001 95B3

Response: 01 03 02 0136 39C2

0x0136 = 310; $310 \times 1 = 310$ W.

5.7 T1 temperature

Request: 01 03 0206 0001 65B3

Response: 01 03 02 0019 798E

0x0019 = 25; $25 \times 1 = 25$ °C.

5.8 T2 temperature

Request: 01 03 0207 0001 3473

Response: 01 03 02 0032 3991

0x0032 = 50; $50 \times 1 = 50$ °C.

5 P01 Real-time data (continued)

5.9 Power mode

Request: 01 03 0208 0001 0470

Response: 01 03 02 0001 7984

0x0001 = 1: Custom mode, using the register-map encoding. The source example reverses Battery and Custom. The Windows screenshot confirms 0x0208 = 2 while BAT is displayed; see Appendix A.

5.10 Charging mode

Request: 01 03 0209 0001 55B0

Response: 01 03 02 0002 3985

0x0002 = 2: Automatic forward. See 0x0209 in section 4 for all modes.

5.11 Fault signals

Request: 01 03 020A 0001 A5B0

Response: 01 03 02 0000 B844

0x0000 = 0: No fault. See the fault bitmask below.

Mask	Bit	Fault
0x0001	0	Input short circuit
0x0002	1	Input overvoltage
0x0004	2	Input undervoltage
0x0008	3	Output short circuit
0x0010	4	Output overvoltage
0x0020	5	Output undervoltage
0x0040	6	Overtemperature protection
0x0080	7	Ta overtemperature protection
0x0100	8	T1 overtemperature protection
0x0200	9	T2 overtemperature protection

5.12 Warning signals

Request: 01 03 020B 0001 F470

Response: 01 03 02 0000 B844

0x0000 = 0: No warning. Bitmask values are 0x0001, 0x0002, 0x0004, 0x0008 and 0x0010 for bits 0-4 respectively; definitions are given at 0x020B.

5 P01 Real-time data (continued)

5.13 A-side compensation

Request: 01 03 020C 0001 45B1

Response: 01 03 02 05B4 BB63

0x05B4 = 1460; $1460 \times 0.01 = 14.60$ V.

5.14 B-side compensation

Request: 01 03 020D 0001 1471

Response: 01 03 02 0B68 BE9A

0x0B68 = 2920; $2920 \times 0.01 = 29.20$ V.

5.15 Ta temperature

Request: 01 03 020E 0001 E471

Response: 01 03 02 0019 798E

0x0019 = 25; $25 \times 1 = 25$ °C.

5.16 Charging status

Request: 01 03 020F 0001 B5B1

Response: 01 03 02 0000 B844

0x0000 = 0: DC-DC power supply mode. Values 0x0000-0x0005 correspond to the six states at 0x020F.

6 P02 Control settings

For function 06H examples below, the response is identical to the request; each frame is shown once to avoid duplication. Mode and battery-code tables are consolidated in section 4.

6 P02 Control settings: examples

6.1 Restore factory settings

Request / response: 01 06 0400 0001 493A

0001 restores factory settings; 0000 takes no action.

6.2 On/off status

Request / response: 01 06 0401 0001 18FA

0001 sets the off state; 0000 sets the on state.

6.3 Power mode

Request / response: 01 06 0402 0001 E8FA

This example selects Custom mode: 0x0001. 0x0000 = Standard; 0x0002 = Battery. The Windows screenshot supports Battery = 2 for register 0x0402.

6.4 Charging mode

Request / response: 01 06 0403 0001 B93A

0x0001 = Reverse. See register 0x0403 for the complete mapping.

6.5 A-side input battery type

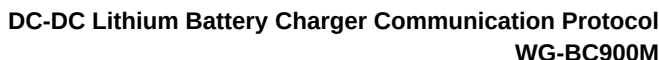
Request / response: 01 06 0404 0001 08FB

The source says 0001 selects lithium battery mode and 0000 selects lead-acid mode. This contradicts its packed battery-type/voltage register map and the Windows screenshot; see Appendix A. The frame is retained for reference.

6.6 B-side input battery type

Request / response: 01 06 0405 0001 593B

The source again says 0001 selects lithium and 0000 selects lead-acid. The Windows screenshot instead shows 0x0200 for Li-LFP at 12 V; see Appendix A. The frame is retained for reference.



7.1 Lookup-table method

[illegible]

7 CRC calculation (continued)

7.2 Direct calculation method

```
u16 ModBusCRC16(u8 *Data,u16 len)
{
    u16 i, j, tmp, CRC16;
    CRC16 = 0xFFFF;           //Initial CRC register value
    for (i = 0; i < len; i++)
    {
        CRC16 ^= Data[i];
        for (j = 0; j < 8; j++)
        {
            tmp = (u16)(CRC16 & 0x0001);
            CRC16 >>= 1;
            if (tmp == 1)
            {
                CRC16 ^= 0xA001;    //XOR polynomial
            }
        }
    }
    /* MODBUS standard requires high/low byte swapping*/
    return (CRC16 >> 8) | (CRC16 << 8);
}
```

8 Using the host application

The three source screenshots show the same application with different areas highlighted. The English interface reference below consolidates them into one view. Labels have been recreated in English; values and panel groupings follow the source screenshot.

WenGao_V1.0.0.20211028_base

Home	Parameters	Calibration	CAN comms	OTA update
Real-time data A voltage 13.44 V A current 47.00 A A power 630 W B voltage 57.11 V B current 9.44 A B power 541 W ACC V 13.55 RMT V 0.00 AUX V 0.00 T1 °C 64 Ta °C 53 T2 °C 58 Module off ☒ Overtemp. ☒ A short circuit ☒ B short circuit ☒ A overvoltage ☒ B overvoltage ☒ A undervoltage ☒ B undervoltage ☒ A derating ☒ B derating ☒ Start-up: A / B 30 / 30 Soft start: A / B 60 / 60 A application / voltage La-AGM / 12 V B application / voltage Li-LFP / 48 V Mode Battery Status External manual forward S/N WG01-20250709-00001 Read V / I / W / warnings Stop reading A-side voltage / current / power A voltage 14.60 A current 60.0 A power 900 Set B-side voltage / current / power B voltage 58.40 B current 15.0 B power 900 Set A-side voltage protection Undervoltage 12.0 UV recovery 13.0 Overvoltage 16.60 OV recovery 15.60 Set B-side voltage protection Undervoltage 40.0 UV recovery 41.0 Overvoltage 60.40 OV recovery 59.40 Set A-side charging indicators Charging light 9.0 Full light 8.50 Set B-side charging indicators Charging light 2.25 Full light 1.75 Set Automatic mode Forward on V 13.60 Forward off V 13.0 Changeover V 12.0 Reverse on V 50.0 Reverse off V 48.0 Set Component temperatures T1 °C 120 T2 °C 120 Set Internal temperature Ta °C 95 Set Serial port Port COM7 Close Baud rate 9600 Clear Module address 1 / 1 Password 8888 Language Chinese Manufacturer data Protocol version V1.0.0 Read Product type DC-DC converter Write Bluetooth Hardware version V1.0.0 Write address Software version V1.0.0 Write S/N Set address 1 / 0000 S/N 0000000000000000 Product name WG_C800M Application RV application Protocol Wengao Status control Power mode Battery Off Mode status External A application La-AGM / 12 V B application Li-LFP / 48 V A start-up time 30 s B start-up time 30 s Read A soft start 60 B soft start 60 Set Data monitoring -> 01 03 00 08 00 0A 44 0F -> 01 03 04 04 00 06 85 39 -> 01 03 02 00 00 11 84 7E -> 01 03 00 08 00 0A 44 0F -> 01 03 04 04 00 06 85 39 -> 01 03 02 00 00 11 84 7E -> 01 03 00 08 00 0A 44 0F -> 01 03 04 04 00 06 85 39				

8.1 Real-time data display

The left-hand panel shows live readings and status. The corresponding addresses are P01, 0x0200-0x0210, in section 4.

8.2 Parameter settings

The central panels contain electrical, protection, indicator and temperature settings. The corresponding addresses are P03, 0x081A-0x0833, in section 4.

8.3 Control settings

The lower-right panel contains power, charging, battery and start-up controls. The corresponding addresses are P02, 0x0400-0x040B, in section 4.

Additional manufacturer-panel controls: Set application; Set protocol. "Chinese" is the selected language shown in the original screenshot.

Appendix A: Cross-document findings

Sources compared: the earlier Chinese WG-BC900M protocol V1.0.2 (22 pages); the supplied English Series protocol V1.0.2 (21 pages); and the bilingual Windows Operation Manual (5 pages). Both protocols carry V1.0.2, so the title alone does not establish which matches a particular firmware version. Page references below refer to the uploaded source files.

A.1 Evidence that supports corrections

Item	Evidence and treatment
Starting address, function 10H	The English protocol, p. 3, explicitly specifies WORD. This corrects BYTE in the earlier Chinese response table.
Battery register bit fields	Windows manual p. 2, English Home screenshot: a read of 0x0400-0x0409 returns 0x0000 at 0x0404 and 0x0200 at 0x0405 while the interface shows A = La-AGM / 12 V and B = Li-LFP / 12 V. Combined with the earlier voltage-code examples, this supports battery type in bits 15-8 and voltage in bits 7-0. The map here uses those corrected ranges.
Power mode, 0x0402 and 0x0208	The Home response returns 0x0002 at 0x0402 while BAT is displayed. The parameter-page screenshot on source p. 3 separately returns 0x0002 at 0x0208 with BAT displayed; its CRC A8 BB is correct. Both support Battery = 2. Section 5.9 follows the map: 0 = Standard, 1 = Custom, 2 = Battery.
On/off control, 0x0401	Windows manual p. 4 shows a green Open button after request 01 06 04 01 00 01 18 FA. The source text identifies green as off and red as on, consistent with 1 = Off and 0 = On. Button wording describes the action available.
CRC lookup implementation	English protocol p. 13 has 192 TabH entries, versus 256 in the earlier Chinese source. TabL has 256 entries in both. Its return expression uses crch/crcL although it declares crcH/crcL. Section 7.1 restores the earlier complete implementation; both tables and the algorithm have been checked.
Clear heading errors	English source 5.5 says B-side input voltage, but its address, text and units specify current: corrected to current. Source 5.14 says A-side compensation at 0x020D, but both register maps specify B: corrected to B. Addresses 409, 40A and 40B are formatted consistently as 0x0409, 0x040A and 0x040B.

A.2 Screenshot transaction used as evidence

Request: 01 03 04 00 00 0A C4 FD

Response: 01 03 14 00 00 00 00 02 00 04 00 00 02 00 00 05 00 05 00 0A 00 0A B7 2D

The response contains ten consecutive 16-bit registers. Its independently calculated CRC is B7 2D, matching the screenshot. The second transaction, from the parameter-page screenshot on source p. 3, is:

Request: 01 03 02 00 00 11 84 7E

Response: 01 03 22 06 41 00 10 00 01 05 B4 00 13 00 02 00 22 00 22 00 02 00 08 00 00 00 00 06 31 05 B9 00 23 00 04 03 44 A8 BB

This returns 17 registers from 0x0200, including 0x0208 = 0x0002. Its CRC is A8 BB. These are documentary observations for the displayed application/device combination, not live tests of your charger.

Appendix A: Cross-document findings (continued)

A.3 Remaining conflicts and variant differences

Item	Finding
0x020C / 0x020D / 0x0210	The earlier Chinese protocol calls these ACC voltage, RMT voltage and ADD auxiliary supply voltage. The English source calls them A-side compensation, B-side compensation and Reserved. The Windows response gives 0x0631, 0x05B9 and 0x0344 at these addresses (15.85 V, 14.65 V and 8.36 V at scale 100), close to the displayed ACC/RMT/AUX readings. This supports the earlier meanings for the pictured device. This edition follows the uploaded English map and flags firmware applicability as unconfirmed.
Battery examples 6.5-6.6	The English source describes a simple 0 = lead-acid / 1 = lithium selection. Its own register map and the Windows screenshot support packed chemistry and voltage codes. The source frames and explanation are retained with explicit conflict notes.
Overvoltage recovery	English source p. 7 says charging resumes below the threshold for 0x0823 and 0x0827, correcting the earlier Chinese wording. However, its repeated map on p. 18 still says above. The consolidated table follows the main map; the source is not internally consistent.
A/B start-up direction	Windows manual pp. 3-4 calls A forward and B reverse for delay and soft start. Both protocol register maps call A reverse output and B forward output. The operation manual retains its source wording and flags the conflict.
0x040B manufacturer data	The map title says Restore manufacturer data, while value 1 says Save. The earlier Chinese example says Restore. The Windows factory-reset button does not identify this register. Meaning remains unconfirmed.
0x081F display format	The English main map specifies %d; its repeated map specifies %.2f. Both give scale 1 and unit W. This edition uses %d from the main map and records the alternate format here.
Function 06H data range	The source range ends at 00FAH while its example writes 03E8. The source range is retained; individual register limits are not established by this example.
Example-only addresses	The general protocol examples use 0x0810-0x0812, outside the parameter map supplied here (0x081A-0x0833). Their applicability is not established.

A.4 Earlier section 7.2: frame-length correction

This example appears only in the earlier Chinese protocol. For its six listed values, the register count must be 0006 and the byte count 0C. The structurally corrected frames, with recalculated CRCs, are:

Request: 01 10 082E 0006 0C 0550 047E 04B0 09C4 0960 0073 76C4

Normal response: 01 10 082E 0006 2262

This repairs the frame structure for the listed payload; it does not establish that those example settings are appropriate for a particular installation.

Manufacturer contact (as supplied)

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