



PLC LV5V-8BYT BD Module Manual

V1.0

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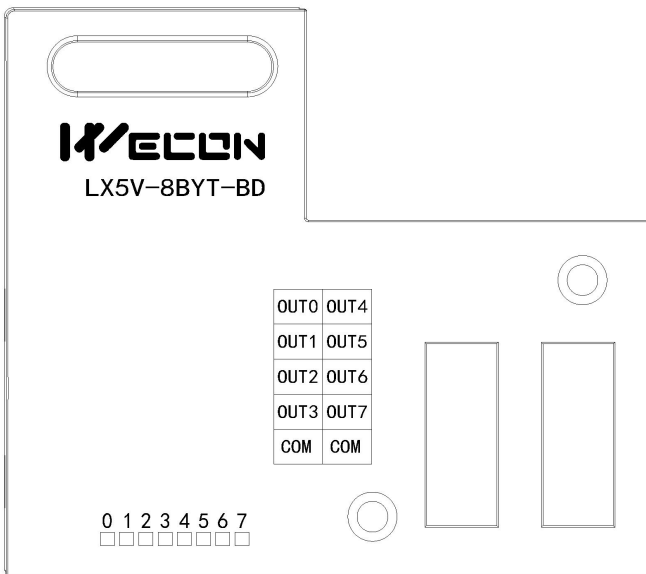


1 Naming rules

LX5V- 8BYT - BD

Model	Numbers of channel	Module type	I/O type	Output type	Product model
LX5V	8 channels	B	Y: Output X: Input	R: Relay T: Transistor	BD board

2 Appearance and terminal



Terminal description	
OUT0	Output point 1
OUT1	Output point 2
OUT2	Output point 3
OUT3	Output point 4
COM	Output common terminal
OUT4	Output point 5
OUT5	Output point 6
OUT6	Output point 7
OUT7	Output point 8
COM	Output common terminal

Note: Hot swapping is not supported by BD module! Please power on the PLC host after the BD module is installed.

- **Weight:** about 0.03 kg.
- **LED indicator:** 0 to 7 indicates channel OUT0 to OUT7. The light is on when there is output, and the light is off when there is no output.
- **Installation position:** It can only be installed in BD1 card slot of PLC host.

3 Output specification

Project		Transistor output
Model		LX5V-8BYT-BD
Output circuit composition		
External power supply		DC 5~30V
Circuit insulation		Digital capacitor isolation insulation
Action display		When the channel has output, the LED light corresponding to the channel will be on.
Maximum load	Resistance load	0.3 A/1 point; 1.2 A/4 points
	Inductive load	7.2W/DC24V
	Lamp load	0.9 W/DC24V
Open circuit leakage current		0.1 mA/DC30V
Minimum load		DC5V 2mA reference value
Response time	OFF → ON	Below 0.2 ms
	ON → OFF	Below 0.2 ms

4 PLC device description

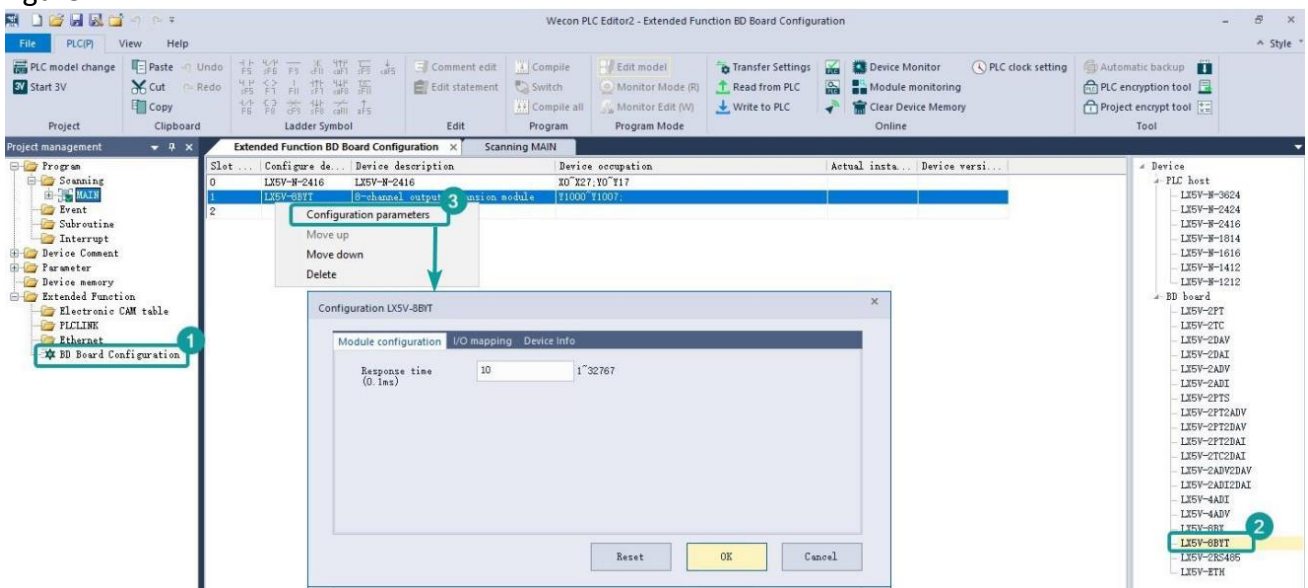
BD module	PLC type	Instructions for use
LX5V-8BYT-BD	LX3V	D8112: The lower eight bits are set to 1 or 0 to control the output OUT0 to OUT7.
	LX5V	When the PLC firmware version is 2.050 and below, the usage is as follows: SD2010: The lower eight bits are set to 1 or 0 to control the output OUT0 to OUT7. When the PLC firmware version is 2.051 and above, the usage is as follows: I/O mapping: OUT0 to OUT7 fixed mapping to Y1000 to Y1007. Response time: 0.1 to 3276.7 ms. (Response time: the interval time for PLC to write data to BD module) BD monitoring function. (See buffer memory description for details)

5 Instructions for use

5.1 Used on LX5V series host

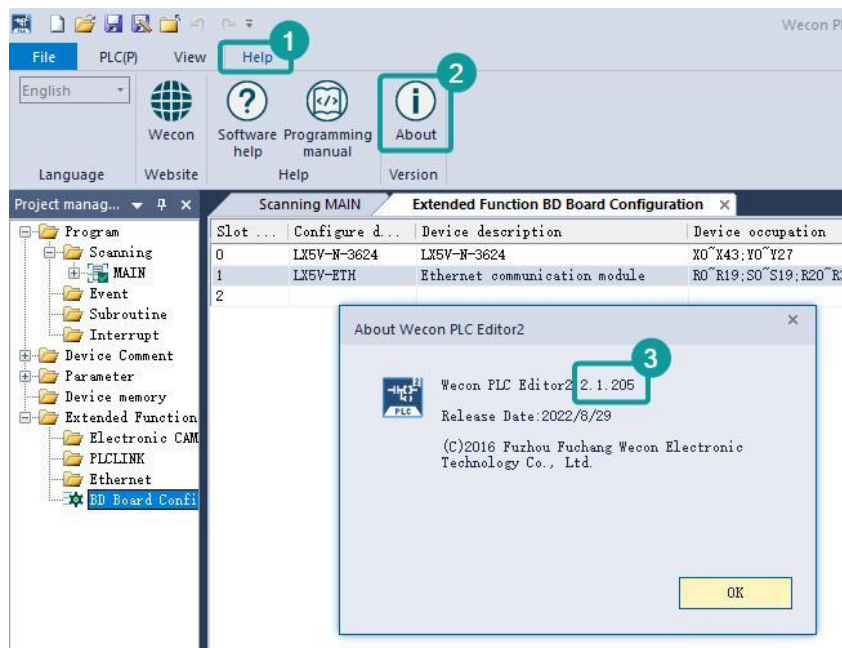
Parameter configuration

- ① Open the host computer software and create a new project, double-click "Project Manager" → "Extended Function" → "BD Module Configuration" **Note** to enter "BD settings" interface;
- ② Select "LX5V-8BYT" in the device bar on the right side of the BD module configuration interface and double-click to add it to the corresponding slot position of PLC (slot 1 or 2, the software will select slot 1 by default. You could right-click it to move to slot 2);
- ③ After adding BD module to the machine slot, double-click or right-click to select configuration parameters to enter LX5V-8BYT-BD configuration parameters interface, as shown in the following figure.

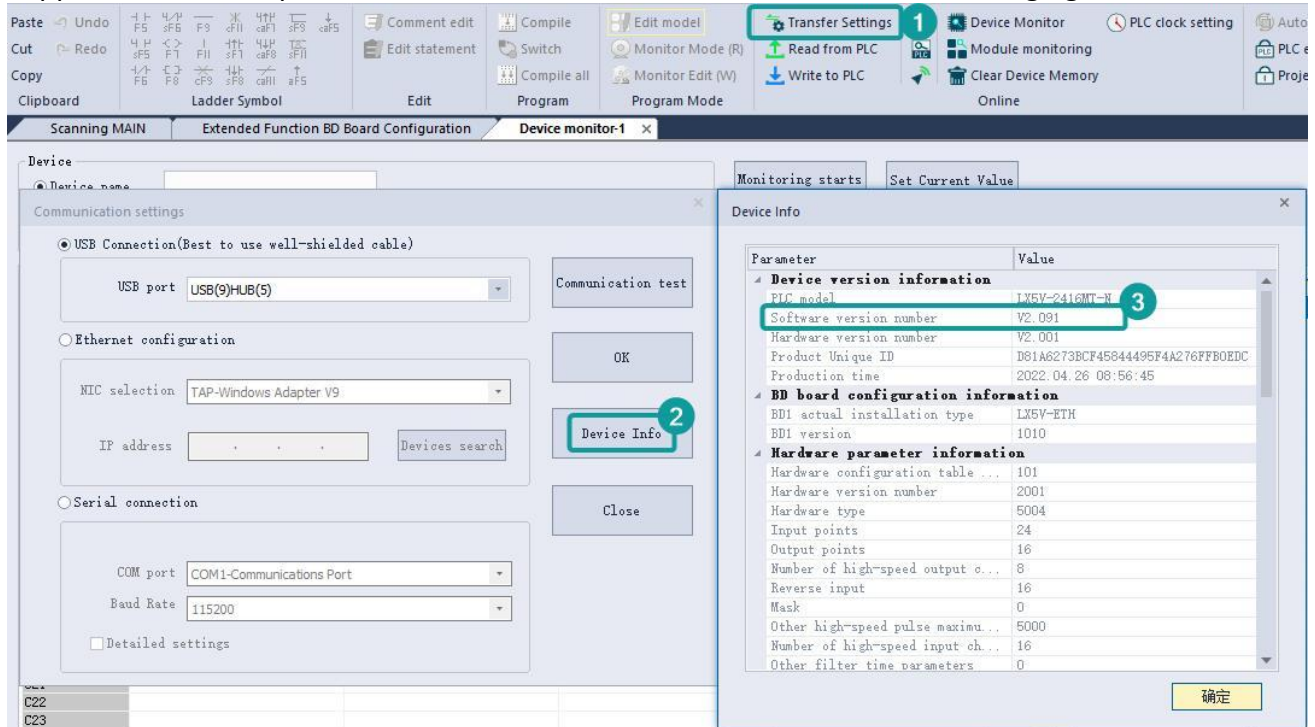


Note: This function is only supported in the following host computer and slave computer versions:

Supported host computer versions: Wecon PLC Editor 2 2.1.204 and above, as shown in the following figure:

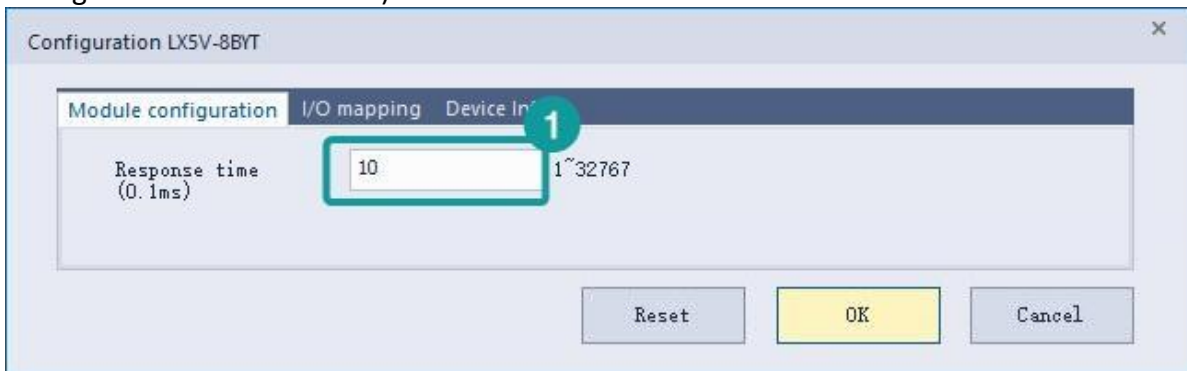


Supported slave computer versions: 2.051 and above, as shown in the following figure:

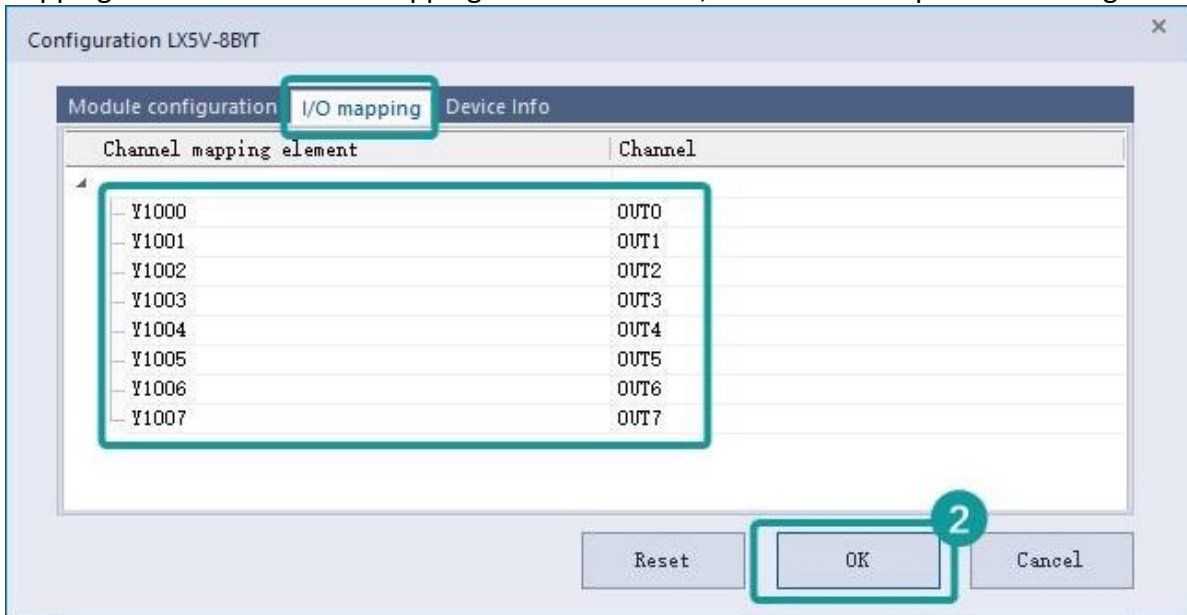


The parameter configuration interface is as follows:

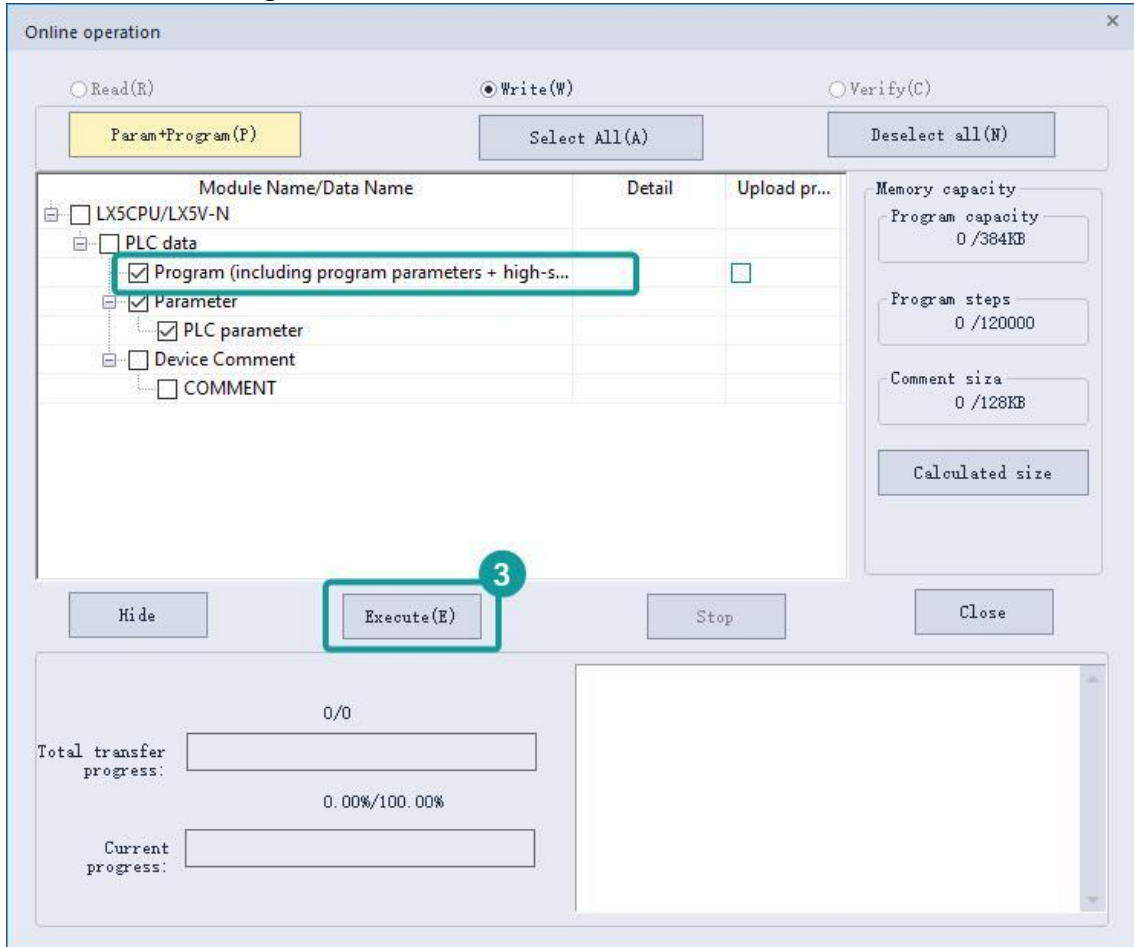
Set the response time. (The response time is the interval between PLC acquisition of BD module data. Range: 0.1 ms to 3276.7 ms).



I/O mapping: OUT0~OUT7 fixed mapping to Y1000~Y1007, click OK to complete the configuration.



After the BD module configuration is downloaded to PLC, it will take effect after STOP→RUN.



Ladder editing



Description:

Combine Y20~Y27 into bytes and map to SD2010. When Y23 is turned on, LED3 is on and OUT3 is turned on.

5.2 Used on LX3V series host

```

/*
 * Configuration: LX3V-1412MT-A + LX5V-8BYT-BD
 */
/*
 * Host output points: Y0 to Y7, Y10 to Y12
 */
/*
 * 8 channels output of BD board are Y20 to Y27
 */
    
```



Description:

Combine Y20~Y27 into bytes, and map to D8112.

When Y20 is turned on, LED0 is on and OUT0 is turned on;

When Y23 is turned on, LED3 is on and OUT3 is turned on.

5.3 BD Monitoring Interface and buffer memory

Open the module monitoring interface, select the BD module, select the online mode, and select LX5V-8BYT in the BD module list on the right side to monitor the BD module online.

Address	Value	Data type	Display format	Channel value	Description
0x2080		Word [Signed]	Binary		Status information
0x2082		Word [Unsigned]	Decimal		Error code
0x2084		Word [Unsigned]	Decimal		Current maximum package length
0x0200		Word [Unsigned]	Decimal		Number of retransmissions
0x0202		Word [Unsigned]	Decimal		Number of retransmissions of subpackages
0x0204		Word [Unsigned]	Decimal		Received times of sync frame
0x0206		Word [Unsigned]	Decimal		Sent times of sync frame
0x0208		Word [Unsigned]	Decimal		Sent times of sdo
0x020A		Word [Unsigned]	Decimal		Received times of sdo
0x020C		Word [Unsigned]	Decimal		Sent times of pdo
0x020E		Word [Unsigned]	Decimal		Received times of pdo
0x0210		Word [Unsigned]	Decimal		Latest error code. 0: Clear error code
0x0212		Word [Unsigned]	Decimal		Number of bytes sent
0x0214		Double word [Unsigned]	Decimal		Number of valid bytes sent
0x0218		Double word [Unsigned]	Decimal		Number of bytes received
0x021C		Double word [Unsigned]	Decimal		Number of valid bytes received
0x0220		Double word [Unsigned]	Decimal		Communication time, unit: s
0x0224		Double word [Unsigned]	Decimal		

Buffer memory (BFM)

BFM address	Power off hold	Read/write	Memory name	Default	Range	Description
0x2080	×	R	Channel value	0	0 to 0xFF	Display channel output status
0x2082	×	R	Status information	0	-	-
0x2084	×	R	Error code	0	-	-
0x200	×	R	Current maximum package length	0	0 to 0xFFFF	The maximum length of the currently sent package
0x202	×	R	Number of retransmissions	0	0 to 0xFFFF	Number of retransmissions
0x204	×	R	Number of retransmissions of subpackages	0	0 to 0xFFFF	Number of retransmissions of subpackages
0x206	×	R	Received times of sync frame	0	0 to 0xFFFF	Received times of sync frame
0x208	×	R	Sent times of sync frame	0	0 to 0xFFFF	Sent times of sync frame
0x20A	×	R	Sent times of SDO	0	0 to 0xFFFF	Sent times of SDO
0x20C	×	R	Received times of SDO	0	0 to 0xFFFF	Received times of SDO
0x20E	×	R	Sent times of PDO	0	0 to 0xFFFF	Sent times of PDO
0x210	×	R	Received times of PDO	0	0 to 0xFFFF	Received times of PDO
0x212	√	R/W	Latest error code	0	Only 0 can be written.	Protocol internal error code, used for developing positioning problem.
0x214	×	R	Number of bytes sent	0	0 to 0xFFFFFFFF	Number of bytes sent
0x218	×	R	Number of valid bytes sent	0	0 to 0xFFFFFFFF	Number of valid bytes sent
0x21C	×	R	Number of bytes received	0	0 to 0xFFFFFFFF	Number of bytes received
0x220	×	R	Number of valid bytes received	0	0 to 0xFFFFFFFF	Number of valid bytes received
0x224	×	R	Communication time (unit s)	0	0 to 0xFFFFFFFF	Time from power-on to current normal communication