

LJ Bed Control Box

BKZQ06-B0

Product Manual

Version V0.12

Thank you for choosing our product. Please read this product manual
carefully before use.

Manufacturer: Hangzhou Zhiyuan Technology Co., Ltd.

**Address: No.10, Naxian Street, Liangzhu Dalu Industrial Park, Hangzhou,
Zhejiang, China**

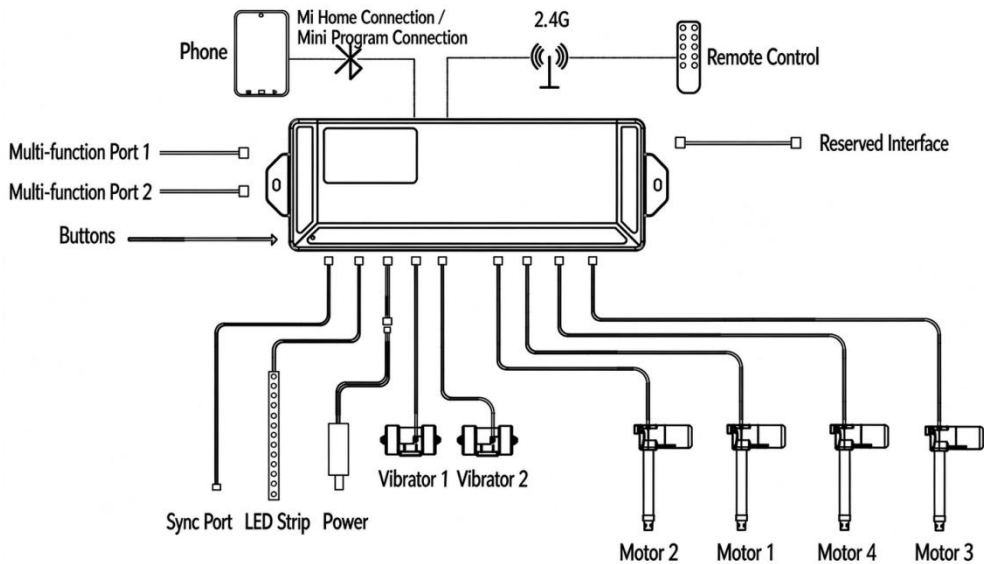


Revision History

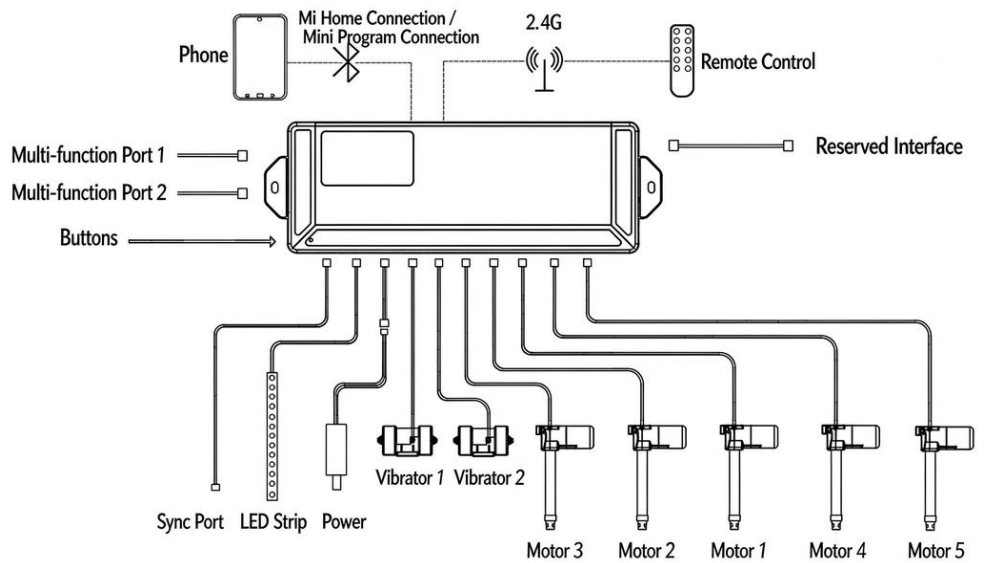
Version	Date	Description	Editor	Reviewer	Approver
V0.10	2026/07/14	Initial release	Liu Weiqiang	Liu Tong	Jiang Shi
V0.11	2026/09/22	Updated the "LED Strip" interface definition	Liu Weiqiang	Jiang Shi	Zeng Runtao
V0.12	2026/09/24	Added the system configuration diagram for the four-motor version	Liu Weiqiang	Jiang Shi	Zeng Runtao

一、 System Configuration

1. Four-Motor

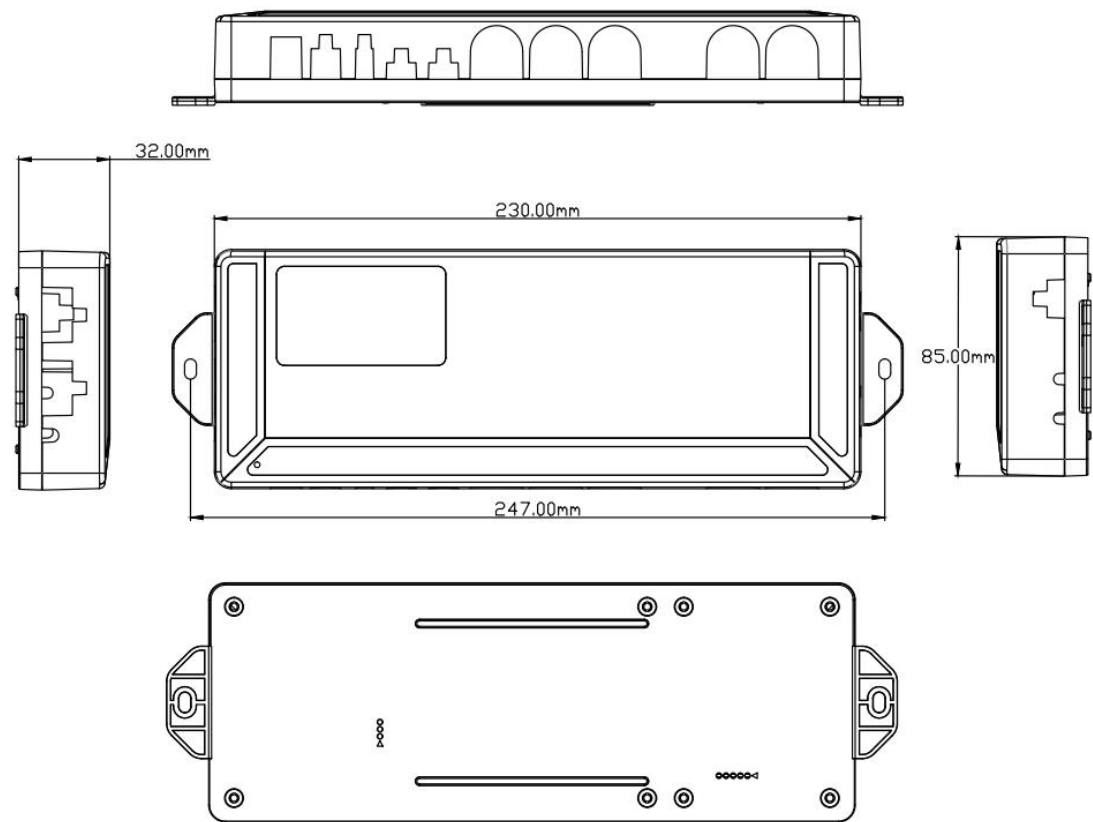


2. Five-Motor



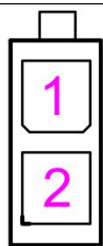
No.	Component	Qty (pcs)
1	Control Box	1
2	Motor	≤5
3	Vibrator	≤2
4	Power Adapter	1
5	LED Strip	≤1
6	Sync Port	≤1
7	Multi-function Port	≤2

二、 Appearance and Dimensions

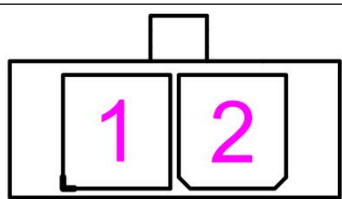


三、 External Connector Pin Definition (viewed facing the connector)

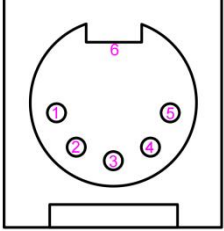
1. Power Input

	Pin	Definition
	1	+29V
	2	GND

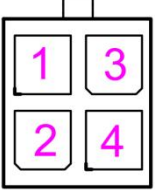
2. Vibrator (29V Powered)

	Pin	Definition
	1	OUT -
	2	OUT+

3. Motor (29V Powered)

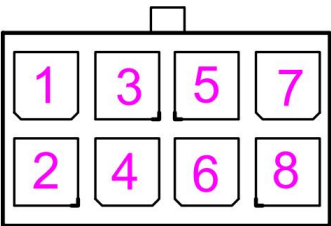
	Pin	Definition
	1	Hall power +5V (for Hall motor)
	2	MOTOA
	3	Hall signal
	4	MOTOB
	5	NC (No Connection)
	6	Hall power GND (for Hall motor)

4. LED Strip

	Pin	Definition
	1	LED strip power GND
	2	GND
	3	LED strip power +29V
	4	LED strip power GND

Interface notes: Pin 3 is normally connected to 29V, Pin 2 is normally connected to GND. Pins 1 and 4 have two states: floating and connected to GND,

5. Multi-function Port

	Pin	Definition
	1	+29V
	2	GND
	3	485B
	4	485A
	5	Signal 1
	6	Signal 3
	7	Signal 2
	8	+5V

四、 Technical Specifications

Nominal Voltage	DC29V
Rated Current	2A
Standby Power Consumption	<1.5W
Bluetooth Version	BLE5.0
Frequency Range	2400-2483.5MHz
Communication Distance	≤5m
Operating Environment	Temperature 0° C~50° C, Humidity 20%~75%
Storage Environment	Temperature -10° C~60° C, Humidity 0%~80%
Certification	

五、 Functional Description

1. The control box can drive up to five Hall or non-Hall DC motors, controlling the raising and lowering of the motors to adjust the angle of the electric bed, and allows user-defined memory positions. Note: when Motor 3, Motor 4, or Motor 5 uses a non-Hall motor, the memory position function is not supported; the third motor connector position differs between the four-motor and five-motor versions of the control box.
2. Supports control of up to two vibrators, with three adjustable vibration modes.
3. Supports on/off control of the LED strip (29V powered). Connect to pins 3 and 4, or pins 3 and 1 of the "LED Strip" connector.
4. The multi-function port provides 29V and 5V power output and supports 485 communication with peripheral devices. Three signal interfaces are reserved on the multi-function port, where Signal 1 and Signal 2 are in input mode and Signal 3 is in output mode. Note that the logic level is 3.3V.
5. The control box supports three communication connection methods to achieve its functions: remote control connection, Mi Home APP connection, and the WeChat Mini Program "Comfortable Sleep Moment". All three methods support motor angle control, memory position setting and recall, vibrator start/stop and mode switching, and LED strip on/off control.

六、 Version Information

Hardware Version	(P1)BKZQ(H)G01 & (P1)BKZQ(H)H01
Software Version	(P1)BKZQ(S)G0 & (P1)BKZQ(S)H01

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1)This device may not cause harmful interferenc

(2)this device must accept any interference received, including interference that may cause unde operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This device meets the FCC requirements for RF exposure.The device is designed for normal indoor use and complieswith applicable FCC exposure limits.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body