



JOYONWAY
BY BALBGA

P68B123-000

Control system manual

1	220-240V~ 10A 50Hz				
2	240V~ 10A 60Hz				
3	240V~ and 120V~ 10A 60Hz				
4	120V~ 12.5A 60Hz				

CAN ICES-003(B) / NMB-003(B)



Revised version

Version	Revised content	Reviser	Date
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Watch out for electricity shot!

WARNING

Please read carefully below items before installation.

Warning

1. Please make sure the cables are firmly connected.
2. Items containing electronic parts (except remote control) must be fixed, avoiding drop into the tub.
3. Power must be supplied through leakage protection device (RCD/GFCI) with rated current not over 30mA.
4. This device can only be connected to a power supply with a system impedance of no more than 0.099 ohms (single-phase input) or 0.001 ohms (multiphase input). If necessary, please consult with the power supply department system impedance information.
5. This control system is not suitable for cleaning with water or other solvents. Please do not attempt to maintain this control system yourself; Please contact your dealer or repair agency if maintenance is needed. Please follow all instructions about power connection in the manual. Installation must be carried out by a licensed electrician. All ground wire connections must be properly installed. (tightening torque for ground wire recommended is 3 N · M)
6. Only copper wires with a temperature resistance exceeding 75 °C can be used for power supply.
7. The single-phase input current of the European standard cannot exceed 10A, and the input current of the American standard cannot exceed 12.5A; The load current carried by the control system cannot exceed the rated input current.
8. Corresponding ground wires of the final product need to be connected to the equipotential terminals.
9. This controller is not intend for transportable pool use.

Dispose the product properly.

1. This symbol indicates that the product should not be disposed of together with other household waste throughout the EU.
2. To prevent potential hazards to the environment or human health caused by uncontrolled waste disposal, please responsibly recycle and utilize the wastes to promote sustainable reuse of material resources.
3. To return used products, please use the return and pickup system or contact the dealer who sells the product. They can safety recycle the products.



1. Product Overview

Power input : 220-240V~ 10A 50Hz

240V~ 10A 60Hz

240V~ and 120V~ 10A 60Hz

120V~ 12.5A 60Hz

Model: P68B123-000

Output:

1 set of ON/OFF type or RGB type SPA light
(+5V/2A or +12/1A)

1 set of circ pump (2.0A)

1 set of ozone (0.2A)

1 set of heat pump (10.5A)



Operating ambient temperature-20°C~55°C

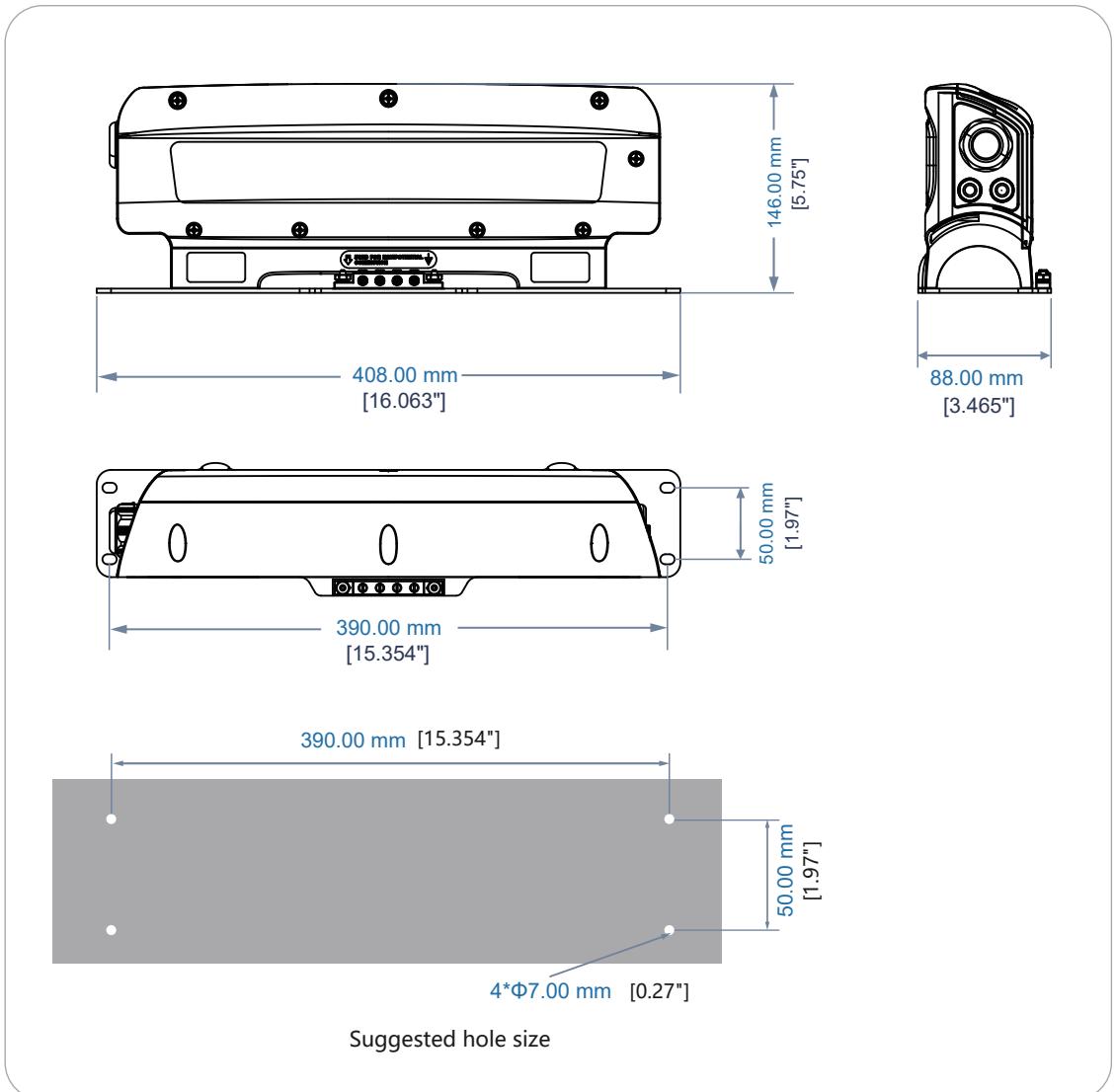
Freeze proof

Matching Panel: PB562-000 Any version



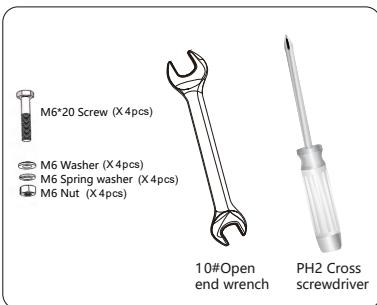
2、Product size

2.1、P68B123-000 Control system size and installation instructions

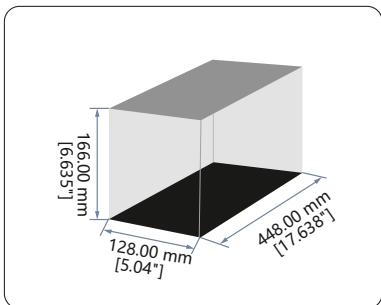


Installation instructions

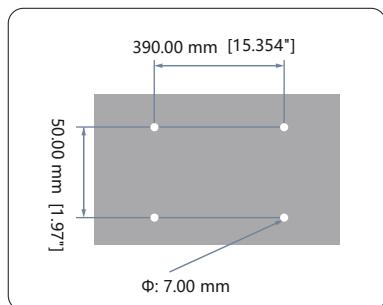
Fixing and installation



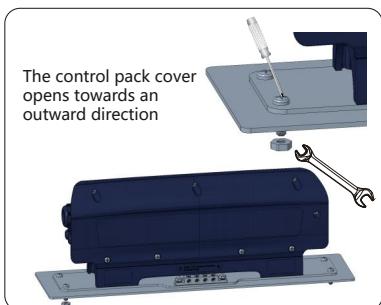
1. Materials and tools to be prepared.



2. The distance between the product and the obstacle should be 20mm or more.



3. Please make holes on the fixing plate according to the size in the figure.



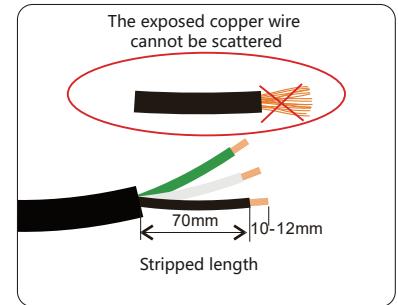
4. As shown in the figure, align the control pack with the fixing plate hole positions and use a special wrench to lock the M6 screws in sequence.

Installation instructions

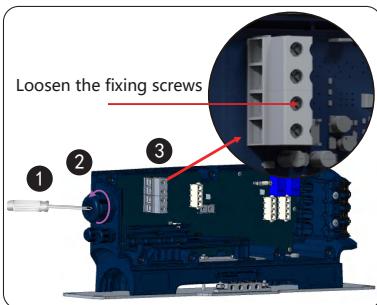
P68B123-000 Power connection



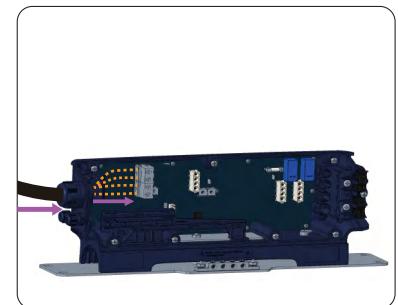
1. Installation tools



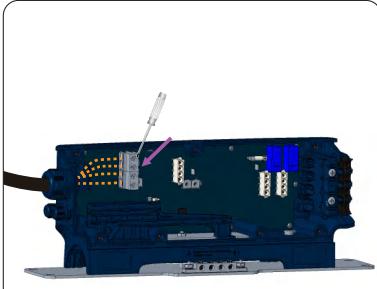
2. Strip the power cord of approximately the length shown in the figure



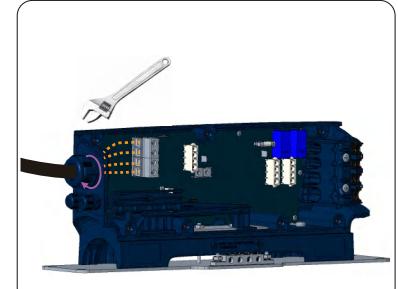
3. ① Firstly, use a screwdriver to poke and remove the rubber plug;
 ② Loosen the gland nut by rotating in the direction shown in the figure above;
 ③ Unscrew the screw on the "main power input terminal" to loose its wiring connecting port.



4. Thread the main power cord through hole of the gland nut; Connect the power cord to the corresponding terminal hole as shown in the wiring diagram on the control pack cover.



5. After the power cord is connected to the terminal hole, tighten the screw with a screwdriver to compress the wires. The recommended torque is 2.5-3.0N · M. Check if the power cord is secure.



6. After confirming that each power cord is secured, tighten the waterproof gland nut, and then use a special wrench to tighten it completely.

Installation instructions

Wire installation



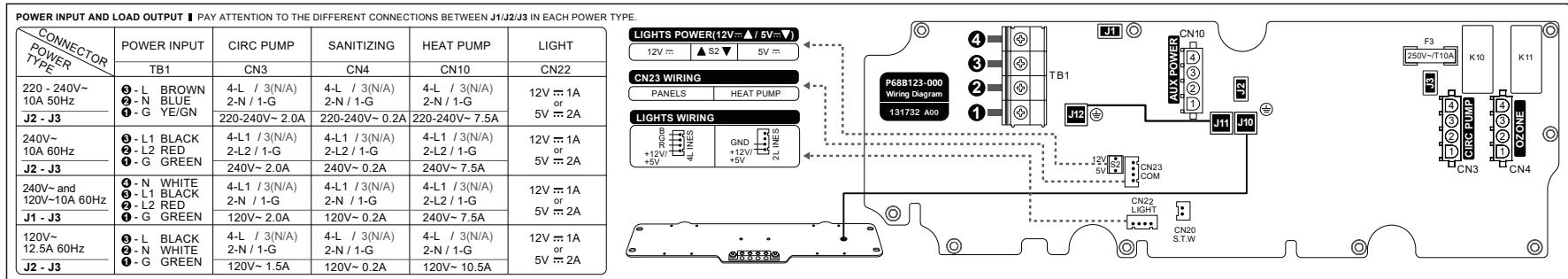
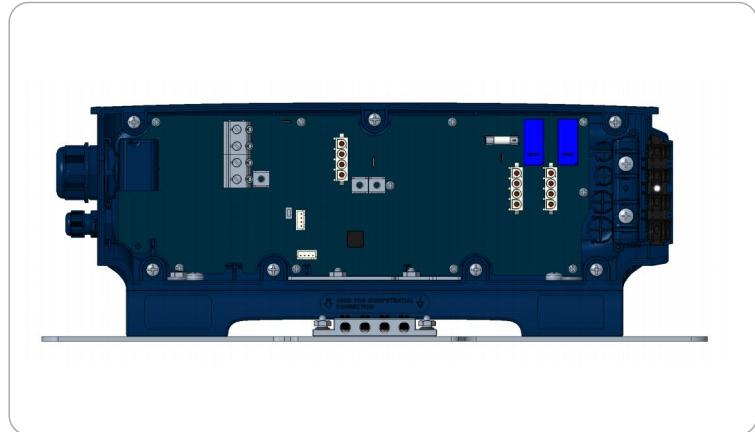
Wrong way of wire installation, as shown in the above figure



The product may work in a humid environment. Moisture may condense into water droplets or other leaks on the wires due to changes in temperature difference. Such water will flow along the wires onto the product. Long time immersion may cause product damage and even accidents. So, it is strongly recommended to install according to the following requirements: **All the connecting wires are bent into a U-shaped shape, as shown in the above figure.**

3. Basic information

3.1. Wiring diagram



3.2、Power Supply and Load

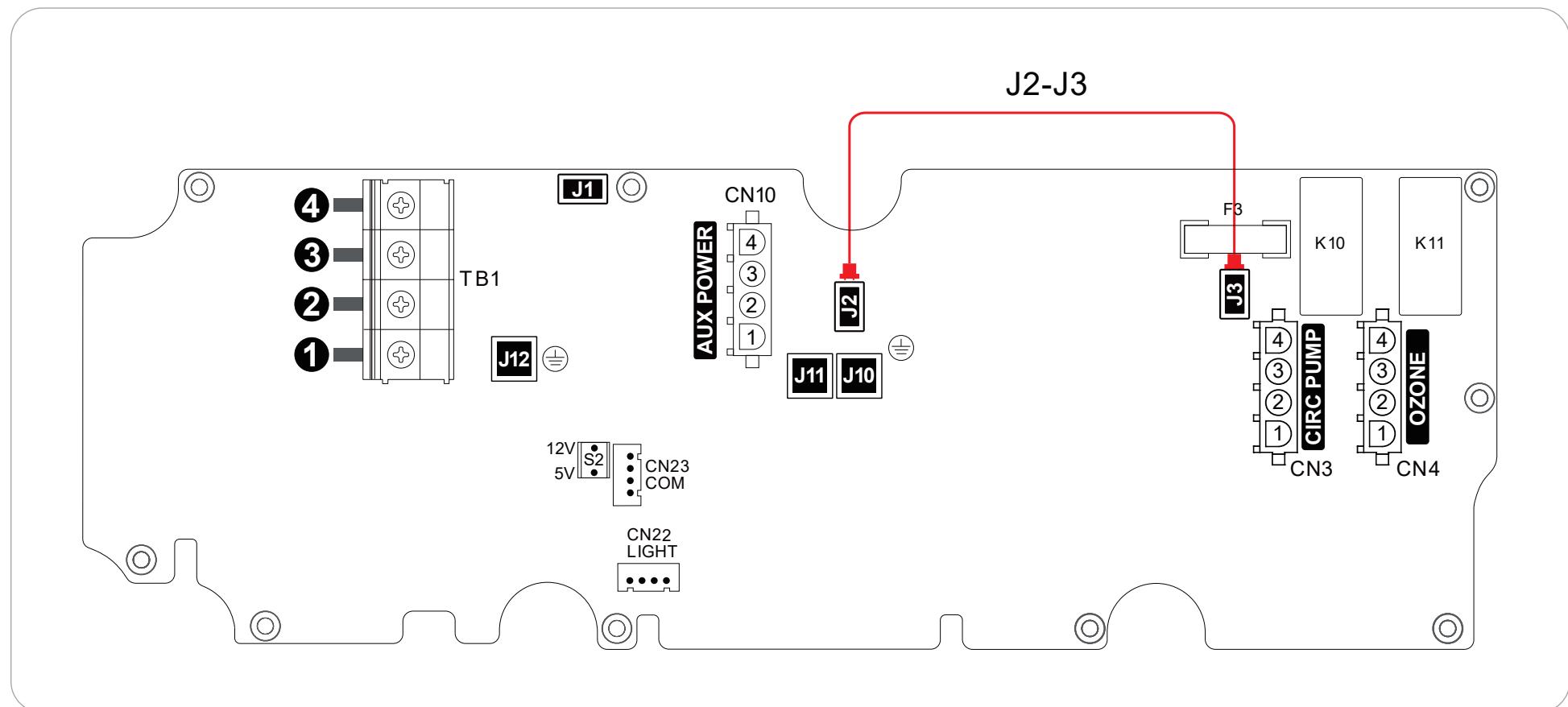
POWER INPUT AND LOAD OUTPUT

PAY ATTENTION TO THE DIFFERENT CONNECTIONS BETWEEN **J1/J2/J3** IN EACH POWER TYPE.

CONNECTOR POWER TYPE	POWER INPUT	CIRC PUMP	SANITIZING	HEAT PUMP	LIGHT
	TB1	CN3	CN4	CN10	CN22
220 - 240V~ 10A 50Hz J2 - J3	③ - L BROWN ② - N BLUE ① - G YE/GN	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	12V = 1A or 5V = 2A
		220-240V~ 2.0A	220-240V~ 0.2A	220-240V~ 7.5A	
240V~ 10A 60Hz J2 - J3	③ - L1 BLACK ② - L2 RED ① - G GREEN	4-L1 / 3(N/A) 2-L2 / 1-G	4-L1 / 3(N/A) 2-L2 / 1-G	4-L1 / 3(N/A) 2-L2 / 1-G	12V = 1A or 5V = 2A
		240V~ 2.0A	240V~ 0.2A	240V~ 7.5A	
240V~ and 120V~ 10A 60Hz J1 - J3	④ - N WHITE ③ - L1 BLACK ② - L2 RED ① - G GREEN	4-L1 / 3(N/A) 2-N / 1-G	4-L1 / 3(N/A) 2-N / 1-G	4-L1 / 3(N/A) 2-L2 / 1-G	12V = 1A or 5V = 2A
		120V~ 2.0A	120V~ 0.2A	240V~ 7.5A	
120V~ 12.5A 60Hz J2 - J3	③ - L BLACK ② - N WHITE ① - G GREEN	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	12V = 1A or 5V = 2A
		120V~ 1.5A	120V~ 0.2A	120V~ 10.5A	

220-240V~ 10A 50Hz J2 - J3

CONNECTOR POWER TYPE	POWER INPUT	CIRC PUMP	SANITIZING	HEAT PUMP	LIGHT
	TB1	CN3	CN4	CN10	CN22
220 - 240V~ 10A 50Hz J2 - J3	③ - L BROWN ② - N BLUE ① - G YE/GN	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	4-L / 3(N/A) 2-N / 1-G	12V = 1A or 5V = 2A
		220-240V~ 2.0A	220-240V~ 0.2A	220-240V~ 7.5A	

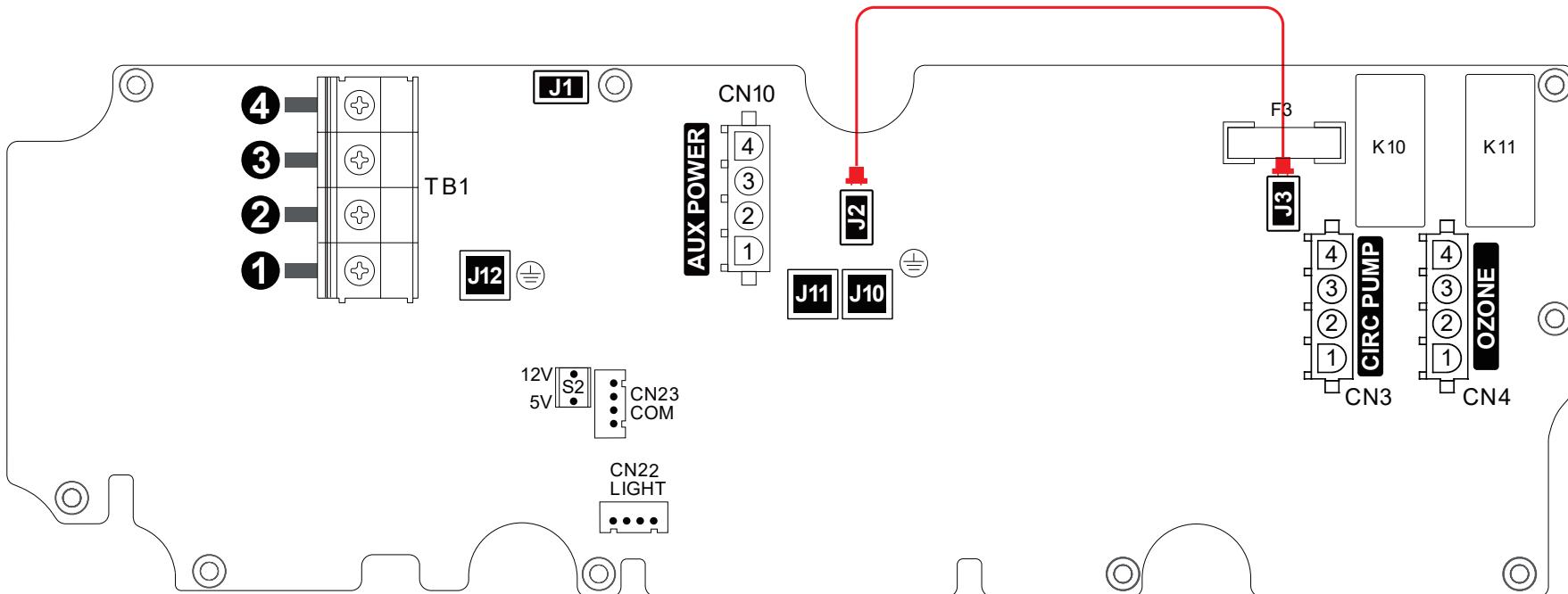


240V~ 10A 60HZ

J2 - J3

CONNECTOR POWER TYPE	POWER INPUT	CIRC PUMP	SANITIZING	HEAT PUMP	LIGHT
	TB1	CN3	CN4	CN10	CN22
240V~ 10A 60Hz J2 - J3	③ - L1 BLACK ② - L2 RED ① - G GREEN	4-L1 / 3(N/A) 2-L2 / 1-G 240V~ 2.0A	4-L1 / 3(N/A) 2-L2 / 1-G 240V~ 0.2A	4-L1 / 3(N/A) 2-L2 / 1-G 240V~ 7.5A	12V --- 1A or 5V --- 2A

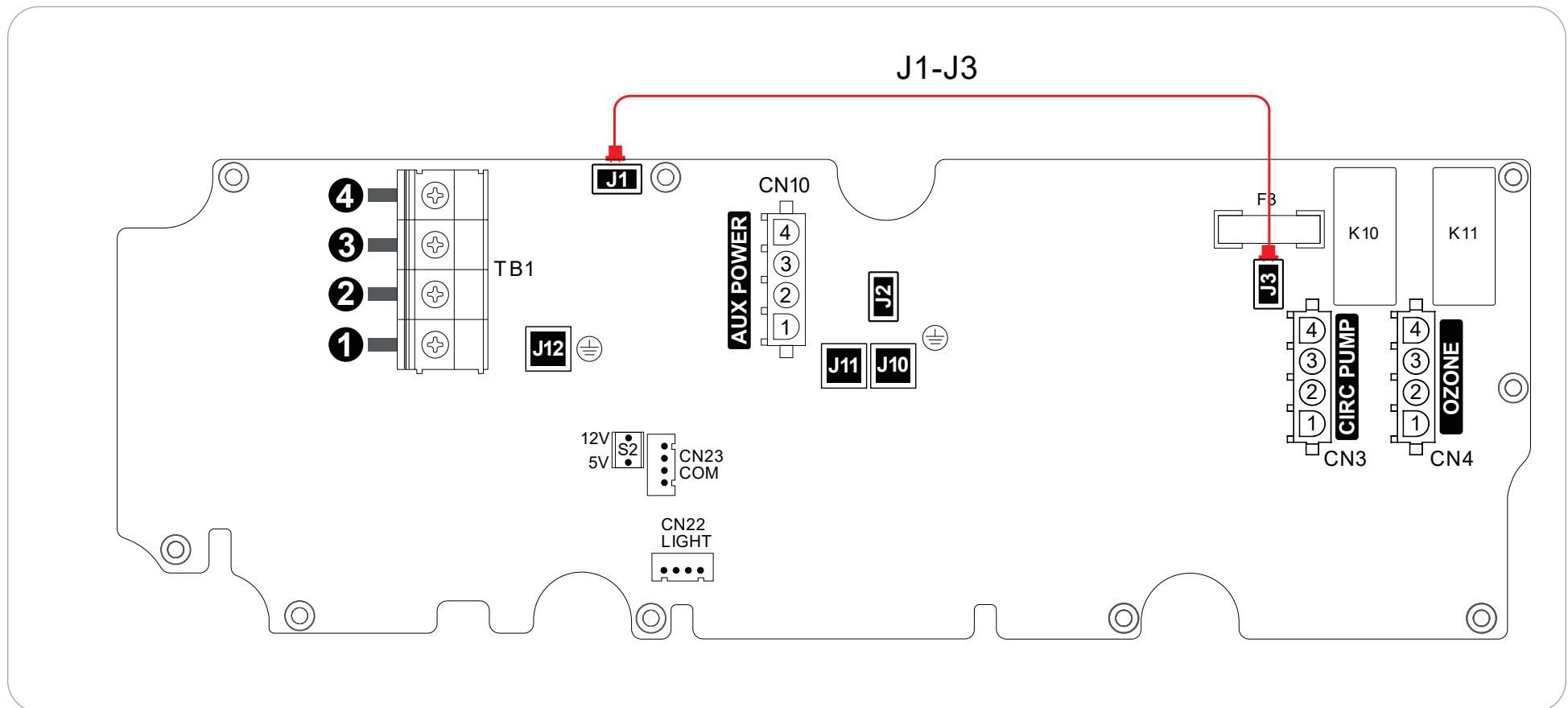
J2-J3



240V~ and 120V~ 10A 60HZ

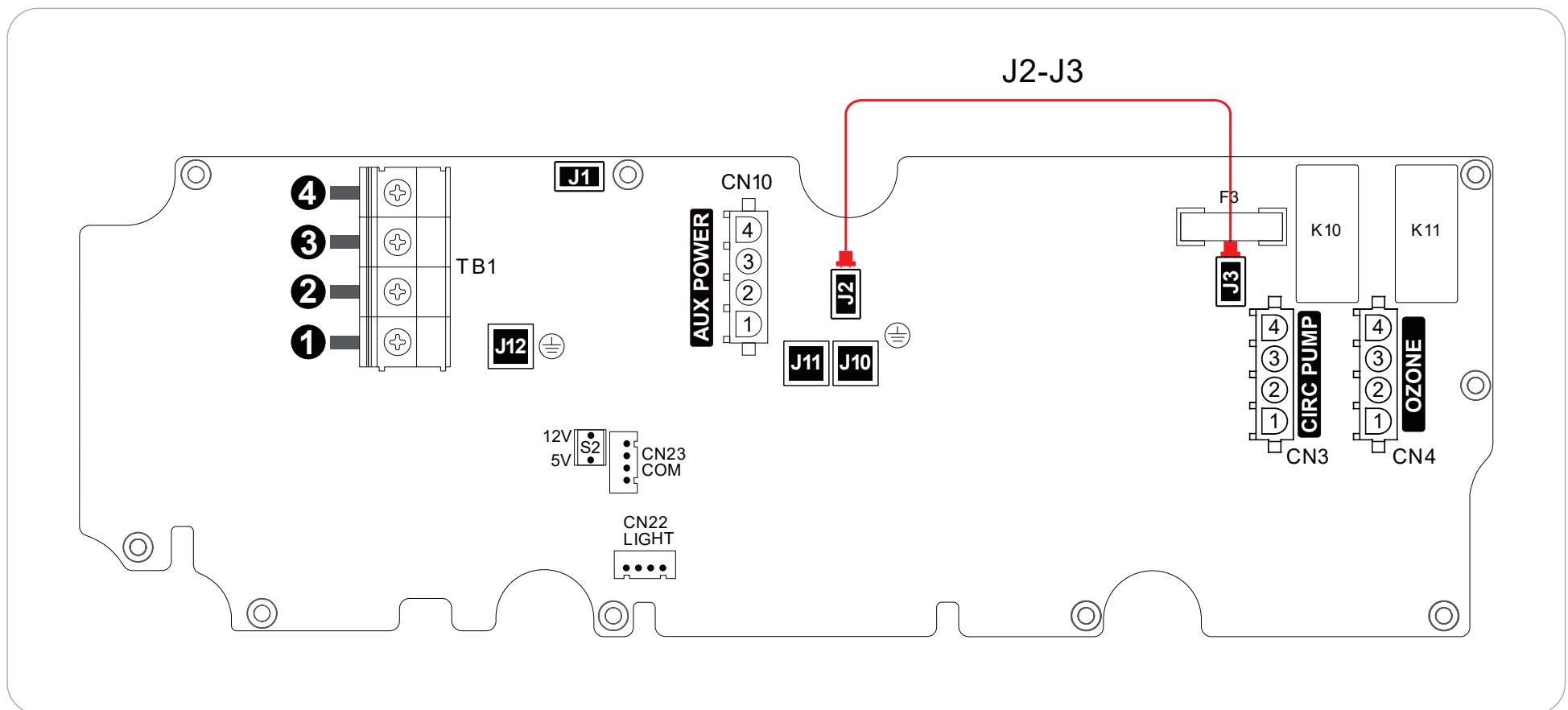
J1 - J3

CONNECTOR POWER	POWER INPUT	CIRC PUMP	SANITIZING	HEAT PUMP	LIGHT
	TB1	CN3	CN4	CN10	CN22
240V~ and 120V~ 10A 60Hz J1 - J3	④ - N WHITE ③ - L1 BLACK ② - L2 RED ① - G GREEN	4-L1 / 3(N/A) 2-N / 1-G 120V~ 2.0A	4-L1 / 3(N/A) 2-N / 1-G 120V~ 0.2A	4-L1 / 3(N/A) 2-L2 / 1-G 240V~ 7.5A	12V ... 1A or 5V ... 2A



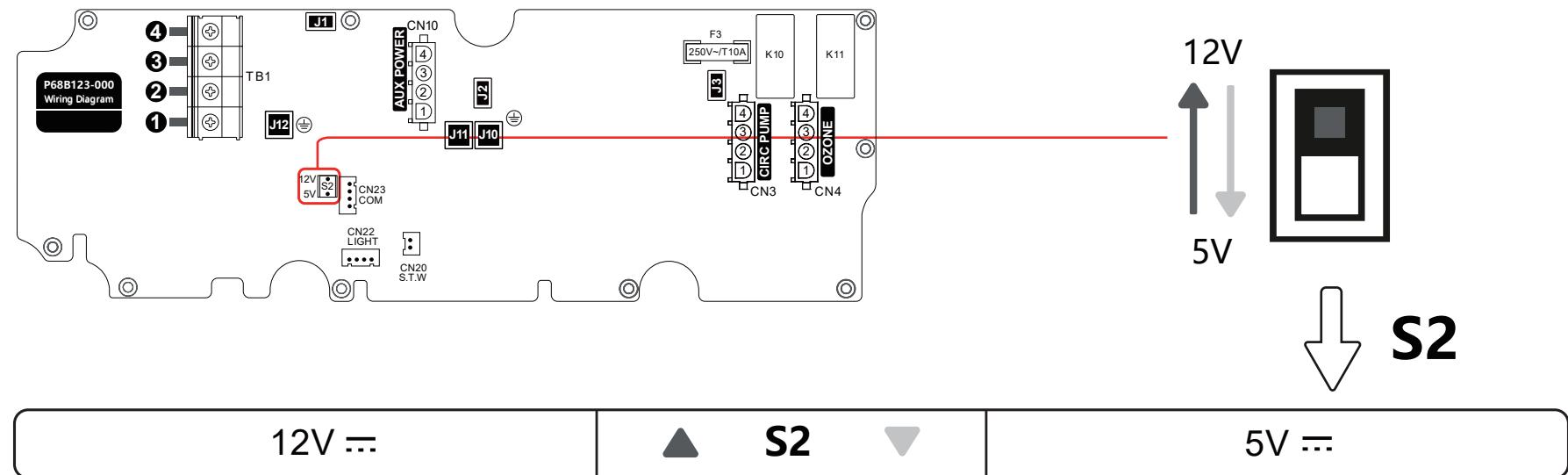
120V~ 12.5A 60HZ J2 - J3

CONNECTOR POWER	POWER INPUT	CIRC PUMP	SANITIZING	HEAT PUMP	LIGHT
	TB1	CN3	CN4	CN10	CN22
120V~ 12.5A 60Hz J2 - J3	③ - L BLACK ② - N WHITE ① - G GREEN	4-L / 3(N/A) 2-N / 1-G 120V~ 1.5A	4-L / 3(N/A) 2-N / 1-G 120V~ 0.2A	4-L / 3(N/A) 2-N / 1-G 120V~ 10.5A	12V = 1A or 5V = 2A



3.3. Power supply configuration of the light

The power configuration of the light is set according to the S2 table on the PCB board.



- ▲ 12V == : When set upwards ▲, the power output of the light is 12V
- ▼ 5V == : When set downwards ▼, the power output of the light is 5V



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