# FB3000 & FB3200 Series User Manual

Version: 2.0
Date: November, 2015

# 1. Introduction

### 1.1 Features

- LED light for lane indication
- Advanced sensor system
- Audible and visible alarm
- Fire alarm integration
- Optional counter
- Flap release when power off

### 1.2 Specifications

| | | | |
|---|---|---|---|
| Dimension (mm) | L = 1200, W = 300, H = 1000<br>(FB3000 Master / FB3000 Slave / FB3200) | Packing Dimension (mm) | FB1000: L = 1400, W = 400, H = 1100<br>(FB3000 Master / FB3000 Slave / FB3200) |
| Net Weight | FB3000: 135kg (Master+Slave)<br>FB3200: 86kg | Power Supply Input | AC 100V ~ 240V, 50Hz ~ 60Hz |
| Flap Width | 270mm | Power Supply Output | 24V ~ 5A |
| Interface | Dry Contact | Power Rate | Idle 60W, working 110W |
| Open / Close Time | 1s | Capacity | 25 ~ 30 /minute |
| Working Temp. | -28 ºC ~ 60 ºC | Working Humidity | 5% ~ 80% |
| Sensor | 8 | Working Environment | Indoor / Outdoor (with shelter) |

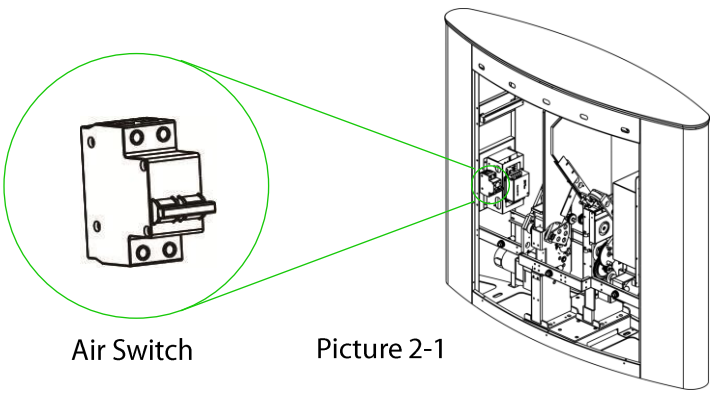
# 2. Test Before Installation

**Process**

① Power on the device with AC 110V/220V (Notice: the earth must be connected).

② Wait 30 seconds until the device finishes self-detection.

③ Check the flap opening in both directions, and check the LED. If it works fine, start installation.



Air Switch

Picture 2-1

# 3. Installation

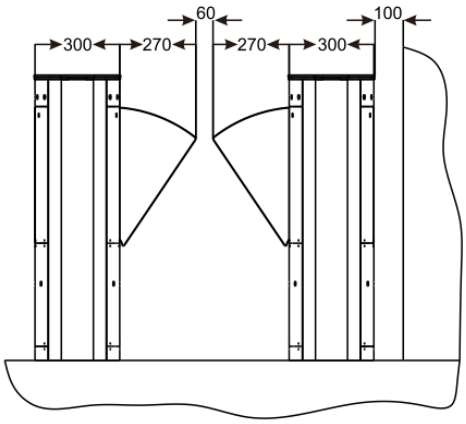
## 3.1 Conditions and the Location

The installation base must be solid to ensure that the expansion screws are well mounted to fix the devices.

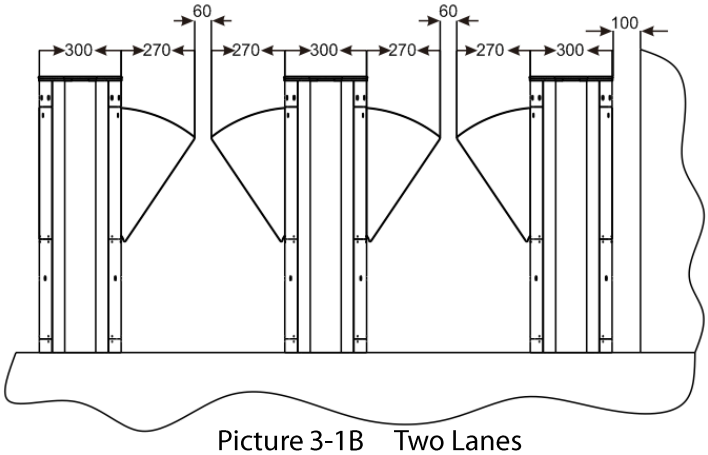
Confirm the installation position.

**FB3000 is only for one-lane use. For two-lane or more, please combine FB3000 and FB3200.**

If the flap barrier is close to the wall, a space of 100mm distance between the device and the wall should be reserved in order to open the cover and change the setting.




Picture 3-1A One Lane




Picture 3-1B Two Lanes

## 3.2 Wiring

Regarding to the wiring position, please check picture 3-2.

Please use the 3 PINs wire including earth wire for power. In order to avoid jamming between high voltage power wire and communication wire, it is recommended to separate these two kinds of wire in different pipes. The earth must be connected.

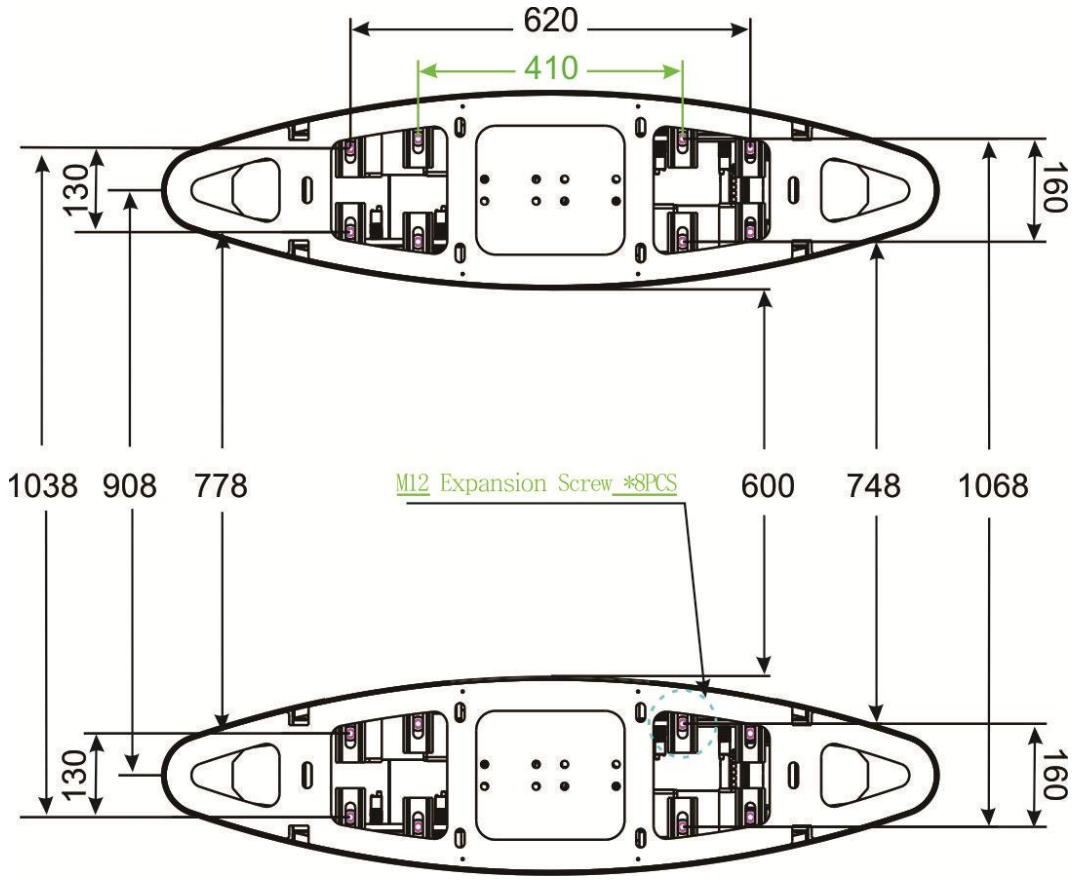
## 3.3 Installation

**Process**

① Power on the master device and slave device, ensure the 6 pairs of sensor on both sides are fitted. The distance between two flaps should be 60mm when they are in closed status.

② Mark the position of the device and the holes for expansion screws.

③ Drill holes on the marked position. The holes should be 14mm diameter and 80mm depth.

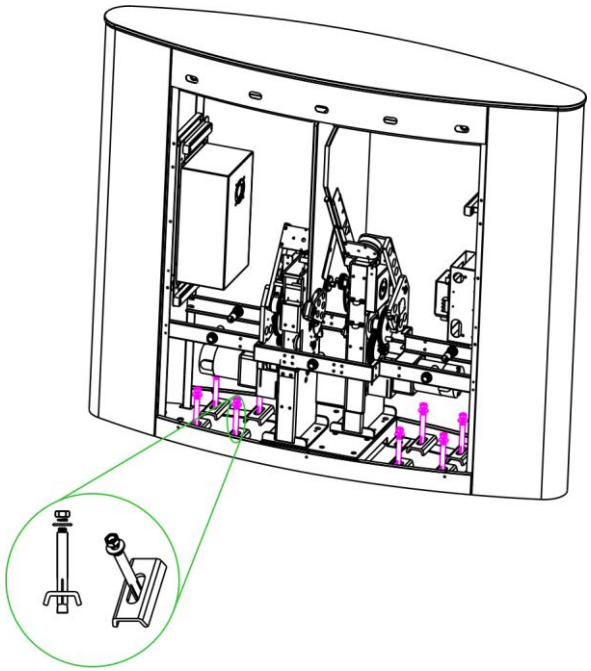



Picture 3-2

④ Put the glue on the expansion screws and put into the holes. Put the flap barrier device on the proper position.

Ensure that the device is horizontally installed.

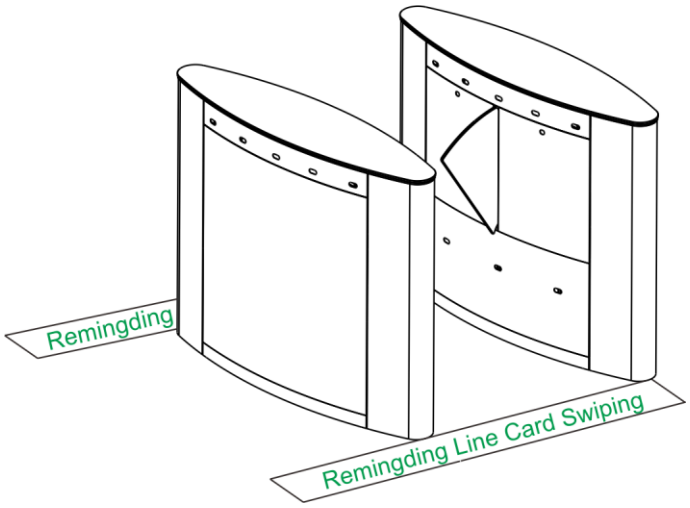
Note: There must be 8 expansion screws for each side.



Picture 3-3

### 3.4 Set Reminding Line

It is recommended to set the reminding line on the ground. The user will stay out of the reminding line to swipe card or press fingerprint.



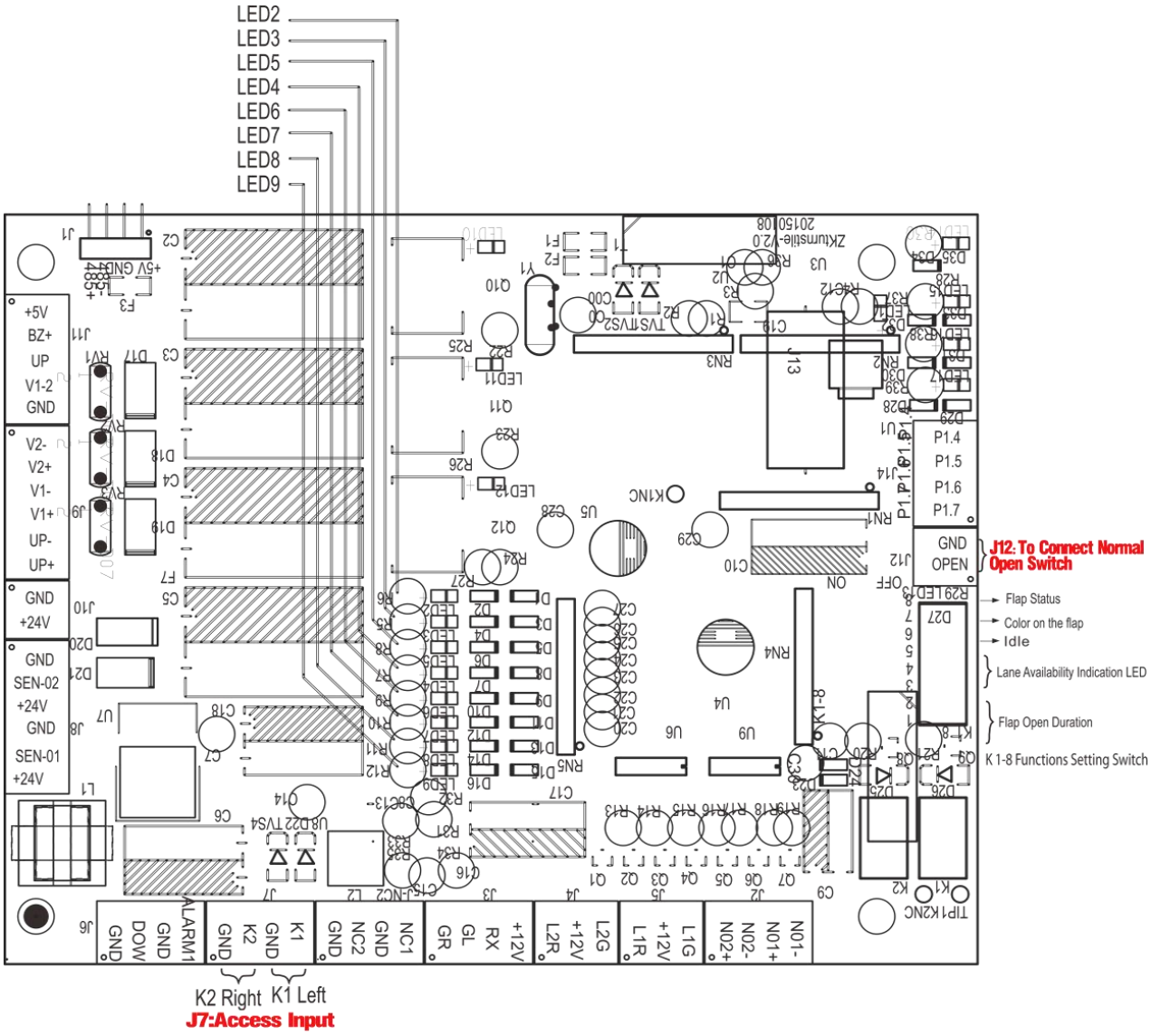

Picture 3-4

# 4. PCB Wiring

Access control system is already included in FB3011, FB3022, FB3211 and FB3222.

Access control system is not included in FB3000 and FB3200. Third party access control system need to be connected to the integration interface of the flap barrier.

### 4.1 Flap Barrier Controller Introduction




Picture 4-1

LED15 Alarm Status: The LED is on when there is an alarm.

LED5 K1 Input: The LED is on when K1 input has open signal.

LED4 K2 Input: The LED is on when K2 input has open signal.

LED6 Master Device Close: The LED is on when master device closes.

LED7 Master Device Open: The LED is on when master device opens.

LED8 Slave Device Close: The LED is on when slave device closes.

LED9 Slave Device Open: The LED is on when slave device opens.

J7 Access Input: Flap opening input interface, receive dry contact signal to open the flap. There are two pairs of input for both in and out. That means access control system need two relays to indicate in and out.

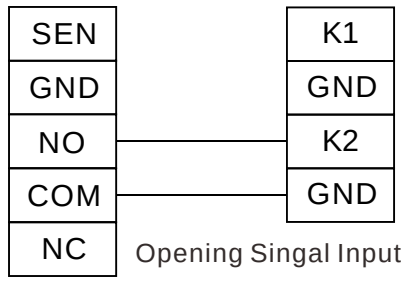
J12: Emergency input for normal open, for example fire alarm input.

### 4.2 Wiring between Master and Slave Device

There are three 6-conductor cables. All the conductor should be well connected to make sure the device works fine. The color of the wiring between master and slave device are as following table.

| NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Color of conductor | R | B | G | W | Y | O | R | B | G | W | Y | O | R | B | G | W | Y | O | | |
| Color of the wire | Black (6PIN) | | | | | | Red (6PIN) | | | | | | Green (6PIN) | | | | | | | |

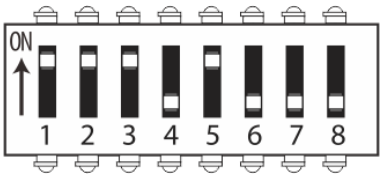
### 4.3 Connection between Access Control System and Flap Controller




Picture 4-3

**Note: The access control relay open duration should be no more than 1 second.**

### 4.4 DIP Switch K1-8 Setting




Picture 4-4

| No. | K1-1 | K1-2 | K1-3 | K1-4 | K1-5 | K1-6 | K1-7 | K1-8 |
|---|---|---|---|---|---|---|---|---|
| Function | Flap open duration | | | Lane direction | | Reserved | Flap LED color | Flap status |
| Default | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |

#### 4.4.1 Flap Open Duration

Flap barriers will be opened after receiving open signal from access control system. The flap open duration refers to the opening time of the door without passer-by.

Use the K1-1, K1-2, K1-3 to set this open duration.

| Value | Flap Open Duration | Value | Flap Open Duration |
|---|---|---|---|
| 111 | 5s | 011 | 30s |
| 110 | 10s | 010 | 40s |
| 101 | 15s | 001 | 50s |
| 100 | 20s | 000 | 60s |

### 4.4.2 Lane Availability Indication LED

Use the K1-4 and K1-5 to set the LED for indicating the status of the lane. Green arrow indicates available. Red cross indicates not available.

| K1-4 | K1-5 | Lane Status |
|---|---|---|
| 0 | 1 | Two direction available |
| 1 | 0 | One direction available (In) |
| 1 | 1 | One direction available (Out) |

### 4.4.3 Color on the Flap

Default color can be set on the flap.

| K1-7 | Color |
|---|---|
| 0 | Green |
| 1 | Red |

### 4.4.4 Flap Status

| K1-8 | Flap Status |
|---|---|
| 0 | Flap normal close |
| 1 | Flap normal open |

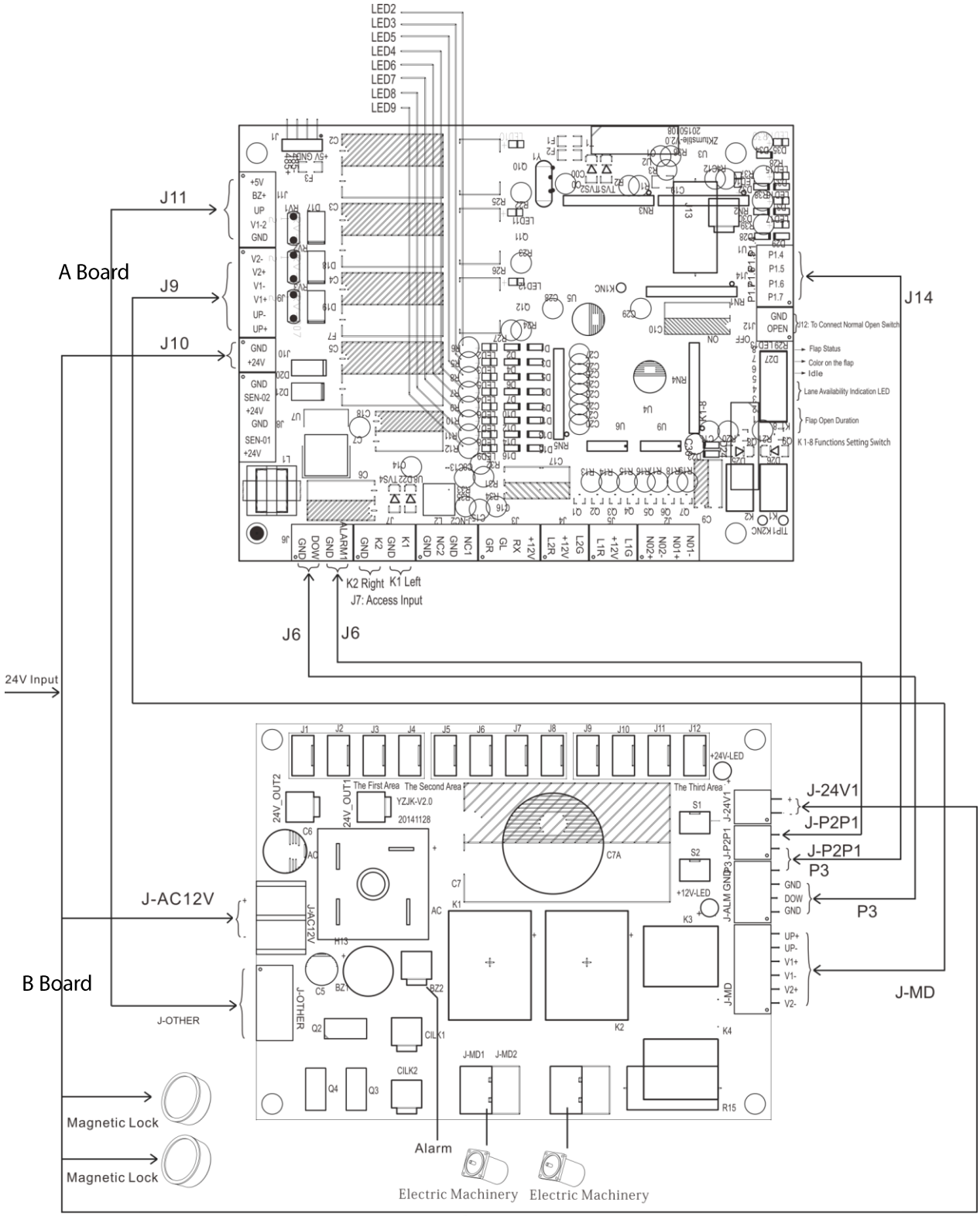
## Appendix 1 Default Setting

| Category | No. | Function | Default Setting |
|---|---|---|---|
| Access Control | 1 | Lock Open Duration | 1s |
| | 2 | IP | 192.168.1.201 |
| Flap Setting | 1 | Flap Open Duration | 5s (K1-1=1, K1-2=1, K1-3=1) |
| | 2 | Lane Indication LED | Available in both directions (K1-4 = 0, K1-5 = 1) |
| | 3 | Color on the Flap | Green (K1-7=0) |
| | 4 | Flap Status | Normal Close (K1-8 = 0) |

# Appendix 2 Connection Diagram among Boards

**Connection between PCB boards of Flap barrier controller**

| A board | B board |
|---|---|
| J11 | J-OTHER |
| J9 | J-MD |
| J6 (DOW and GND) | P3 |
| J6 (ALARM1 and GND) | J-P2P1 |
| J14 (P1.5 and P1.6) | J-P2P1 and P3 |



# Appendix 3 Connection Diagram of A Board and Access Control Panel