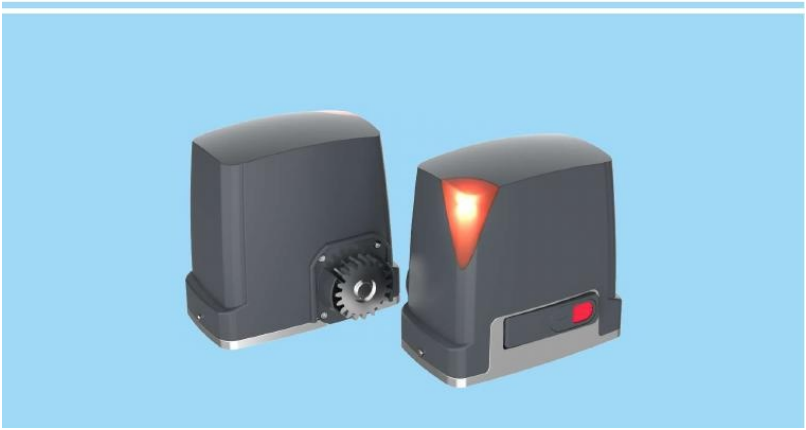
BAISEN ACCESS

# BS-FDC SERIES



**Models: BS-FDC600 / BS-FDC800 | 24V DC**

Read this manual before installation, commissioning or service.

# 1. Safety Instructions

1. Installation, electrical work, commissioning and maintenance must be performed by qualified personnel.
2. Disconnect power before opening the housing, wiring accessories or operating the manual-release mechanism.
3. Install reliable earthing and suitable upstream circuit protection according to local regulations.
4. The gate must move freely by hand and have mechanical end stops before the operator is installed.
5. Do not allow people, vehicles or objects within the moving-gate area during operation.
6. Install photocells, safety edges, warning devices and emergency controls according to the site risk assessment.
7. Do not use the operator in explosive, corrosive or flooded environments.
8. Do not exceed the applicable gate weight, duty, voltage or environmental limits.
9. Keep remote controls away from children and prevent unintended operation.
10. Inspect the gate, rack, fasteners, wiring and safety devices periodically.

# 2. Product Overview & Dimensions

The BS-FDC series is an integrated sliding-gate operator with a 24V DC motor, reduction gearbox, controller, manual-release mechanism and magnetic-limit system. Confirm installation clearance and the delivered base dimensions before fabricating the concrete pad.

1.2、外形尺寸

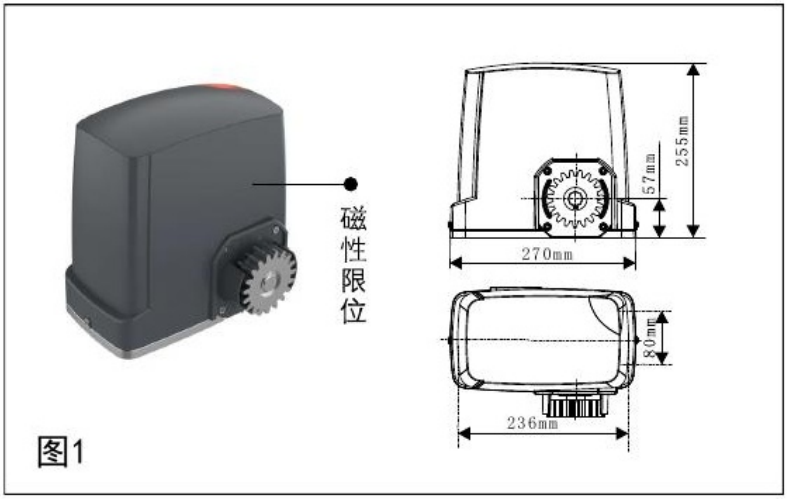



图1

# 3. Product Structure & Specifications

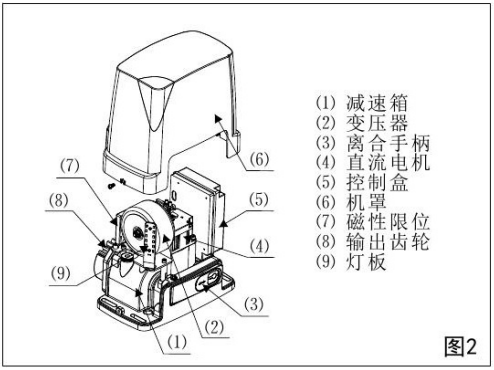


图2

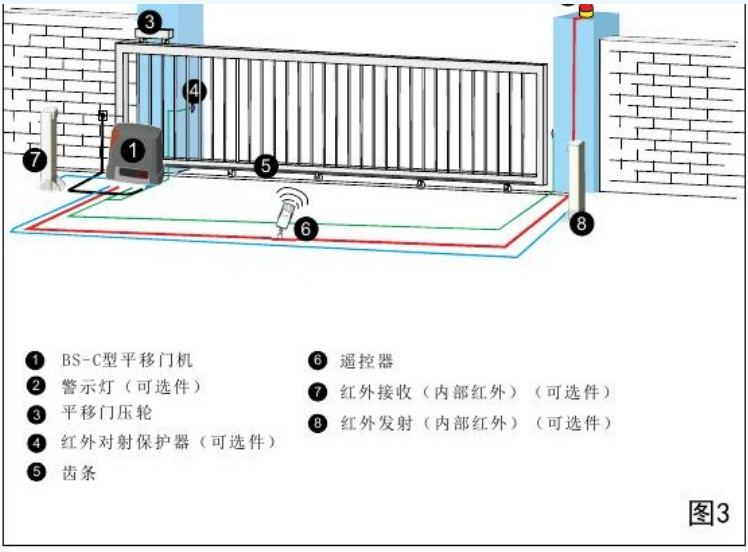
1.4、主要技术参数

| Item | BS-FDC600 | BS-FDC800 |
|---|---|---|
| Input power | 220V AC +/-10%, 50Hz | 220V AC +/-10%, 50Hz |
| Motor voltage | 24V DC | 24V DC |
| Motor power | 120W | 150W |
| Output speed | 50 r/min | 50 r/min |
| Maximum gate weight | 600 kg | 800 kg |
| Gate speed | 12 m/min | 12 m/min |
| Operating temperature | -30C to +60C | -30C to +60C |
| Relative humidity | <= 90% | <= 90% |
| Remote range | >= 30 m under stated conditions | >= 30 m under stated conditions |

# 4. Functions & Typical System

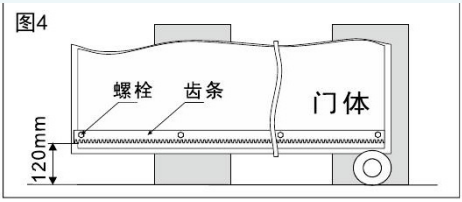
Main functions: built-in controller; quick manual release for power failure; soft start and soft stop; accurate magnetic limits; terminals for wall switch, photocell, pressure/safety edge, loop detector and warning light; optional adjustable automatic closing.

A typical installation includes the operator, rack, guide rollers, remote control and project-specific safety devices.



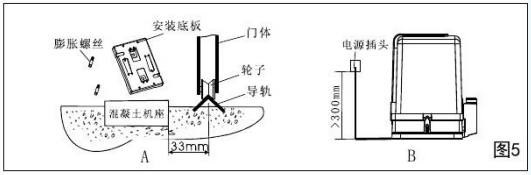
# 5. Rack, Base Plate & Magnetic Limits

Install the rack parallel to the gate travel. Keep approximately 1 mm backlash between the rack and output gear; the gate weight must not rest on the output gear. Secure the base plate on a stable concrete foundation using suitable M8 anchors. Position the opening and closing magnets so the operator stops before the mechanical end stops.

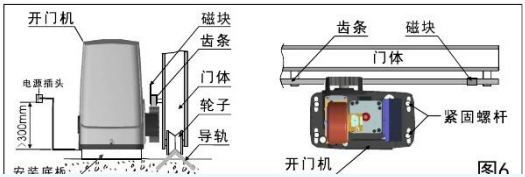



2.2、底板安装

注意：
- 请先确定好安装底板相对于门体的合适位置，以便于下一步平移门机的安装；
- 保证安装底板的水平。




2.3、产品安装与调试



# 6. Operator Installation & Manual Release

Before installation, disengage the clutch. Move the gate manually across the full travel to confirm smooth movement. Mount the operator vertically on the base plate and tighten the M8 fasteners.

Manual release: isolate power, operate the release handle through approximately 90 degrees to disengage the drive, and move the gate by hand. Re-engage the drive before electrical operation.

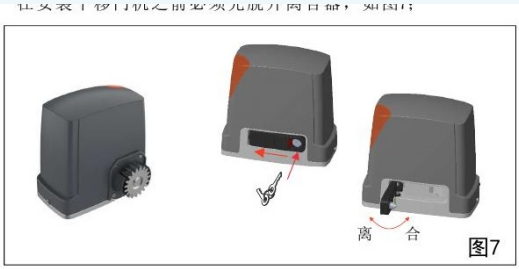


图7

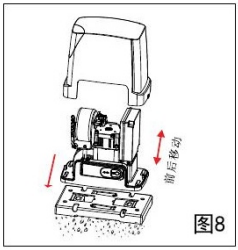


图8

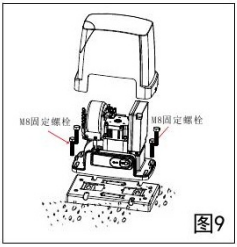


图9

（注：齿条与齿轮啮合间隙应保持1mm）

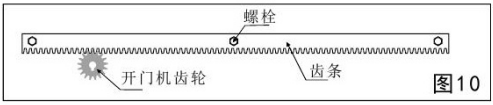
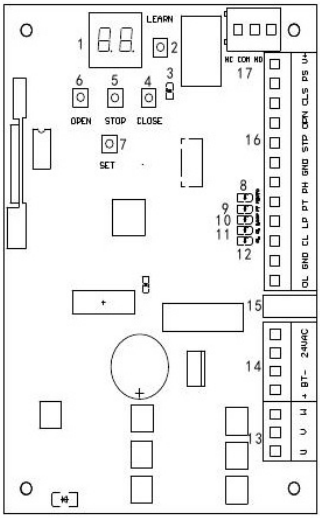


图10

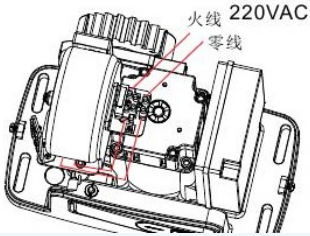
警告：

# 7. Control Board Functions

The control board provides display and setting keys, remote-learning input, status indicators, motor/Hall connections, signal inputs, relay output, 24V AC supply and backup-battery connection. Indicator logic shown in the source: opening/closing limit and photocell/safety-edge indicators are active when OFF; loop input is active when ON. Always confirm the terminal legend on the delivered controller.



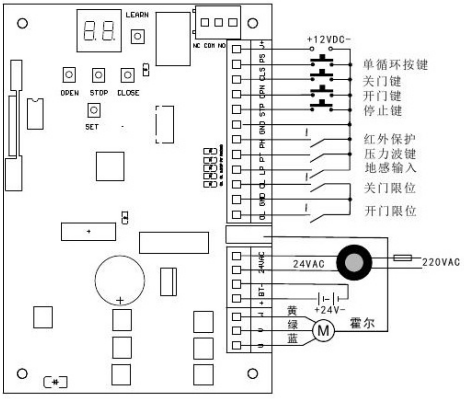

1. 数码管(显示)
2. 遥控学习键
3. 遥控学习灯
4. 关门/减小键
5. 停止/退出键
6. 开门/增加键
7. 设置键
8. 红外状态灯(灯灭有效)
9. 压力波开关状态灯(灯灭有效)
10. 地感信号状态灯(灯亮有效)
11. 关限位状态灯(灯灭有效)
12. 开限位状态灯(灯灭有效)
13. 电机线接口
14. 24VAC输入和备用电池接口
15. 电机霍尔线接口
16. 各信号输入接口
17. 继电器输出接口



# 8. Wiring

Isolate mains power before wiring. Connect 220V AC line, neutral and protective earth to the designated terminals. Connect the 24V motor and Hall-sensor leads exactly as marked. External inputs include single-cycle, OPEN, CLOSE, STOP, photocell, pressure/safety edge, loop detector and opening/closing limits.

The photocell input is normally closed and is factory-bridged when no photocell is installed. Remove the bridge only when connecting a compatible device. The single-cycle input follows OPEN - STOP - CLOSE - OPEN.

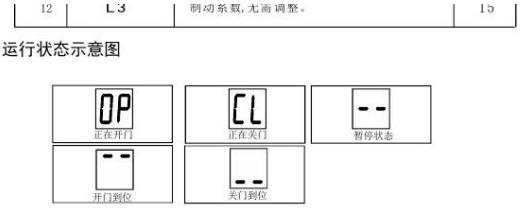



注：

1. 调试过程中，如发现电机实际运行的方向和需求不符，可更改P6参数（见参数设置表）。
2. 红外保护为常闭模式，出厂红外接口已用线短接，如要连接红外，需将短接线拆除。
3. 单循环按键的运行模式为开--停--关--开循环。

# 9. Parameter Reference

| Code | Description | Factory |
|---|---|---|
| P1 | Power-on first-run speed, level 1-8 | 3 |
| P2 | Motor speed, level 1-8 | 8 |
| P3 | Motor run protection time, seconds | 60 |
| P4 | Travel deceleration distance, 0-15 | 3 |
| P5 | Obstacle-reversal sensitivity, 0-20 | 10 |
| P6 | Motor direction: 0 normal / 1 reverse | 0 |
| P7 | Auto-close delay, 0-99 s; 0 disabled | 0 |
| P8 | Single-button / three-button mode: 0 / 1 | 0 |
| P9 | Display mode; normally set to 0 | 0 |
| L0 | Soft-stop low speed, 1 fastest / 5 slowest | 5 |
| L1 | Test mode; normally set to 0 | 0 |
| L2 | Relay: 0 warning lamp / 1 traffic light | 0 |
| L3 | Braking coefficient; no adjustment required | 15 |

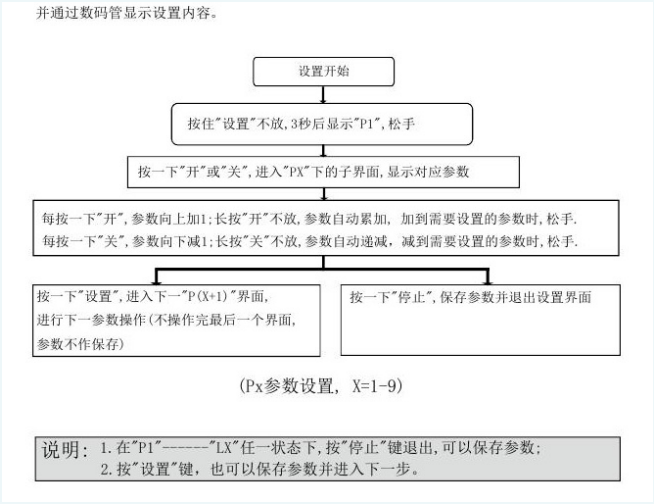


# 10. Parameter Setting & Travel Learning

Parameter setting: hold SET for 3 seconds until P1 appears. Press OPEN or CLOSE to enter the selected parameter value. Use OPEN to increase and CLOSE to decrease. Press SET to move to the next parameter; press STOP to save and exit.

Travel learning: after a power interruption, run the gate through one complete uninterrupted opening and closing cycle between both limits. A successful learning cycle is shown by the controller display.

Clear learned travel: with the gate stopped, hold STOP and then hold OPEN for approximately 3 seconds until three beeps and CLR are displayed. Then perform travel learning again.



# 11. Troubleshooting & Remote Learning

Remote learning: press the learning key for about 1 second. When the learning indicator turns on, press any remote button until the indicator flashes and turns off.
Clear remotes: hold the learning key for approximately 8 seconds until the indicator turns off. All remotes must then be learned again.

| Symptom / Code | Likely cause | Action |
|---|---|---|
| Motor runs but gate does not move | Manual release disengaged | Re-engage the clutch |
| Stops after 2 s / reverses | Obstruction, excessive load or sensitivity setting | Remove obstruction; verify gate load; adjust P5 carefully |
| Immediately reverses while closing | Obstruction or photocell misalignment/failure | Clear path; align or replace photocell |
| Motor does not start | No power or fuse open | Check supply/wiring; replace correct fuse |
| Motor does not stop at limit | Magnet damaged, mispositioned or wrong polarity | Replace/reposition magnet and verify polarity |
| E1 | Run timeout | Set protection time to actual travel |
| E2 | Parameter error | Controller restores parameters automatically |
| E3 / E4 / E6 | Motor stall / obstruction / overcurrent | Remove obstruction; inspect motor and wiring |
| E5 | Photocell obstruction | Clear obstruction and check photocell |
| E7 | Loop detector active | Clears after loop input is removed |
| E8 | Motor driver fault | Restart; replace controller if fault remains |
| E9 / EH | Hall lead disconnected or Hall fault | Reconnect Hall lead or replace motor |

# BS-FDC600 / BS-FDC800

Neutral English Installation & Operation Manual

Specifications and accessory compatibility require confirmation for the delivered model.