

SUNCOME-S180FU

Important Tips:

Please read the instructional manual carefully before wiring the control system and start the door.



Instruction

- Copyright 2015 by Shanghai Suncome.
- After the publication of this manual, the previous edition will be invalid.
- It will not inform in advance if the contents or data of the manual changes.
- SUNCOME has its patent and has right to use and register, no party is allowed to copy any information without the consent from us. Otherwise, those who violated shall assume the civil compensation liabilities.
- S150FU control system manual is designed by suncome's technical innovation. It must be operate by professional technicians who are knowledgeable about motor and technological automation.
- This manual introduces the various functions of control system, please check the content about the detailed description and security information.
- We make every effort to complete this manual, but we cannot guaranty its integrity and accuracy with 100%.
- Shanghai Suncome has no responsibility for losses caused by any failure of instruction or error operation.
- We'll be appreciated if you inform us any problems you find here.
- Described installation in the manual is based on a good installation status, so we can not ensure the control system for the best performance in the unsound environment.
- We can not assure that the manual is suitable for strange protection treaty. Besides, we can't issue the patent certification and other protection clause license.
- Our warranty for maintenance only go directly to clients, not to be rent or transferred. And we can't guarantee for the whole system.
- The use and function of the products description are not considered as a warranty, which has changed by our technology innovation.

1. Safety Instruction

1	Pay attention to the important safety instruction, installation and connection when operating the control system.
2	All the installation should be operated by professional trained technicians and complied with the following rules and regulations:VDE0100, EN50110 (VDE 0105), EN60204 (VDE0113), EN50178 (VDE0160), EN60335 (VDE0700), anti-fire , prevention accident and related industrial door.
3	Only in the case of the power is completely off before opening the control box.
4	If the zero voltage contact of relay output or other contact received the feedback from outside, e.g. Connected to the dangerous voltage,the closed control box or switch off the power may still electrically charged.
5	Do not operate the control system in the case of the control box open.
6	CE - may use cable with plug Coupling control system only when the control system via a master switch with an external power supply cut off.Power plug or switch must be replaced easily connected to the control system.
7	To avoid accidents, it must be changed by supplier, after-service or related Professionals if the control box connecting cable is damaged.
8	After power off within five minutes,the capacitor in the middle of the circuit may be with dangerous voltage. During the electric discharge, it can be very dangerous to touch the internal components unless it is below 60 VDC.
9	Partly failure of power can extend the capacitor spark duration to below 60VDC, which can be delayed 10 minutes.
10	If the 24V control voltage short circuit or overload, although capacitor is charging, partly power switch can not work, monitor and light-emitting diodes neither.
11	After powered, the power will partly powered for seconds by capacitor and keep power function for some time(given the power partly overload.)With any possible control testing, make sure the processor circuit is connected with power supply.
12	Do not operate the control system without ground protection. Otherwise capacitor loop may cause hazardous high voltage.For the high deviation voltage more than 3.5mA,it should be connected the ground protection subject to EN50178 5.2.11.1
13	Do not flush control box, otherwise it will be damaged.
14	If control system works in the low temperature,it needs a heating system to keep it at a particular temperature when powering or operating the control system.
15	Do not operate control system when the membrane keyboard or display screen damaged. Please replace them.Normally control it by fingers instead of hard objects.
16	If the door is running in Dead Man mode,make sure the rolling door is in sight. At this status, all kinds of safety equipments can not work, such as the safety bottom edge or photo cells.
17	Please check and test the setting parameter and safety equipment carefully.

The parameters setting, connecting wires and other opening configurations must be operated by professional technicians. Fails to safety tips may cause injury and damage of control system as well. If you have any question, please contact us. Users should identify the product identifications, includes suppliers name, address, serial number, type name, power supply and temperature).

2 Technical Data

Control box size(W * H * L):	320 x 400 x 210 mm
Frequency converter:	YASKAWA 0.75KW/1.5KW
Installation :	Fixed plate vertically on the wall
External power supply L, N, PE :	220V AC \pm 10%, 50...60Hz 16A
Available range :	200...240V 50...60Hz 16A
Control voltage:	24VDC regulated power supply (amplitude should not over \pm 5% of rated voltage 23V)
Input :	All terminals connected to zero voltage
Protection circuit/Emergency stop :	If safety circuit interruption, neither motor or DEAD MAN works.
Alarm lamp max power:	<30W
Standard restraint relay :	Counter current brake rectifier Contact diverted to release motor braking
Motor output power:	0.75KW/1.5KW
Rated voltage:	16A
Work condition:	-20°C ~ 50°C
Max length of motor cable:	<15 m
Braking resister:	1.5KW/300W80Ω 0.75KW/100W180Ω
Weight:	about 11 kg

3. Installation of control box

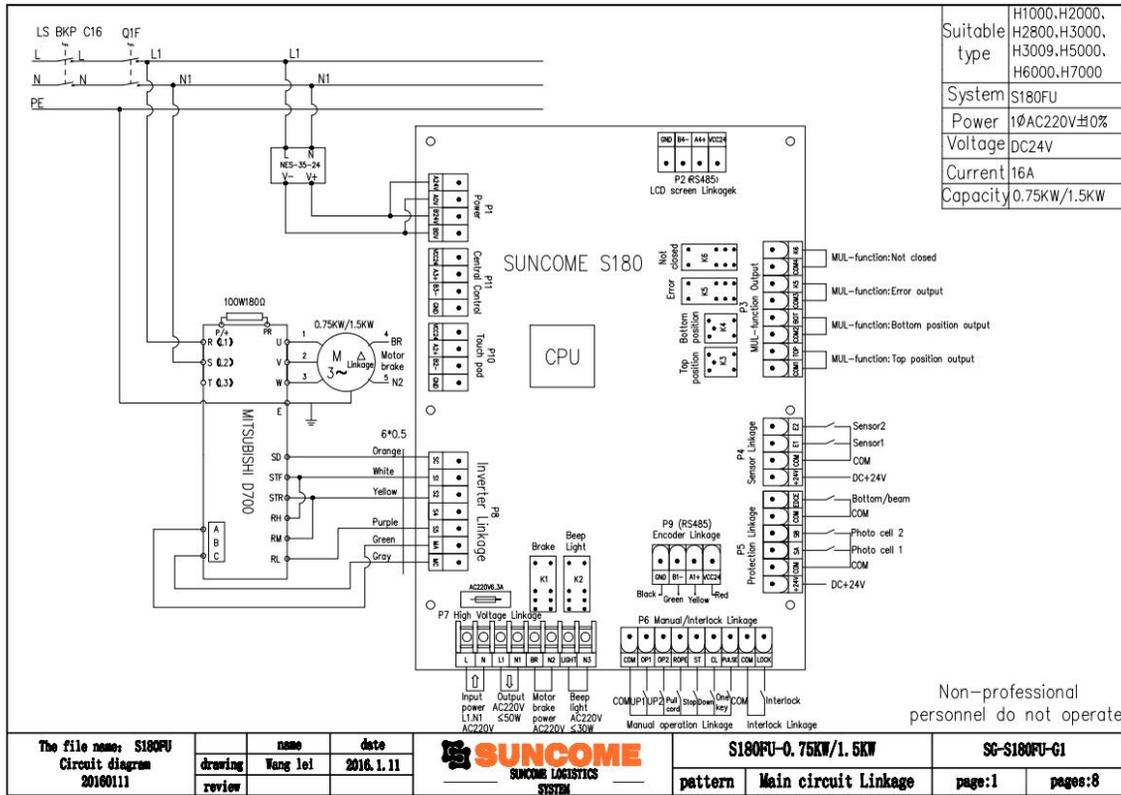
- The installation of the control box should be operated under Power-off status.
- Please check the control system if it is damaged during shipping before installation. It'll cause a series problems and users injury if the internal of control system damaged.
- Do not touch the electrical components, especially the processor circuit. Static discharge will damaged the electrical components.
- Before opening the control box cover, please avoid sawdust on the cover fall.
- The control box should be installed squared and free from twisting
- To ensure that the control box protection class reaches IP54, unused cable port must be sealed.

- Cable access point can not force, particularly tension.

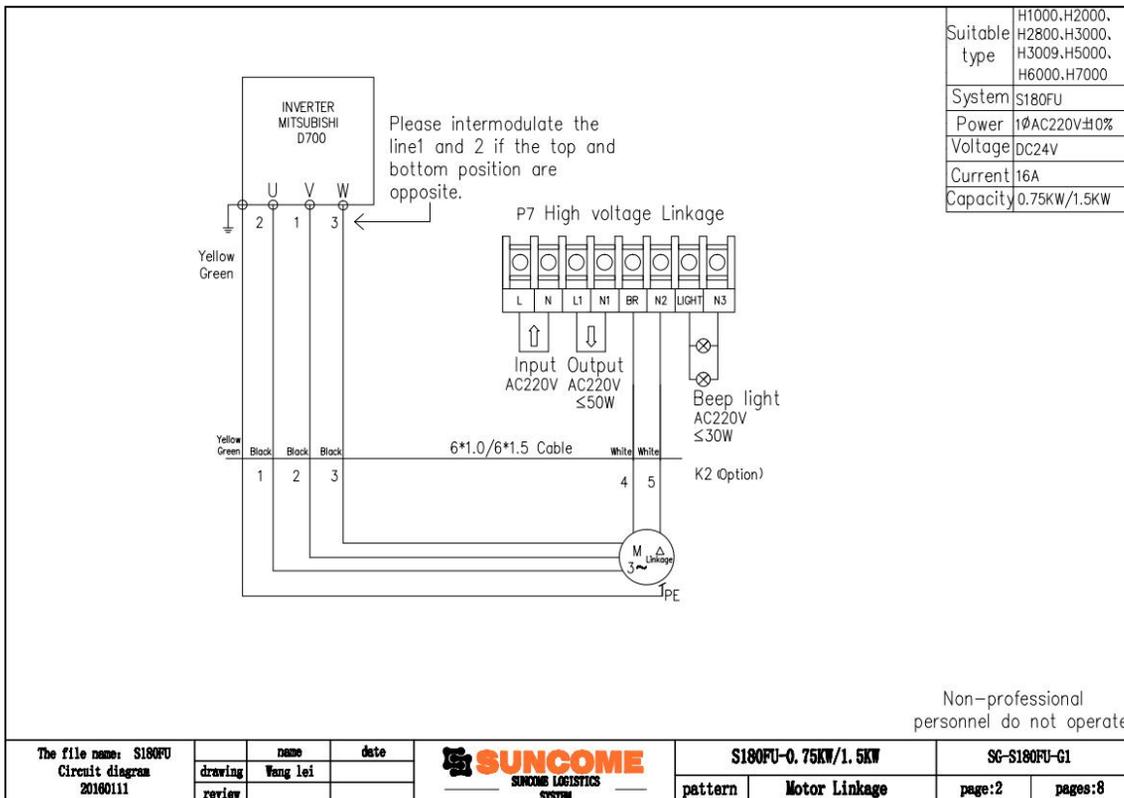
4 .Electric connection

- All the work includes connecting, testing and maintaining when power cutoff. Please pay attention to the safety instruction.
- The voltage is still dangerous even control system closed within 5 minutes.
- It is dangerous to touch the control system as the remaining voltage may still exist.
- Do not operate to the control system when the cover of the dock starts.
- After connection,control system starts. Testing all the motor side and control box side-connection. Motors are mostly like stars and triangle and loosed can cause electric component.
- All the input voltages separate from external power by the standard insulated equipment.There is only one rated charge is 230v when control box connecting a single rated voltage more than 230v insulator equipment.
(according to EN 60335-1)
- For the electric applicants followed by Standard EMV can only use for the separate and shielded motor cable: never operate the control system when the cover keeps open. The shielded cables must be connected on the both side(motor and control box). Other wires can not built in the cable. The max length of the cable: 15 meters
- Especially for PVC high speed door curtain, which will produce very high static load. And the static discharge will cause control system damaged, thus measures should be taken to reduce static load.

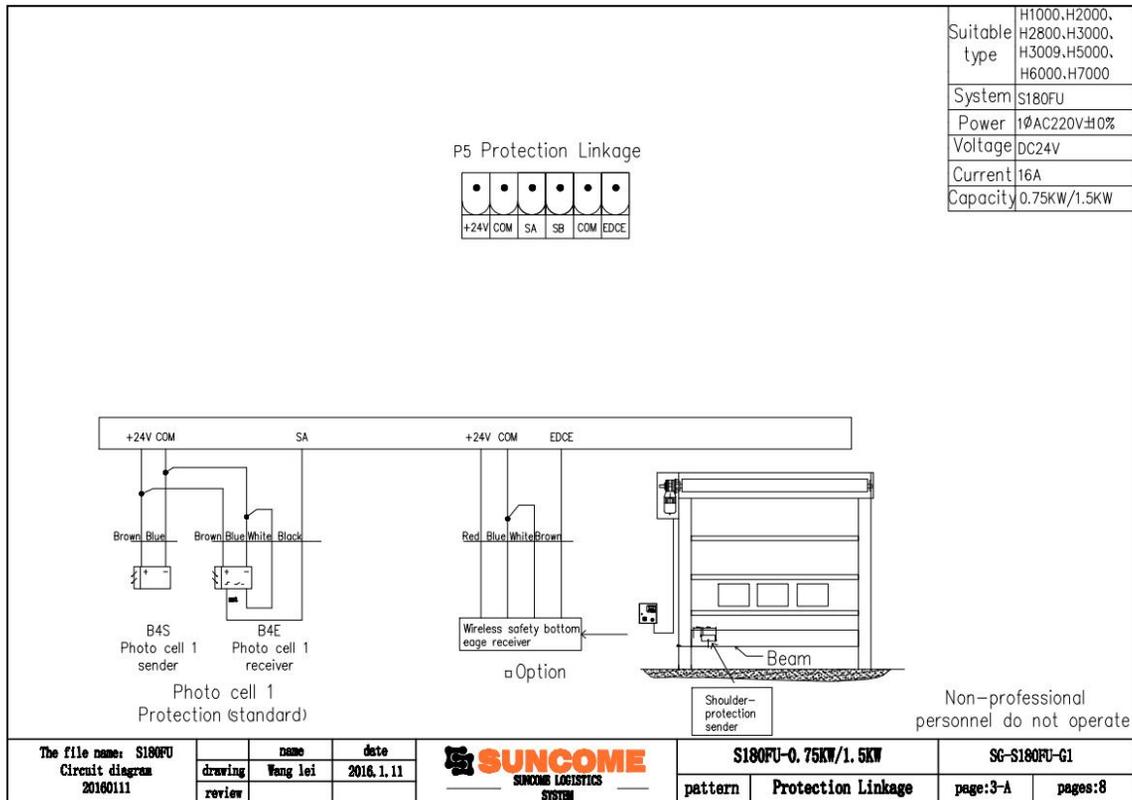
4.1 Main Circuit Connection



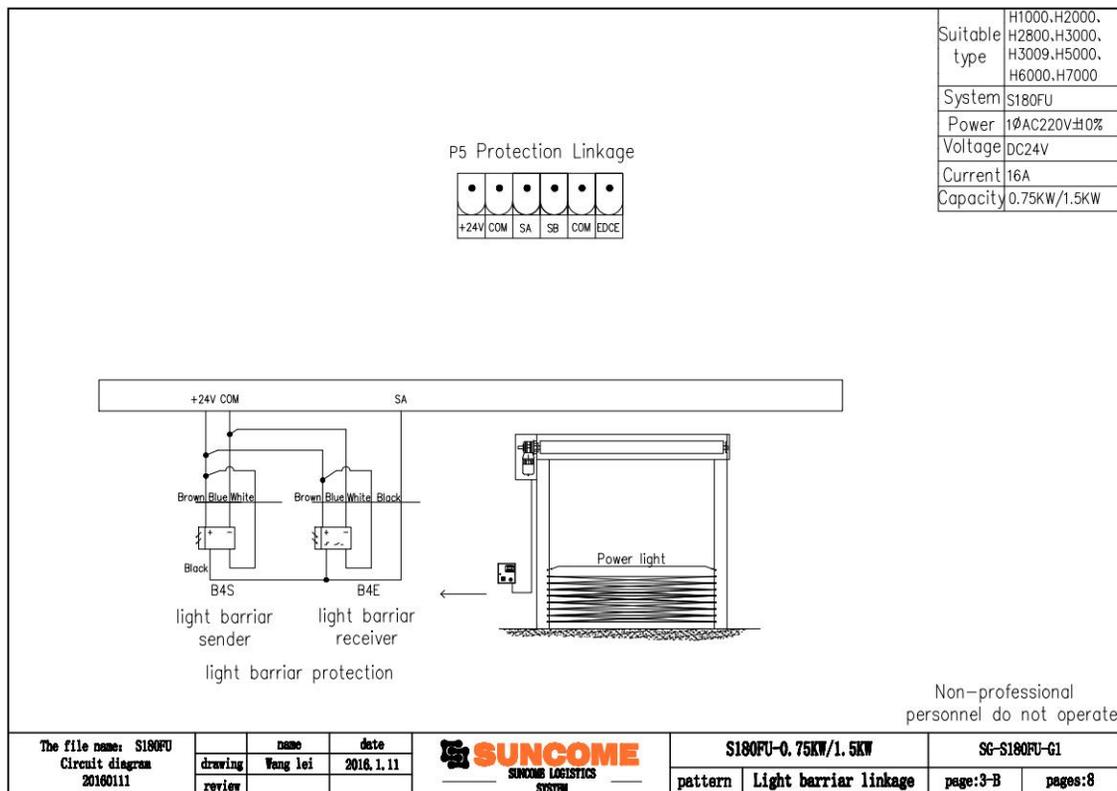
Non-professional personnel do not operate



Non-professional personnel do not operate



Suitable type	H1000.H2000. H2800.H3000. H3009.H5000. H6000.H7000
System	S180FU
Power	1ØAC220V±0%
Voltage	DC24V
Current	16A
Capacity	0.75KW/1.5KW



Suitable type	H1000.H2000. H2800.H3000. H3009.H5000. H6000.H7000
System	S180FU
Power	1ØAC220V±0%
Voltage	DC24V
Current	16A
Capacity	0.75KW/1.5KW

Suitable type	H1000.H2000. H2800.H3000. H3009.H5000. H6000.H7000
System	S180FU
Power	1ØAC220V±10%
Voltage	DC24V
Current	16A
Capacity	0.75KW/1.5KW

P5 Protection Linkage

A

B4S sender B4E receiver

B

B4S sender B4E receiver

Photo cell

note: Parallel connection if yes

Non-professional personnel do not operate

The file name: S180FU Circuit diagram 20160111		name	date	 SUNCOME LOGISTICS SYSTEM	S180FU-0.75KW/1.5KW	SG-S180FU-G1	
		drawing	Wang lei		2016.1.11	pattern	Protection Linkage

Suitable type	H1000.H2000. H2800.H3000. H3009.H5000. H6000.H7000
System	S180FU
Power	1ØAC220V±10%
Voltage	DC24V
Current	16A
Capacity	0.75KW/1.5KW

P5 Protection Linkage

AUTONICS ADS-3C

BEAMA

6 7 10 11

White Earth Wire White Earth Wire

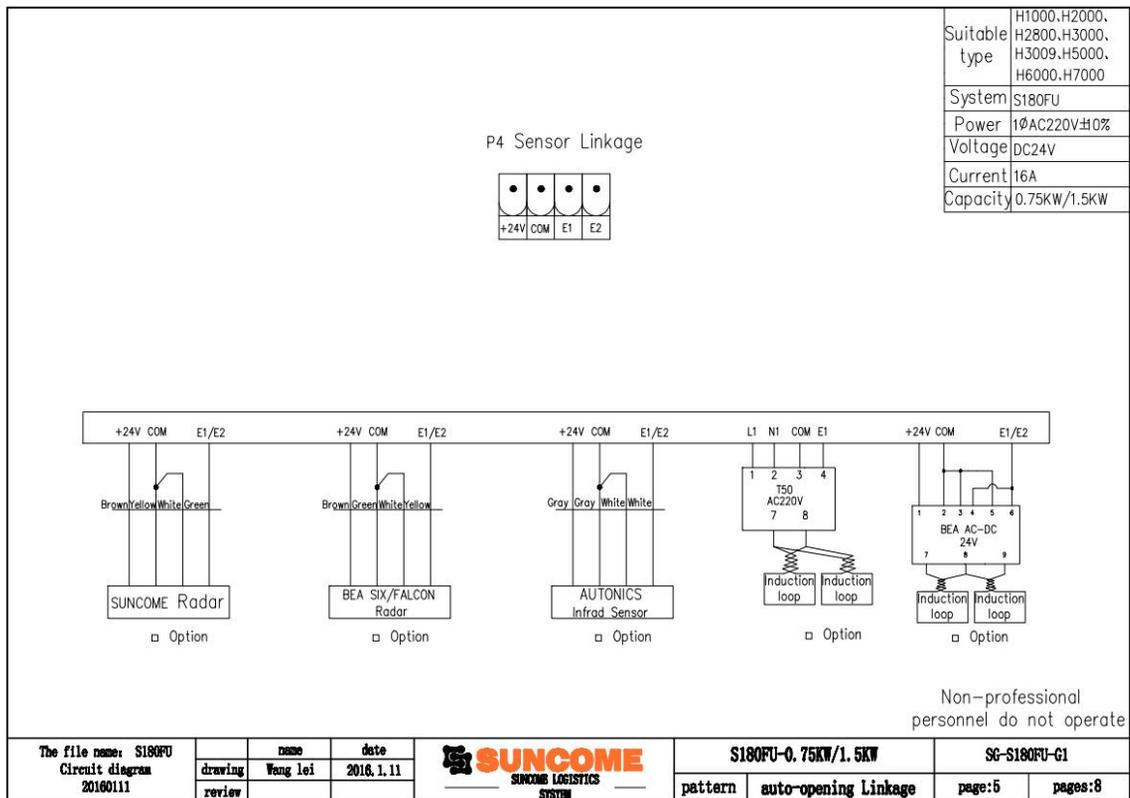
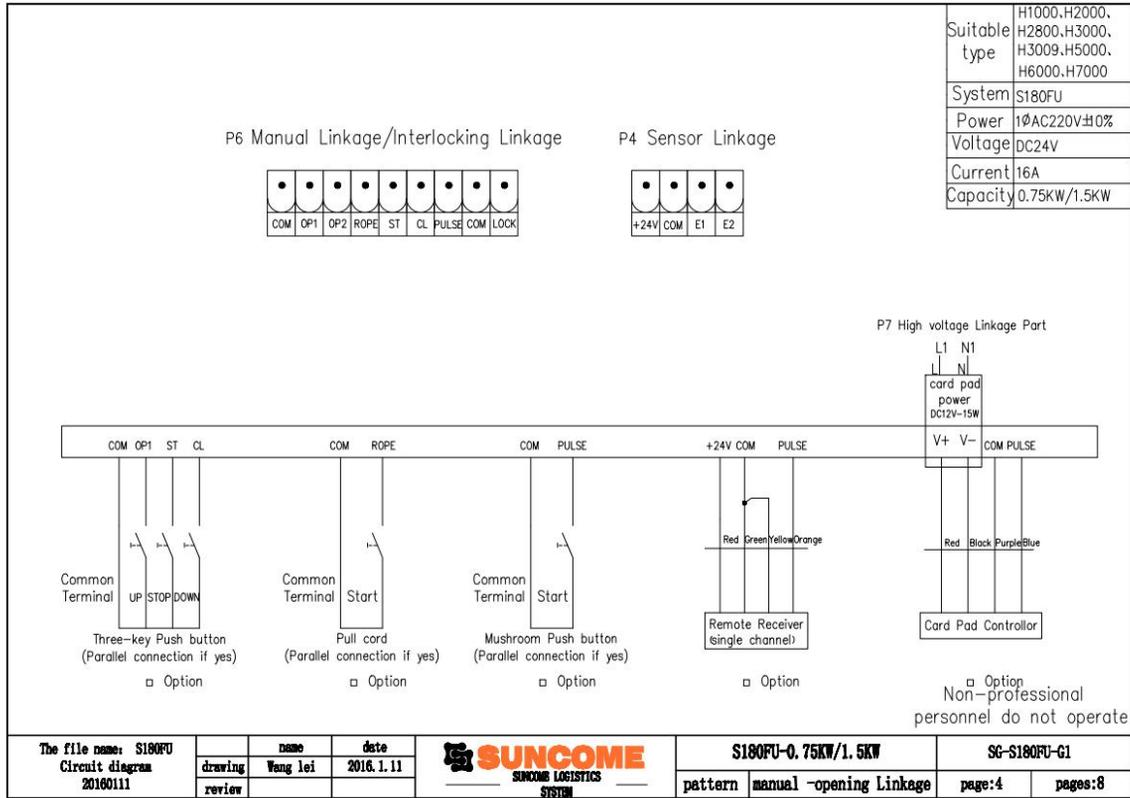
Gray Blue

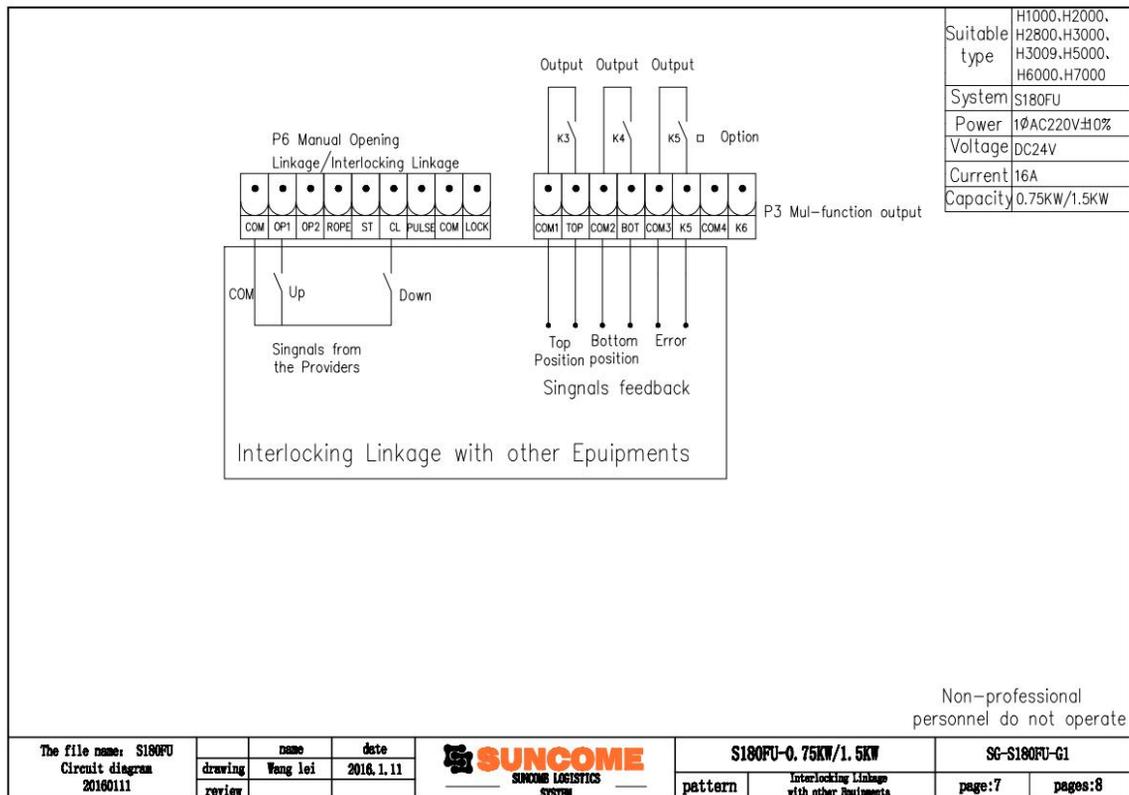
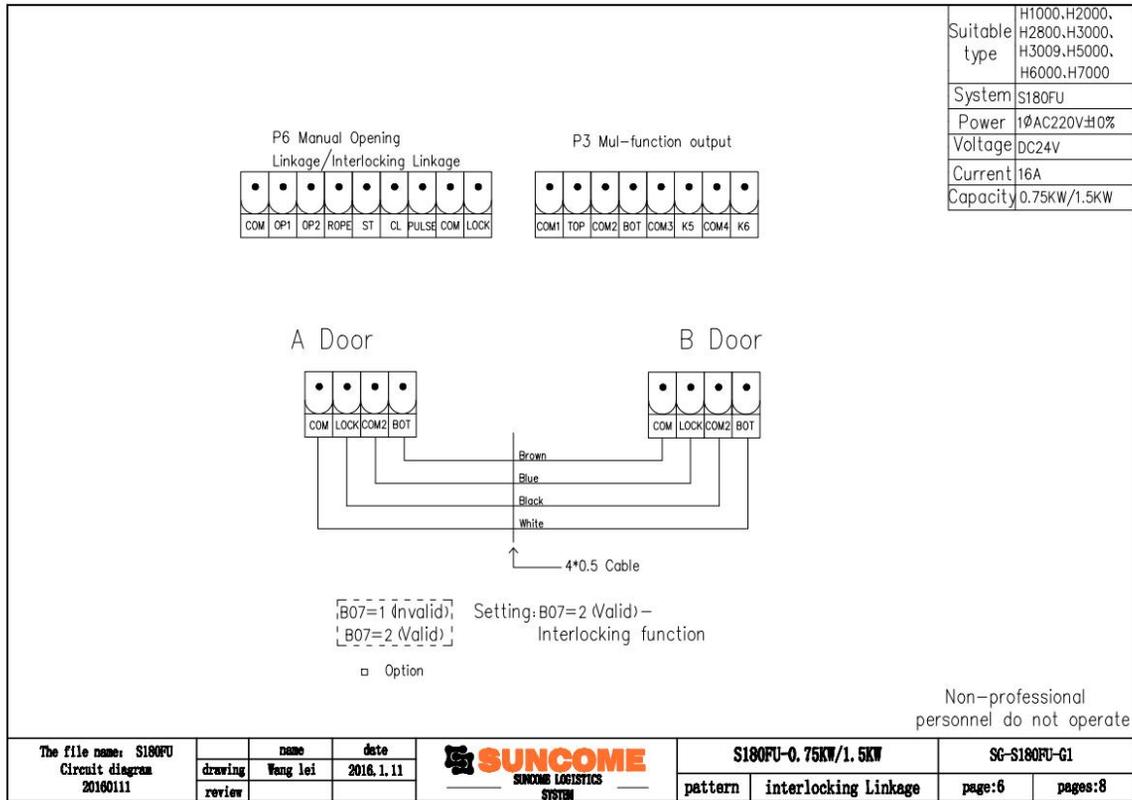
B4E B4S

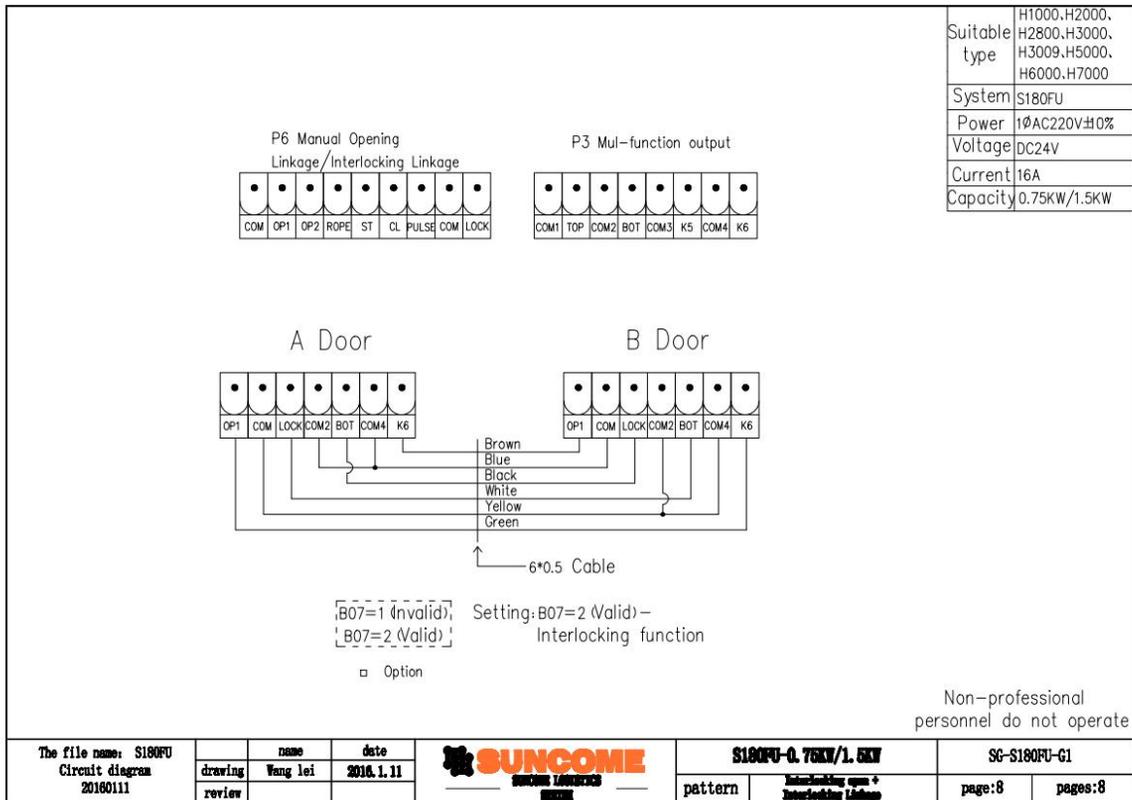
D ≤ 10M

Non-professional personnel do not operate

The file name: S180FU Circuit diagram 20160111		name	date	 SUNCOME LOGISTICS SYSTEM	S180FU-0.75KW/1.5KW	SG-S180FU-G1	
		drawing	Wang lei		2016.1.11	pattern	H1000 Photo cell linkage







4.12 Optional Configurations



遥控器 Remote Control



拉绳开关 Pull Cord Switch



手拍开关 (蘑菇按钮) Hand-flap Switch (Mushroom Button)



声光警灯 Acousto-optic Alarm light



普通雷达 Standard Radar



Recognizing separately from pedestrian and forklift by Radar

人车分离雷达 Radar for vehicle or personnel separately



红外传感器 Infrared Sensor



进口BEA地磁 BEA Induction Loop



手触摸开关 Hand Recognizing Sensor



普通地磁 Induction Loop



门禁刷卡机 Card Sensor



无线气压底边 Wireless Safety Bottom Edge

上下限位设定、密码 (1688) TOP&BOTTOM POSITION SETTING

1 : 接上电源 , LCD 显示屏和变频器工作。

2 : 同时按住 STOP 键和 A/M 键 (时间 > 3S)

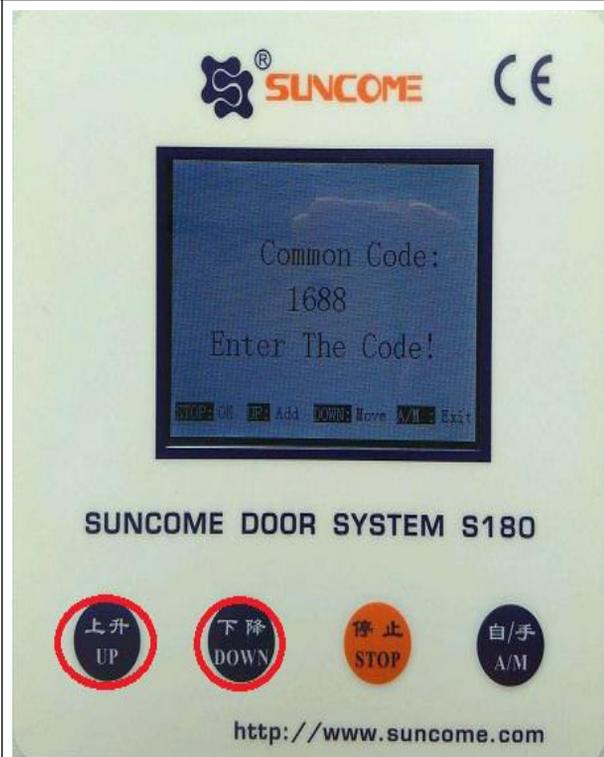
1. POWER ON is at the first step

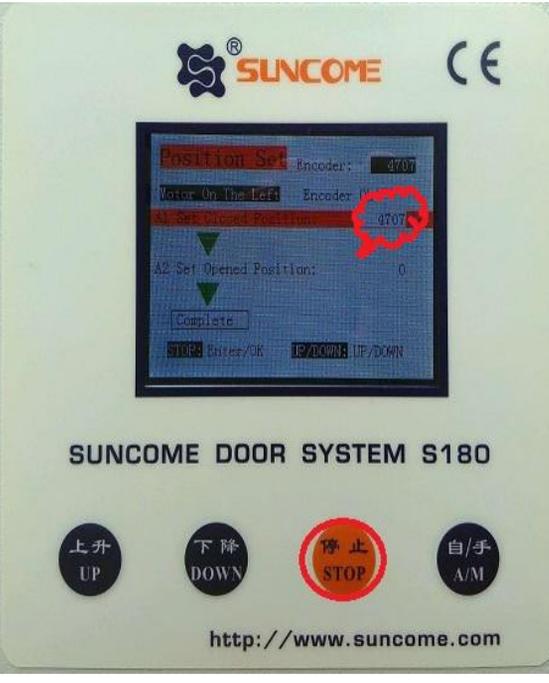
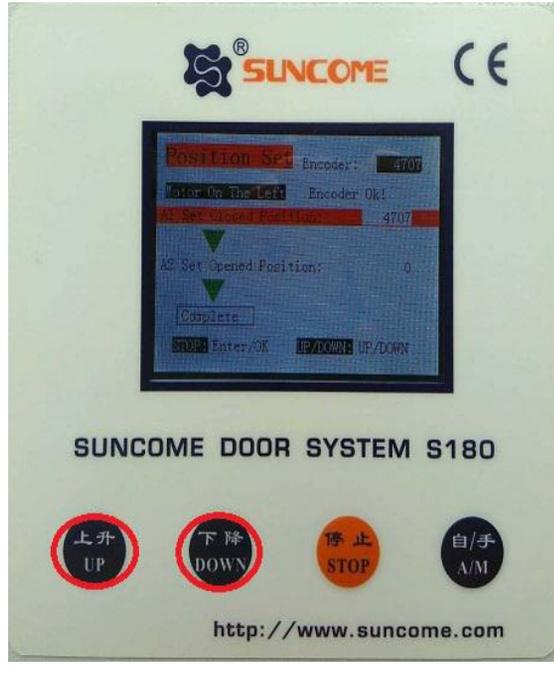
2. Hold "STOP"& "A/M" together more than 3 S.



3: 出现输入密码界面, 输入密码 1688, 按 UP 增加数值, 按 DOWN 键移位。

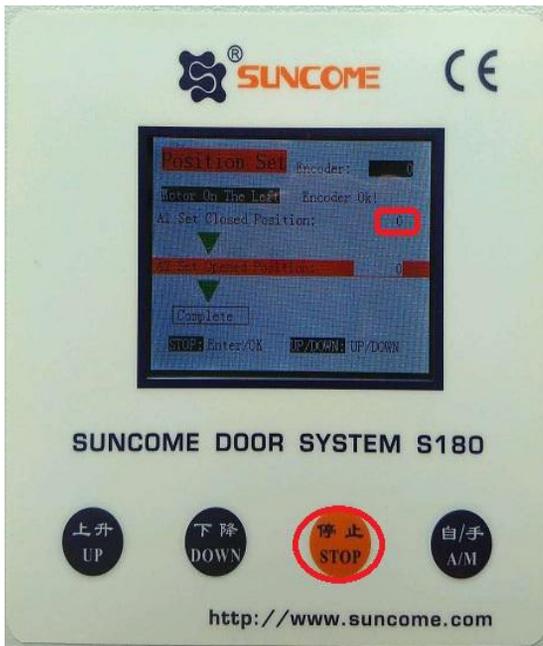
Enter password 1688, Press UP to increase the numerical value and Press DOWN to move the cursor for choosing the next numerical value.



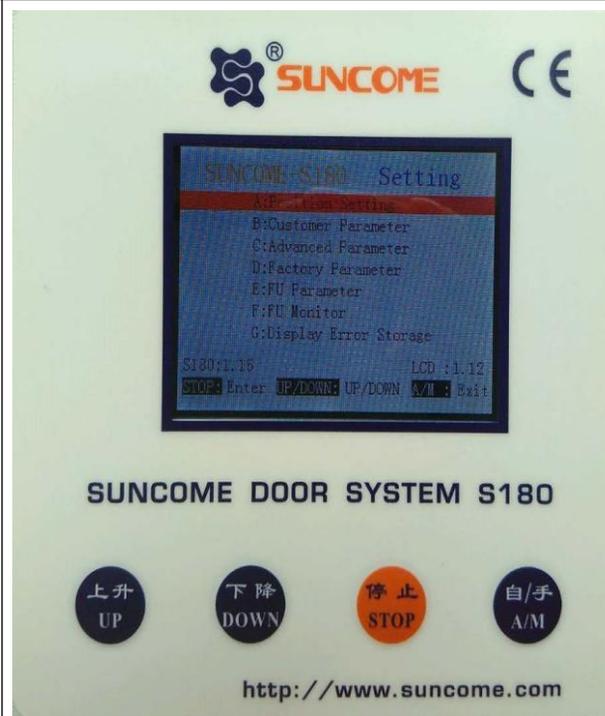
<p>4: 密码 (1688) 输入完毕后点按 STOP 键一次, 进入尚高 S180 参数设定页面, 选择 A:位置设定。</p>	<p>5: 点按 STOP 键一次, 进入位置设定页面。</p>
<p>Press STOP button after all the password finished. Entering the SETTING page and then choose A for the position confirmation.</p>	<p>Press STOP and enter.</p>
	
<p>6: 首先必须设定 A1:关门位置, 长按 STOP 键>2S, 这时 A1 后面数值闪烁, 这时就可以调整关门位置了。</p>	<p>7: 点按 UP 键或 DOWN 键, 将门调整到想要关门的位置。备注: (如果这时按 DOWN 键, 门在上升, 请调换电机线 1 号和 2 号)</p>
<p>Hold STOP more than 2 seconds when A1 numerical value flashing. Now it is ok to confirm the bottom position.</p>	<p>Press UP and DOWN to confirm the position you wanted (If press DOWN but the door is at the UP status, please inter modulate No. 1 & No.2 motor wires.)</p>
	

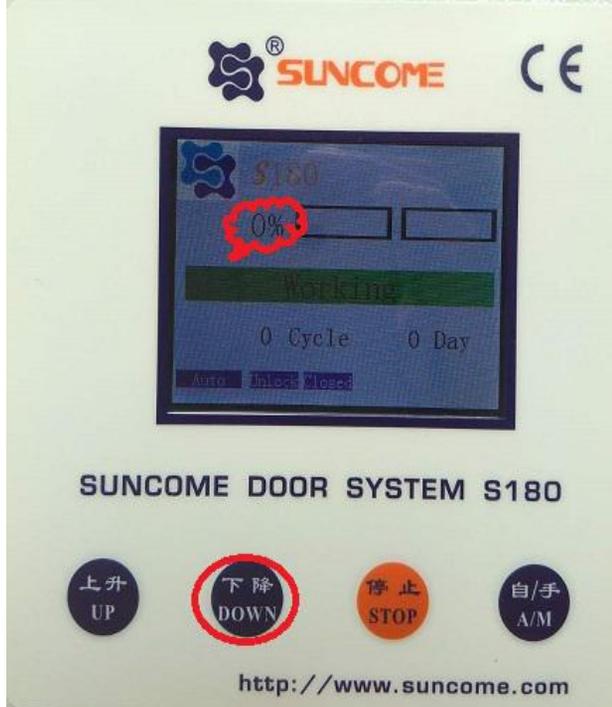
8: 长按 STOP 键>1S, 这时关门位置数值变为 0, 这时代表关门位置已经调好了。
9: 这时光标自动跳到 A2: 设定开门位置, 具体调试方法请参考 A1: 设定关门位置。

Hold STOP more than 1 seconds and the bottom position confirmed when the number is at 0 appeared.
Now the cursor auto moving to A2 to set the opening position. (the same method with the bottom position.)



10: 开门位置学习完成后, 光标跳到完成后短按 STOP 键一次, 退出到主菜单, 限位学习成功。
Please press STOP and exit the menu when the cursor move to the end. Now top and bottom all confirmed already.



<p>11: 最后按 A/M 键退出到主菜单。(这时显示 100%: 即开门位置)</p>	<p>12: 点按 DOWN 键一次, 门关到关门位置后主板上显示 0%。</p>
<p>Press A/M to exit the main menu (100% which means the opening position)</p>	<p>Press DOWN, 0% which means the door is at the closing position.</p>
 <p>The image shows the Suncome door system S180 control panel. The screen displays 'SUNCOME S180' at the top, '100%' in a red circle, 'Working' in a green bar, '0 Cycle 0 Day', and 'Auto Unlock Open' at the bottom. Below the screen are four buttons: '上升 UP', '下降 DOWN', '停止 STOP', and '自/手 A/M' (circled in red). The text 'SUNCOME DOOR SYSTEM S180' and 'http://www.suncome.com' are also visible.</p>	 <p>The image shows the Suncome door system S180 control panel. The screen displays 'SUNCOME S180' at the top, '0%' in a red circle, 'Working' in a green bar, '0 Cycle 0 Day', and 'Auto Unlock Open' at the bottom. Below the screen are four buttons: '上升 UP', '下降 DOWN' (circled in red), '停止 STOP', and '自/手 A/M'. The text 'SUNCOME DOOR SYSTEM S180' and 'http://www.suncome.com' are also visible.</p>

故障报警对策 Error warning and solution

故障显示 Error	可能原因 Possible reason	故障排除 Solution
F00:编码器故障 Encoder Error	1.编码器连接线接触不良 Bad/poor connection 2.编码器连接插头损坏 Linking plug damaged 3.编码器损坏 Encoder broken	1.检查连线 Checking the linking 2.更换连接插头 Change a new plug 3.联系厂家更换 Contact Suncome
F01: 开门方向堵转 Blocking on the opening direction	1.控制器与变频器连接线接触不良 Poor connection between the controller and inverter linking wires 2.变频器损坏 Inverter broken 3.电机功率偏小 Motor KW problem 4.电机卡住 Motor blocked 5.电机刹车损坏 Motor brake damage 6.编码器损坏 Encoder damage 7.门体被卡住 Door blocked	1.检查连线 Checking wires 2.联系厂家更换 Contact Suncome 3.更换大一等级的电机 Change a high power motor 4.联系厂家维修 Contact Suncome 5.联系厂家维修 Contact Suncome 6.联系厂家维修 Contact Suncome 7.检查门体各部位配件 Checking all kinds of parts of the door
F02:关门方向堵转 Blocked on the door closing direction	1.控制器与变频器连接线接触不良 Poor connection between the controller and inverter linking wires 2.变频器损坏 Inverter damage 3.电机功率偏小 Low motor power 4.电机卡住 Motor blocked 5.电机刹车损坏 Motor brake damage 6.编码器损坏 Encoder damage 7.门体被卡住 Door blocked	1.检查连线 Checking wires 2.联系厂家更换 Contact Suncome 3.更换大一等级的电机 Change a high power motor 4.联系厂家维修 Contact Suncome 5.联系厂家维修 Contact Suncome 6.联系厂家维修 Contact Suncome 7.检查门体各部位配件 Checking all kinds of parts of the door
F03:变频器无运行中反馈 No feedback from the inverter operation	1.主板到变频器的连接线接触不良 Poor connection between the controller and inverter linking wires 2.变频器损坏 Inverter damage	1.检查连线 Checking wires 2.联系厂家更换 Contact Suncome
F04:	预留	

F05:开门超时 Opening overtime	1.开门时间大于门运行设定时间 Door opening time is more than setting time 2.编码器计数不准 Encoder has the problem of number counting	1.更改门运行设定时间 Resetting the door operation time 2.联系厂家维修 Contact Suncome
F06:关门超时 Opening overtime	1.关门时间大于门运行设定时间 Door closing time is more than setting time 2.编码器计数不准 Encoder has the problem of number counting	1.更改门运行设定时间 Resetting the door operation time 2.联系厂家维修 Contact Suncome
F07:旋转方向错误 Curtain rolled direction	1.门运行方向与开始第一次设定方向相反 Door operation direction is opposite with the initial setting	1.检查电机接线 Checking the motor wires connection 2.检查电源接线 Checking wires
F08:	预留	
F09:位置设定错误 Position setting error	1.没有正确设定上下位置 Wrong top&bottom position 2.编码器损坏 Encoder broken	1.重新设定上下位置 Reset the top and bottom position 2.联系厂家更换 Contact Suncome
F10:光电 1 保护动作超时 No. 1 Photo cell protection action time is out	1.门下方有障碍物 Obstacles under the door 2.光电损坏 Photo cell broken 3.光电线连接破损 Photo cell wires broken	1.移除障碍物 Move the obstacle 2.联系厂家更换 Contact Suncome 3.检查线路 Checking the wires linkage
F11:光电 2 保护动作超时 No. 2 Photo cell protection action time is out	1.门下方有障碍物 Obstacles under the door 2.光电损坏 Photo cell broken 3.光电线连接破损 Photo cell wires broken	1.移除障碍物 Move the obstacle 2.联系厂家更换 Contact Suncome 3.检查线路 Checking the wires linkage
F12:光电 3 保护动作超时 No. 3 Photo cell protection action time is out	1.门下方有障碍物 Obstacles under the door 2.光电损坏 Photo cell broken 3.光电线连接破损 Photo cell wires broken	1.移除障碍物 Move the obstacle 2.联系厂家更换 Contact Suncome 3.检查线路 Checking the wires linkage
F13: 停止按钮超时 STOP button time is out	1.急停带自锁按钮被按下 Emergency and self-locked push button started 2.急停带自锁按钮损坏 Emergency and self-locked push button broken 3.线路碰头	1.释放急停带自锁按钮 Release emergency and self-locked push button 2.联系厂家更换 Contact Suncome 3.检查线路 Checking the wires linkage

	Wires touching	
F14:底边超时 Beam operation time is out	1.气囊开关损坏 Airbag switch damage 2.线路碰头 Wires touching	1.联系厂家更换 Contact Suncome 2.检查线路 Checking the wires linkage
F15:感应 1 动作超时 No.1 sensor action time is out	1.感应元器件损坏 Sensor accessories broken 2.地感线圈损坏 Induction loop damage 3.线路碰头 Wires touching 4.雷达感应范围内有移动物体正常移动 Moving objects are in Radar reaction range 5.雷达感应范围前方有强光 Strong lights appeared in front of the radar reaction range 6.地感线圈上有金属物体没有移除 Metal objects are on the induction loop	1.联系厂家更换 Contact Suncome 2.联系厂家更换线圈 Contact Suncome 3.检查线路 Checking the wires linkage 4.清除移动物体 Remove the moving objects 5.把强光遮住 Covering the strong lights 6.移除金属物体 Move the metal object.
F16:感应 2 动作超时 No.2 sensor action time is out	11.感应元器件损坏 Sensor accessories broken 2.地感线圈损坏 Induction loop damage 3.线路碰头 Wires touching 4.雷达感应范围内有移动物体正常移动 Moving objects are in Radar reaction range 5.雷达感应范围前方有强光 Strong lights appeared in front of the radar reaction range 6.地感线圈上有金属物体没有移除 Metal objects are on the induction loop	1.联系厂家更换 Contact Suncome 2.联系厂家更换线圈 Contact Suncome 3.检查线路 Checking the wires linkage 4.清除移动物体 Remove the moving objects 5.把强光遮住 Covering the strong lights 6.移除金属物体 Move the metal object.
F17:一键超时 One key operation time is out	1.一键按钮损坏 One key button damage 2.线路碰头 Wires touching	1.联系厂家更换按钮 Contact Suncome 2.检查线路 Checking wires
F18:拉绳超时 Pull cord operation time is out	1.拉绳开关损坏 Pull cord switch damage 2.线路碰头 Wires touching	1.联系厂家更换按钮 Contact Suncome 2.检查线路 Checking wires
F19:开向和关向按钮同时接通 Button "on" and "off"	1.按钮损坏 Push button damage 2.线路碰头	1.联系厂家更换按钮 Contact Suncome 2.检查线路

turn on together	Wires touching	Checking wires
F20:开关停同时接通 Button "on" and "off" turn on together	1.按钮损坏 Push button damage 2.线路碰头 Wires touching	1.联系厂家更换按钮 Contact Suncome 2.检查线路 Checking wires
F21:底边超次 Beam touching times is out	1.门体下方有障碍物 Obstacles under the door 2.无线气囊开关损坏 Wireless air bag switch damage	1.清除门体障碍物后, 长按 DOWN 键大于 3 秒可恢复 Move the obstacles and hold DOWN more than 3 seconds. 2.联系厂家更换 Contact Suncome

**Edition: Suncome Oversea-Market Team
Copyright 2015 by Shanghai Suncome**