SAFETY PRECAUTIONS

The contents and categories a user must abide by are presented and described by the following graphic expressions.

⚠️ WARNING Misoperation may cause injury even death to the operator.
⚠️ CAUTION Misoperation may cause injury or physical loss to the operator.
🚫 This stands for the contents PROHIBITED.
⚠️ This stands for compulsory contents.

⚠️ WARNING

Installation and adjustment must be carried out according to the Installation Manual. Carelessness in installation and adjustment will lead to such accidents as fire, electric shocks or fall off.

⚠️ During the installation never allow the pedestrians to pass through the automatic door or approach the work site. Because any tools or parts falling off during the installation will cause injury to the pedestrians.

🚫 Never remodel the parts, otherwise fire, electric shocks or fall will occur.
🚫 Never use the power beyond the stipulated voltage or frequency, otherwise fire or electric shocks will occur.
⚠️ The sensor should be set and adjusted to make sure that the opening area of the door will fully fall into the range of sensor detection without any blind area.
   If the detecting range is too small or having blind area, the pedestrians will be collided or squeezed by the door, causing injury.

⚠️ CAUTION

Do fix up photocell to ensure the detecting range for the walking area of the door leaf, otherwise the pedestrians will be collided or squeezed by the door leaf, causing injury.

🚫 Never use the door in a place subject to dampness, vibration or corrosive gas, otherwise it will cause such accidents as fire, electric shocks or fall.

🚫 Make sure that a space of over 30mm should be available when the door is opened, otherwise your fingers may be squeezed by the door leaf and upright column, causing injury.

🚫 Never cut off power when the door is in operation, otherwise it will cause injury of the pedestrians.
⚠️ Please use sticker on door leaves. If not, it will cause injury to the passer-by who has lost sight of the door leaf.
🚫 Never install an electric device with a capacity of >DC24V 300mA to the controller, otherwise it will cause fire.

OTHER PRECAUTIONS

• Never use a door leaf that exceeds the specified weight, otherwise it will cause failure.
• For selection of batteries
  - Please use them after charging for 24 hours.
  - The service life of batteries lasts for 3-5 years at an ambient temperature of 0°C-40°C.
  Excessive temperature will shorten the service life of batteries.
- If after charging 24 hours the battery still doesn’t work, it shows the service life has expired. Replace it immediately
- Check batteries each half year.

- For selection of electronic lock
  Never use it in an environment excess an ambient temperature of 0°C-40°C, otherwise it will cause malfunction.
- Using our brand electronic lock, and special installing brackets. If not using our lock, please make sure the quality of lock, or the bad electronic lock will damage.

COMPONENTS OF MECHANISM
Name of components.

SECTIONAL VIEW OF TRACK AND COVER
Caution: This view is not in a scale of 1:1
INSTALLATION PROCESS

- Preparation ✓
- Foundation work ✓
- Main frame installation ✓
- Power supply wiring ✓
- Automatic door installation ✓
- Front (frame) assembly and installation ✓
- Installation of components of mechanism ✓
- Hanging the door leaves ✓
- Connection of electric wire ✓
- Inspection after installation ✓
- Adjustment of operation ✓
- Inspection after adjustment of operation ✓
- Description of operation to user ✓

PRODUCT FEATURES

- Intelligent micro control and precision machinery manufacturing
- Smart self-learning system
- Double track and rubber design, low noise, open and close smoothly
- Built-in receiver working with learning code remote
- Special track and hanger design to make safe working
- Various terminal, work with access keypad, photocell, UPS
- Interlock, function switch, and so on
- Monitored battery backup with optional opening programs
- Working times limit setting
- Door working cycle memory

SPECIFICATIONS

<table>
<thead>
<tr>
<th>FULVIA</th>
<th>SINGLE-OPENING</th>
<th>DOUBLE-OPENING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door leaf mode</td>
<td>Single-opening</td>
<td>Double-opening</td>
</tr>
<tr>
<td>Door leaf weight</td>
<td>Max. 1 * 250 kg</td>
<td>Max. 2 * 180 kg</td>
</tr>
<tr>
<td>Door leaf width</td>
<td>DW = 700-2500 mm</td>
<td>DW = 600-1800 mm</td>
</tr>
<tr>
<td>Voltage</td>
<td>AC≤100V-250V</td>
<td></td>
</tr>
<tr>
<td>Opening speed</td>
<td>20-75cm / s (Adjustable)</td>
<td></td>
</tr>
<tr>
<td>Closing speed</td>
<td>20-60cm / s (Adjustable)</td>
<td></td>
</tr>
<tr>
<td>Opening hold time</td>
<td>0-20 segundos (Adjustable)</td>
<td></td>
</tr>
<tr>
<td>Manual open force</td>
<td>&lt;40N</td>
<td>&lt;50N</td>
</tr>
<tr>
<td>Motor</td>
<td>24V, 120W brush DC motor</td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20ºC ~ +70ºC</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION

<table>
<thead>
<tr>
<th>SCHEMATIC DIAGRAM</th>
<th>SINGLE-LEAF</th>
<th>DOUBLE-LEAVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Controller</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fulvia</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Idler pulley</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hanger</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Belt connector</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Stopper</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Toothed Belt</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fastenings</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Installation Manual</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
**TRACK’S CUTTING AND INSTALLATION**

Standard length of track: 4200 mm.
Over-length track can be customized
L = W - 10mm

**INSTALLATION**

1. Drill holes in aluminum track.
2. Fix one end of aluminum track, check the level by gradienter, then fix another end of track.
3. Fix the aluminum track to steel structure firmly.

**CAUTION**

1. The track must be level.
2. The height of movable door leaf is DH.

**INSTALLATION OF MOTOR**

1. Put the square-head bolt into groove.
2. Fix the motor as the left fig showing.

**INSTALLATION OF CONTROLLER**

1. Put square-head bolts into groove.
2. Fix it as the left fig showing.
3. The specific installation position please refer to page 3.
**INSTALLATION OF IDLER PULLEY**

1. Put square-head bolt into groove.
2. Fix it as the left fig showing.

**ADJUSTMENT OF IDLER PULLEY**

1. Loosse 4 pieces fastening bolt and screw the adjusting bolt to move adjusting plate at the left position.
2. Put the belt on pulley and screw adjusting bolt to fasten the belt.
3. Fix the 4 pieces fastening bolt.

**INSTALLATION OF STOPPER**

**LOCK AND RELEASE (OPTIONAL)**

- Manual should be read carefully before application.
  1. Check component according to manual.
  2. Check the lock working condition refer to circuit diagram before installing to door system
- Operational principle: Power on -release Power off -lock
- Working Voltage: DC12V

**INTERIOR MANUAL RELEASE ELECTRIC LOCK**

- LOCK
- STOP PLATE
- INTERIOR MANUAL RELEASE
- WIRE ROPE
- ROPE PIPE
INSTALLATION OF ELECTRIC LOCK

1. Install the lock onto the rail according to picture
2. Install the stop plate onto the hanger (The one need to locked)
3. Make door at fully close position, Move the lock to the position according to the picture. The distance between lock tongue and stop plate should be 5-10mm

LOCK AND RELEASE (OPTIONAL)

lead the wire rope into the manual release according to picture. Adjust the angle of manual release according to picture, Strain the wire rope and tighten the M5 screw.

Lead the wire rope from this position

MAIN TECHNICAL PARAMETERS

<table>
<thead>
<tr>
<th>WORKING VOLTAGE:</th>
<th>DC12V</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED:</td>
<td>Positive +</td>
</tr>
<tr>
<td>BLACK:</td>
<td>Negative</td>
</tr>
<tr>
<td>CURRENT:</td>
<td>Start Current 0.9A, Working Current 0.3A</td>
</tr>
</tbody>
</table>
INSTALLATION OF OUTDOOR MANUAL RELEASE

- 1 Black
- 2 Red +

Full open
Full lock

Fire alarm
Sensor inside
Sensor outside
GND

MAIN CONTROLLER

Rojo Negro

Contiol

Dimensions:
- 142 x 106
- 65
- 100 x 80
INSTALLATION OF SENSOR

The sensor should be installed at the center of the door leaf. The max installing height of sensor is 3m.

Caution: Please use our brand sensor. If not, please choose good quality sensor.

CONNECTION OF MOTOR, CONTROLLER AND POWER SWITCH.

TERMINAL DETAILS OF CONTROLLER
1. Partial open
2. Fullopen
3. Lock outside
4. Full Lock
5. GND
6. +24V
7. ELE
8. ELE+
9. +12V

10. Alarma
11. COM
12. Inter
13. Stop +
14. Stop -
15. +24V
16. GND
17. COM
18. Outside sensor

A. TEST
B. LED4
C. Adjust plug
D. Encoder
E. Motor

FDIP switch
OFF: 1.Near  ON: 1.Tow
2.Far  2.Near
G. LED-S
H. Power supplier AC100V~250V

OUTDOOR SENSOR

1. Red DC12-36V
2. Black GND
3. Green Relay (NO)
4. Yellow Relay (COM)

INTERIOR SENSOR
CONNECTION OF SAFETY PRECAUTIONS ACCESS KEYPAD
CONNECTION OF FIRE ALARM:

NC
COM
NO
GND
+12V
D-IN
OPEN / ABRIR
ALARM / ALARMA
D1
DO

CONNECTION OF EMERGENCY:

NO
COM
ALARM / ABRIR

+12VD-IN
OPEN / ABRIR
ALARM / ALARMA
D1
D0
CONNECTION OF BUILT IN PHOTOCELL
CONNECTION OF NORMAL PHOTOCEL

1 AC/DC 12~36V
2 OUT NO COM
3 RECEIVER
4 TRANSMITTER
5 TRANS
6 BASE
7 TRANS
8 BASE
CONNECTION OF ELECTRONIC LOCK / AND UPS

ELECTRONIC LOCK

GND (BLACK)
12V (RED)
**CONNECTION OF REMOTE CONTROL**

**BUILT-IN REMOTE RECEIVER**

ADD THE REMOTE:
Press the learning button (S3) on controller till the indicator turn to red, then release the learning button and press 1 button on remote, beep time and led flash 3 times learning successful.

DELETE THE REMOTE:
Press and hold the learning button after 6 seconds Led flash 6 times and bip at same time.

**WIRELESS PUSH BUTTON**

Please check the DIP switch if it’s same as the image shown (during setting process)
Wireless push button: Added and deleted wireless push button is same as remote.

**FULVIA TEST TOOL (HERRAMIENTA DE PRUEBA)**

Function selector button / confirm button. press 8 seconds, it will become to data adjuster; press 8 seconds again, it will return to function selector.

F1: Select technical item when working as data adjuster / code setting meaning number 2.
F2: Code setting meaning number 4.
F3: Code setting meaning number 3.
F4: Partial open when function selector / select technical item when data adjuster / code setting meaning number 1.
1. The door opens by activating any installed opening control.

2. The external sensor is deactivated, all other opening controls remain active.

3. The internal sensor is deactivated, all other opening controls remain active.

4. The door opens and remains open permanently.

5. The door is closed and the sensors not active. The door may only be opened with the emergency opening button.

6. The door’s automatic mode is deactivated and the leaves can be moved manually.
   * After changing mode “Manual” to other mode the door will close automatically.

7. Press the button ⬇️ to reduce the passage opening. The percentage of partial opening can be setted. If you don’t want to partial opening function, please press the button ⬇️ again.

---

1. TWO WAY / ENTRADA Y SALIDA
2. EXIT ONLY / SALIDA SOLAMENTE
3. ENTRY ONLY / ENTRADA SOLAMENTE
4. DOOR OPEN / PUERTA ABIERTA
5. NIGHT LOCK / CIERRE NOCTURNO
6. MANUAL / MANUAL
7. TWO WAY / ENTRADA Y SALIDA
8. / APERTURA RÁPIDA
9. CURRENT PASSWORD 123456 / CONTRASEÑA ACTUAL 123456
10. PASSWORD / CONTRASEÑA
11. NEW PASSWORD 123456 / NUEVA CONTRASEÑA 123456
12. NEW PASSWORD AGAIN 123456 / NUEVA CONTRASEÑA DE NUEVO 123456
13. NEW PASSWORD RIGHT / NUEVA CONTRASEÑA DERECHA
14. EXIT / SALIDA
Data setting: press button F2 and F3 to select code no. P01 to P25. There are 25 items can be setted as customer requested. And press button F1 and F3 to set the value of each code.

<table>
<thead>
<tr>
<th>Code No</th>
<th>Value range</th>
<th>Default Value</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>P01</td>
<td>30-90</td>
<td>80</td>
<td>Opening speed</td>
</tr>
<tr>
<td>P02</td>
<td>30-90</td>
<td>65</td>
<td>Closing speed</td>
</tr>
<tr>
<td>P03</td>
<td>01-30</td>
<td>05</td>
<td>Buffer speed when opening</td>
</tr>
<tr>
<td>P04</td>
<td>01-30</td>
<td>05</td>
<td>Buffer speed when closing</td>
</tr>
<tr>
<td>P05</td>
<td>50-50</td>
<td>30</td>
<td>Buffer distance when door opening</td>
</tr>
<tr>
<td>P06</td>
<td>50-50</td>
<td>30</td>
<td>Buffer speed when door closing</td>
</tr>
<tr>
<td>P07</td>
<td>01-03</td>
<td>02</td>
<td>Auto reverse force when opening (03: Sensitive weak 01: Most sensitive)</td>
</tr>
<tr>
<td>P08</td>
<td>01-03</td>
<td>02</td>
<td>Auto reverse force when closing (03: Sensitive weak 01: Most sensitive)</td>
</tr>
<tr>
<td>P09</td>
<td>01-03</td>
<td>02</td>
<td>Holding force-close (01: weak 02: middle 03: strong)</td>
</tr>
<tr>
<td>P10</td>
<td>20-80</td>
<td>60</td>
<td>Partial opening</td>
</tr>
<tr>
<td>P11</td>
<td>00-60</td>
<td>06</td>
<td>Door hold time 0-60s</td>
</tr>
<tr>
<td>P12</td>
<td>00-01</td>
<td>00</td>
<td>Aux lock type (00: Lock with power 01: Lock without power)</td>
</tr>
<tr>
<td>P13</td>
<td>00-01</td>
<td>00</td>
<td>Battery monitoring (00: disabled 01: enabled)</td>
</tr>
<tr>
<td>P14</td>
<td>00-02</td>
<td>00</td>
<td>Battery mode (00: open 01: closed 02: automatic)</td>
</tr>
<tr>
<td>P15</td>
<td>00-01</td>
<td>00</td>
<td>Fire alarm mode (00: open 01: closed)</td>
</tr>
<tr>
<td>P16</td>
<td>00-01</td>
<td>00</td>
<td>Fire alarm equipment signal (00: NO 01: NC)</td>
</tr>
<tr>
<td>P17</td>
<td>00-01</td>
<td>00</td>
<td>Photocell signal (00: NO 01: NC)</td>
</tr>
<tr>
<td>P18</td>
<td>00-04</td>
<td>01</td>
<td>Open direction: left 00: Encoder direction: left 01: Encoder direction: right</td>
</tr>
<tr>
<td>P19</td>
<td>00-01</td>
<td>00</td>
<td>Door working mode (00: Normal 01: Toggle)</td>
</tr>
<tr>
<td>P20</td>
<td>00-01</td>
<td>00</td>
<td>Aux Lock way (00: Lock with signal 01: Auto lock every time when close)</td>
</tr>
<tr>
<td>P21</td>
<td>00-01</td>
<td>00</td>
<td>Emergency signal (01: NC 00: NO)</td>
</tr>
<tr>
<td>P22</td>
<td>00-01</td>
<td>00</td>
<td>Anti-collision (01: NC 00: NO)</td>
</tr>
<tr>
<td>P23</td>
<td>00-01</td>
<td>00</td>
<td>Setting of inside sensor and outside sensor (01: NC 00: NO)</td>
</tr>
<tr>
<td>P24</td>
<td>00-01</td>
<td>00</td>
<td>Built-in photocell (01: Working 00: Built-in photocell function disable)</td>
</tr>
<tr>
<td>P25</td>
<td>00-02</td>
<td>00</td>
<td>Working times (00: No limit 01: 10000 2: 100000)</td>
</tr>
</tbody>
</table>
1. Select Password mode.
2. Press SET enter the setting mode.

3. Enter password 111111

4. Active password setting: "ON" "OFF"

5. Press “OFF”, return to password setting.

6. Press “ON”, enter new password

7. Enter new password again.

8. New password setting is done.
9. Press SET exit the password
   Attention: Default password is 111111
1. Select Date mode.
2. Press SET enter the date mode.
3. Date display.
4. Press SET exit date mode.

1. Select Operate times setting mode.
2. Press SET to check operate times.
3. Display the operate times.
4. Press SET to exit operate times mode.

1. Select Back up battery status mode.
2. Press SET to check the battery status.
3. Battery status display.
4. Press SET to exit battery status mode.
Selet data reset mode.
Press SET button enter the reset page.

Press YES reset to default setting.
Press No button exit reset mode.

Select Re-learning travel distance mode.
Press Set button enter the Re-learning travel distance mode.

Press Yes button re-learning opening and closing position.
Press No button exit the re-learning travel distance mode.

Select error warning mode.
Press SET button enter the Error warning page.

Display the error
Press Set button exit the error warning mode
DESCRIPTION OF OPERATION.

1. Power on, the mechanism starts to self-learning. The door will open and close to find the opening and closing position.
2. The mechanism’s working steps are as following:

<table>
<thead>
<tr>
<th>SENSOR WORKING</th>
<th>OPEN FAST</th>
<th>SLOW DOWN</th>
<th>OPEN SLOWLY</th>
<th>STOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEEP OPENING</td>
<td>CLOSE FAST</td>
<td>SLOW DOWN</td>
<td>CLOSE SLOWLY</td>
<td>STOP</td>
</tr>
</tbody>
</table>

TROUBLE SHOOTING

1. Power off
2. Open manually
   - Can not slide
   - Open smoothly
   - Check the input power
   - No problem

Hardware’s problem
1. The hanger is mounted vertically on the leaf.
2. Any friction between the floor guide and the leaf bottom of door leaf.
3. Any friction between the door leaf and frame.
4. Any friction between the hanger and anti-drop device, any friction between the hanger and the rail.

1. Un-connect all accessories from controller.
2. Power on.
3. Press testing button.
   - Working
   - No working

In-put power has problem
1. Check the connecting of accessories.
2. Check the accessories.

Symptoms | Causes | Troubles Shooting | Remedy
----------|--------|-------------------|------------------
Door leaves open or close un-smoothly. | Opening or closing speed is set too slow. | Check the data of opening and closing speed. | Ajuste la apertura o velocidad de cierre

   | Any damager or loosen at hangers, floor guide or anti-drop device. | Any obstacle on the track. | Arregle las partes fuertemente. Fijar la guía en la posición correcta. Repara el dispositivo anticaída. Clean the track.

Door leaves hit each other when closing. | Stopper is fixed not strongly. | Check the stopper. | Adjust the stopper’s position and fix it.

   | Closing speed is too fast and the buffer distance when closing is too small. | Check the closing speed and buffer distance when closing on controller. | Turn down the closing speed, and turn up the buffer distance when closing.

Door not working. | No power input. | Check the outside input power. | Connection the power.

   | Check the fuse of power switch. | Change a new fuse.

   | Door is locked. | Check the lock is working or not. | Un-lock the door.

   | Connection between motor and controller is not good. | Check the connection is good or not. | Connect them strongly.

   | Inter-lock is working. | Check it works as inter-lock or not. | Waiting another door close.

Door does not close. | Sensor is working. | Check the sensor is broken or not. | Use a new sensor.

   | Check any stuff at the detecting area. | Clean the detecting area.

   | Check the sensor is fixed stably. | Fix the sensor well.
<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>CAUSES</th>
<th>TROUBLES SHOOTING</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door does not close.</td>
<td>Remote control is working.</td>
<td>Check.</td>
<td>Press automatic button on remote.</td>
</tr>
<tr>
<td></td>
<td>Microwave is working.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any object at the detect area.</td>
<td>Remove the object.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the detect area without object to cause</td>
<td>Change the microwave sensor.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>microwave sensor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Photograph is working.</td>
<td>Check.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the surface of receiver and emitter is</td>
<td>Clean the surface.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>clean or not.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the receiver and emitter are at same</td>
<td>Adjust position of receiver and emitter to the same level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>level or not.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If use built-in photocell, check the selection</td>
<td>Adjust the DIPswitch.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of single beam or double beam and the distance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>of detect is correct.</td>
<td>Adjust program 24.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other signal wire is wrong connection.</td>
<td>Remove other accessories from controller and check the door leaf if is closed.</td>
<td>Exchange the signal wire</td>
</tr>
<tr>
<td>Door open by itself.</td>
<td>Sensor mistake working</td>
<td>Check.</td>
<td>Remove the moving object.</td>
</tr>
<tr>
<td></td>
<td>If there is a moving object in detect area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any strong microwave near the door system.</td>
<td>Remove the machine with strong microwave.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any fluorescent light near the detect area.</td>
<td>Check.</td>
<td>Remove the fluorescent light.</td>
</tr>
<tr>
<td>Not well setting.</td>
<td>Remove the obstacle.</td>
<td>Setting again.</td>
<td></td>
</tr>
<tr>
<td>There is an obstacle on the track.</td>
<td>Check.</td>
<td>Remove.</td>
<td></td>
</tr>
</tbody>
</table>
Installation of automatic door should be entrusted to the appointed distributor or professional installation personnel, or it may be dangerous.
Installation must be performed by professional installation personnel according to local law.
This manual must be kept well for maintenance.

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1. Safety Precautions
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4. Installation process
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6. Components List
7. Track’s cutting and installation
8. Installation of motor, controller and idler pulley
9. Adjustment of idler pulley
10. Installation of stopper
11. Lock and release (Optional)
12. Installation of sensor
13. Connection of motor, controller and power switch
14. Terminal details of controller
15. Connection of sensor
16. Connection of access keypad
17. Connection of interlock
18. Connection of built-in photocell
19. Connection of electronic lock /and ups
20. Connection of remote control
21. Function selector
22. Data adjuster
23. Password setting
24. Production date
25. Working times
26. Battery backup status
27. Reset
28. Re-learning travel distance
29. Error warning
30. Description of operation
31. Trouble shooting