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Preface

Sincerely thank you for choosing Actec auto-feeder.

This manual will explain the instruction of the product, simple testing and maintenance, etc. It helps you can use the product to its excellent performance and you can operate it safely, efficiently and quickly. Before using the product please kindly read this manual carefully and keeps it for future reference.

Packing list

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Parts Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motor</td>
<td>1 pc</td>
</tr>
<tr>
<td>2</td>
<td>Float</td>
<td>2 or 3 pcs</td>
</tr>
<tr>
<td>3</td>
<td>Triangle Stand</td>
<td>3 pcs</td>
</tr>
<tr>
<td>4</td>
<td>Stand for floats</td>
<td>2 pcs</td>
</tr>
<tr>
<td>5</td>
<td>Bucket</td>
<td>1 pc</td>
</tr>
<tr>
<td>6</td>
<td>Solar panel and panel stand</td>
<td>1 pc</td>
</tr>
<tr>
<td>7</td>
<td>Screws bag</td>
<td>1 bag</td>
</tr>
</tbody>
</table>
Installation steps Figure

Step 1: Use six round head Phillips screws M6*30 to fixate triangle stands and the iron sheet.
Round head Phillips screw (Button head) M5*25 (6PCS)

Step 2: Use six Round head Phillips screws M5*25 to fixate triangle stands and the striker plate.
Step 3: First, use four Round head Phillips screw (Button head) M4*10 to fixate the iron sheet and the motor. Second, use four Round head Phillips screw (Button head) M5*20 and four 10*10H Cylindrical washers to fixate the motor.
Step 4: Use four Round head Phillips screw M5*10 to fixate the cylindrical stainless spare part.
Step 5: Use M4*10 Tapping Screws (total 4pcs) to fixate it.
Step 6: assemble the motor on the plastic spare part.
Step 7: First, install stainless funnel on proper alignment of mounting holes on the bucket.

Second, Use three Round head Phillips screw (Button head) M6*30 to fixate the three plates, stainless funnel and the bucket.
Step8: Use six round head Phillips screws M6*25 to fixate the stands.
Step 9: First, use $\varnothing 8.7$ drill to drill holes. Adjust the distance of floats and the stands of floats; drill 12 holes for feeders with three floats. (Drill 6 holes for feeders with two floats)

Second, use 12 hex head cap screws M8*25 to fixate the floats and the stands of floats.
Step 10: Use 4 hex head cap screws M8*25 to fixate the triangle stands.
Step 11: Use two hex head cap screws M8*25 and one U-shaped bolt to fixate the stand of solar powered panel.
Step 12: Put the assembled auto feeder into water slowly.

Outside view of the controller

Remark : M1: motor for drip  M2: motor for spreader

<table>
<thead>
<tr>
<th>Indicator Light</th>
<th>State</th>
<th>Working state indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow\n黄</td>
<td>On\n常亮</td>
<td>Solar panel charges battery\n太阳板给蓄电池充电</td>
</tr>
<tr>
<td></td>
<td>Off\n熄灭</td>
<td>Solar panel does not generate electricity.\n(without enough sun or at night) or disconnect like reverse connection\n太阳板未发电（光照不强或夜晚）, 或者接线有问题, 如反接</td>
</tr>
<tr>
<td>Red\n红</td>
<td>On\n常亮</td>
<td>Battery is normal.\n蓄电池正常</td>
</tr>
<tr>
<td></td>
<td>Flash slowly\n慢闪</td>
<td>Battery under voltage (no load voltage lower than 12.1V, on load voltage lower than 11.9V)\n蓄电池欠压（电压空载低于 12.1V,带载低于 11.9V）</td>
</tr>
<tr>
<td></td>
<td>Flash quickly\n快闪</td>
<td>Battery over voltage (voltage lower than 11.3V)\n蓄电池过放（电压低于 11.3V）</td>
</tr>
<tr>
<td></td>
<td>Off\n熄灭</td>
<td>Battery disconnected or reverse connection\n蓄电池没有接或者反接</td>
</tr>
<tr>
<td>Green 绿</td>
<td>On 常亮</td>
<td>Feeding 正在喂食中</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Flash slowly 慢闪</td>
<td>Wait for feeding 等待喂食中</td>
<td></td>
</tr>
<tr>
<td>Flash quickly 快闪</td>
<td>Out of order ( short circuit, locked rotor, open circuit) 电机有故障,如短路,堵转,开路</td>
<td></td>
</tr>
<tr>
<td>Off 熄灭</td>
<td>Stop auto feeding 停止自动喂食</td>
<td></td>
</tr>
<tr>
<td>All indicator lights 所有指示灯</td>
<td>On 常亮</td>
<td>Start auto feeding but parameter setting is wrong. 开启自动喂食,但参数设置不对</td>
</tr>
</tbody>
</table>

Installment and use

◆ 操作步骤

Sequence of connection

一、接线顺序
1. First, connect MOTOR 1/MOTOR2’s red wire(+) to the motor for drip, and motor spreader(+); connect MOTOR1’s white wire to motor for drip(-); connect MOTOR2’s brown wire to motor for spreader(-).
2. Then, connect battery wires to BAT/PANEL, connect red wire to (+) and black wire to (-) separately.
3. Last, connect solar power panel wire to BAT/PANEL, connect red wire to (+) and blue wire to (-) separately.

注意：控制器上电后，如需断电请先断开太阳能板线，否则可能导致控制器工作不正常。

Troubleshooting Tips

二、故障提示及功能
2.1 Self-checking: When the controller powered, the system carried out a self-check and number “0-9” will display on the screen. If found out of order, error codes will display on the screen for one minute; error codes are as follows:
2.1 自检功能：控制器上电后会先进行自检，数码管循环显示数字‘0-9’，自检后如发现不正常显示错误代码一分钟，错误代码如下:
E01 short circuit 电机短路
E02 locked rotor 电机堵转
E03 open circuit 电机开路
E04 Solar power panel is disconnected or little power 太阳能板未接，或者太阳能板能量小

NOTE: In the self-checking process, the motor will rotate for 5 seconds.
2.2 Fault recovery: When the motor is out of order, it will stop feeding immediately; but the controller will start the motor at next feeding time until fault is detected again. Press start button to check error codes.
2.2 自恢复故障重启功能：喂食过程中，检测电机故障会立即停止当次喂食，但下次喂食时间到来时，控制器仍会启动电机，直到再次测到故障。开始键可查询电机故障代码。

Setting methods

三、设置方法
2.1 First start (the connection is complete and battery-operated)
First set up clock mode. Press T button to set clock mode; enter data and press button to save. (If do not save, this setting is invalid.)

2.1、首次开机（接线完成后，蓄电池供电），必须先设置时钟，按键进入设置时钟模式，输入数据并确认保存（否则其设置无效）。
Maximum: 23:59
最大设置范围: 23: 59

2.2 Press T1 button to set working mode and start time mode; enter data and press button to save. (If do not save, this setting is invalid.)

2.2、按键，设置作业开始时间模式，输入数据并确认保存（否则其设置无效）。
Maximum: 23:59
最大设置范围: 23: 59

2.3 Press T2 button to set working mode and end time model; enter data and press button to save. (If do not save, this setting is invalid.)

2.3、按键，设置作业结束时间模式，输入数据并确认保存（否则其设置无效）。
Maximum: 23:59
最大设置范围: 23: 59

2.4 Press T3 button to set working mode and interval mode; enter data and press button to save. (If do not save, this setting is invalid.)

2.4、按键，设置作业间隔时间模式，输入数据并确认保存（否则其设置无效）。
最大设置范围: 23: 59

2.5 Press T4 button to set operating time; enter data and press button to save. (If do not save, this setting is invalid.)

2.5、按键，设置作业运行时间模式，输入数据并确认保存（否则其设置无效）。
Setting range from 1 to 999 seconds
设置范围: 1~999 秒

After all settings are complete, press start button to start operating.

Press stop button to stop operating.

2.6、所有设置完成，并按始键，运行当前作业。当按止键时，停止运行。
Note:
注意:
1. When power off, reset the controller according to above methods.
1、蓄电池断电后，必须按上述方法重新设置。
2. When start time is less than stop time, the setting is invalid.
2、开始时间＜停止时间，否则设置无效。

Check and modify
四、 查询与修改
When all the settings are complete and the motor starts operating,
当所有设置完成后并运行当前作业时，
4.1 Press start button to show operating time remaining. If the motor is out of order, error codes and operating
time remaining will show alternatively on the screen. If the battery is under voltage, "----" and operating time
remaining will show alternatively on the screen.

4.1 按 开始键，显示设置的下次运行剩余时间，如电机有故障会交替显示故障代码和设置的下次
运行剩余时间。如欠压则交替显示‘----’和设置的下次运行剩余时间
4.2 Press T 、T1、T2、T3、T4 button separately to check and modify. After
modifying, press button to save or the setting is invalid.

4.2 分别按 、 、 、 、 、键，可查看并更改该键。更
改后必须按 键，确认并保存，否则设置无效。

五、故障处理 Trouble shooting

<table>
<thead>
<tr>
<th>现象</th>
<th>故障分析</th>
<th>解决方法</th>
</tr>
</thead>
</table>
| 控制器不工作（所有指示灯全部不亮） Control does not work. (all indicator light are off) | 1. 蓄电池接线错误 Battery charger is connected incorrectly.  
2. 蓄电池电压低于 8V 或者损坏 (电压小于 3V) Battery voltage is lower than 8V or broken (if voltage is lower than 3V)  
3. 控制器故障（接线正确后，红色指示灯不亮） Controller is out of order (after connecting properly, red indicator light is still off) | 1. 正确连接蓄电池和控制器 Connect battery and controller properly.  
2. 用直流电源对蓄电池充电或更换蓄电池 Use DC power supply to charge battery or change battery.  
3. 更换控制器 Change controller. |
| 电池不能充电 Battery cannot be charged. | 1. 光伏板接线错误 Photovoltaic Panel is connected incorrectly.  
2. 光伏板损坏（晴天条件短路电流不超过 0.4A） Photovoltaic Panel is broken. (short-circuit current is lower than 0.4A on a sunny day)  
3. 控制器故障（晴天条件，光伏板） | 1. 正确连接光伏板和控制器 Connect Photovoltaic Panel and controller properly.  
2. 更换光伏板 Change Photovoltaic Panel.  
3. 更换控制器 |
六、保养方法  Maintenance procedure

1，太阳能板最好 3 个月清理一次，确保无遮挡物影响太阳能板的发电率。
   Clean solar power panel every 3 months to make sure nothing blocks solar power panel and affects generated output.

2，连接线最好穿不锈钢管内走线，防止老化。
   Put connection line in stainless steel tubes to avoid damage.

3，太阳能板如不发电，停止此套系统的运转。否则蓄电池深度放电导致损坏。
   If the solar power panel does not generate electricity, stop the operation of this system or deep discharge in the battery will cause damage.
WARRANTY

Dear user:

Thank you for purchasing and using Actec solar power auto feeder. In order to make our services to your satisfaction, please read this card after purchase and keep it properly. This card is a warranty certificate; you must have the final direct seller stamped. We carry out The Three Guarantees strictly according to national regulation: due to manufacturing quality, appear within three months we will replace for free and one year we will repair for free.

The following conditions will not be within the scope of the three package:

1. Exceeding the warranty period;
2. Due to the improperly use, maintenance, improper maintenance caused premature wear and failure;
3. Because of self-modification, self-adjusting, disassembling the product manual does not permit self-adjusting, disassembly of parts and components caused by the failure;
4. No warranty card and valid invoice, can't prove that they purchased the product is within the warranty period;
5. Three Guarantees certificate or product specification and requirements on the invoice three bags of product specification does not match, or altered;
6. Three Guarantees certificate or product specification and requirements on the invoice three bags of product specification does not match, or altered
7. Manual operation caused by improper use of non-quality problems damage;
8. Damage and failure due nature (water, fire) disaster, earthquakes and other force majeure.

Please fill in the following:

Customer name: _______ Communication address: _______ Contact Number: _______

Product name: _______ Specification: _______ Model No.: _______ Serial No.: _______

Motor grade: _______ Model No.: _______ Serial No.: _______

Dealer name: _______ Date of purchase: _______ Seller stamp: _______

If there is any need, please contact: (Country or Area sales)

Repair and technical service hotline: (Country or Area sales)