ADHÉRENT 160506

anticrocpoule.fr

V6.3

Automatic chicken coop door: Manual

Contents:

1 - Working principle :

The module measures the luminosity by the means of the solar cell, which allows it to know if it is daytime or nighttime.

In the morning, the module will open the door after the time setting that you can adjust and it will close the door in the evening after a time setting that you can also adjust.

At opening and closing time, the solar cell is not in the sunlight and doesn't have enough energy to activate the engine. The module is equipped with a LIPO battery (same technology as smartphones) and uses the battery's energy to activate the engine. The battery is charged during the day, when the solar cell is in the sun. The autonomy in bad weather (without any sun at all) is around 45 days.

2 - System's limits and security :

The engine power is electrically limited at 20% of its nominal power and is permanently controlled. If the engine is forcing, it is stopped. This limitation is, of course, due to security reasons even more because hens attract young children.

Even if, mechanically, the engine could raise a 10 kg door, this limitation doesn't allow the module to open guillotine type doors of more than 750 g.

For the same reasons, the module doesn't allow the use of a draw-bridge door (hinges on the bottom) because in this case, the power needed is too big.

3 - Solar cell placement choice

To recharge, the module needs at least 30 hours of direct sun every two month, that is to say an average of 30 minutes per day. (This means that during the year, at one point in the day, the solar cell can be in the sun if the weather is good) When it is in the shadows, the battery doesn't charge.

The solar cell must be directly exposed to the sun and mustn't be protected by plastic or glass because it reduces its power a lot.

Optional feature, the solar cell can be deported if the automatic door is always in the shades or inside the poultry.

Ideally, the solar cell must be set vertically. It allows it to produce more energy during the winter, when the sun is low and to be less damaged by the UV in the summer, when the energy is abundant. What's more, the vertical position allows the solar cell to be covered by the snow and not detect the time of day.

4 - Setup advice

If you use a wireless drill to screw, set the torque limiter to 2 or 3 maximum so as not to damage the wood or the screw heads by screwing too strongly. In general, this setup can be made with the ring behind the chuck.

5 - Guillotine version setup

Cutting the opening in the coop house :

- Hens version
Cutting dimensions : about 22 cm large and 33 cm high
Dimensions : around 28 x 72 cm (width x height)

- Geese version
Cutting dimensions : about 27 cm large and 40 cm high
Dimensions : around 33 x 86 cm (width x height)

If your coop house is on soft ground, we advise you to put a lath on the lower part to be used as a doorstop (not supplied, see photo).

- Fixing the first rail
With the help of a spirit level.

- Trace the position of the second rail. Inside width between rails : 22cm for the hens version and 27cm for the geese version. This dimension allows to preserve an important flexibility and thus, to have an easy movement for the door.

After inserting the door, fix the second rail. If your coop has a roof rim, you will not be able to put the door into place afterwards.

On the top part, it is the module that serves as a door stop. The door will lean on it when it is open.

You will have to trace a horizontal line with the spirit level above the rails and mark the middle.

Set the remote module by putting it on your line.
The eye-screw (screw with a hole in which the braid goes) is in the middle of the box, you can use it as a marker to center the box.

Important : in the following photo, the module is used as a mechanical door stop to stop the door from going too high. If you put the module higher or further deported, you will have to put a mechanical door stop for stopping the door from going too high (a simple screw is enough).

6 - Guillotine version installation with wooden frame

Size of the cutout to be made in the henhouse: about 21 cm wide and 32 cm high
Dimensions: 27 x 68.5 cm approximately (width x height).

To install the door, simply screw the 8 screws provided in your chicken coop with the help of a level so that the door is vertical.

Additional information:
Your wooden door has not undergone any chemical treatment, we recommend an annual maintenance with a wax or a natural oil.
We do not recommend installing your wooden door directly in contact with a soil floor, in order to avoid a premature aging of your frame.

7 - Mini door-closer version setup (Door with hinges on the side) :

- The photos and diagrams in this manual are for a door opening on the right. Of course, you can adapt the system for a door opening on the left.

- Be sure that the door opens and closes easily, without excessive frictions, with enough flexibility to allow the wood to swell in wet weather without the door forcing (2 to 3 mm all around).

- Dismantle the potential locking systems of the door to allow free range to the automatic door.

- When the door is closed, a door stop is necessary, if possible on the top part (which prevents the door from going inside the coop). Be sure that your door has a door stop when closed.

Setting the mini door closer into place :

The shorter part must be screwed on the door, in the upper corner, hinges side.
The longer part must be screwed around 2 cm above the corner of the door.

Setting the closing module into place :

- Screw the locking bracket on the upper corner of the door, opposite the hinges.

- The closing module must be adjusted to allow the ring in which the braid goes to be just above the locking door stop (adjacent photo) without hindering the door movement.

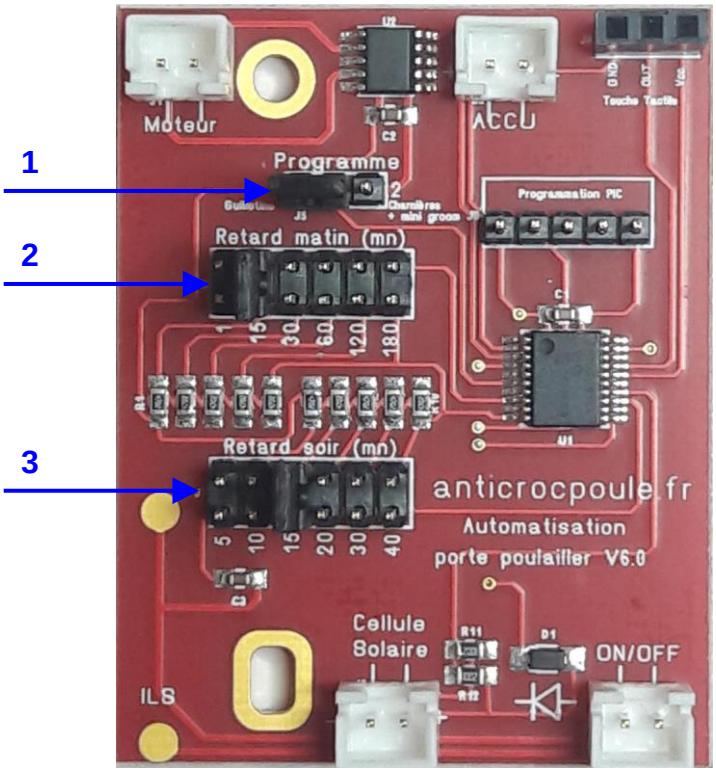
8 - Remote solar cell option :

We advise you to put the solar cell vertically (on a wall) to have maximum efficiency during winter, when the sun is low.

9 - Module programming

Inside the box, on the printed circuit, it is possible to program some options. Most of the time, the programming will fit your needs and you will not need to modify it. But you can open the box and change the position of the jumpers (it will not hinder the product warranty).

First setting : program choice.
It is the jumper n°1.C'est le cavalier N° 1.
Put it on the left (position 1) if you have a guillotine type door (door closing when the module sets the braid free) and on the right (position 2) if you have a door with hinges on the side and a mini door stopper (door closing with a module pulling the braid).



Second setting : morning delay (jumper n°2).
This option has been put into place after customers' demands who had noisy roosters that they didn't want to free too early in the morning.
The default setting is 15 minutes, which means the door will open 15 minutes after the sun rises.
If you want, by moving this jumper, you can free your animals earlier or later up to 3 h (180 minutes) after the sun rises.

Third setting : evening delay (jumper n°3).
The default setting is 15 minutes, which means the door will close 15 minutes after the sun sets.
If the solar cell is more or less in the South direction, this is ideal.
If your solar cell is due East, in a particularly dark place in the evening, you may have to set a longer delay.
On the contrary, if your solar cell is due West and especially exposed, you may have to put a shorter delay.

Warning : if you check when the door closes in the evening, avoid lighting the solar cell with a lamp so as not to stop the closing process.

Important : to spare the battery to the maximum, the module checks the jumpers positions 6 times a day. We advise you to switch off and then, switch on the module after modifying a setting for an immediate change.

10 - Starting and stopping the module

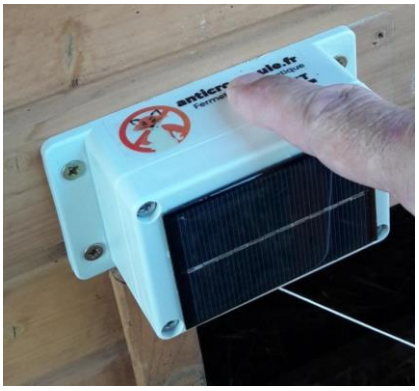
This function has also been put into place after customers asking for it. The idea is to keep the door shut permanently when, for example, you have chicks that are too young to let them out.

Ideally, the module must be switched off when the engine is stopped. If you want to keep the door shut, press the test button and switch the module off when the door is completely closed and the engine stopped.

When the module is off, the solar cell continues to charge the battery. If you switch the module off for several months, the solar cell must be in the sunshine from time to time for the battery to be charged.

When the module is on, the engine will turn a very short moment on each side to tell you it’s working well.

11 - Braid length setup



On the website **anticrocpoule.fr**, a video under the adverts describes this setting. It's sometimes more understandable than text.

According to the door dimensions, the module will not free the same length of braid to open the door. This is the value that needs to be set.

This setting and the test are only possible by day.

- If you have a guillotine door, you will need to press the test button only once. The door will then close and open. At the end of the opening, the door will need to be at the top to allow the setting of the braid length precisely.

- To program the braid length, press the test button for 1 second, release the button when the engine starts (you are in test mode). Wait a few seconds then press the test button again for less than a second (you are in programming mode). The door closes.

- When the door is completely closed, wait for the coil to do half a turn then press the test button to stop the engine and save the setting. The setting is finished. The door will reopen.

- If you have a mini door-closer door and side hinges, the door will close and open again. When the door is completely open, press the test button to stop the engine and save the setting. The setting is finished.

You can do a full test cycle (closing and opening) by pressing the test button once.

13 - Extreme conditions (humidity, heat, cold) :

The components used are made to work from -20 to + 60 °C.

When it rains in the evening and then freezes during the night, the door may be stuck with frost in the morning. A heavy snow can also hinder the door movements.
Generally, we advise you to be careful when it freezes. Even more because your animals need liquid water to drink.

For wooden doors, as the wood swells with humidity, a flexibility (2 or 3 mm) must be planned and a supervision made after the first rains (the door must not force).

14 - To go further

During the evening timeout, if you press the test button, the door will close and stay closed.

After the evening timeout, when the door is closed for a short time, if you press the test button, the door will open. It will close again automatically after the timeout duration, except if you press the test button to close it faster.

2h after the door closes, the test button will automatically switch off to preserve the battery,it is not possible to open the door anymore. The test button will be reactivated at sunrise.

During the morning timeout, when the sun is rising but the door is not open yet, it is possible to open it earlier by pressing the test button.

14 - Failures, after-sales service, warranty and norms

In case of malfunction, start by checking that the braid is still rolled in the correct direction, as in the photo beneath :

If you have a wooden door, check that it can move freely.

If the test button doesn’t work, switch the module off for 3 seconds then switch it on. It allows you to reboot the tactile button.

When you switch the module off and on, the engine must turn a moment in each direction. This allows you to check that the engine, the battery and the microcontroller are working perfectly.

After sales service :

If you have any problem, please contact us by email at the following address : **olivier@anticrocpoule.fr**. We will answer you as soon as possible.

Don't hesitate to attach photos of your installation with the description of your problem.

Firstly, we will try to remote repair your installation. If an exchange or a repair (on site) must happen, **don't forget to put your contact details in the package.**

Our mail address :

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Telephone (office hours) : +337 66 38 53 16

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We respect the chart MADE IN JURA and are members of the association since summer 2019.

Norms :

To make things simple, the CE marking states that the product is not dangerous, it will not hinder the surrounding devices and its functioning will not be hindered by surrounding devices.

ROHS is an optional environmental European instruction which states that this product does not contain specific metals (such as lead, mercury and cadmium).

For any questions or remarks on this product, you can contact is by email at the following address : **contact@anticrocpoule.fr**

Our website **anticrocpoule.fr** allows you to give an evaluation on the product.

And THANK YOU very much for your purchase !