



*Flyte so Fancy*



*VSB & Timer Manual*

# Installation and Operating Instructions for the VSB Door Opener



VSB externally mounted on  
Maggie's Dozen Henhouse



VSB internally mounted on  
Hobby Henhouse

**The VSBb** (for *External* Installation) and **The VSBbi** (for *Internal* Installation)

## **IMPORTANT**

Please read these instructions before installing

- Do **not** bend or straighten any part of the VSB unit or materially change anything on the circuit board, it will invalidate the warranty.
- Do **not** apply voltage to any part of the VSB unit, it will invalidate the warranty.
- Do **not** carry out the functional test before mounting to the pop-hole door.
- Do **not** apply any oils, pesticides, powders or sprays on or in the VSB unit as it will damage the components and invalidate the warranty.
- Do **not** try to pull out the cord.

The VSB Automatic Door is a battery powered pop-hole door opener for chicken houses. It is powered by 4 AA batteries (supplied with each new unit), which should be Duracell or similar, not rechargeables.

The external VSB unit opens and closes your henhouse door by a light sensor attached to the front of the circuit board. With the silver strip on the face of the unit to protect the components from direct sunlight, the VSB is designed to fully function on the outside of your henhouse. The case is weatherproof, UV stable and is even immune to lightning strike. We do suggest however, to avoid water ingress the unit must always be mounted right way up and on a flat vertical surface.

If you prefer to mount the unit on the inside of your henhouse (VSBbi) the VSB comes supplied with an external light sensor cable<sup>1</sup>. This 1m cable allows the unit to function in the same way it would externally, while being tucked away out of sight.

To give yourself further control over your automatic door, a Digital Timer (BT-VSB) can be fitted to the unit. The Digital Timer can be used to either work with, or to override the light sensor, to control when the door open and closes.

Installation is easy and a video guide is available:

**YouTube Channel** <https://www.youtube.com/user/FlyteSoFancy>

### **Basic Installation**

- With the batteries removed, attach the aluminium door with the VSB unit directly above, or as vertically in line with the hole in the top of the door as possible.
- Alternatively, the unit can be offset using a series of pulleys and additional cord, providing that the door can still slide vertically (see page 6)
- Lift the door to the unit and attach to the cord **without** pulling it out from the unit.
- Once fitted, insert the batteries and perform the functional test, as shown on page 5, to ensure the unit is correctly set up and the door flows freely.

### **Important Information**

**The VSB units and Timers carry a 4-year warranty<sup>2</sup> from the manufacturers, AXT Electronic in Germany. The warranty covers all mechanical parts, but not the cord, casing, battery holder or light sensor cable, which has a 1 year warranty. This warranty is subject to the conditions listed throughout this guide. Performing any of these actions will invalidate the warranty.**

**All new units are covered by our 30 day replace as new policy if you find the unit as faulty, however we will always be on the phone to help ascertain the problem and assist wherever possible. If a unit proves faulty after our 30-day warranty then any repairs or replacements are upheld by the manufacturer's warranty. You can email AXT Electronic direct describing the problem to [service@axt-electronic.de](mailto:service@axt-electronic.de), or we can email them for you, and they will usually send a replacement circuit board if that will resolve the problem. Alternatively we offer an in-house repair service detailed on the back page.**

<sup>1</sup> See page 4 for full details.

<sup>2</sup> The 4-year warranty is for units purchased after 1<sup>st</sup> Jan 2014; units purchased prior to that carry a 3-year warranty.

# Installation and Operation



Fig. 1

## 1. Installing the sliding door (VSBDOOR).

Screw the door runners to either side of your pop-hole door, inside the house for VSBi and on the outside of the house for VSBb.

Secure the runners to your henhouse ensuring that the holes at the top of the runners are towards the outer edge as per Fig. 1.

You may need to make further holes in the runners depending on installation position or henhouse design.

## 2. Installing the VSB unit.

With the batteries removed, mount the VSB unit above the sliding door (if possible) by removing the clear plastic cover and screwing the unit into place with the 4 screws provided. The pull cord of the VSB should be roughly vertical above the sliding door's centre, or as central as possible (fig 2).

### **Do not insert the batteries yet.**

Lift the sliding door to a maximum of 60cm and, fasten it to the pull cord by simply feeding through the hole in the door and tying a knot.

By doing this with the door open the 'up position' of the door is fixed. The 'down position' of the door will be chosen by the door reaching the floor, as the unit will stop when the weight of the door is less than 200g.

This also means that whenever the sliding door is blocked, or the load exceeds 5kg, the motor will shut down. The motor will then be switched on again within three minutes once the blockage has been removed.



Fig. 2

If your VSB is mounted adjacent to, or not directly above the sliding door, a series of pulleys and extra cord can be used to allow the door to operate as normal. Attach the required length of cord to the existing loop to bring the cord to the top of the open door.

This cord should be a fishing line type cord with a 20-40lb breaking strain.

### 3. Internal Installation:

If you have fitted your VSB inside your henhouse, following the previous steps you now need to fit your Light Sensor Cable.

Install the sensor through a 9mm hole in the henhouse wall, sealing in place with silicone if necessary. Attach the other end of the cable to pins 5 & 6, running horizontally along the bottom of the circuit board. Sensors purchased, before June 2017 can be attached to either pin. **The new cables, marked with a blue stripe, must have the white cable attached to pin 6.**

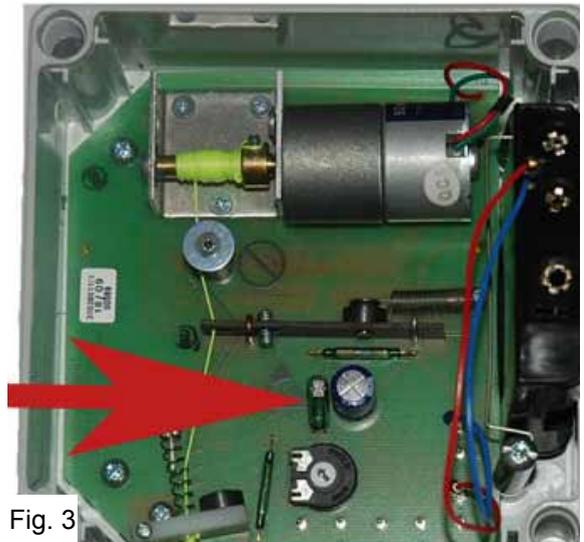


Fig. 3

Place the small black R2 cap over the light sensor on the circuit board, highlighted by the red arrow on fig.3, allowing the external cable to override the primary sensor.

### 4. BTVSB: Battery powered timer unit.

Using the grey two-wire connection cable attached to the timer, connect pins 3 & 4 on the timer, to the corresponding pins 3 & 4 on the VSB. The cable is inserted into the timer through the threaded opening on the base (fig 4). Close this threaded opening tight to prevent water ingress.

Included with the timer cable will be a small 5cm 'jumper' cable. This will be needed if you plan to use the *timer only* for the opening and closing of the door, completely over-riding the light sensor. This cable attaches to pins 5 & 6 on the circuit board in place of the external light sensor cable.

For full details for setting your battery timer, see page 7.

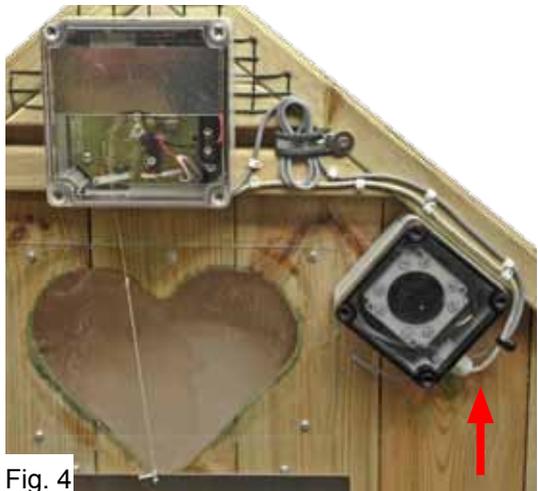


Fig. 4



Fig. 5

### 5. Functional Test.

Once installed it is a good idea to test that the system is functioning correctly. The simplest way to test is by activating the circuit by bridging pins 3 and 4 with a screwdriver, or anything else metallic (fig 5). This will override the light sensors and activate the motor telling the door to close.

Keep the 'bridge' in place until the door is fully closed and then remove. After a few seconds the light sensor will kick in and open the door again.

Do not try to interrupt or force the door to stop as this may damage the motor.

***This test can also be performed if ever you think the unit is not functioning correctly.***

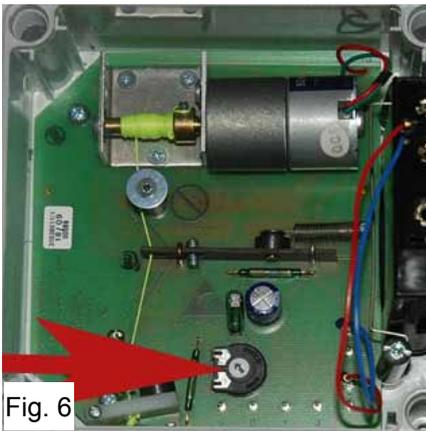


Fig. 6

### 6. Varying the light sensitivity.

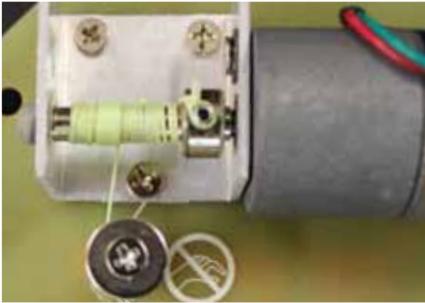
The adjusting device (highlighted in fig 6) has been factory set to close as it starts to get dark. If you think it is still too bright for closing, using a screwdriver, gently turn the white arrow controller clockwise. This will make the VSB close when darker and open when lighter. Check at dusk for appropriate closing and adjust as required.

The adjustment should make a difference of approx 10 mins.

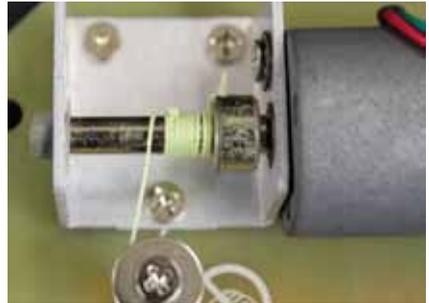
The default position for the white arrow for older light sensor cables will be pointing to the top left as show in fig 6.

For any light sensor purchased after June 2017 (with the blue stripe), the default position of the arrow should in the 12 o'clock position.

# How to re-string a VSB



*correctly wound cord*



*Incorrectly wound cord*

One of the more common VSB faults, an incorrectly wound cord, can render your unit inoperable. This can occur either due to an incorrect set up or if the cord has been replaced incorrectly.

A correctly wound VSB cord should come down the back side of the motor spindle as shown in the left-hand image above. If the cord is wound over the top side, as shown in the right-hand image above, you will need to do the following:

1. If the cord is wound the wrong way, the unit will effectively be working in reverse; with the door in the *up position* you need to tell the door to *open*. Unscrew the white arm from the circuit board and pull lightly on the cord. This should cause the cord to feed out.

2. Once the cord has some slack, remove a battery and re-attach the white arm. Be sure not to over tighten the screw as the arm needs to be able to lift.

At this point ensure that there is a bead or knot in the cord to both prevent it from feeding through the white arm and to activate the arm itself.



3. Replace the battery and continue to pull gently on the cord until it has fully wound itself out. The motor should then continue to wind the cord all the way back in, in the correct position. The knot will then lift the white arm triggering the cut-off switch for the motor.

## Replacing damaged Cord

After a few years of operation, you may find that the cord has begun to fray and wear down, leading to a snapped cord. Replacement cord can be purchased from our website, alternatively if you have access to 0.5mm braided fishing line with a 20-40lb breaking strain this should be fine.

1. If your old cord is still attached, begin by bridging pins 3 & 4 and pulling lightly on the cord to unwind it from the motor spindle. Once the cord has unwound enough to grant you easy access to the grub screw on the spindle (fig.1), remove a battery and untie the old cord.

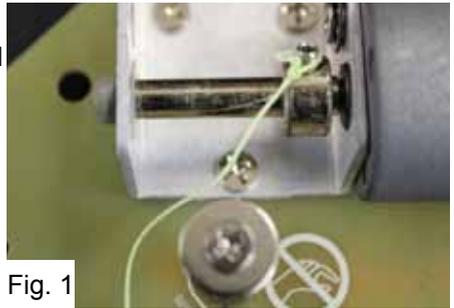


Fig. 1

2. Thread the new cord through the white armature from the underside and then up through the spring (fig.3).

Now following the path marked on the circuit board, pass the cord through the left hand edge of the tension sensor and over the left of the post below the spindle - as shown in fig 2.

Finally tie the new cord in place on the grub screw attached to the motor spindle, tie a knot in the opposite end of the cord and re-attach the white arm.



Fig. 2

*Please note - On older models the sensor will look like a brown strip of circuit board whereas more recent models will have something that resembles a safety pin.*

3. Reconnect the batteries and the motor should start to wind the cord onto the spindle. Keep a light tension on the cord with your finger to guide the cord helping it to wind neatly. This will help prevent any snags occurring in the future.

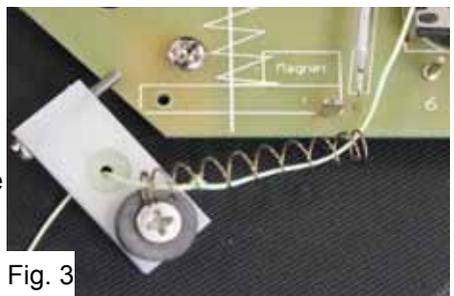


Fig. 3

Once the cord is nearly wound all the way up the knot should hit the white armature and lift it causing the motor to stop. You should now be able to reattach the door opener to the hen house and tie the door to the cord.

***Warning; - Always remove the batteries before disconnecting the battery holder. If we have asked you to return the unit to us please DO NOT send the unit in the mail with batteries installed***

# Setting the Digital Battery Timer for Automatic Pop-hole Doors

**FSFTip:** The Buttons on the timer can sometimes seem unresponsive as they are very precise. PLEASE do not use any implement on the buttons to get a response as it may damage the button and invalidate the warranty. Only press with fingertips please.

To make any adjustment, firstly press the program button . A 'P' symbol will appear under the hour display. Changes can only be made when the 'P' symbol is showing.

Set the current time (24 hr clock): Hours using  and minutes using .

The default factory setting for the closing time is 10pm and opening time at 8am (highlighted black sectors means night time so door is closed). To change the settings, activate the segments by pressing the segment button , the segments will flash when the button is released, and set them with the  confirmation button. Press and hold the segment button to move round the dial, release and press confirmation button if you wish to select those sectors, or press sector button again if just advancing round the dial - clockwise only.

The (C) button will clear all segments. To activate all segments for a period, press and hold the segment  button, until all segments are flashing. Set the entire closing time with the  confirmation button. It is also possible to individually actuate and set single segments. If segments already highlighted need to be deleted, actuate these with  and delete with .

Programming mode is exited after 30 seconds of inactivity, or by pressing . Please note that the door will only open at your setting providing it is light i.e. you cannot make the door open at 7am if it is not light. If you set it to close at 9pm and it gets dark at 8pm then the door will close at 8pm because the timer still 'takes notice' of the light sensor.

To override the light sensor completely and use only the timer, then you need to attach the enclosed small jumper cable to pins 5 and 6 of the VSB unit. You can then make the door open and close at any time.

When a crossed-out battery icon is displayed (X) it means the batteries need changing. To do this, remove the time switch by means of screws in the housing and change the two AA batteries on the bottom of the time switch. Only use brand-name alkaline batteries, not rechargeables!



# Installation of Door openers on Flyte so Fancy Hen Houses

Flyte so Fancy  
Maggie's Six  
Installation



Flyte so Fancy  
Maggie's Dozen  
Installation



Flyte so Fancy  
Maggie's 24 Henhouse



Flyte so Fancy  
Hobby Henhouse



Flyte so Fancy  
Stroller Henhouse



Flyte so Fancy  
Granary Henhouse



# Flyte so Fancy Dorset Ranger Installation



## VSB Kits

If you purchased your VSB door opener at the same time as purchasing a Flyte so Fancy henhouse, we will install the unit and door for you.

If the unit is bought after the house, these images should only serve as a guide for your set-up as many may require additional timber, altered doors or new perches. Each of these kits will come with a set of additional instructions for installing your VSB on your henhouse.

### For Your Own Notes

<b>Date Of Purchase:</b>	
<b>Order Number:</b>	

## Troubleshooting

### • The Door Doesn't Come Down.

- o Check for obstructions and freedom of movement of the sliding door.
- o Is it dark enough to trigger closing or is the light sensor for example facing the setting sun.
- o If a timer is attached for closing, check the time settings.
- o Check whether the cord is tangled or knotted.
- o Check batteries for power and correct installation, change batteries once a year, rechargeable batteries are not advised.
- o Check that the knot and bead are present on the cord at the top of the loop.
- o Disconnect external light sensor and timer. Perform the functional test detailed on page 6.

### • The Door Doesn't Come Up.

- o Check if something is jamming the door. If wooden door, check for swelling or warping.
- o Is the door frozen, does it need lubricating with WD40?
- o Has the cord become tangled or knotted?
- o Is the door likely to be heavier than 3kg?
- o Has the light sensor become obstructed or dirty and is it positioned to receive all possible light?
- o Has the cord come off any pulleys?
- o If using an external light sensor, is the R2 black cap still in place on the circuit board, fig 3.
- o If a timer is used, check the time settings.
- o There may be a 'plug' of dust and wax collecting in the white arm where the cord goes through into the spring (can be seen from underneath). Remove the spring and white arm. Using a needle or paper clip carefully remove this 'plug' from the hole.
- o Is the inside of the unit relatively dust-free or is there build-up of dust on any connecting pins? If so, remove all connecting wires from pins, blow or apply air to clean then replace all connectors. We recommend the unit be kept as clean and dust free as possible.
- o Have you changed the batteries recently? Are they the right way around? Are the battery holder connectors connected black/blue to pin 1A and the red to pin 2A.

## • The Motor Does Not Stop.

- o Has the cord broken?
- o Is the knot/bead still in the right place to make the white arm switch off the motor?

## Hints and Tips:

- When connecting or disconnecting the timer, light sensor or battery holder, do not pull on the leads, use the connectors. Keep these connections as dust-free as possible.
- When placing the black cap over the light sensor for internal use, place a small drop of silicone inside the cap to prevent it falling off.
- If mounting the timer externally, seal the cable entry with silicone to prevent moisture ingress.
- When your vertical sliding door is new the runners will benefit from a spray of WD40 type oil until it is "run in". (*take care, **DO NOT** spray near VSB unit as **this will invalidate your warranty.***)
- If telephone backup is required call us on **01300 345229**.  
Mon to Fri 8am-5.30pm, Sat 9am-4pm

**Warning: - Always remove the batteries before disconnecting the battery holder. Please **DO NOT** send the unit in the mail with batteries installed.**

## Technical Data:

Operating Voltage:	6 to 12v dc
Max sliding door weight:	3kg. With pulley: 6kg
Min sliding door weight:	200g (for weights below 200g closing is not possible).
Max stroke length:	60cm, automatic adjustment
Delay:	About 10 seconds for opening and about 1 second for closing. The device is insensitive to lightning strike.
Batteries:	4 AA alkaline.
Service:	In case of defect contact the manufacturer by fax or email and they will send a printed board with electronic motor (not the plastic case) so that you can exchange this part.
Manufacturer:	AXT-electronic Wartburgstrasse 10, D 99817 Eisenach, Germany
Telephone:	0049 3691 721070
Fax	0049 3691 721080
Website:	<a href="http://www.axt-electronic.de">www.axt-electronic.de</a>
Email:	<a href="mailto:service@axt-electronic.de">service@axt-electronic.de</a>

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Tel: 01300 345229 Fax: 01300 345858 email: [info@flytesofancy.co.uk](mailto:info@flytesofancy.co.uk)

### Setup for External VSB & Timer

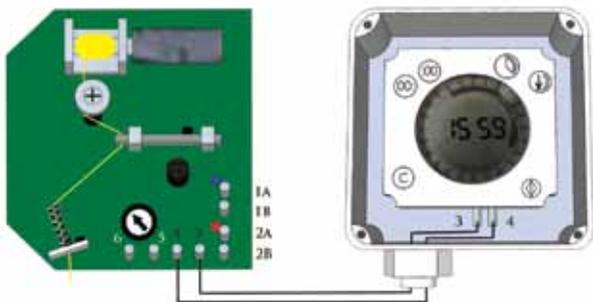
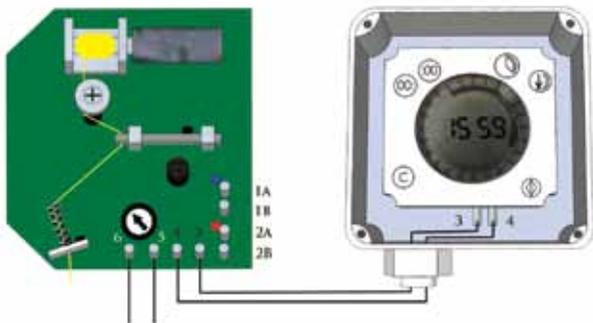


Diagram 1

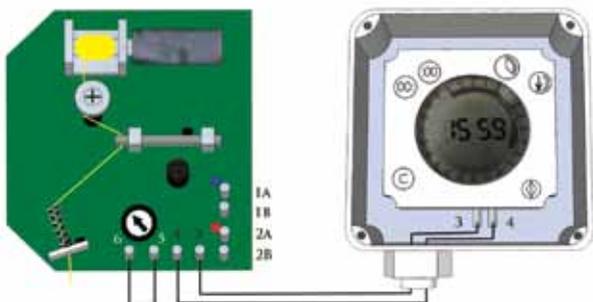
### Setup for Internal VSB & Timer



To Light Sensor

Diagram 2

### Setup for Overridden Light Sensor & Using Timer Only



Pins 5 & 6 Bridged with  
jumper cable

Diagram 3

# Diagnosis & Repair service



If you find yourself with an unresponsive unit after going through our guide; an out of warranty unit or even one purchased elsewhere, we can help.

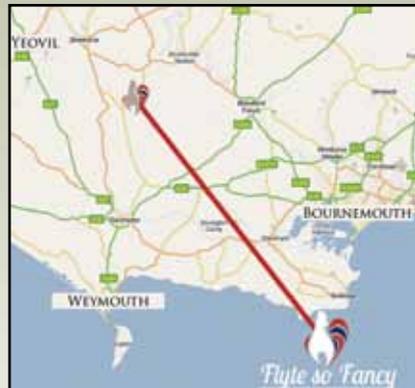
At Flyte so Fancy we offer an extensive VSB Diagnosis & Repair service which includes:

- \* Diagnosis of the problem
- \* Adjustments to settings as necessary
- \* Repair and cleaning as necessary
- \* Re-string if necessary
- \* Battery Holder replacement if necessary
- \* Reprogramming of timer unit
- \* 24 hour turn-round from receipt of unit (excl weekends)
- \* Return to you by 24 hour tracked mail
- \* This service does **not** cover light sensor replacement which is a further £10.99

1. Send all items in your set up back to us i.e. VSB unit, light sensor if used, timer if used, batteries (removed) - suggest by tracked mail - to Flyte So Fancy
2. Please, clean the outside casing of any returned units as we cannot work on units that could potentially carry contamination (bird flu regulations). Clean only the outside casing, do not get cleaner or water inside.
3. A covering letter with your name, address and phone number, date of purchase if known or approximate age of unit and a brief description of the problem. Also include the Order Number for this service item from your confirmation email.

**If we cannot fix your unit we will deduct the cost of the service off a new unit!**

Send your VSB to:  
VSB Repair  
Flyte so Fancy Ltd  
The Cottage, Pulham  
Dorchester  
Dorset  
DT2 7DX



***Flyte so Fancy***  
[www.flytesofancy.co.uk](http://www.flytesofancy.co.uk) 01300 345229