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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 Outside Installation) **and The VSBbi** (for Inside 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 pophole 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 and 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 unit is weatherproof and the casing is UV stable, plus it is insensitive to lightning strike.

On the Internal VSB unit you would receive a 1m grey cable, with a light sensor on the end, which will connect to some pins inside the unit. This will tell the unit about light levels outside and therefore indicate whether to open or close the door.

The external VSB unit has a light sensor on the circuit board which will detect light levels and control the door. The silver strip at the top of the unit is to protect the important components from direct sunlight.

To avoid water ingress we suggest the VSB unit always be mounted right way up and on a flat vertical surface.

To further control opening and closing times of the unit you can add a Digital Battery Timer (BT-VSB) which operates from 2 AA batteries (supplied with new units). Using the settings you can instruct the VSB unit to open the door at a set time and allow the light to close it, or you can use the timer for both opening and closing settings. The battery timer should be mounted inside the henhouse.

Installation is easy and we have made some videos as a guide available on our

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

Basically – attach and then open the VSB Aluminium pop-hole door, mount the VSB unit above so that the cord is as vertical as possible above the hole on the top of the door, fasten the cord to the door and insert the batteries in the battery holder. The front casing cover is held in place with plastic retained screws which needs a standard flat blade screwdriver. Do the functional test as described later in these instructions and that should be the door working for you. The maximum length of the cord (which is a fishing line type cord, breaking strain 40lb) is 50cm. This can be extended with extra cord if needed. It is also possible to mount the VSB unit in different positions with the use of pulleys (see page 14).

The VSB units and Timers carry a 4-year warranty* from the manufacturers, AXT Electronic in Germany. The warranty covers all mechanical parts, but not the cord, casing or battery holder, and it must comply with their conditions i.e. DO NOT apply any grease, oil, WD40 or spray to the VSB unit; DO NOT force the cord by pulling it; DO NOT apply voltage; DO NOT make any mechanical changes to any parts of the circuit board; DO NOT allow water ingress; DO NOT use screwdrivers, pens or sharp objects on the buttons of the timer unit. If any unit is materially damaged it is not covered by the warranty. Any of the above will invalidate the warranty.

Whilst we offer all advice and help we can with installation and troubleshooting, as well as our 30-day replace as new for faulty units (we need to ascertain by phone that they are actually faulty first). If a unit proves faulty after our 30-day warranty then repairs, or replacement if necessary, would need to be effected by the manufacturers under their warranty (we cannot repair units here). You can email AXT Electronic direct describing the problem to 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. Do feel free to call us first for advice.

*The 4-year warranty is for units purchased after 1st 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. Screw the runners to your henhouse ensuring that the holes at the top of the runners are towards the outer edge as per Fig. 2.

Depending on need, you may have to make further screw holes in the runners as necessary.

2. **Installing the VSB unit.**

Mount the VSB unit above the sliding door (if possible) by using 4 screws (supplied). Firstly, unscrew the retained screws and remove the clear cover, attach the VSB to the henhouse by inserting the supplied screws into the corner sockets and tighten. The pull cord of VSB should be roughly vertical above the sliding

door's centre (fig 2). **Do not insert the batteries yet.** Open the sliding door to a maximum of 60cm and, whilst open, fasten it to the pull cord of the VSB (an additional length of cord may be required depending on installation position of VSB – order code VSBC e.g. Maggie's Henhouse on outer booklet uses extra cord as the VSB has to be several inches from the door). By doing this,

the upper stop of the door is fixed. The lower stop will be automatically 'chosen' by the sliding door i.e. when the sliding door's weight becomes less than 200g it will stop. Whenever the sliding door is blocked, or the load exceeds 5kg, the motor will be shut down within seconds, and will be switched on again within three minutes once the blockage has been removed, the strain on the batteries is negligible.



Fig. 2

To attach the cord to the door just put the end of the loop through the hole and tie a knot, or use more (strong) cord to tie the end of the loop to the door. DO NOT undo the loop. Once the VSB and door have been fully installed, insert the 4 batteries in the VSB unit following polarity symbols. 4 x AA batteries supplied.

3. **To install the VSBi inside the henhouse:** Install the sensor end of the external light sensor cable through a small 9mm hole on the outside wall of the henhouse and seal it with a silicone compound if necessary. Fit the connectors of the outside light sensors inside the VSB unit and carefully push onto the pins 5 and 6 at the bottom of the circuit board. Either cable can attach to either pin. Place the small black R2 cap (supplied) over the light sensor on the circuit board of the VSB (light sensor shown by red arrow – fig 3). This will make sure that light is taken from the external sensor and not from this internal light sensor.



Fig. 3

4. **BTVSB: Battery powered timer unit.** To be installed inside. Use the grey two-wire connection cable supplied with the timer, connect pins 3 and 4 of the battery powered timer with pins 3 and 4 of VSB unit using the same cable for each pin e.g. brown cable to pin 3 in the timer must attach to pin 3 in the

VSB. The cable is inserted into the timer through the threaded opening on the base of the timer fig 4. Close this threaded opening tight to prevent water ingress. Details of setting the timer can be found on page 8.

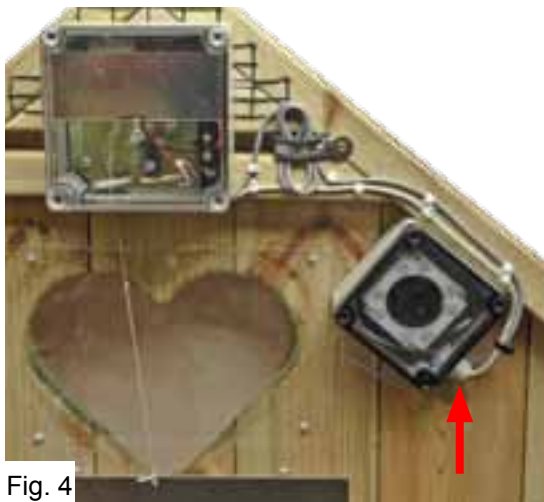


Fig. 4

Included with the timer cable will be a small 5cm 'jumper' cable which is needed if you plan to use the timer to close the door at night as well. This would be used on pins 5 & 6 as shown in diagram 3 on page 15.

5. **Functional Test.** Once installed it is a good idea to test that the system is functioning correctly. If you can completely darken the VSBb (which is difficult in daylight), or the light sensor of the VSBi, or, close it by actuating the timer, then the door should drop down and when you un-darken the sensor the door will rise again.

The simplest test though is to bridge pins 3 and 4 with a screwdriver, as this will override the light sensors so, using a screwdriver or anything metal (fig 5) place this over pins 3 and 4 and hold it there. After a few seconds the door should begin the slide down, keep the bridge there until the door goes all the way down and then take the bridge away. After a few seconds the VSB will realise it is still light after all and start to rise again to the top.



Fig. 5

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.

6. **Varying the light sensitivity.** The adjusting device (above pins 5 and 6, black dial with white arrow – 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.

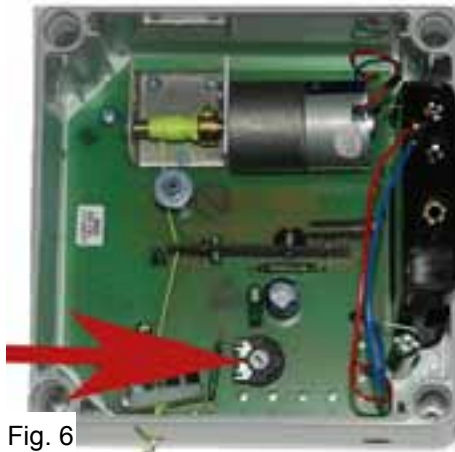


Fig. 6

7. **Pull cord.** After some years of operation it could be that the pull cord breaks. Check the condition of the pull cord frequently. To replace the pull cord draw out the cord by shorting pins **3 & 4** and by pulling gently on the cord until it is all the way out. Remove a battery from the unit to prevent it rewinding. Remove the cord and replace it with strong fishing line with a high breaking strain, or one available from Flyte so Fancy (VSB). Replace the battery and gently restrain the cord until it is wound back in.

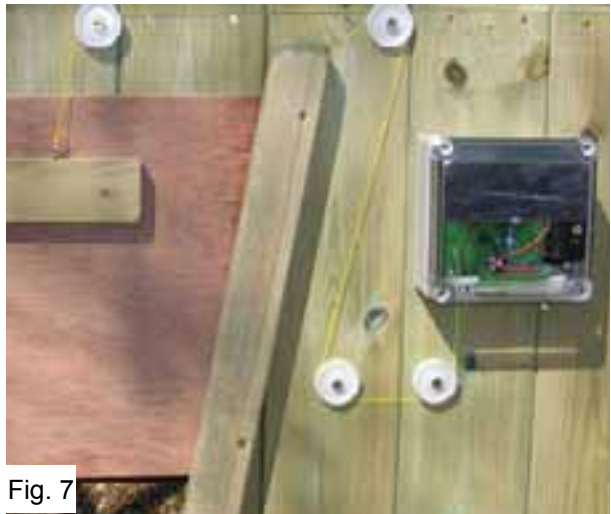


Fig. 7

8. **Please Note:** Immediately above the loop at the end of the cord there must be a large knot, or bead, to prevent the cord going all the way through the white swinging arm (below spring). When this bead (or knot) meets the white arm, it raises the arm and turns off the motor. The length of the cord needed below this knot can be determined by having the door in the up position whilst the bead/knot is against the white arm i.e. this stops the motor at the 'door up' position.

If you need to have your door and VSB positioned further apart than mentioned above, you can add extra cord to the existing cord, for example when needing to add pulleys to the system, fig 7. Determine the length of cord needed by adding to the existing cord and then attaching to the door in the open position.


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*

For Your Own Notes



| | |
|--------------------------|--|
| Date Of Purchase: | |
| Order Number: | |





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
Hobby Henhouse

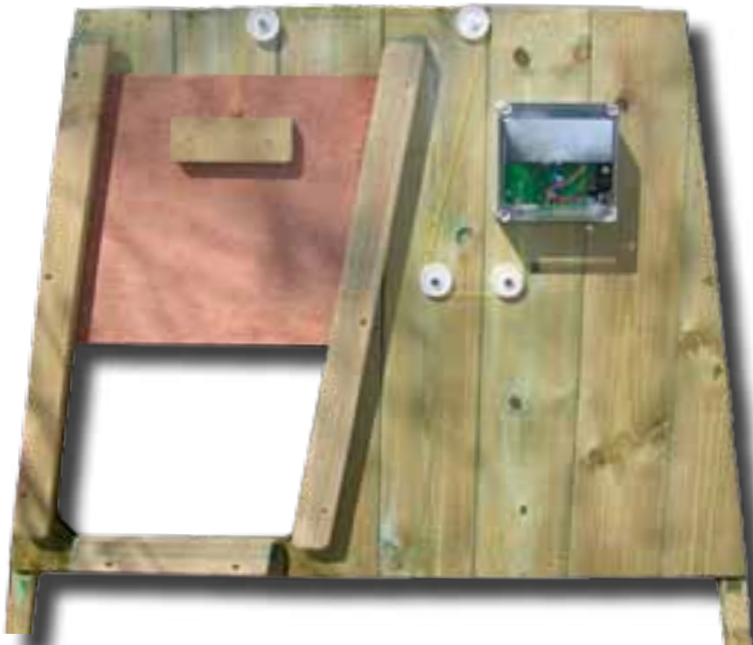


Flyte so Fancy
Maggie's 24 Henhouse
(with old Analogue Timer)

Flyte so Fancy Dorset Ranger
Installation



Flyte so Fancy Haven Henhouse
Installation



Flyte so Fancy
Handy Henhouse
Installation



Flyte so Fancy Maggie's Dozen
Installation



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 (bottom left of pcb) 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. Replace the cord making sure the knot and bead are below the hole in the arm (these turn the motor off when they meet the arm as the cord rises).
- 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 recommended 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 required call us on 01300 345229. Mon to Fri 8am-6pm, 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.**

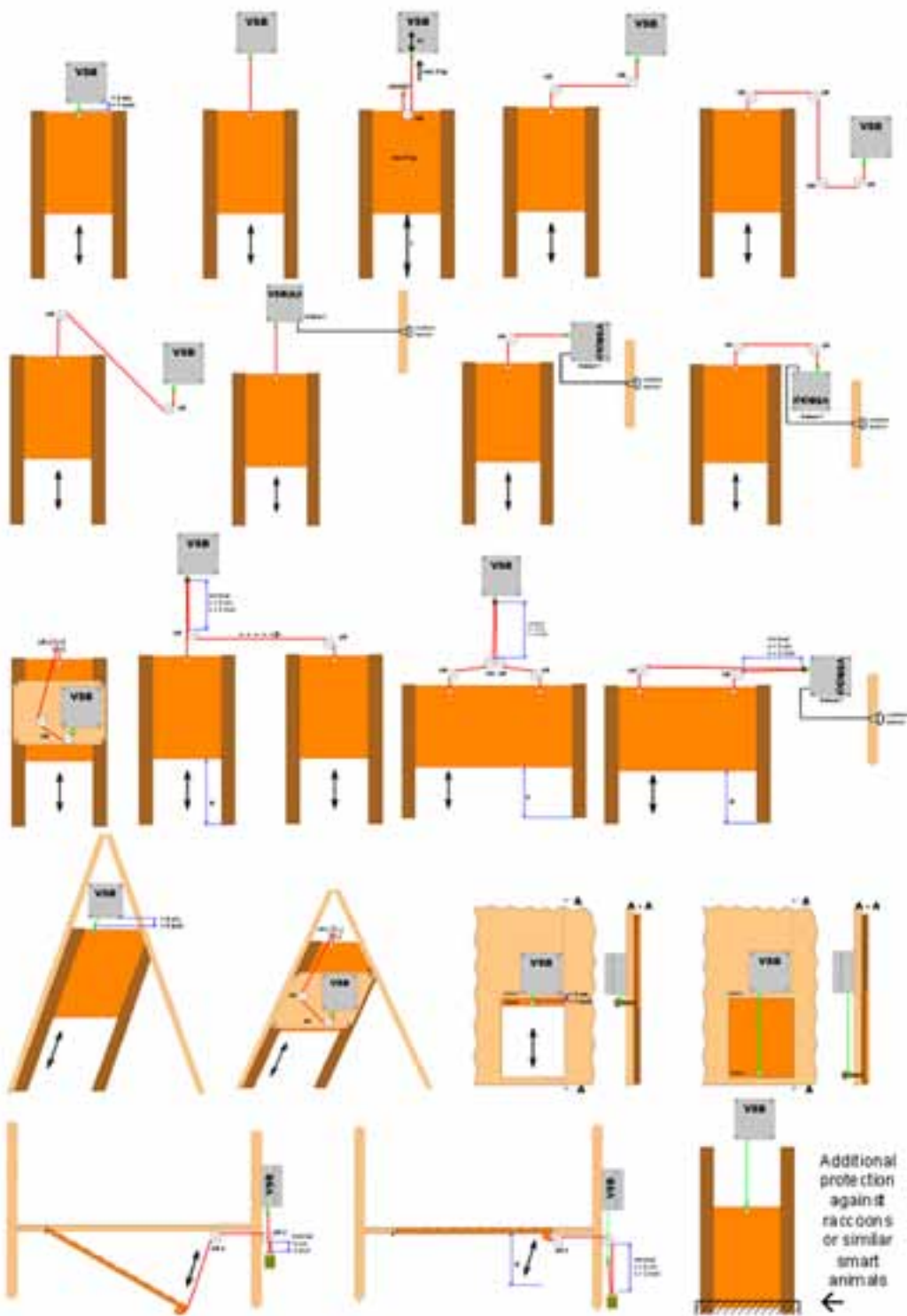
Technical Data:

| | |
|--------------------------|--|
| 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: | www.axt-electronic.de |
| Email: | service@axt-electronic.de |

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Setup for External VSB & Timer

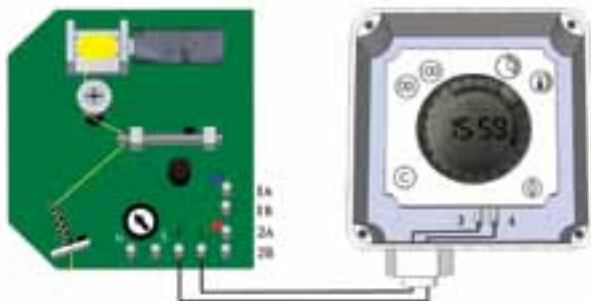
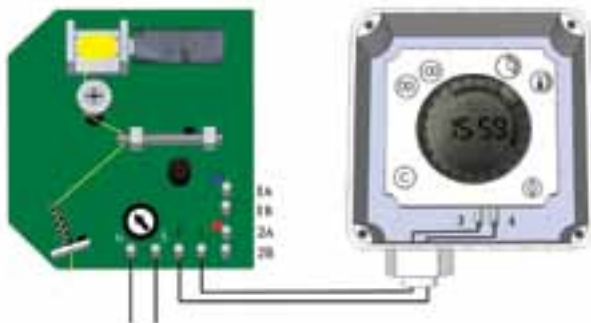


Diagram 1

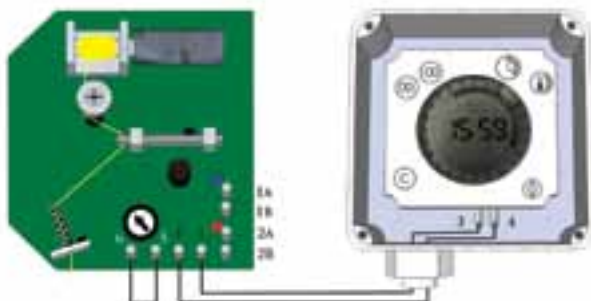
Setup for Internal VSB & Timer



To Light Sensor

Diagram 2

Setup for Overridden Light Sensor & Using Timer Only



Pins 5 & 6 Bridged with
jumper cable

Diagram 3

Poultry and Waterfowl Housing



Flyte so Fancy design and make a range of Poultry Houses, including Chicken Coops, Traditional Hen Houses, Arks, Goose and Duck Houses, which are all unique to us. All our housing products are made here in Dorset, by people from Dorset, and we produce houses that are designed with thought, are finished to a high standard and will last for many years.

Chicken Supplies & Equipment

We have a wide range of poultry supplies too, in fact we can supply everything you need for keeping chickens (except the chickens!). Order on-line, next day delivery is available throughout the UK.



Egg Boxes & Labels

Flyte so Fancy also offer a selection of egg boxes in recycled fibre, lots of colours to choose from. Also a choice of designer personalised labels to compliment your boxes and give a professional look.

Electric Fencing & Kits

Electric Fencing is proving a very popular way to keep your birds and animals safe from predators, so we stock a huge range of Electric Fencing Equipment and complete Electric Fence kits for Horses, Poultry, Pets, Rabbits, Badgers, Ponds, Deer and for general farm use.



**Beware
of the
dog**



Signs & Notices

New to Flyte so Fancy is our Signs & Notices section which includes business signs & notices, signs for farms, estates & private property, gate and door signs, fire safety notices, convex safety mirrors, warning & prohibition signs, AND Eggs for Sale signs.

Wild Bird Feeders, Feeds & Nest Boxes

Take a look at our wide variety of Bird Feeders, Bird Boxes and Wild Bird Foods. Plus a Stunning Selection of slate roofed & Teak Bird Tables

