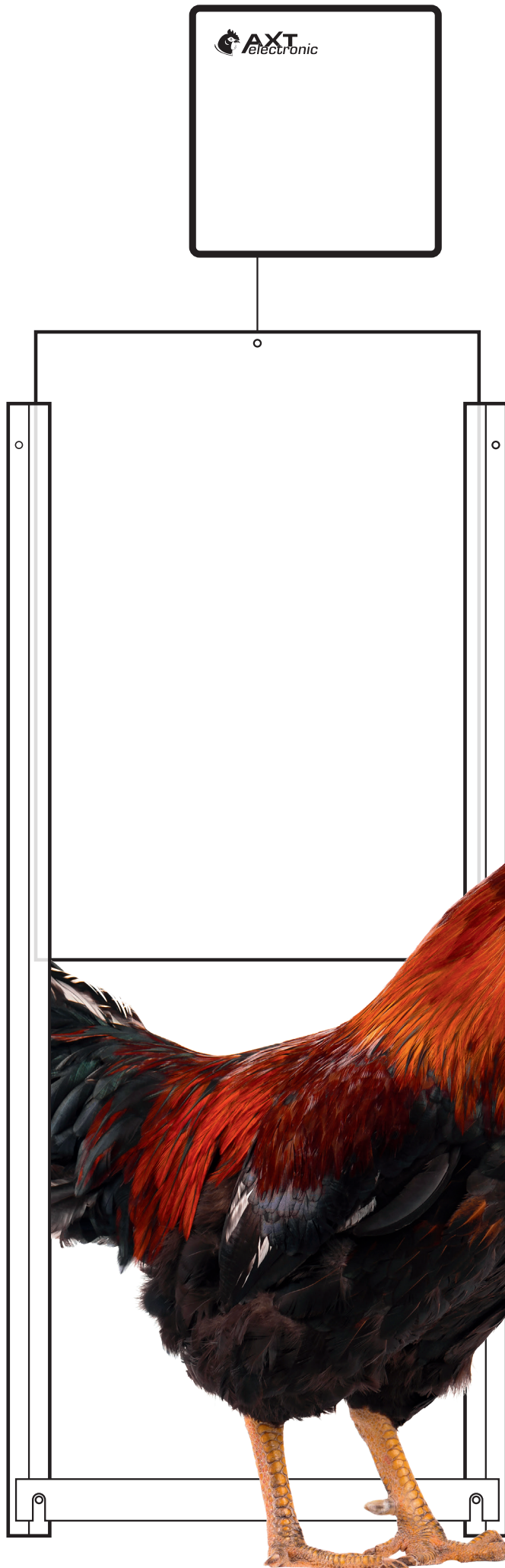




INSTRUCTION MANUAL

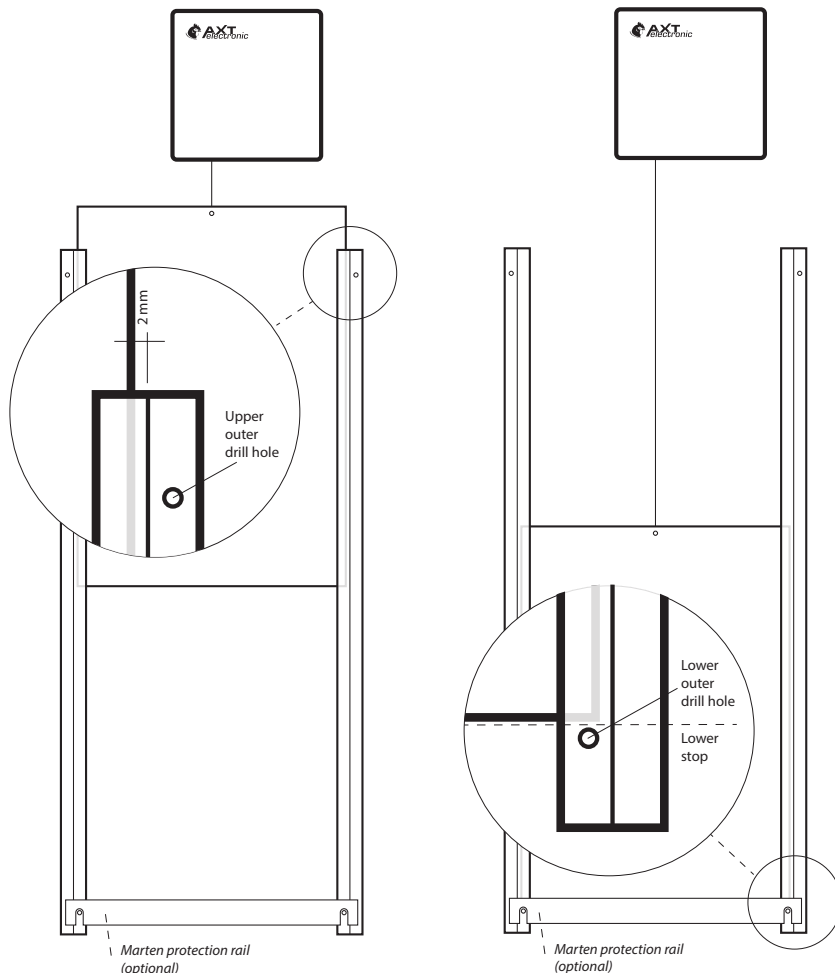
Electronic Doorkeeper VSE

Thank you for purchasing the Electronic Doorkeeper VSE.

Please note the general information on the back of this sheet and the safety instructions in the manual.

AXT-electronic GmbH & Co. KG

Wartburgstrasse 10
99817 Eisenach / GERMANY
Phone: 0049 3691 81921-0
service@axt-electronic.de
www.axt-electronic.de



ASSEMBLY

Electronic Doorkeeper VSE

1. Using a level, mount the lateral guide rail vertically. Align the upper hole towards the outside. If an optional protective rail is available, use it to mark the lower attachment holes. Align the protective rail horizontally.
2. Align the door and mark the position of the second guide rail. Ensure that there is enough side clearance for the door between the two guide rails. Attach the second guide rail.
3. Now connect the Doorkeeper VSE to the door (e.g. by passing the loop through the fixing hole in the slider from the back and fixing it with a cable tie or key ring from the front). A connector (knurled screw) is available as an accessory for easy cord fitting. Insert the door into the rails. Using the Doorkeeper VSE, bring the door into the desired upper position (door open). The cord of the Doorkeeper VSE must be exactly vertical. Mark the position of the Doorkeeper VSE.
4. Unscrew the lid and attach the Doorkeeper VSE in the marked position.
5. Mount all optional accessories such as external LED, external manual control or external twilight sensor (see wiring diagram on the next page).

Assembly Information: There should not be an upper stop or obstruction! Switching off during opening and closing is carried out via switches in the device. Door weight must be a minimum of 200 gr. And a maximum of 3.0 kg. The maximum stroke of the pulling cord is 70 cm. To prevent the door from freezing in winter, coat the rails with a small amount of lubricant. Neither the cord nor the inside of the Doorkeeper VSE is to be exposed to lubricants or directly lubricated. When installation is not directly possible or desired above the door, please observe the separate information on our website. To extend the connecting cord between the door and the Doorkeeper VSE, an additional cord may be used (without noticeable weight addition), but **NOT** a chain or carabiner, as the additional weight would result in the deactivation of the automatic switch-off when the door is closing.

START OF OPERATION Electronic Doorkeeper VSE

1. Remove the white plastic tab from the battery holder. If necessary, connect the optionally available power supply. The device goes through a start procedure, which ends with „Welcome...“. The display is then deactivated, and the Doorkeeper VSE is ready to accept entries.
 2. For the initial set-up, hold the red magnet against the „Menu“ control panel for 3 seconds. You will see various status messages one after the other.
 3. Now set the language, time and date via the menu operation. (Please refer to the explanations on the right.)
- The basic settings are now complete and the display is deactivated again. The Electronic Doorkeeper VSE is now immediately ready for use with the factory default settings. Test the closing and opening of the door by using the manual control (SA) to ensure a smooth operational procedure.

Factory Default Settings: The Doorkeeper VSE is preset to a combined, light-time control. It opens daily at 8 o'clock a.m., but only when it is light. In the evening the Doorkeeper VSE closes automatically when it gets dark, or at the latest, 10 o'clock p.m.

General Information: A long battery life is guaranteed if you only use AA Mignon alkaline batteries! If the batteries in your new device last only a few days or weeks, there is most likely a mounting error (e.g. door blockage). Via manual operation with the red magnet, check to see if the door can be completely opened (limit switch contact in the Doorkeeper VSE).

The Doorkeeper VSE can be used in four different operating modes (each separately for morning and evening).

„LUX AND TIME“ Combined Controlling

Light sensor and timer jointly control the opening and closing times. Opening in the morning when „light AND opening time reached“, closing in the evening when „dark OR closing time reached“.

„LUX ONLY“ Twilight Controlling

Only the light sensor controls the opening and closing times. In the morning it opens when the light sensor detects „light“, in the evening it closes when „no light“ is detected. This depends on the light sensitivity setting of the light sensor.

„TIME ONLY“ Time Controlling

The light sensor is deactivated via software. Only the

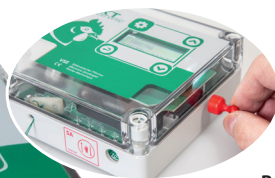
switching times of the internal timer are active. Opening and closing times must be defined for automatic operation.

„MANUAL“ Manual Controlling

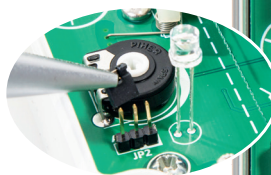
Light sensor and timer are deactivated. Opening and closing can only be carried out with the manual control (SA). To keep the flap closed all day, „manual“ must be set for opening mode and closing mode.



Manual Controlling „SA-Function“
Open or close the slider by holding the magnet once at the SA marking

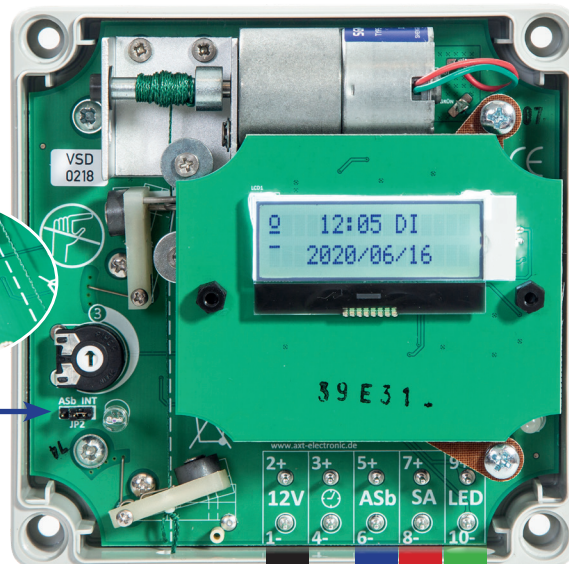


Reset function
briefly holding the red magnet at the right grey half of the housing (area displayed)



Twilight Sensor

When using the outdoor light sensor ASb, please move the jumper one pin to the left to „ASb“.



OPTIONAL ACCESSORIES

Electronic Doorkeeper VSE



Power Supply



The power supply unit is connected to the contacts 1 at the bottom (blue cable) and 2 at the top (red cable). After plugging in the power supply, the Doorkeeper VSE starts (LED flashes several times, the last green, display shows status information, and then welcome...) and is now ready for operation (LED and display off). If the cord was unwound, it is now fully retracted.



Outdoor-light Sensor ASb

The cables of the outdoor-light sensor are marked blue. Connect the cables of the outdoor-light sensor to the contacts 6 (white cable) at the bottom, and 5 (brown cable) at the top. **When using the ASb, please move the jumper one pin to the left to „ASb“ or darken the twilight sensor completely with a black cap.**



External Manual Control SA

The cables of the external manual control are marked red. Connect the cables of the external SA to the contacts 8 (white cable) at the bottom and 7 (brown cable) at the top. *Instead of the external manual control with magnet, a separate button (non-locking, not a switch!) can also be connected here to manually control the Doorkeeper VSE.*



External LED

The cables of the external LED are marked green. Connect the cables of the external LED to the contacts 10 (white cable) at the bottom and 9 (brown cable) at the top. *(If the polarity is reversed, the LED flashes red regularly after closing, not green).*

Power Supply

Outdoor light sensor

External man. control

External LED



Information:

The LED signal about the error or operating mode is emitted at intervals of 20-30 seconds for 30 minutes after activation. The LED therefore does not flash all night long!

LED-Indicators



Device in Closed Mode (1x green)

Light flashes when the Doorkeeper VSE has received the signal to close the door and the internal limit switches confirm that no further weight is pulling on the device. Therefore, the door should now be closed. *Please check the door regularly for smooth running to prevent it from getting stuck when closing.*



Batteries Expired (2x red)

You should replace the batteries to ensure safe operation. *For optimum battery life, use only alkaline batteries.*



Error Limit Switch (3x red)

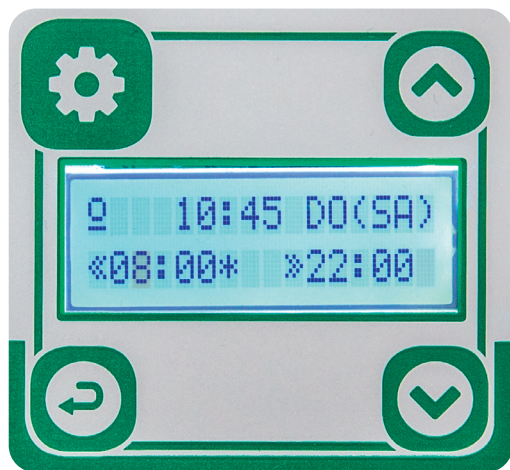
Limit switch error for open mode. The cord is possibly wound incorrectly or the maximum stroke of 70cm is not sufficient. *This error is also indicated when the limit switch for the open mode is raised during the closing movement!*



Error Overload (1x red)

Door is blocked when opening. *Check for the smooth opening and closing of the door with the manual control.*

Note: Error messages (red) are permanently displayed and mostly deleted by manual operation (SA).



MENU OPERATION

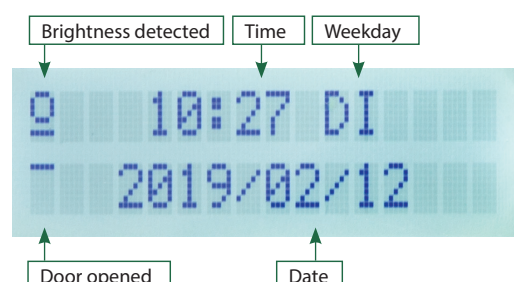
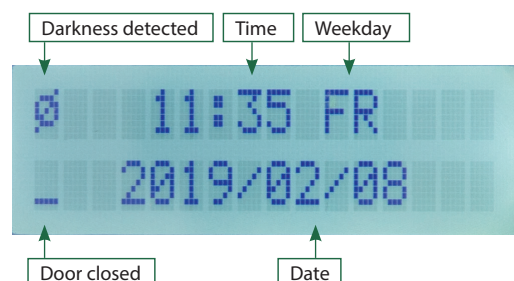
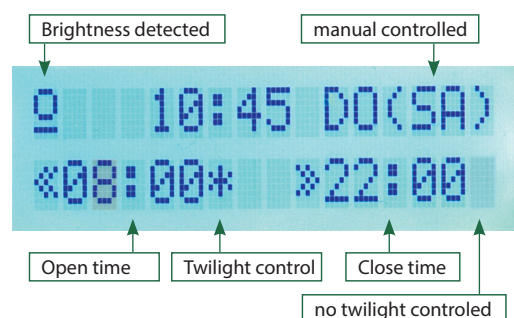
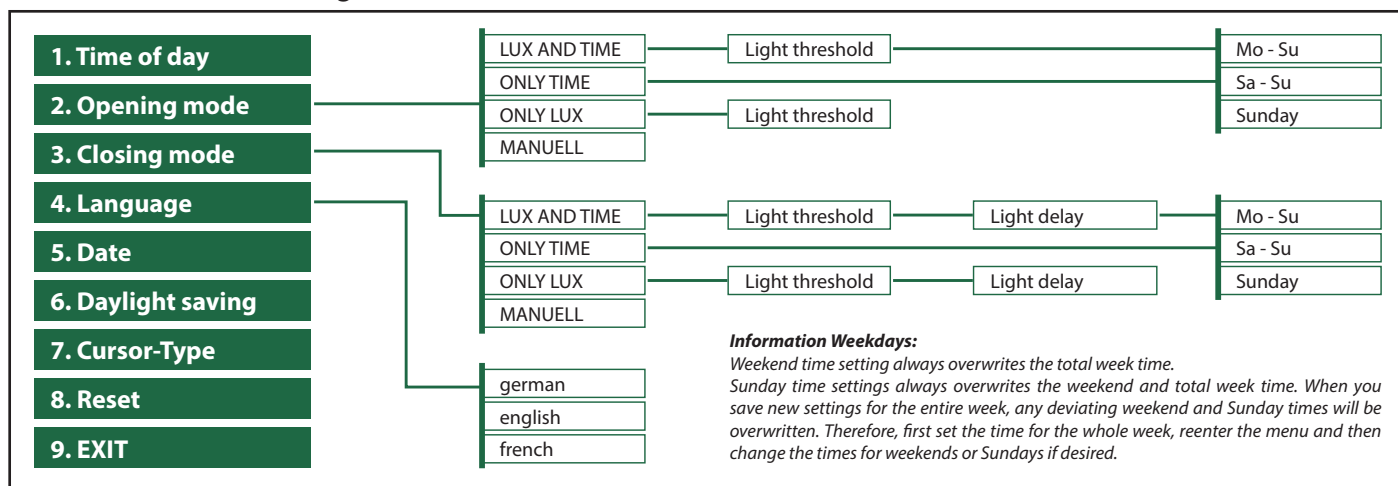
Programming via the operating elements

- Menu:** Activate main menu (press for 3s) / Confirm Input (save)
- Back:** Decrease by one value in the step / Back to menu
- Up:** Move forward one value in the step / Scroll up menu
- Down:** Move backward one value in the step / Scroll down menu

Status Display

To check the settings, activate the display by briefly touching one of the three control panels with the red magnet. The display shows the current status of the Doorkeeper VSE. Following this, the settings for the entire week will be briefly displayed in order to check the values. The display deactivates automatically.

Overview menu navigation



Main Menu and Settings

To activate the main menu, hold the red magnet for 3 seconds against the "Menu" control panel. By scrolling with "Up" or "Down" you can select one of the 9 menu options. Hold the red magnet again against "Menu" to navigate to the selected menu item and change the settings. With "Up" and "Down" you can change the selected values, with "Menu" you confirm and save your settings, afterward, you will then be automatically taken to the next value. Once all sub-menus have been scrolled through and saved, you automatically return to the main menu. To exit the menu, select menu item 9 and confirm. After approx. 1 minute, the menu will be automatically exited if no entries are made. The menu/display is also deactivated if, for example, the engine starts up during menu operation because the device has detected darkness. The menu is also deactivated if, for example, the motor starts during menu operation because the unit has detected dark.

Lux, „LIGHT THRESHOLD“, Light Sensitivity

In relation to the sensitivity setting, lux stands for the degree of sensitivity. For the combined control „LUX AND TIME“ and the twilight control „ONLY LUX“, the light sensitivity of the light sensor can be adjusted from 1 - 10 lux. 1 Lux is for closing later in the evening and opening earlier in the morning. (Note: with this minimum setting for the opening mode, there is a risk that the door will also be opened at night if there is strong moonlight or scattered light due to snow or outdoor lighting) – 10 Lux is for closing earlier in the evening and opening later in the morning. (Note: With this maximum setting for the closing mode, the door may also be closed during a heavy thunderstorm during the day.) The value for „Open“ should be at least one value higher than the value for „Close“.

The Term LUX:

In the working modes, „LUX“ means that the light sensor is also responded to. If this information is missing, the light sensor value is not observed.

„LIGHT DELAY“ Twilight Delay

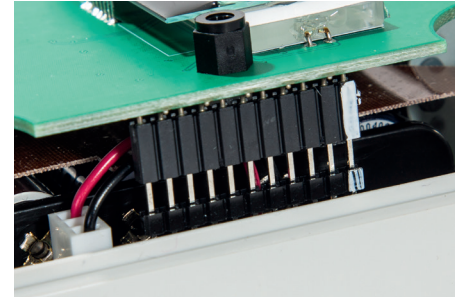
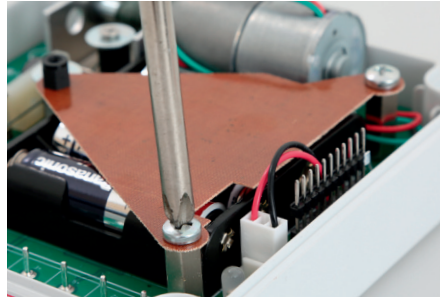
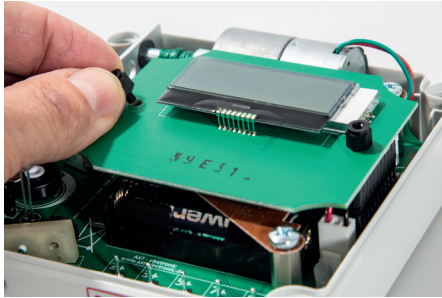
If you want to close the door well after dark, use the light delay which can be set in the closing mode. Here, the delays are adjustable from 1 to 90 minutes. An active twilight delay can be interrupted or terminated by a closing time or the manual control, thus closing the device prematurely. For the set delay period, the flap is still held open after darkness is detected.

ERROR ANALYSIS

Error / Failure	Analysis	Solution / Explanation
No reaction to manual control	Do you use the related magnet and hold it against the corresponding control panel?	Not every magnet works. A corresponding magnetic field is required. We also supply replacement magnets. Please contact us, or have a look in our shop. Always hold the magnet against the corresponding control panel for SA/manual control.
	A component of the manual control is defective.	Send us the printed circuit board for inspection and repair.
	Power supply all right? (e.g. if there are no reactions even to darkness or brightness)	Are the batteries full, correctly inserted, the plug power supply connected, functional, the socket functional? Are the cables in good condition (cable breakage, gnawed)?
Unit does not close	The cord guide is not correct.	The unit has two limit switches. There are two rollers next to the upper one (below the motor). The cord must always go to the left of both rollers and through the round metal eyelet. The cord guide is printed on the circuit board. If the cord guide is not correct, the unit does not recognise that it is to be closed.
No reaction to darkness or brightness	The internal sensor is deactivated, an external sensor "ASb" is not connected.	The unit can only detect light when a sensor is connected. If the internal sensor is deactivated, i.e. the jumper is set to "ASb", an external sensor must also be connected in this case.
	The contacts of the internal sensor touch each other.	Short-circuit: the door remains open. Carefully bend the contacts apart again.
	The internal sensor is not installed in the correct direction.	The sensor has a flat side. It points to the edge of the housing, not inwards in the direction of the battery holder.
	The operation mode for this time of day does not contain „LUX“.	The VSE only reacts to light/dark at this time of day if the operating mode also contains the „LUX“ element. Otherwise the light sensor will be ignored. Set the operating mode to „LUX AND TIME“ or „LUX ONLY“. In addition, it is not possible to open by light if the time ranges between any closing and opening times. If you want to open the door here, use the manual control.
Rewind error, but cord correctly wound up	Limit switch E2 was raised during closing	Hold the SA-Magnet to the SA control panel to clear the fault and release the cord by using the SA field again. Observe the behaviour of the limit switch when closing, is there a reason why it might be lifted?
	Limit switch E2 not correctly adjusted	Replacement of the printed circuit board required. Please get in touch with us.
Door stopped halfway	Batteries completely empty and unit switched off.	The device is switched off if the operating voltage is too low, as safe operation is not guaranteed. The batteries must be replaced. Previously the indicator "Battery empty" was displayed. The opening/closing movement is not terminated in this case. Please try new batteries.
	You have operated the SA function during opening or closing.	If the motor is running in one direction and you use the SA function, the motor stops. Use it again to run the motor in the opposite direction.
	Slider got stuck when closing.	Slider is blocked in the rails. As a result it no longer pulls on the device, it does not close any further. Check rails for dirt, bends or similar. The slider door has to pull with its weight on the Doorkeeper until the door touches the ground.
	Slider is blocked when opening / overload.	If the slider jams when opening, an attempt is made to open it again and again for a while. An error is displayed. After approx. 1h no further attempt is made to open. Actuate the SA to get the device out of the error state. It will close and you can remove the blockade.
Cord very tight in opened condition	Limit stop does not work.	If the white limit switch is pulled extremely far towards the motor, a component of the limit switch is defective. Please send the device for repair.
	Slider blocks during opening.	The limit switch may only be triggered by raising the limit switch inside the device. This happens through a resistance in the cord. If the slide moves against an obstacle before this, this is not a regular switch-off, but an error (overload).
Open despite dark	It was opened with SA?	Close again with the SA Function
	You are using an external light sensor, but have not deactivated the internal one. In the stable it is bright, therefore the device opens due to the illumination of the internal sensor.	Plug the black jumper to the left of the internal light sensor one pin to the left to the "ASb" position. Alternatively, leave the jumper in the "INT" position, but darken the internal sensor with a black cap that reaches down to the circuit board.
The batteries last only a few days / weeks / maximum 1 year	The slide weight ranges between 2,5 and 3,5kg, as well as a normal up to long stroke from 30cm.	In these situations, the battery life may be reduced to approximately 1 year. Note that even very cold temperatures can reduce battery life in the long run.
	The white limit switch is not raised, but the slider still jams.	The slider moves against a resistance during opening before the white limit switch can be triggered. This is a fault condition and costs energy. Remove the blockade against which the slide moves during opening.
	Despite the limit switch being raised, an attempt is still made to open. The cord is tensioned very tightly.	The limit switch component is defective. Send us the printed circuit board for inspection and repair.
	Battery type is not okay, so it is either zinc-carbon battery used, or rechargeable batteries (rechargeable batteries).	Only use alkaline batteries, or lithium batteries (but which means unnecessarily higher costs).
Device reacts with open or close after exiting the menu.	You have changed the current time-of-day or changed the opening/closing times. The device reacts according to the set operating times in relation to the time-of-day. After leaving the menu, the situation is checked again.	If you want to return to the state that was active before changing the times, press SA to open and close again manually.
	You closed during the day via SA, but changed the time-of-day afterwards.	After changing the time-of-day or operating times, the doorkeeper re-evaluates the situation after leaving the menu. The info on whether manual operation was performed is deleted when the times are changed. The re-evaluation has shown that the last status does not correspond to the set times and lighting conditions. The appropriate state is established (open, closed).
Various error output in format „SysError ... 0x50 0xF4...“	These error messages are system-internal errors that can have various causes.	In most cases, the system itself initiates a reboot. This restarts the communication between the motor board and the internal timer. This can take up to one minute. Then the system continues to work. Nevertheless, check the time. If no independent restart is possible, the error is repeated constantly. In this case, remove the internal clock, disconnect the plug from the battery holder and wait 5 minutes. Now reconnect the battery holder and immediately (while the LED is flashing yellow) replug the internal clock. Both parts will now couple and restart together. You may need to update the time-of-day.

Battery Change

The VSE shows you in the display or via the LED the necessity of a battery change. To change the battery, the timer module must be removed. To do this, loosen ONLY the left fastening screw of the module and carefully pull the module upwards on the right side. If necessary, remove the brown transport lock over the batteries (this does not necessarily have to be reinstalled later). Replace the batteries. Afterwards, plug the timer module back onto the contacts within 10-12 seconds (the LED flashes during this time). Note the white marking. As soon as the module is seated on the plug contact, it will restart and you will see various status messages. Refasten the left side of the module with the previously removed screw. Replace the cover onto the VSE and check the settings in the menu. (The timer module maintains the time for approx. 15 minutes without power supply. Your settings are retained even if the battery change take longer. In this case, however, the device loses the current time. Use the status display to check whether the time has been retained. If not, simply reset the time in the 1st menu item). If the display is not deactivated and a screen with 4 continuous arrows is shown, the small circuit board was mounted too late. Remove the small circuit board, reset the device with the magnet so that the LED flashes again and reattach the small circuit board.



Notes on battery disposal

Do not dispose of batteries in household waste, but please take them to public or privately operated disposal points (corresponding boxes in supermarkets or similar).

All indicated battery runtimes refer to operation with our sliders (weight between 300g and 1kg).

Dispose of the device separately from the batteries in a collection or return point, not in the household waste.

Disclaimer

Electronic devices can fail for various reasons. The usage of our devices does not release you from the obligation to regularly check and monitor the welfare of the animals and the function of the device. We accept no liability for damage and consequential damage resulting from incorrect installation/operation or defects in the equipment.

Application areas

The unit is designed to open and close vertically opening sliders on poultry/small animal houses weighing up to 3kg. There are limit switches in the unit that detect open and closed together with original cord. Their function must not be impaired by incorrect installation. By means of accessories such as pulleys and extension cords, individual mounting and other solutions are possible (e.g. lateral mounting or similar). Execution and implementation of each individual, customer-specific solution is the responsibility of the user. Always realise cord extensions and connectors using lightweight materials. Do not use a separate weight that is independent of and additionally attached to the slider!

Safety instructions Power supply unit

Dry room power supply unit - The plug-in power supply unit is designed for dry rooms. Please place it dry and under normal room conditions (air humidity).

Use a power socket that is easily accessible.

Only our power supply unit should be used as a voltage source. Only use a properly installed socket. Never unplug or plug in the power supply with wet hands. Make sure that the cable of the power supply unit is not crushed or damaged on sharp edges.

Safety instructions for rechargeable batteries / normal batteries

When inserting rechargeable batteries or batteries, ensure that the polarity is correct. Remove the standard batteries or rechargeable batteries if the unit is not to be used for a longer time. This prevents the batteries from leaking and damaging the unit. Leaking batteries or rechargeable batteries can cause acid burns if they come into contact with the skin. Wear gloves to be on the safe side. Do not leave batteries lying around. There is a danger of children or pets swallowing them. Do not attempt to recharge batteries. There is a risk of explosion.

Unit/Packaging

The VSE and accessories are not toys. Keep the device and magnet away from children. There is a risk of the magnet and bags being swallowed/suffocated. Do not leave the packaging (bags, etc.) lying around carelessly and keep it out of the reach of children. Only

use the enclosed batteries or batteries of the same type and/or the mains adapter (accessory).

If a separate power supply is used, the guarantee is not valid. It must only be connected by trained personnel and an additional fuse (1A max.) must be inserted in the supply line.

Note Care and cleaning:

Only treat contamination inside the unit when it is de-energised. Use appropriate agents from the specialist trade to keep mite infestation in the barn and thus in the unit itself as low as possible. In case of mite infestation in the unit, clean it mainly with compressed air. Sticky limit switches should be cleaned with methylated spirit/alcohol and a small brush to remove mite excrement.

IP class housing - the housing necessarily loses the IP66 class, because holes in the housing are necessary (cord). However, condensation can escape better through the openings if the unit is correctly installed. This also ensures better rear ventilation. Cable glands and strain reliefs on the VSD/E are not prescribed or necessary by us, but can be implemented by customers using cable ties or knots in the cable, if necessary.

Risk of injury during manual intervention - Any manual intervention in the mechanics of the device or the slider attached to it represents a risk of injury. We are not liable for any damage resulting therefrom. Make sure that the system is voltage-free when interventions are made or when you touch moving parts.



Submissions due to repairs

Devices under warranty will be repaired by us free of charge and returned if the defect falls under the warranty conditions. (Excluded from warranty repairs are devices for which the customer has already carried out interventions (soldering, paint removal, etc.) without prior agreement. These devices will be repaired at the customer's expense.)

Devices outside the warranty will be repaired and returned at the customer's expense. The repair costs depend on the founded error and the countermeasure taken, but never as high as a new purchase.

Sequence of a submission for repair:

1. You cannot resolve the error using the table.
2. Contact us if you are not sure what to send. If possible, send pictures of the devices in advance by e-mail (cover open + assembly with door).
3. We usually need the devices + accessories such as external sensors or the timer together for repair.
4. We do not need the aluminum door with us!
5. Remove the devices from the installation site. Remove the fixing screws for the wall.
6. Clean the devices (blow them out with compressed air, remove heavy impurities on/inside the housing, etc.). Check that no mites are present in the device.
7. Pack the devices, power supply (battery holder, batteries, power supply unit), + further accessories (timers, ext. cable extensions) safely in a package.

8. Put in a note with error description as well as your contact data and remarks. This speeds up the repair.

9. Send the devices to:

**AXT-Electronic GmbH & Co. KG
-Repair-
Wartburgstraße 10
D-99817 Eisenach, Germany**

10. If we indicate that only the printed circuit board is to be sent in, it is also sufficient to send the printed circuit board in a padded envelope and as a letter.
11. The repair will usually not take longer than 4 days. The transport time to us and back to you, can hardly be influenced by us.
12. For submissions from Switzerland or USA: Please contact us in advance. There are points that have to be considered during customs processing and should be discussed with us. Otherwise deliveries can be delayed considerably.

NOTES ON THE SAFE HANDLING OF MAGNETS



Ingestion/Swallowing

Children can swallow small magnets. If several magnets are swallowed, they can become lodged in the intestine and cause life-threatening complications. Magnets are not toys! Make sure that the magnets do not get into the hands of children.



Electrical conductivity

Magnets are made of metal and conduct electricity. Children can try to insert magnets into a socket and get an electric shock. Magnets are not toys! Make sure that the magnets do not get into the hands of children.



Bruises

Large magnets have a very strong attraction. If handled carelessly, you can pinch your fingers or skin between two magnets. This can lead to bruising and haematoma in the affected areas.



Cardiac pacemaker

Magnets can affect the function of cardiac pacemakers and implanted defibrillators. A pacemaker may be switched to test mode and cause discomfort. A defibrillator may stop working. As a wearer of such devices, keep a sufficient distance from magnets. Warn wearers of such devices not to approach magnets.



Magnetic field

Magnets generate a far-reaching, strong magnetic field. They can damage, among other things, televisions and laptops, computer hard disks, credit cards and EC cards, data carriers, mechanical watches, hearing aids and loudspeakers. Keep magnets away from all devices and objects that can be damaged by strong magnetic fields.



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