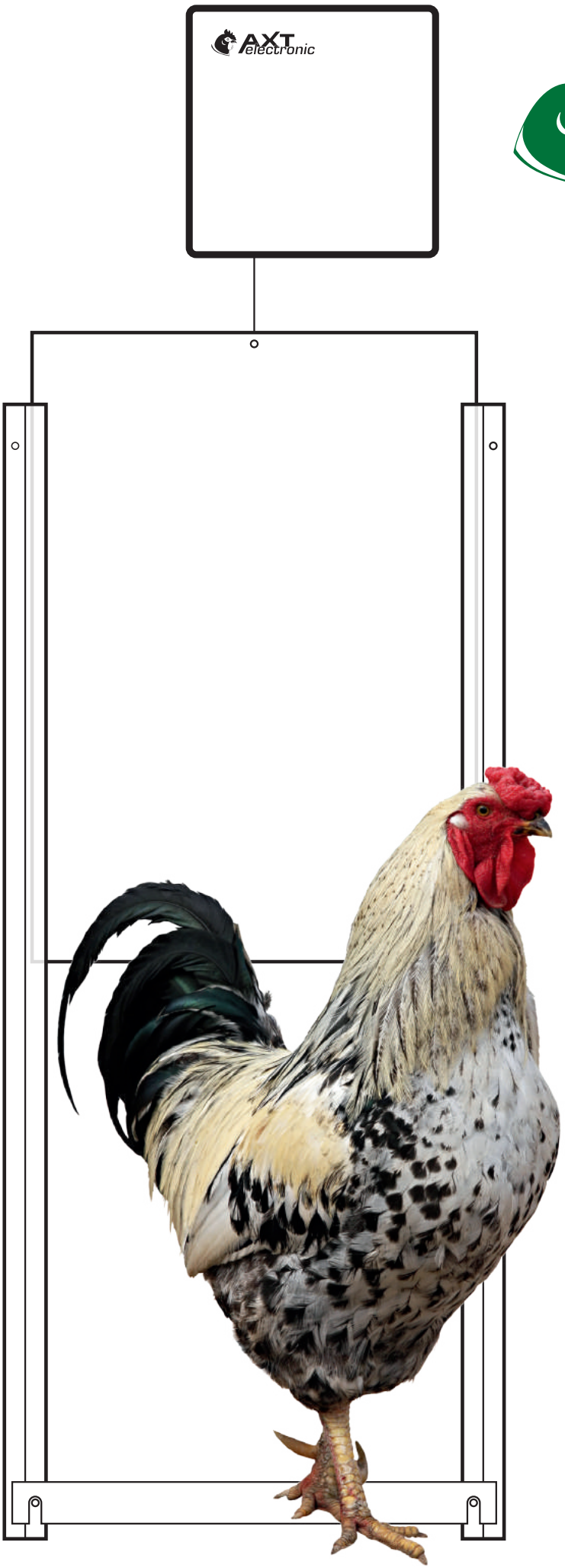

INSTRUCTION MANUAL

Electronic Doorkeeper VSD

Thank you for purchasing the Electronic Doorkeeper VSD.
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 721070
service@axt-electronic.de
www.axt-electronic.de

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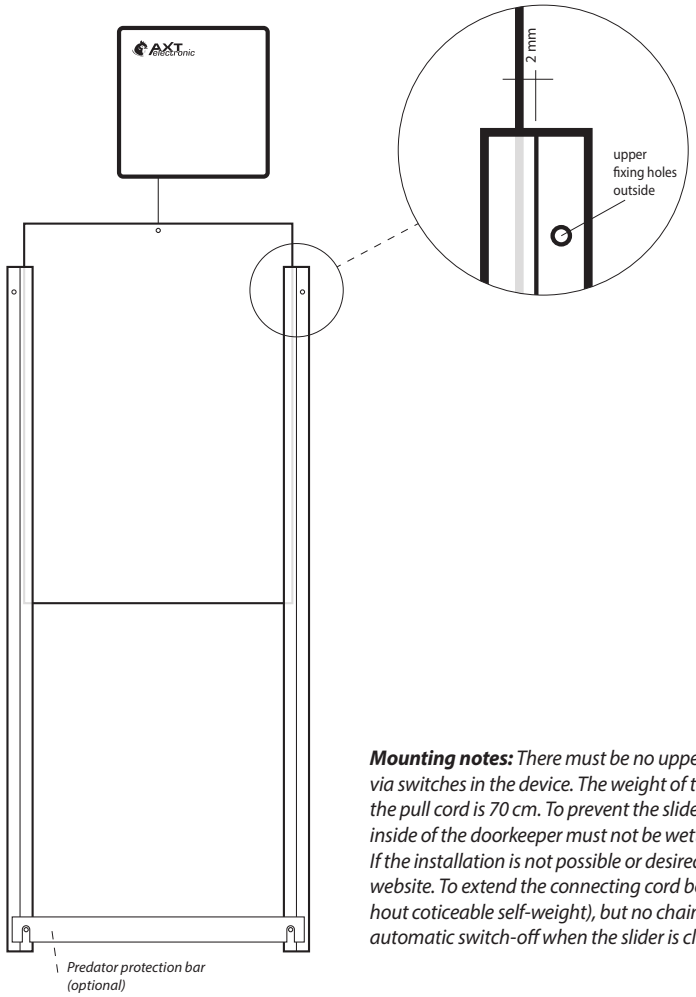


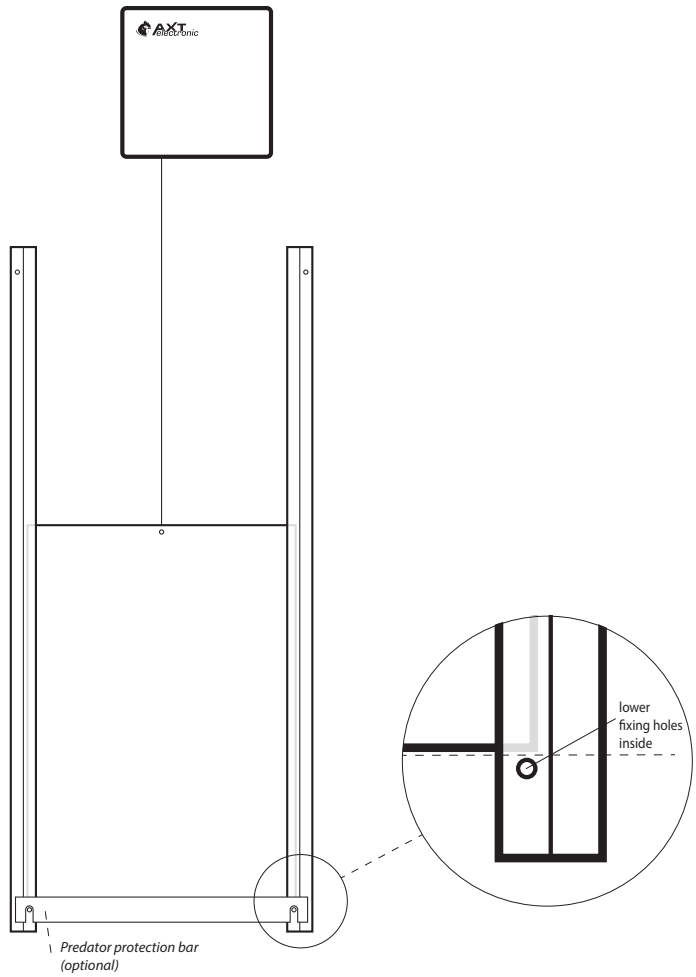
MOUNTING

Electronic Doorkeeper VSD

1. Mount the lateral guide rail vertically (spirit level). Always align the upper hole to the outside. If an optional protective rail is available, use it to mark the lower fixing holes. Align the protective rail horizontally.
2. Hold on slide and mark the position of the second guide rail. Make sure that there is sufficient clearance for the slider between the two guide rails. Fasten the second guide rail.
3. Now connect the Doorkeeper VSD to the slider (fix the cord to the slider) and insert the slider plate into the rails. Bring the slider together with the Doorkeeper into the desired upper position (door open). The line of the Doorkeeper must be exactly vertical. Mark the position of the Doorkeeper.
4. Unscrew the Doorkeeper's cover and fix it at the marked position.
5. Install all optional accessories such as timer, external LED, external manual control or external twilight sensor (see wiring diagram on next page).

Mounting notes: *There must be no upper stop / blockade! Switching off during opening and closing is carried out via switches in the device. The weight of the slider must be between 200 g and max. 3.0 kg. The maximum stroke of the pull cord is 70 cm. To prevent the slider from freezing in winter, coat the rails with a little grease. The cord and the inside of the doorkeeper must not be wetted with oil or grease.*
If the installation is not possible or desired directly above the slider, please observe the separate instructions on our website. To extend the connecting cord between slider and doorkeeper, only one additional cord may be used (without coticeable self-weight), but no chain or karabiner, as a additional weight of chain or karabiner deactivates the automatic switch-off when the slider is closed.

2



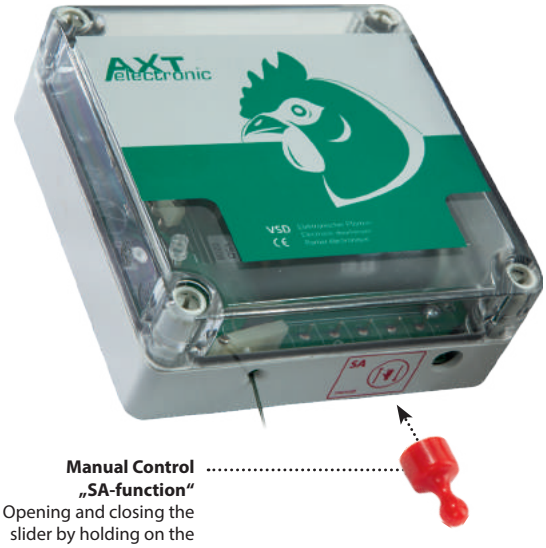
START-UP

Electronic Doorkeeper VSD

1. Insert batteries or connect mains adapter. After a short initialization, the Doorkeeper is in the open state and ready for operation.
2. The bottom stop of the slide is automatically detected by the Doorkeeper during operation. Please check by a first closing process by means of the manual control (red magnet) (slide must not block when closing). Then reopen the slide again with the manual control.
3. Check the function of the twilight sensor by darkening the Doorkeeper (with thick black jacket or similar). The closing process is activated approx. 2-3 seconds after darkening. After the slider has closed completely, restore the daylight situation. Opening takes place with a delay of approx. 10-12 seconds.

The Electronic Doorkeeper is now ready for use.

General information: In the delivery condition, the Doorkeeper is designed for operation with an internal twilight sensor. When installing a timer, please note the instructions on programming the various control options on the following pages. 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. slide blockage). Please check by manual operation with the red magnet whether the slide can open completely (limit switch by contact in the Doorkeeper).

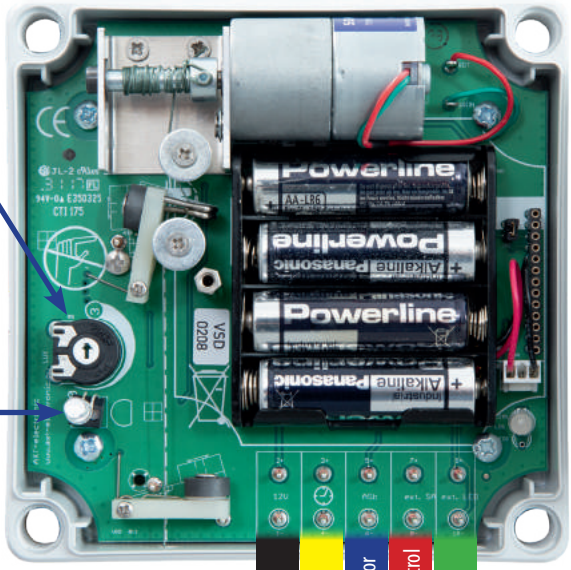


Manual Control „SA-function“
Opening and closing the slider by holding on the red magnet at the SA marking.

Twilight sensor

Light sensitivity can be adjusted with the rotary knob: e.g. to 3 (top) - closes earlier in the evening, opens later in the morning; turn clockwise to the right = close later in the evening and open earlier in the morning

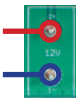
When using the outdoor light sensor ASb please unscrew the internal sensor or completely darken it with a suitable black cap.



ADDITIONAL ACCESSORIES

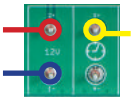
Electronic Doorkeeper VSD

Plug-In power supply



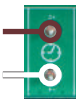
The power supply unit is connected to contacts 1 at the bottom (blue cable) and 2 at the top (red cable). After plugging in the power supply, the Doorkeeper starts (LED flashes several times, last red) and is now ready for operation (LED off). If the cord was unwound, it is now completely wound in. ***Attention:*** *When operating together with timer ZS-D, connect the power supply directly to the timer.*

Timer ZS-D (mains operation)



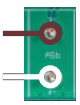
The cables of the timer are marked yellow. At first connect the power supply unit at the timer at contacts 1 below (blue cable) and 2 below (red cable). Then connect the supplied connecting cable to the corresponding colour-coded contacts at the top (blue, red and yellow cable). Lead now the connecting cable to the Doorkeeper and clamp the cables there on the contacts 1 bottom (blue cable), 2 top (red cable) and 3 top (yellow cable for clock signal). ***For the exclusive control via the BS-D or ZS-D timer*** *please deactivate the twilight sensor inside the Doorkeeper - so connect the contacts 5 and 6 (outdoor light sensor) with the supplied cable bridge.*

Timer BS-D (battery powered)



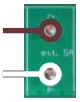
The cables of the timer are marked yellow. Connect the timer cables to contacts 4 at the bottom (white cable) and 3 at the top (brown cable). ***For exclusive control via the BS-D or ZS-D timer,*** *please deactivate the twilight sensor - connect contacts 5 and 6 (outdoor light sensor) with the supplied cable bridge. For a combined time and twilight control, please do not connect a cable bridge to contacts 5 and 6.*

External light sensor ASb



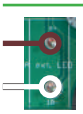
The cables of the external light sensor are marked blue. Connect the cables of the outdoor light sensor to the contacts 6 (white cable) at the bottom and 5 (brown cable) at the top. ***When using the ASb, please unscrew the internal twilight sensor*** *(see note above) or darken it completely with a suitable closed black cap!*

Manual control extension SA



The cables of the external manual control are marked red.
Connect the cables of the outdoor light sensor to the contacts 8 (white cable) at the bottom and 7 (brown cable) at the top. *Instead of the external manual control with magnet, you can also connect your own pushbutton (not latching, no switch!) to control the doorkeeper manually.*

external LED extension



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 every 4 seconds after closing, not green).*

ACCESSORIES

Control together with timers BS-D or ZS-D

Segment key: Press briefly = move cursor / press long = mark a range of segments together

Confirm key: Confirm /save segment - change status of selected segment

Programming button: Activate the setting mode to change actual time and closing time

Minute key: Setting the minutes

Hour key: Setting the hours

Delete key: Deletes the programmed closing time

Mode keys: Mode change (not necessary with BS-D and ZS-D)

Our suggestion for you!
Most chickens go into the coop at dusk. It also makes sense to only let them out in the morning when the fox and marten are usually no longer hunting. Therefore we have the following standard setting at delivery in our timers.

In the morning: open from 8 o'clock, if it is light.
In the evening: close at dusk or 22 o'clock at the latest.

(Prerequisite for this program sequence is the operation of the Doorkeeper with twilight sensor. For this mode of operation no cable bridge must be connected to contacts 5 and 6 in the Doorkeeper).

Programming / Editing

1. Press the programming button until „P" appears on the display.
2. Set the current time with the hour and minute keys
3. Standard closing time (see figure above) from 22 o'clock to 8 o'clock. This closing time is factory-programmed as a suggestion in the delivery state. If no change is required, complete the procedure by pressing the programming button.
4. Setting your own closing time: Press the delete key to completely delete the current closing time.
5. Position the cursor at the desired start position of the closing time by briefly pressing the segment key several times. Then keep the segment key pressed - the segments of the desired closing time are now highlighted in dark. When the desired opening time is reached, release the segment key and complete the programming with the confirmation key.
6. By pressing the segment key one after the other, only one segment is marked (blinking) by the blinking cursor. By pressing the confirmation key, only the state of this one segment is changed.
7. Press the programming key to complete the procedure.

Note: Please make sure that the timer is in the correct mode. No „S" must be displayed below the minute display (S mode is intended for operation of the timer with an automatic feeder). If this is the case by mistake, press the programming button to enter the programming mode. Now press both mode buttons together for at least 5 seconds. The mode is switched over. No „S" may appear in the display for the use of the timer with the Doorkeeper.

Depending on the accessories installed, the VSD Doorkeeper can be used in three different operating modes.

Pure twilight control
No timer is present or connected. The device therefore only reacts to light changes via the internal or external twilight sensor (+ manual operation if necessary).

Combined control
A timer is connected in addition to the twilight control. There are switching times in the timer. The device also reacts to the switching times in the timer. This is done in combination with the lighting conditions. In the morning it opens when „light AND opening time reached", in the evening it closes when „dark OR closing time reached".

Pure time control
The twilight sensor is deactivated or ignored. It is either short-circuited (cable bridge on 5+6) or ignored by the software. It only reacts to the switching times of the timer or manual operation (SA). For automatic operation, an opening and a closing time or a closing period (from-to for BS, BS-D, ZS-D) must be specified. If the light sensor is deactivated (cable bridge on pins 5+6 is plugged in) AND no timer is connected or has no set switching times inside a connected timer, an automatic operation is not possible! It can then only be controlled by manual operation.

Notice:
The LED signal for the error or operating mode is only output at short intervals for approx. 2 hours after activation. The LED does not flash the whole night!

LED-indicators

Device in closed mode (1x green)
Is indicated when the Doorkeeper has received the impulse to close and the internal limit switches confirm that no more weight is pulling on the device. The door should therefore also be closed. Please check the door regularly for smooth running to prevent it from getting stuck when closing.

Battery life reached (2x red)
You should replace the batteries to ensure safe operation. For optimum battery life, use only alkaline batteries.

Error limit switch (3x red)
Error at limit switch for open mode. Possibly the cord was 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)
Slider blocked during opening. Check the smooth opening and closing with the manual control.

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)?
No reaction to darkness or brightness	The internal sensor is removed, an external sensor "ASb" is not connected.	Without a light sensor there is no reaction to changes in light. If no sensor is installed, the cable bridge must be plugged into pins 5+6 and a timer must be connected to take over automatic control.
	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 internal sensor is correctly installed, but defective.	If only the internal sensor is used, not an external one, you can request a replacement from us. The sensor simply has to be plugged into the screw terminal (the right way round).
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 removed the internal one. In the stable it is bright, therefore the device opens due to the illumination of the internal sensor.	Remove the internal sensor from the screw terminal so that only the external sensor is active or darken the internal sensor completely with a black cap.
Closed by SA, does not open after short darkening (night)	After closing by SA, it must be dark for at least 10 minutes so that it can be opened again by brightness.	If you want to reopen after closing by the SA, actuate the SA again.
		Darken the device completely for at least 10 minutes, so that it can be opened again afterwards by brightening.
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).

Battery Disposal
Do not dispose the batteries in the household waste, but bring them please to the public or from private places pursued disposal places (appropriate boxes in supermarkets or similar.) All indicated battery running times refer to the operation with our sliders (weight between 300g and 1kg).

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.

Safety instructions
Power supply dry room - The plug power supply is designed for dry rooms. Please place it dry and under normal room conditions (humidity). If you need a power supply unit for humid rooms or outside, please contact us. We may have some in stock.

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.

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