

Voss.farming impuls duo DV

Voss.farming impuls duo DV RF

# VOSS.farming impuls duo

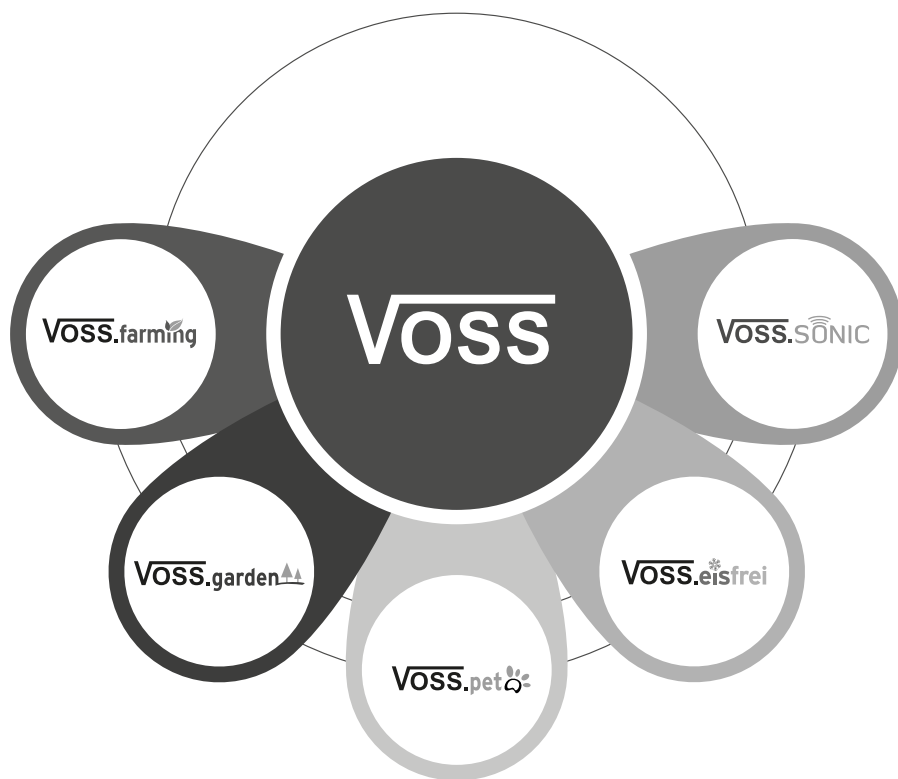
DV 40 DV 80 DV 120 DV 160  
 DV 40 RF DV 120 RF DV 160 RF \*



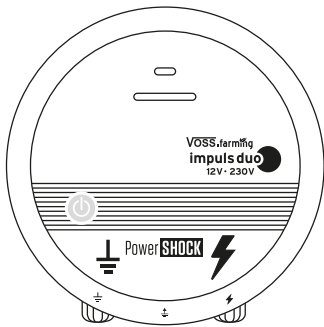
\* RF models including antenna & remote control

Elektrozaengerät  
 Energiser  
 Electrificateur de clôture  
 Elettrificatore  
 Schrikdraadapparat  
 Elstängselaggregat  
 Pastor eléctrico





- DE Bedienungsanleitung Elektrozaungerät
- EN Operating Instructions Electric Fence Energiser**
- FR Mode d'emploi Électrificateur de clôture
- IT Istruzioni per l'uso dell'Elettrificatore
- NL Gebruiksaanwijzing Schrikdraadapparaat
- SV Bruksanvisning Elstängselaggregat
- ES Bruksanvisning Elstängselaggregat



## VOSS.farming impuls duo

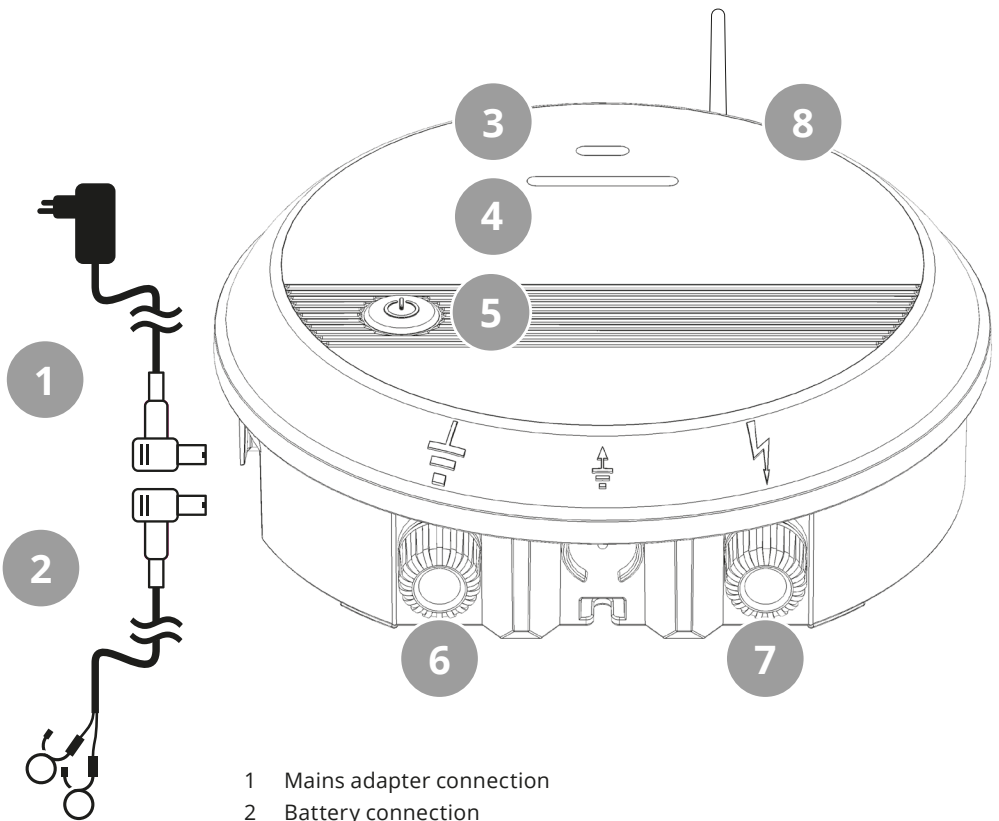
- 41310 / 41420 DV 40 / DV 40 RF  
 41320 DV 80  
 41330 / 41450 DV 120 / DV 120 RF  
 41340 / 41460 DV 160 / DV 160 RF

Art.-Nr.	VOSS.farming impuls duo	Input / Joules	max. Output / Joules	⚡ max. Volt	⚡ max. Volt 500 Ω	Grounding rod	CEE		
41310 / 41420	<b>DV 40 / DV 40 RF</b>	3,0J	2,2J	12,000 V	6000 V	1	60 km	15 km	3 km
41320	<b>DV 80</b>	5,0J	3,5J	11,200 V	6400 V	2	100 km	23 km	5 km
41330 / 41450	<b>DV 120 / DV 120 RF</b>	7,5J	5,0J	11,000 V	6600 V	3	140 km	40 km	10 km
41340 / 41460	<b>DV 160 / DV 160 RF</b>	10,0J	7,0J	10,500 V	7500 V	4-5	180 km	70 km	17 km

**Signal transmission over radio (radio broadcasting technology):**

869.525 MHz, + 22 dBm, depending on topography up to 10 km range

1. YOUR NEW VOSS.farming impuls duo
  2. HOW DOES AN ELECTRIC FENCE WORK?
  3. INSTALLATION AND CONNECTION
  4. GROUNDING
  5. THE IDEAL FENCE
  6. RADIO REMOTE CONTROL (RF models only)
  7. INITIAL SETUP
  8. MAINTENANCE AND CLEANING
  9. SAFETY TIPS
  10. DISPOSAL
  11. POSSIBLE DANGERS
- 



- 1 Mains adapter connection
- 2 Battery connection
- 3 Control LED (output indicator, battery control)
- 4 LED bar (fence voltage control)
- 5 ON / OFF button and power level setting
- 6 Ground connection (terminal nut, black)
- 7 Fence connection (terminal nut, red)
- 8 Antenna (RF models only)

## 1. YOUR NEW VOSS.farming impuls

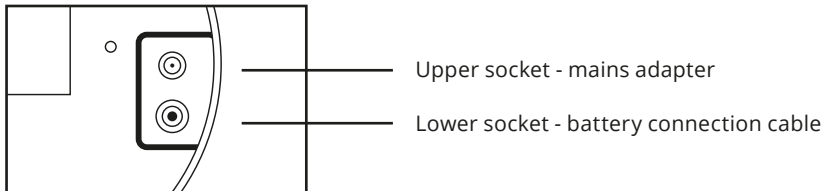
Thank you for choosing the VOSS.farming impuls duo. You have purchased a top-quality energiser for building a reliable and secure electric fence. Please read these operating instructions thoroughly before using the VOSS.farming impuls duo. This manual contains important safety instructions, tips and information.

The VOSS.farming impuls duo can be operated via a 12V battery or via a 230V mains adapter. The energiser constantly checks the voltage on the fence and adjusts the output automatically. This makes it particularly energy efficient and prolongs the battery life considerably.

LED lights (3) and (4) on the front of the unit indicate whether the device is in operation, measure voltage of the fence and also indicate possible faults on the fence.

### Mains adapter connection / 12 V battery connection (1 & 2)

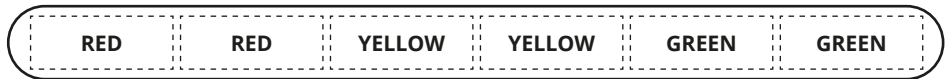
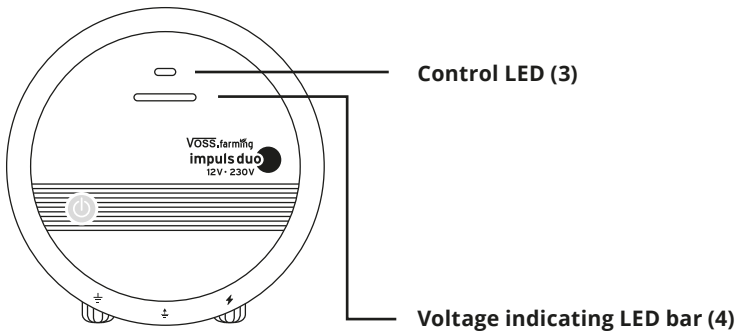
Mains adapters and 12V connection cables are connected via sockets on the back of the device.



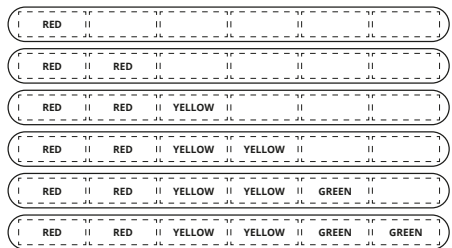
### Control LED display options (3)

- Blinking - 12 V battery operation
- Continuous - 230 V mains operation
- LED blue - power output at 100 %
- LED purple – power output at 50 %
- LED red – indicates warning or fault  
(e.g. battery voltage below 12 V or increased load on the fence)

When the battery voltage drops below 11.6 V, the energiser emits a beep and starts operating in energy-saving mode. When the battery voltage drops below 11.4 V, the energiser switches off automatically. The deep discharge protection keeps the battery from becoming damaged.



- **less than 3 kV** – 1x red
- **3-5 kV** – 2x red
- **5-6 kV** – 2x red + 1x yellow
- **6-7 kV** – 2x red + 2x yellow
- **7-8 kV** – 2x red + 2x yellow + 1x green
- **over 8 kV** – 2x red + 2x yellow + 2x green



### ON / OFF button and power level setting (5)

When the device is first switched on, the control LED lights up or flashes blue. After every subsequent switch-on, the LED lights up in the previously set power mode.

- single press – switching the device on and off
- long press (over 2 sec) – switching between high and reduced power (control LED changes colour)

### Energisers with shock strength of more than 5 joules

The VOSS.farming impuls DUO DV 160 / DV 160 RF is capable of an output of over 5 joules. A delay in the increase of performance guarantees your safety (EN 60335-2-76 A12:2010). The hourglass symbol indicates such devices. The time delay for this unit is 50 seconds.

When the load on the fence is increased and the resistance falls below 500 Ohm, this device increases its output energy (above 5 joules) after a delay of 50 seconds. The impuls DUO DV 160 / DV 160 RF automatically increases its shock strength, for example, in case of vegetation touching the fence, adverse weather conditions or condition of the fence itself. The unit will increase its shock strength (up to 7 joules) as long as the fence resistance is

not increased or the load is not reduced. When fence resistance suddenly drops by a significant margin (from 1000 ohms to 400 ohms or less), an alarm is triggered. This can be caused, for example, by a falling branch, a stuck animal or a human. The alarm beeps 6 times and the red LED light flashes. At the same time the interval between the impulses is extended to 3 seconds. The alarm is switched off if the load on the fence drops and the resistance increases to at least 400 ohms within 10 minutes. The energiser then continues to operate normally. Both signals work independently of one another.

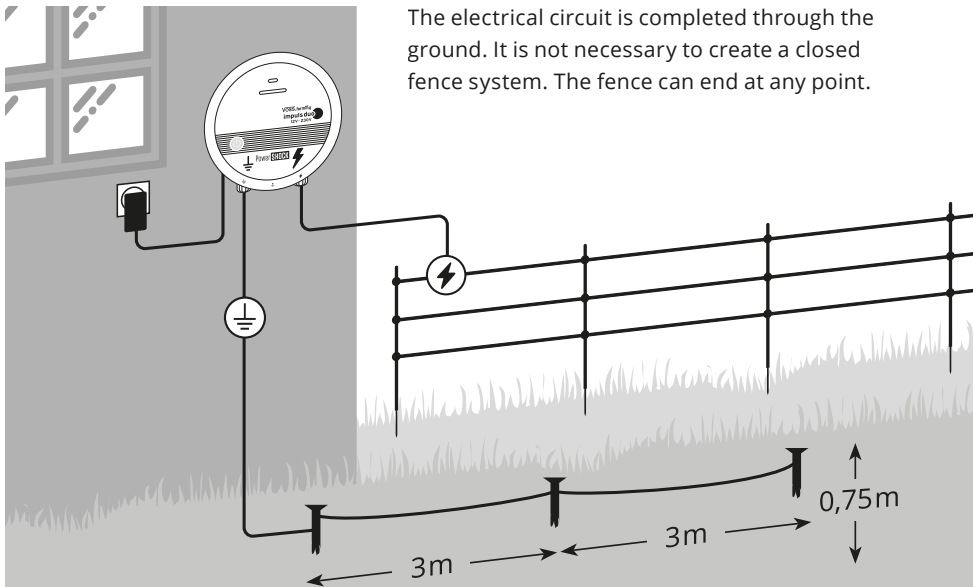
Switch off the electric fence immediately when the alarm is triggered and check both the fence system and the energiser.

### Ground and fence connections (6 & 7)

The terminal on the left is for ground connection – it has a black nut and a grounding sign above it. The terminal on the right is for fence connection – it has a red nut and the lightning sign above it.

## 2. HOW DOES AN ELECTRIC FENCE WORK?

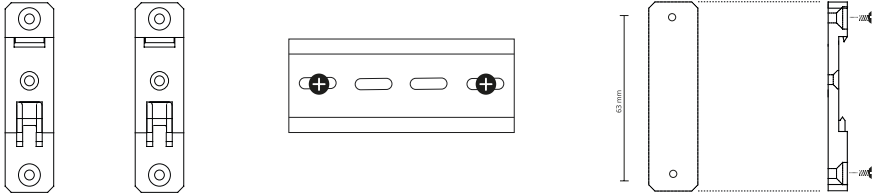
The VOSS.farming impuls duo is the heart of your fence. It generates electrical pulses at regular intervals. The unit is connected to the ground (“grounding”) and the conducting material of your fence. If a connection is made between the ground and the fence (short circuit) – such as by contact with animals – then the circuit is closed. The electric shock felt by the animal is completely safe, yet very unpleasant, and scares the animal away.



The electrical circuit is completed through the ground. It is not necessary to create a closed fence system. The fence can end at any point.

### 3. INSTALLATION AND CONNECTION:

Install the energiser vertically on a wall. You can use the included screws for this. A practical clip-mount bracket (Art: 41150) is also available as a separate accessory. Two clips are required for installing the VOSS.farming impuls duo series. This lets you install the energiser on a conventional DIN rail.

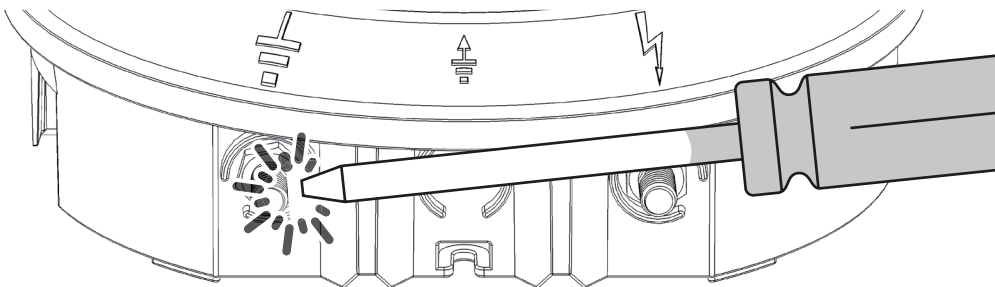


The VOSS.farming impuls duo can withstand all weather conditions such as rain, splash water, sunshine, high temperatures and frost. However, we recommend that you place the VOSS.farming impuls duo somewhere that offers protection against the weather, such as a house wall, (roofed) shelter, stable, box or in an enclosed space such as a garage, summer house, carport, shed or workshop.

**NOTE:** Energiser impuls DUO DV 160 / DV 160 RF may only be operated under voltage not exceeding 16 volts. Therefore, only use the adapter included within the contents of delivery or a commercially available 12V electric fence battery with the device. The device must not be connected directly to a solar panel. It is essential to use a suitable controller for this purpose. Avoid ground contact with battery cable to prevent damage to the unit.

**TIP:** Before you connect the VOSS.farming impuls duo to your fence, you can test the energiser. Unscrew the two terminal nuts (6 and 7) and connect the device to a power source. The control LED (3) will light up, depending on the selected operational mode, and the LED bar (4) will flash simultaneously with each released impulse.

For further inspection, you require a screwdriver long enough to create a connection between the terminals. Hold the screwdriver by the insulated handle. **CAUTION:** Holding the screwdriver by the shaft or by the damaged or non-insulated handle will result in a shock. Now place the shaft on one of the terminals and start pushing it in the direction





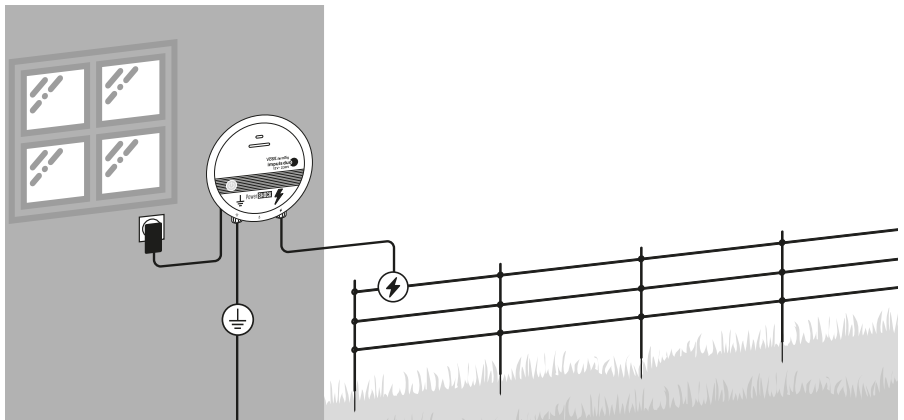
of the other terminal. Just before the tip of the screwdriver touches the second terminal, you should see a small, harmless spark.

If the control LED (3) or the LED bar (4) do not light up and/or there is no spark, then check the power supply first: connection to mains or battery voltage. If there is no fault here, the device should be checked by a specialist.

**NOTE:** A normal electrical voltmeter is not suitable for checking the voltage! Special fence testers exist for this purpose!

If your energiser is working properly, turn it off, unplug it, then proceed to connect your fence system. Connect the ground connection (6, ground symbol, black terminal nut) with your grounding post. We recommend using cables with M8 connection eyelets. The grounding posts should be at least 75 cm long. The better the grounding, the more effective the electrical pulse will be. Connect the fence connection (7, lightning symbol, red connection nut) to the fence using a fence connection cable. When assembling the ground and fence connections, make sure to tighten the connection nuts by hand as much as possible.

**NOTE:** To avoid lightning damage, we recommend installing lightning protection equipment (B), item number 48110.



#### 4. GROUNDING:

It is extremely important that your electric fence is properly grounded! This is essential for the proper functioning of your energiser and to ensure maximum performance. The grounding should be installed in a damp area with vegetation. Use galvanised metal posts for the grounding posts. They must have a minimum length of 75 cm (such as item no. 44219). Dry soil and long fences require additional grounding posts at intervals of about 2-3 m to improve the connection with the ground.

We recommend using the cable with item no. 33615 for connecting the grounding posts. With optimal grounding, the VOSS.farming impuls duo can operate at its maximum capacity and ensure your fence provides the best possible security.

**TIP:** Where soil conditions are poor with low conductivity, we recommend using an additional 2 or 3 grounding posts spaced about 2–3 m apart. If the soil is very dry or stony, this will reduce its conductivity.

**NOTE:** Please choose a suitable location for your grounding system.

Your grounding system must be:

- at least 10 m away from other grounding systems, such as ground connections of homes, telephone or power lines.
- away from animals or pathways as animals or people may damage the grounding.
- accessible to you at any time for maintenance purposes.

If you run any connection cables through the inside of buildings, you must always use insulated high-voltage cables.

## 5. THE IDEAL FENCE

Regardless of the types of conducting material used in your fence, there are a few things to keep in mind in order to ensure good conductivity.

- Keep your electric fence system free from vegetation. Do not run your fence through hedges and avoid having any branches or bushes complete the circuit.

This will reduce the voltage on your fence and the shock strength of the electrical pulse may no longer be powerful enough.

- Ensure that the conducting material in your fence does not touch the ground, e.g. by sagging.
- Only use fence posts with insulators so as to insulate the conducting material from the post and the ground. This will prevent any loss of voltage and ensure the desired current flows through the conducting material of the fence.

Suitable accessories are available for using metal posts and industrial fences.

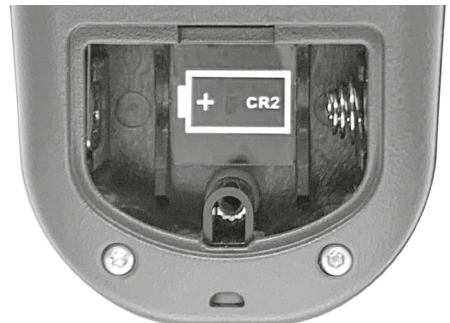
**NOTE:** It is a legal requirement to place warning signs on the fence in publicly accessible areas, such as item no. 44735.



## 6. Radio remote control (RF models only)

Our Impulse DUO RF energisers come with a remote and an antenna to control, manage and operate your device remotely. The effective range is up to 10 km depending on topographical conditions.

- 1 sound
- 2 remote battery indicator
- 3 signal strength
- 4 update mode  
(every minute or every hour)
- 5 value and unit of measurement
- 6 energiser battery indicator
- 7 identification number of the currently selected energiser
- 8 power level indicator (half / full)
- 9 device type
- 10 choice between half / full power
- 11 alert button
- 12 info - manual update
- 13 energiser calibration <-> remote control
- 14 settings
- 15 switch remote on /off, step back
- 16 data selection
- 17 switch energiser on /off



battery compartment

## GENERAL OPERATION

The Impuls DUO RF models work similarly to the Impuls DUO, but additional functions have been added for communication between the energiser and the remote control.

If the energiser is completely switched off and no lights are seen, hardly any energy is consumed. However, in this state the energiser cannot interact with the remote control.

RF models have a different switched off state in which the energiser is still ready to receive the signal from the remote control. In this state, the control LED flashes blue every three seconds. If it flashes red, the battery charge is low. Use the main screen to control the selected energiser.

The selection between the devices is made using the arrow keys. Use the display to check the fence voltage (kV). If you want to display the supplied voltage (V) instead of the fence voltage, press the „data selection“ button (16).

At the top right of the remote you will find the energiser output button (10). With this button you can adjust the energiser output: 100% or 50%. Your selection will be shown on the display (8).

There are two power buttons on the remote. Hold down the red power button (15) and turn the remote control on and off. Press and hold the energiser power button (17) to turn the energiser on or off.

## CALIBRATION MODE

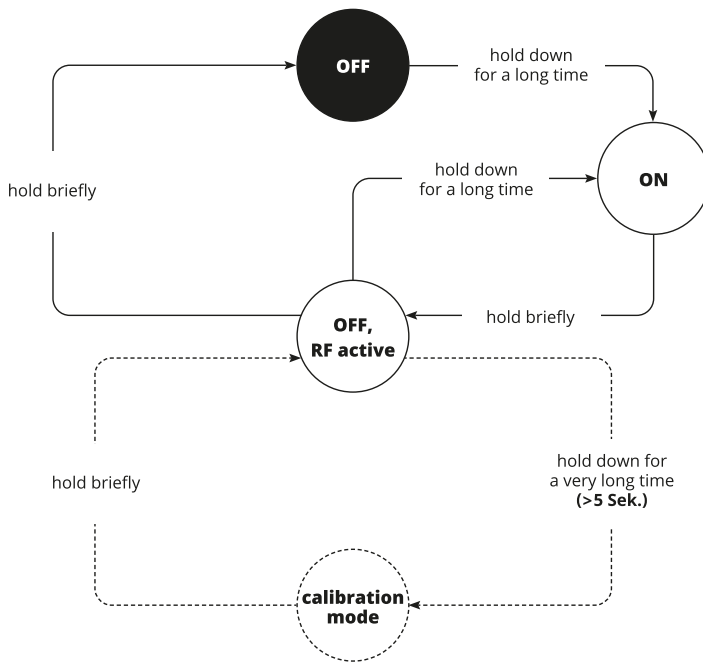
Calibration mode assigns the energiser to a remote control.

- Turn the energiser ON, then OFF and then hold down the ON/OFF button on the energiser for at least five seconds. In the calibration mode, the control LED flashes blue rapidly.
- Press and hold the calibration button on the remote control (13) until „P“ appears on the display.
- Use the arrow keys to assign the energiser a desired identification number.
- Place the remote control near the energiser, within 20 cm or less, and press the calibration button (13).

If the calibration fails, please try again.

If you want to unassign an identification number in the remote control, start the calibration process, but without the energiser.

If the remote control does not find the energiser, it deletes this position. To exit the calibration mode, briefly press the power button on the remote control (15). A remote control can manage up to six different energisers. Conversely, an energiser can connect to and be controlled by three different remote controls.



## SETTINGS

To enter settings press continuously the setting button (14) on the remote control. There are now three options available which you can cycle by pressing the settings button. Use the arrow keys to make changes to the settings.

Letter „A“ - you can switch the alarm signal of your remote control on or off.

Under the letter „U“, select the interval for updating the data of your energiser. An empty round arrow is an interval of 1 minute. A round arrow with an „i“ in the middle is an interval of 1 hour (this consumes less energy and keeps your battery longer). For a manual update, press „i“ on the remote control.

Lastly, you can set a limit for minimum voltage on the fence. As soon as the voltage falls below it, an alarm is triggered on the remote control.

## **ALERTS**

The alert will appear on the remote control as a flashing warning sign (the exclamation point in the triangle). You will also hear a beep, as long as you have not muted it in the settings.

### **No signal:**

If the signal and warning signs are flashing, the signal is weak.

### **Low fence voltage:**

If the voltage value flashes, the fence voltage is too low.

### **Electric fence battery charge low:**

If the battery and alarm symbols are flashing, the battery is empty.

### **General alert:**

If only the alarm symbol is flashing, there may be several possible causes for this. For example, if there was a rapid change to the fence voltage, for example an animal, person or a tree touches the fence.

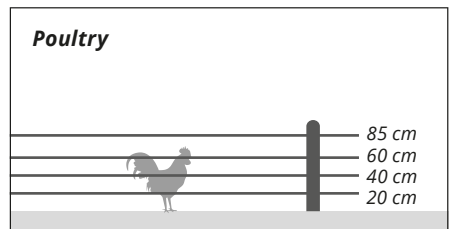
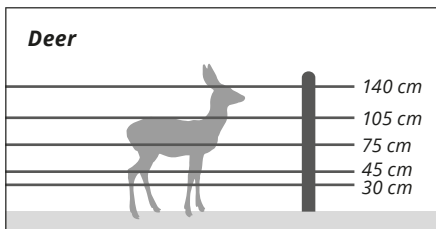
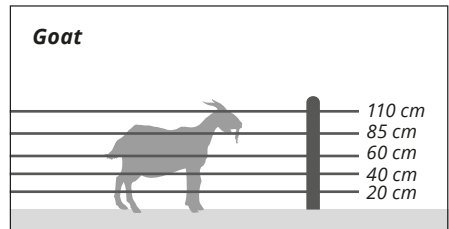
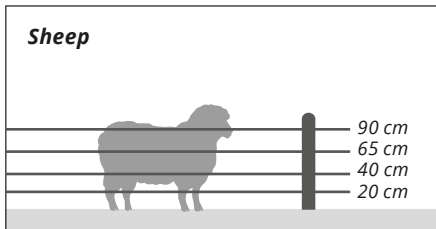
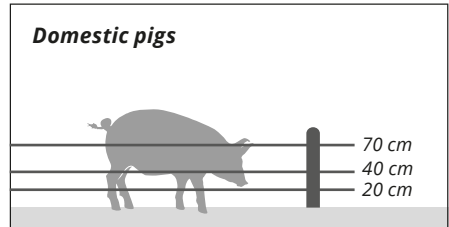
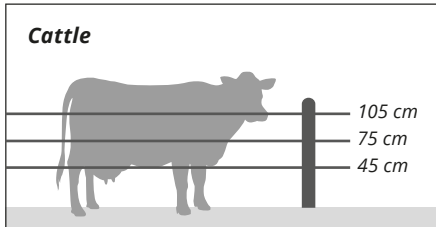
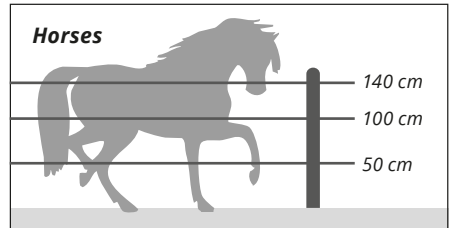
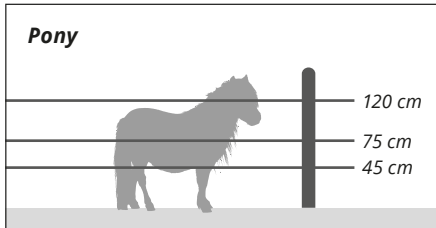
To turn off the warning sound, press the alert button (11). The sound can also be switched off completely in the settings. If you have fixed an error, press the alert button and the error message will be deleted.

## 7. INITIAL SETUP:

**NOTE: The following steps will help you activate the energiser. Your fence will then be live. Make sure that there are no people or animals near the fence.**

When the energiser is connected to the fence it constantly checks for faults. If the LED bar (4) is red, there is a fault on the fence. Meaning your fence security is compromised. Check your fence for faults.

In order to achieve the best possible safety, the following minimum conductor spacing is recommended:



## 8. MAINTENANCE AND CLEANING

Always turn off the VOSS.farming impuls duo and unplug it from the mains when performing maintenance and cleaning work. The unit does not require regular maintenance, but you should inspect it visually on a regular basis. Check all cables and lines for damage. Contact a specialist immediately to replace any broken parts or cables. Do not operate the energiser if there is any damage. Keep the energiser clean by wiping it with a slightly damp cloth.

## 9. SAFETY TIPS

Carefully read and observe the following before using the energiser:

This device may not be used by persons (including children) with physical, sensory or mental impairments. Further, it may not be used by persons without sufficient experience and specialist knowledge unless supervised or under guidance by another person who is responsible for their safety. Children must always be supervised to ensure that they do not play with the device. Electric fences must be installed and operated such that there is no danger to people, animals and their surroundings.

Observe the following to ensure safe operation:

- Only use weaker energisers or outputs with limited pulse energy (1 joule) in areas where unsupervised children may be present and on electric fences with alternating polarity (positive/negative fences).

**NOTE:** Do not touch electric fence wires! Do not climb over, through or under fences with several wires.

- Avoid using electric fences with alternating polarity in places where people may be able to get between two wires of differing polarity. If you must use such a fence, then use a weaker energiser (e.g. with a 1 joule limit) – even with non-electrified, grounded wire.
- Provide people with access through the fence to public paths using insulated gates, gate handles or insulated crossing points (stiles) at all points where access is intended. Always use a gate or access point that is specifically intended for that purpose. Access points along public paths and any other place where there are people should be fitted with warning signs about every 100 m.
- Keep a minimum distance of 2.5 m between the electric fence and grounded,



metallic objects (such as water pipes and troughs), especially in areas where people may be present.

- If there is a danger of flooding around the electric fence, stop using the energiser.
- If the pulse interval is less than 1 second, shut down the energiser immediately and have it repaired if necessary. A pulse interval of over 1.6 seconds means that the energiser is no longer providing sufficient security and requires inspection.

This device meets the requirements of EC directive 2004/108/EC “Electromagnetic Compatibility” (CE mark) and European safety standard EN 60335-2-76 (Electric Fence Energisers).

### **Prevent misuse of the energiser by:**

- Paying attention to markings on the device
- Securing it against unauthorised access (such as anti-theft protection, child protection) if necessary in the installed location.
- Special use of electric fences in zoos or wildlife enclosures: Installation of such systems may only be carried out by qualified electricians. A non-electric fence must be present to separate visitors from the electric fence.
- If the mains connection lines to the energiser are damaged, then these must be replaced by the manufacturer, the manufacturer’s customer services or another similarly qualified person in order to avoid injury. Servicing and repairs may only be carried out by authorised specialists! Only replacement parts authorised by the manufacturer may be used.

### **OPERATING PRINCIPLE AND LIMITS OF ELECTRIC FENCES FOR ANIMALS**

An electric fence consists of an energiser and an insulated fence. The energiser supplies the fence with short electrical pulses. The electric fence presents a “physical” and “psychological” barrier to animals. The short high-voltage pulses are very unpleasant and animals will quickly learn to respect the electric fence.

A properly installed electric fence can provide a high level of safety and has many advantages compared to a purely mechanical fence. As a psychological barrier, the electric shock discourages animals from trying to get over the fence. Less work and

fewer materials are required, alterations are easily made, it is suitable for a very wide range of animals and offers a great deal of protection against injury.

## **OPERATING PRINCIPLE OF THE ELECTRIC FENCE ENERGISER**

The electric fence energiser emits an electrical pulse through the fence about once every second. The pulse gives the animal a short, sharp, yet harmless shock. This is in no way dangerous for the animal, but is enough that it will remember to avoid the fence in future.

## **PRACTICAL TIPS**

Check regulations for your local area before building a fence. You may require permission to do so. Regularly check the energiser to ensure that it is still functioning properly by looking at the flashing indicator LED. Check the fence system regularly. Remove any fallen branches, weeds or bushes as these may cause a short circuit and reduce the effectiveness of the fence. All animals will need time to learn to respect the fence. Training may take several days and you may need to make some small adjustments to the fence.

Animals that can jump may be difficult to fence in. You may need to increase the height of the fence in order to ensure maximum safety. Make sure to use high-quality insulators. Cheap or cracked insulators and plastic tubes are not recommended as these can cause short circuits.

Use connecting bolts for all steel wire connections to ensure a good circuit is made. To ensure correct functionality of the electric fence, ground the energiser using grounding posts made of galvanised metal. Use double-insulated cable inside buildings, under driveways and in places where any galvanised wires lying on the ground may become corroded. Never use household electrical cables as these are designed to carry 600 volts at most and a loss of current may occur.

## **ELECTRIC FENCE REQUIREMENTS**

Electric fences and associated equipment must be constructed, operated and maintained such that there is no danger to people, animals and their surroundings. Electric fences in which people or animals can get caught must be avoided. An electric fence may not be supplied by two separate energisers or by independent fence circuits from the same energiser.

Where there are two separate electric fences, each supplied by a separate energiser, the distance between the wires of the two fences must be at least 2.5 m. If this gap between the fences must be closed off, then this must be done using non-conducting materials or an insulated metal barrier. Barbed wire or sharp-edged wire may not be electrified by an energiser.

### **Observe the manufacturer's recommendations for grounding the energiser.**

A distance of at least 10 m must be kept between the grounding electrode for the energiser and any other components connected to grounding systems (such as the ground connections for power supply systems or telecommunications systems). Connecting cables that run through buildings must be effectively isolated from grounded parts of the building. This can be achieved using insulated high-voltage cables.

If connection cables and wires that are part of the electric fence must run near to high-voltage lines, then they may not be installed more than 3 m above the ground. This height applies to each side of a right-angled projection from the outer conductor of the high-voltage cable on the area for a distance of

- 2 m for high-voltage lines that operate at a rated voltage of up to 1000 V;
- 15 m for high-voltage lines that operate at a rated voltage over 1000 V.

Electric fences intended for scaring off birds, for keeping pets or training animals, e.g. cows (cow trainer), should only be supplied by a low power energiser (which still has a sufficient and secure effect). Where an electric fence is intended to prevent birds from nesting on buildings, no wire of the electric fence may be grounded if the fence wires are not connected to metal parts.

If a wire is connected to a metal part (such as gutter) or a metal structure in the building, then this metal part must be grounded. A warning sign must be attached at all points where people are able to access the conductors.

Where an electric fence crosses a public footpath, a non-electrified gate or stile must be present. Each of these stiles must be fitted with warning signs indicating that the fence is an electric fence. Each part of an electric fence that runs along public streets or other public rights of way must have warning signs securely attached to the fence posts or wires at regular intervals. Connecting wires that run below the ground must be placed inside protective insulated pipes or insulated high-voltage cables must be used. It is important to ensure that connecting cables cannot be damaged by external

influences (such as animal hooves, tractor wheels, etc.) that sink into the soil. Connecting lines may not be installed in the same protective pipes as mains and supply cables, communication or data lines.

Connecting cables and wires belonging to electric fences may not be laid above high-voltage or communications cables. Crossing high-voltage cables should be avoided. If crossing over a high-voltage cable cannot be avoided, then the cable must be laid below the high-voltage cable and be as close to a right-angle with it as possible.

Warning signs must be at least 100 x 200 mm in size. The background colour on both sides of the warning sign must be yellow. The text on the warning sign must be black. The text must read "Warning: Electric Fence" or similar. The text on the warning sign must be printed in a durable way and be at least 25 mm in height. Ensure that all mains-powered supporting equipment connected to the electric fence circuit has a degree of insulation between the fence circuit and mains supply which corresponds to that of the energiser.

## **10. DISPOSAL**

If you wish to dispose of the energiser, please contact a local disposal company or recycling centre. Alternatively, you may contact your authorised specialist dealer VOSS GmbH & Co. KG. All consumers are legally required to properly dispose of old electronic devices. Please do not dispose of the energiser with your normal household waste! This helps make a valuable contribution to protecting our environment.

## **POSSIBLE DANGERS**

Electric fences, especially those for livestock, are generally safe with proper installation and connection. Electric fences, however, can cause shocks that can lead to dangerous consequences, especially for people with existing health problems. Knowing the dangers of electric fences can help you take necessary precautions.

### **Head injury**

If you climb under an electric fence, you can receive an electric shock to your head when it comes into contact with the fence. A person with heart disease, especially someone who wears a pacemaker, has a higher risk of becoming unconscious than a healthy person. The risk increases when the head or neck touches the electrified wire.

## **Cardiac arrest and atrial fibrillation**

There is little chance that a person in contact with an electric fence may experience cardiac arrest or fibrillation. – Interesting fact: the synchronisation of the electric fence energiser impulse with the pulse can prevent cardiac arrest and atrial fibrillation.

## **Loss of muscle control**

Incorrectly installed high power electric fences may cause an electric shock resulting in loss of muscle control. An electric shock can cause painful muscle spasms that can break bones and dislodge joints.

## **Fire**

Lightning can cause fires on electric fences. Separating the conductor and energiser from a storm or possible lightning strike can minimise lightning exposure. Redirect the lightning to prevent damage to energiser by installing a lightning diverter. Avoid placing flammable objects near your electric fence. The cutting of vegetation in the vicinity also reduces the risk of fire, as short circuits on the fence can cause sparks.

## **Death**

In most cases, contact with electric fences triggers a harmless shock. Properly installed fences generate impulses intermittently to allow the person or animal to disengage immediately upon first shock. However, fences that send impulses continuously will not allow the person or animal to let go, which can have disastrous consequences. In some cases, trapped individuals become unconscious when they come in contact with the electric fence. A fatality cannot be completely ruled out in the case of electrical accidents.

Further information and instructions can be found in the DIN EN 60335-2-76 (VDE 0700-76), Safety of household and similar electrical appliances, Part 2-76: Particular requirements for energisers

## **CE-conformity declaration**

VNT electronics s.r.o. hereby declares that the product / device described in these instructions complies with the fundamental requirements and other relevant stipulations and regulations. The CE mark confirms compliance with the Directives of the European Union.



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