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Starkline S400

Starkline S400 Solar Fence Energizer Instruction Manual

Model: S400

1. INTRODUCTION

The Starkline S400 Solar Fence Energizer is designed to provide reliable power for electric fence systems. This device converts solar energy into electrical pulses to deter animals, making it suitable for various applications such as electric netting, horse pens, and smaller fence systems with minimal vegetation. This manual provides essential information for the safe and effective installation, operation, and maintenance of your S400 energizer.



Figure 1: The Starkline S400 Solar Fence Energizer, a compact blue unit with an integrated solar panel.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the energizer. Failure to follow these instructions may result in electric shock, fire, or damage to the product.

- Do not connect the energizer to the mains power supply. This unit is designed for solar operation only.
- Ensure proper grounding of the fence system to prevent electrical hazards and ensure effective operation.
- Keep children and unauthorized personnel away from the electric fence.
- Do not operate the energizer if it is damaged or malfunctioning.
- Avoid touching the fence wires while the energizer is active.
- Install the energizer in a location that receives ample sunlight for optimal charging.

3. PACKAGE CONTENTS

Verify that all components are present in the package:

- Starkline S400 Solar Fence Energizer unit
- Cables for fence connection
- Cables for earth (ground) connection
- Integrated 12V battery (pre-installed)

4. SETUP

Follow these steps for proper installation of your S400 Solar Fence Energizer:

1. **Choose a Location:** Select a location for the energizer that receives direct sunlight throughout the day to ensure efficient charging of the internal battery. The unit should be easily accessible for maintenance.
2. **Mounting:** The S400 energizer can be easily mounted to any wooden post or standard T-Post. Secure the unit firmly to prevent movement.



Figure 2: The S400 energizer mounted on a metal post, positioned to receive sunlight.

3. **Grounding:** Connect the earth (ground) cable from the energizer to a suitable ground rod. The ground rod should be driven into moist soil at least 3 feet deep and located a minimum of 10 feet away from any other grounding systems (e.g., building foundations, water pipes). A good ground connection is crucial for the energizer's performance.
4. **Fence Connection:** Connect the fence cable from the energizer to the electric fence line. Ensure a secure connection to the live wire of your fence system.



Figure 3: The energizer connected to the electric fence netting and a ground stake.

5. **Initial Charge:** Allow the energizer to charge in direct sunlight for at least 24-48 hours before activating the fence, especially if it's new or has been stored for a long period. This ensures the internal battery is fully charged for optimal performance.

5. OPERATING INSTRUCTIONS

Once the energizer is properly installed and has received an initial charge:

- **Power On/Off:** Locate the On/Off switch on the energizer unit. Switch it to the 'On' position to activate the fence.
- **Indicator Lights:** The energizer features indicator lights. Typically, one light indicates that the unit is powered on and delivering pulses, while another may indicate battery charging status. Refer to the labels on your specific unit for exact meanings.
- **Solar Charging:** The integrated solar panel will continuously charge the internal 12V battery when exposed to sunlight. This allows for autonomous operation without external power sources.
- **Monitoring:** Periodically check the fence line for shorts caused by vegetation or damaged insulators, which can reduce the energizer's effectiveness.



Figure 4: An electric fence system in operation, effectively containing animals.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your S400 energizer:

- **Solar Panel Cleaning:** Keep the solar panel clean and free of dust, dirt, snow, or debris. A clean panel ensures maximum sunlight absorption and efficient battery charging. Use a soft, damp cloth for cleaning.
- **Battery Check:** The energizer includes a sealed 12V battery. While designed for long life, monitor its performance. If the energizer's output weakens significantly even with good sunlight, the battery may need inspection or replacement by a qualified technician.
- **Fence Line Inspection:** Regularly inspect the entire fence line for vegetation growth touching the wires, broken insulators, or damaged wires. These issues can cause power loss and reduce the fence's effectiveness.
- **Grounding System Check:** Periodically verify that the ground rod connection is secure and the ground rod remains firmly in the soil.



Figure 5: Proper handling and inspection of electric fence netting during setup or maintenance.

7. TROUBLESHOOTING

If your Starkline S400 Solar Fence Energizer is not performing as expected, consider the following:

Problem	Possible Cause	Solution
No power/No pulse	Battery not charged Solar panel obstructed On/Off switch in 'Off' position	Ensure solar panel is clean and in direct sunlight for 24-48 hours Clear any obstructions from the solar panel Switch the energizer to 'On'
Weak pulse/Low voltage	Poor grounding Short circuit on fence line Excessive vegetation on fence Battery degradation	Improve ground connection (add more ground rods if necessary) Inspect fence for shorts (e.g., broken insulators, wire contact with metal posts) Clear vegetation from fence line Contact support for battery assessment
Indicator lights not working	No power to unit Faulty indicator light	Check battery charge and solar panel exposure If unit is pulsing but light is off, contact support

8. SPECIFICATIONS

- **Model:** S400
- **Output Joules:** 0.25
- **Voltage (No Load):** 10,500 Volts
- **Voltage (@ 500 ohms):** 2,800 Volts
- **Power Source:** Integrated Solar Panel with 12V Battery (included)
- **Mounting:** Compatible with wooden posts or standard T-Posts
- **Package Dimensions:** 12 x 9.5 x 6.5 inches
- **Weight:** 7 Pounds

- **Manufacturer:** Kerbl (for Starkline)
- **Date First Available:** February 7, 2020

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your Starkline S400 Solar Fence Energizer, please refer to the contact information provided at the point of purchase or visit the official Starkline website. Keep your purchase receipt as proof of purchase.

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Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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