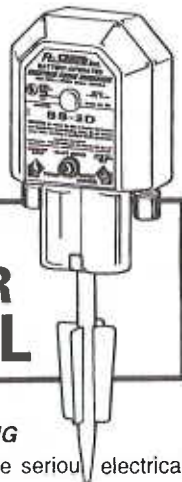


Fi-Shock inc.

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MODEL SS-2D ELECTRIC FENCE ENERGIZER INSTRUCTION MANUAL

IMPORTANT SAFETY INFORMATION

WARNING—READ ALL INSTRUCTIONS BEFORE USING

WARNING – Any alteration to the design of this energizer may cause serious electrical shock and may void the warranty.

1. Install the energizer and the electric fence according to these installation and operating instructions.
2. Mount electric fence signs in visible areas to identify the electrified wire(s).
3. Inform everyone, especially children, who might possibly come into contact with the electrically charged fence, about its location and operation.
4. Instruct all persons how to disconnect the energizer in case of emergency.
5. Never climb over an electric fence wire while it is electrically energized.
6. Never install an electric fence below high-voltage power plant transmission lines.
7. Never use more than one electric fence energizer on the same fence.
8. **WARNING** – Do not simultaneously connect an electric fence to any other device such as a cattle or poultry trainer. Otherwise, lightning striking your fence will be conducted to all other devices.
9. **DANGER** – This energizer must be grounded. If it should malfunction, grounding reduces the risk of electrical shock by providing a path of low resistance for the electric current.

A properly installed ground rod electrically connected to the fence energizer output ground terminal provides grounding of this product. An internal fault on an improperly grounded fence energizer could result in a risk of harmful electric shock on the electrified fence.

I. Introduction

Fi-Shock, Inc. has proudly produced one of the finest, highest-quality battery-operated electric fence energizers available. Your SS-2D fence energizer is powered by two D-cell batteries (not included). Because of the efficient electronic circuit design, two alkaline D-cells will last approximately two months under continuous operation, depending on fence and weather conditions.

The SS-2D electric fence energizer emits an intermittent output pulse which is mild yet unpleasant. A pet that has experienced the mild shock from the SS-2D several times may eventually avoid the electric fence altogether. If this is the case, you may elect to turn off the energizer to conserve the batteries. It may be necessary for you to turn the energizer back on periodically as a reminder to your pet.

If you are using the SS-2D to deter pests (e.g., rabbits, raccoons, etc.) from entering your yard or garden, it is best to leave the SS-2D on at all times since they may be more aggressive and less likely to remember the unpleasant experience of being shocked.

Fencing Laws: Most states have laws defining what constitutes a legal partition fence or a fence along a highway or railway. Local ordinances usually specify acceptable fencing between adjacent home lots. In addition, local laws may prohibit the use of electric fence energizers. A permit may be required in some cases.

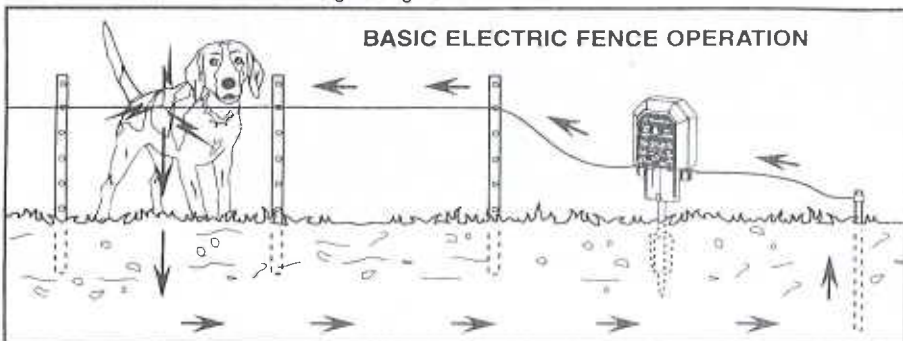
If for any reason during installation of your SS-2D you have questions, please call the Fi-Shock, Inc. Technical Service Department at 1-800-251-9388 between the hours of 8:00 AM and 3:00 PM Eastern time or visit our website at www.fishock.com. They will be happy to answer your questions.

SAVE THESE INSTRUCTIONS

II. Electric Fencing Basics

An electric fencing system is just that, a system. It is made up of several key components: the electric fence energizer, the transmission lines (fence wire), fence posts with insulators, and the grounding path (earth). Of course, the animal provides the final link to complete the electrical path.

An electric fencing system presents a mental barrier to an animal rather than a physical barrier. Once an animal is shocked, it will respect the fence out of fear of being shocked again, even though it has not been harmed. The electric fence energizer produces an electrical pulse that travels through the lead-out wire into the fence wire(s). The electricity then flows through the animal's body into the soil. The electricity then travels through the moist soil back to the ground rod which is connected to the energizer's ground terminal.



Most Common Trouble Areas in Fence Installations

1. The most common electric fencing problem is **insufficient** ground for the fence energizer.
2. When using insulated wire to connect the energizer to the fence wire, or to connect the energizer to the ground rod, use only insulated wire made specifically for electric fence installation (rated to 20,000 V). **Never use standard electrical power cord which is rated to only 600 V.** It will break down over time and render your electric fence ineffective.
3. Poor connections between lead-out wire, fence wire, ground wire and ground rods. Use only high-quality splices and ground clamps.
4. Using defective or inferior insulators. Use only high-quality insulators and associated hardware.

III. Installation and Operating Instructions for your SS-2D

Your SS-2D electric fence energizer is designed for quick and easy installation. It can be connected to the wires of an existing electric fence (only one energizer per fence system) or you can easily build a new fence using the Fi-Shock, Inc. A-20K Accessory Kit which has all the hardware necessary to assemble a small fence for your yard or garden.

How To Install Your Fi-Shock Electric Fence Energizer

Proper grounding of your electric fence energizer is essential for safe and efficient operation. If the energizer should malfunction, proper grounding reduces the risk of electrical shock by providing a ground path to the earth. A sufficient earth ground provides maximum energy transfer to the fence and ultimately to the animal you are trying to contain (or repel). Also, it will prevent stray voltages on surrounding equipment, reducing the risk of accidental shock.

Step 1: Inserting the Batteries

Caution: When inserting batteries, make sure that you do not come into contact with the output terminals since the unit may inadvertently be turned on when the batteries are inserted.

To insert new batteries, remove the battery cap by unscrewing the thumbscrew located on the bottom of the unit. Insert the two fresh alkaline D-cell batteries **while carefully observing polarity**—damage to the unit or batteries could occur if the batteries are inserted improperly. The battery polarity markings are shown on the back of the energizer. Replace the battery cap making sure that the tab located in the front snaps firmly into place. Screw the battery cap thumbscrew into the bottom of the battery cap until the battery cap is fully seated.

Step 2: Installing Your Energizer

While the SS-2D energizer is designed to be weather resistant, install it under cover from the weather whenever practical. The SS-2D easily mounts virtually anywhere using either the mounting stake that is provided or by hanging the unit on a wall using the mounting hole located

on the back. When mounting the energizer on a wall, simply insert a nail or screw into the wall leaving the screw head protruding approximately ¼" (6 mm).

When using the mounting stake, press the mounting stake into soft soil until the tops of the flat blades are covered. **Do not hammer the stake into the ground.** If the soil is hard, first loosen it by breaking up the soil using a shovel or spade.

Place the energizer onto the stake by lining up the tabs on the top of the stake with the slots on the lower portion of the back of the energizer housing. The SS-2D should easily snap into place. Make sure that the bottom of the SS-2D is not in contact with the ground since debris and water could build up, possibly damaging the unit.

Connect the earth ground wire to the green output terminal labeled "Earth Ground." To do this, loop the wire around the threaded post between the metal part of the plastic knob and the large flat washer. Tighten the plastic knob until secure. **Important:** The earth ground wire should be securely connected to a ground rod that is at least 2 feet (60 cm) in length using a heavy-duty ground clamp. Connect the electric fence wire to the red output terminal labeled "Fence" in the same manner. Make certain that the fence wire does not come into contact with the ground or the earth ground wire.

When building a fence, carefully observe the instructions for the Fi-Shock, Inc. A-20K Accessory Kit or other manufacturer's instructions.

The red lamp on the front of the SS-2D will flash intermittently indicating the unit is operating properly. **Note:** The flashing lamp may be difficult to observe in the sunlight. It may be necessary to shield the unit from the sun to see it flash.

IV. Troubleshooting Guide

The following procedures are provided to help you determine if your electric fencing system is operating properly.

Most fencing problems are caused by the fence itself—not the electric fence energizer. In fact, most electric fence energizers returned for repair are not defective. Please follow these procedures before returning your energizer for repair.

To assist in troubleshooting, we recommend that you purchase an electric fence tester such as the Fi-Shock, Inc. Model A-6 Single Light Tester or Model A-65 Multi-Light Fence Tester. This will allow you to safely measure the output voltage of the energizer and the voltage at different points on your fence. A standard voltmeter will not work well due to the very short duration of the output pulse.

Testing Your Fence System

The red lamp on the front of the SS-2D will flash intermittently indicating the unit is operating properly. **Note:** The flashing lamp may be difficult to observe in the sunlight. It may be necessary to shield the unit from the sun to see it flash.

If the Red Lamp is **not** flashing with the SS-2D connected to the fence:

1. Turn off the energizer and disconnect the ground and fence wires from the output terminals.
2. Turn the energizer back on and observe the red lamp. If the red lamp is still **not** flashing, proceed to Step 3. If the lamp is now flashing, there is a problem with your fence—proceed to Step 4.
3. Since the red lamp is not flashing, the batteries may be dead. Replace the batteries with two fresh alkaline D-cells following the instructions in Section III, Step 1. If the red lamp is still not flashing, your energizer is faulty. Contact the Fi-Shock Service Department at 1-800-251-9388 for repair information.
4. Since the red lamp was not flashing until the SS-2D was disconnected from the fence, there is a problem with your fence. The most likely cause is a short to earth ground. Refer to the possible causes below.

Short to Earth Ground:

The following are possible causes for having a short to earth ground:

1. Inadequate insulators are used. Make certain only standard electric fence insulators or PVC is touching the fence wire.
2. The fence wire is touching something (e.g., wood post, wall, etc.) creating a path to ground.
3. If insulated wire is used to connect your SS-2D to the fence wire, use only insulated wire that is designed specifically for electric fences (Fi-Shock, Inc. part number A-25 for aluminum wire, 500-551 for galvanized steel wire). Never use standard electrical power cord which is rated to only 600 V. It will break down over time and render your electric fence ineffective.
4. Excessive weeds growing around the fence wires or a tree branch leaning on the fence.

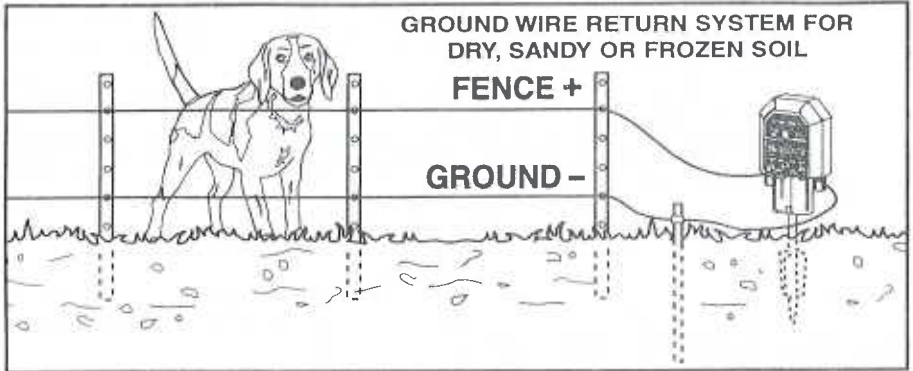
If the red lamp is flashing but your pet does not appear to be affected by the electric fence wire, you may have a poor earth ground problem. If the earth ground is not sufficient, there will not be enough voltage to deter your pet or pests. To assist in troubleshooting, we recommend that you

purchase an electric fence tester such as the Fi-Shock, Inc. Model A-6 Single Light Tester or Model A-65 Multi-Light Fence Tester.

Poor Earth Ground:

The following are possible causes for having a poor earth ground:

1. The connection to the ground rod is poor. Make certain the ground wire from the energizer is securely attached to the ground rod and that no corrosion has built up on the ground clamp.
2. The grounding is insufficient due to a ground rod that is too short. It may be necessary to replace your short ground rod with one that is copper-clad or galvanized, six feet in length or longer.
3. The soil is dry, sandy or frozen. It may be necessary to run a ground wire on the fence below the "hot" fence wire. **Never connect the ground wire to the fence wire.** Terminate these wires separately.



Questions? Call Toll Free 1-800-251-9388

8:00 AM-3:00 PM EST Monday through Friday in the USA and Canada.

V. LIMITED WARRANTY

Fi-Shock, Inc. warrants this fence energizer for one year from the date of sale to the original consumer purchaser against defects in materials and workmanship. This warranty does not cover fuses or circuit breakers where applicable. This warranty does not cover damage to the controller caused by storms, lightning, flood, misuse, alteration, incorrect installation or handling or any other reason not related to product malfunctions or defects in the materials or workmanship of this product. Defective units must be sent to an authorized service center for repair. Call 1-800-251-9388 (in the U.S.A. and Canada) for the nearest repair center. The warranty shall apply only while the original consumer purchaser owns the product. **YOU MUST RETAIN THE SALES RECEIPT FOR PROOF OF PURCHASE.**

WARRANTY LIMITATION: There is no other expressed warranty on this energizer. Neither Fi-Shock, Inc. nor the seller is responsible for any incidental or consequential damages arising from the use or loss of use of this energizer.

Any warranties implied by law are limited in duration to the term of this warranty. Fi-Shock, Inc.'s maximum liability under any warranty, expressed, implied, or statutory, is limited to the purchase price of the product. The purchaser's exclusive remedy shall be only as stated herein.

Some jurisdictions do not allow limitation on how long an implied warranty lasts or the exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

MODEL NO. SS-2D SERIAL NO. _____

RETAIN THESE RECORDS FOR YOUR FILES