

-est. 1946
DARE

EASY ENERGIZER INSTALL MANUAL

110VT PLUG IN / 3-6-12 VT BATTERY / 12 VT SOLAR



DARE
Minute-Man
QUICKLY
* DEFEND & *
PROTECT

DARE DAREPRODUCTS.COM | 1.800.922.3273

ELECTRIC FENCE EXPERIENCE — *Since 1946*

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CONGRATULATIONS ON PURCHASING A DARE ELECTRIC FENCE ENERGIZER.

Dare Products is the leader in electric fencing products and we are pleased to offer high quality Energizers to complete our product line. All of our Electric Fence Energizers are low or ultra-low-impedance and utilize the latest technology for maximum effectiveness in the toughest conditions.

Please keep in mind that any Electric Fence Energizer is only as good as the electric fence to which it is connected. For an effective electric fence, follow the instructions in this manual.

ENERGIZER INSTALLATION

WARNING: IMPORTANT: IF YOU DO NOT INSTALL YOUR ELECTRIC FENCE ENERGIZER PROPERLY, IT WILL NOT WORK.

VERY IMPORTANT: IF YOU DO NOT INSTALL A PROPER GROUND SYSTEM, YOUR ELECTRIC FENCE WILL NOT WORK.

THE TOOLS YOU WILL NEED:

1. Screwdriver to install Energizer and optional Cut-Off Switch
2. Pliers to cut wire and strip insulation
3. Post driver to install ground rod(s)

RECOMMENDED ACCESSORIES

1. Three galvanized or copper ground rods-minimum six feet in length & 1/2 inch in diameter.

General rule of thumb-use at least three feet of ground rod (or one ground rod), per joule output of your energizer.

2. Three Dare Ground Rod Clamps
3. Dare insulated Underground & Hook-Up Wire-SO feet minimum
4. One Dare Cut-Off Switch
5. Dare Line Clamps/Split Bolts/Fence Taps
6. Surge Protector
7. Lightning Choke
8. Lightning Arrestor

THE GROUND SYSTEM

When an animal touches an electric fence the electric pulse must travel through the animal to the soil, then back to the ground system, through the ground wire and back to the fence energizer. Only then does the animal feel the shock that keeps it from going through the fence. A good ground system is essential for an effective electric fence.

STEP 1. Try to locate ground rods in an area that is likely to stay moist. Using a post driver, install the ground rods ten feet apart. They can be installed in a straight line or a triangle pattern.

STEP 2. Attach the ground wire (12-14 gauge) to the ground rods with ground clamps. You can use galvanized wire for the ground wire, however, if you bury the ground wire, use insulated cable made for high voltage electric fence to prevent corrosion.

STEP 3. Attach the ground wire securely to the ground terminal on the Energizer.

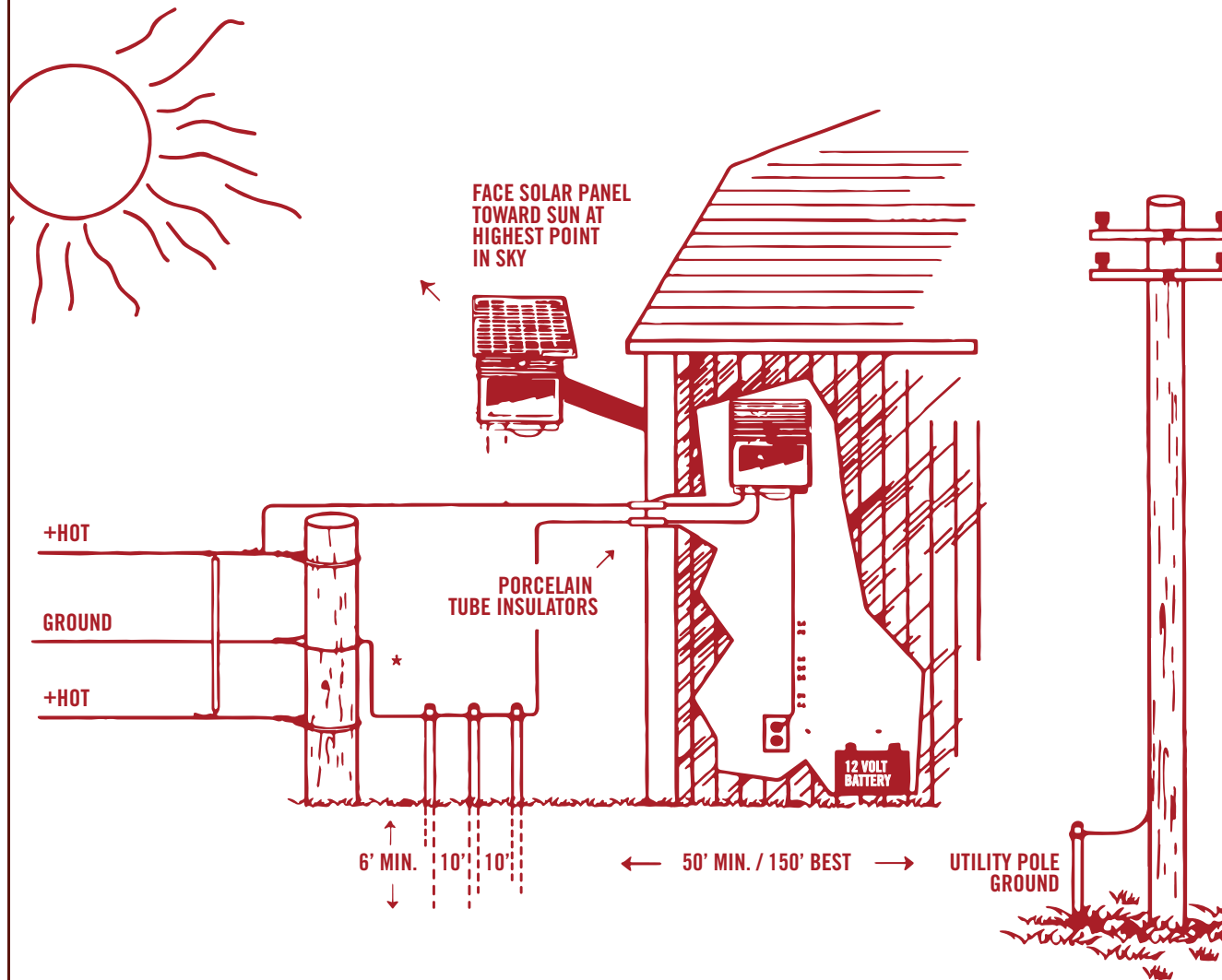
GROUNDING DO'S & DON'TS

1. **DO** make sure ground system is located within 75 feet of your fence energizer.
2. **DO** make sure there are no underground pipes or utility cables nearby.
3. **DON'T** use pipe, steel T-Posts or concrete reinforcing rod for ground rods.
4. **DON'T** locate the ground rods within 50 feet of any utility pole ground rods. (150+ feet is best)
5. **DON'T** locate the ground rods within 50 feet of a metal sided building to eliminate static shocks causing a possible fire hazard.

INSTALLATION THE GROUND SYSTEM

GROUND SYSTEM AND FENCE ENERGIZER INSTALLATION

*Refer to High Tensile Guide AO- I 848
for specific fence designs.*



* A return ground system as show may not be necessary if adequate moisture and soil conductivity are present.

THE ENERGIZER

INSTALLING THE ENERGIZER

Your Dare Electric Fence Energizer is designed to give you years of dependable service if installed properly.

STEP 1. Using wood screws install the energizer under shelter (except solar-powered energizers), preferably in a building.

Locate it at eye level for easy access and maintenance.

STEP 2. Install the Cut-Off Switch to the first post on the electric fence (optional). Connect insulated Hook-Up Wire to one of the terminals on the Cut-Off Switch. Connect the other end of the Hook-Up Wire to the fence terminal on the Energizer. *(See Page 8)*

STEP 3. Turn on the Energizer and make sure the fence indicator light is flashing. You should hear a “click” every time the Energizer emits an electric pulse. Measure voltage at the Cut-Off Switch before and after activating the electric fence. This will give you a measurement to use when checking the fence in the future.

ENERGIZER DO'S AND DON'TS

- 1. DO** buy the most powerful energizer you can afford. Miles of fence means nothing, keeping your animals under control is the name of the game.
- 2. DO** install a lightning protection system (Recommended). Also use a voltage surge protector for 110-volt energizers.
- 3. DO** leave your electric fence on at all times so your animals won't lose their fear of it.
- 4. DON'T** electrify barbed wire or use more than one energizer on the same fence.
- 5. DON'T** use household or industrial insulated cable; it is not designed for high electric fence voltage.

ELECTRIC FENCE

INSTALLING AN ELECTRIC FENCE

There are many different kinds of electric fence. Here are some important rules to follow when installing any type of electric fence.

- RULE 1.** Use only materials designed for electric fences. Dare Products is the leader in electric fencing accessories, please refer to our product catalog.
- RULE 2.** Make good connections using Dare Line Clamps or Splicing Taps and insulated Hook-Up Wire.
- RULE 3.** Train your animals to electric fence before turning them out.
- RULE 4.** Check your electric fence regularly. Use a Dare Digital Volt Meter or Multi-Lite Tester to measure the voltage on your fence.
- RULE 5.** Keep your electric fence clean of vegetation. Dare Energizers will perform even in the toughest conditions when you install the proper size energizer.

For more information please refer to Dare's helpful installation guides: **HIGH TENSILE FENCE SYSTEM** and **ELECTRIC FENCING MADE EASY** (available at www.dareproducts.com or request your copy by mail 1-800-922-3273).

ADDITIONAL INFORMATION FOR BATTERY & SOLAR POWERED ENERGIZERS

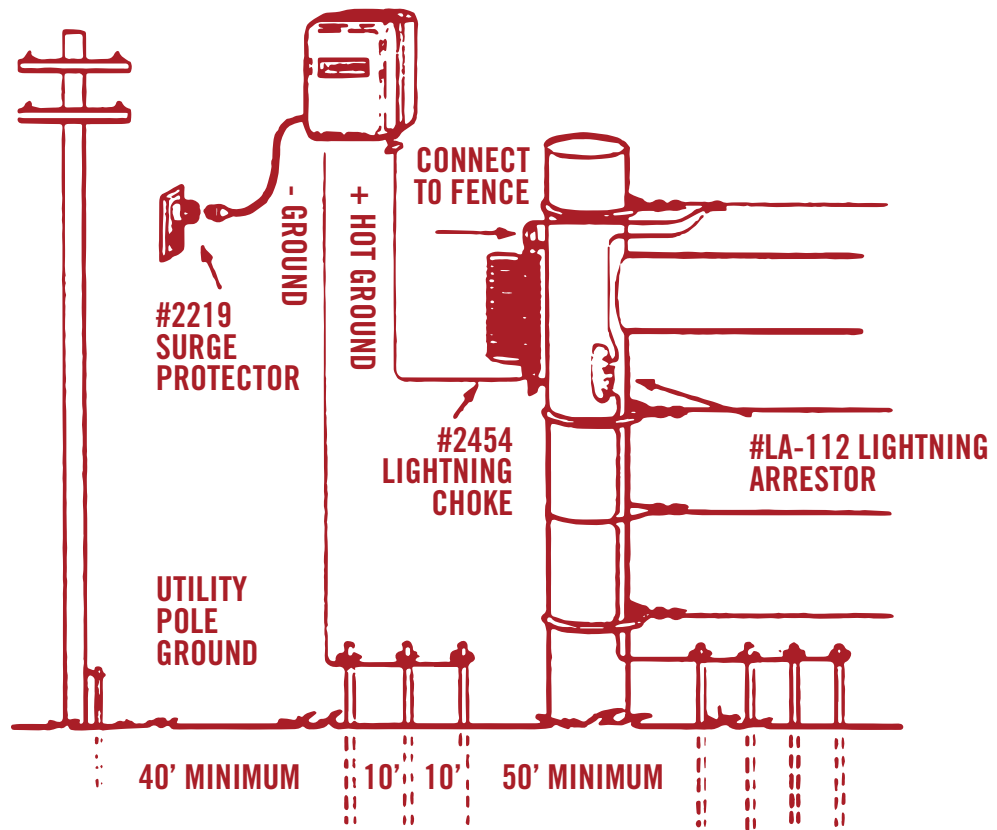
Dare Battery-Powered Energizers should be installed under shelter several feet above the soil. Battery life will vary by type of battery. For best results use a deep-cycle marine battery rated at 60 amp hour or greater.

Dare Solar-Powered Energizers should also be installed several feet above the soil and located for maximum exposure to the sun. In the northern hemisphere the solar panel should be facing south. Solar-Powered Energizers contain a battery that is recharged by the solar panel. For optimum results, charge the battery for three days before turning on the Energizer. To prevent battery failure, always leave the Energizer outside, even when not in use.

STORAGE OF SOLAR ENERGIZER

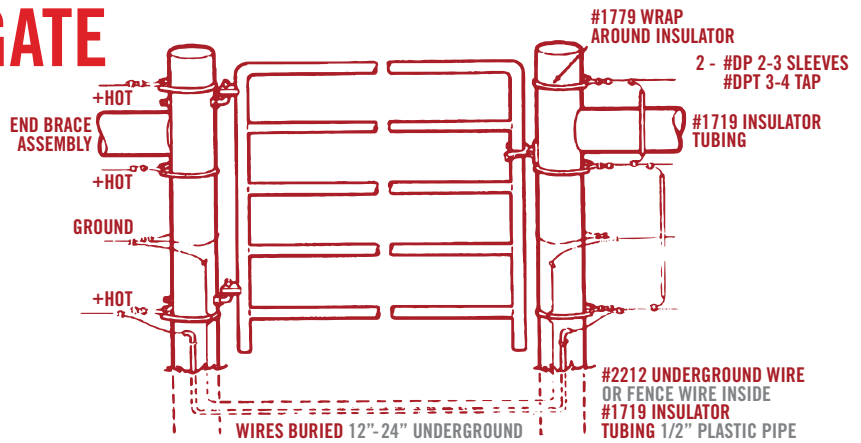
Should you wish to store your Solar Energizer for more than 6 months, place the Energizer in bright, direct sunlight for 2 days every 3 months with the switch in the “charge” position. Switch the Energizer to the “OFF” position for storage.

LIGHTNING PROTECTION

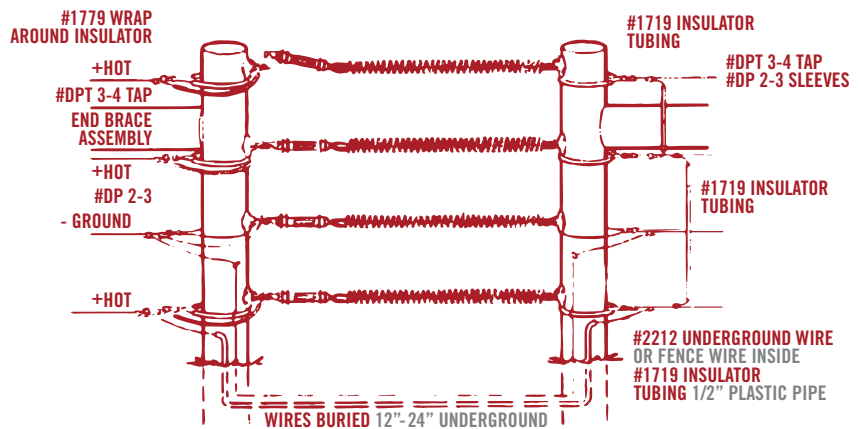


In severe lightning areas, installing a Lightning Arrester with ground rods every 1 / 4 mile of fence line is recommended.

STEEL GATE



EXPANDO GATE (SLINKY STYLE)

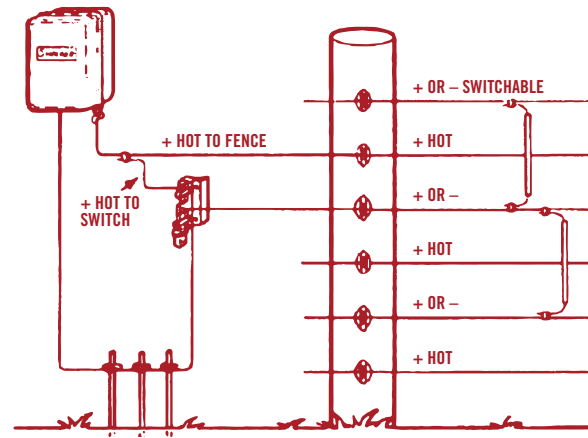


SAFETY SWITCHES

CHANGE POLARITY OF SELECTED WIRES

To obtain the most effective electric fence according to climatic conditions. When the ground is moist all of the wires should be energized for maximum effectiveness. During a dry spell or if the ground is frozen, it is best to ground every other wire. System does not shut off entire fence.

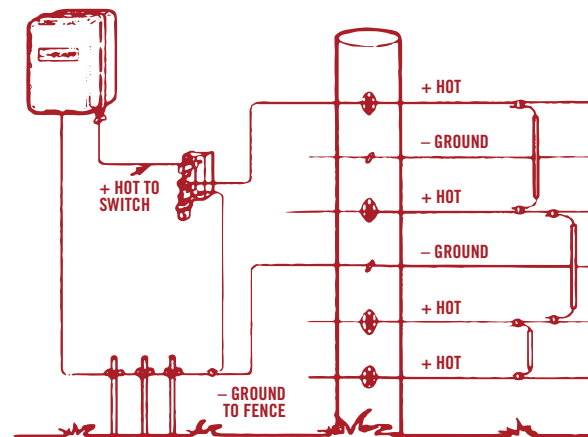
#2199 Switch, double pole.
Handle up: All wires "ON" (hot).
Handle down: One-half of the wires "ON" (hot) and one-half of the wires "OFF" and grounded.



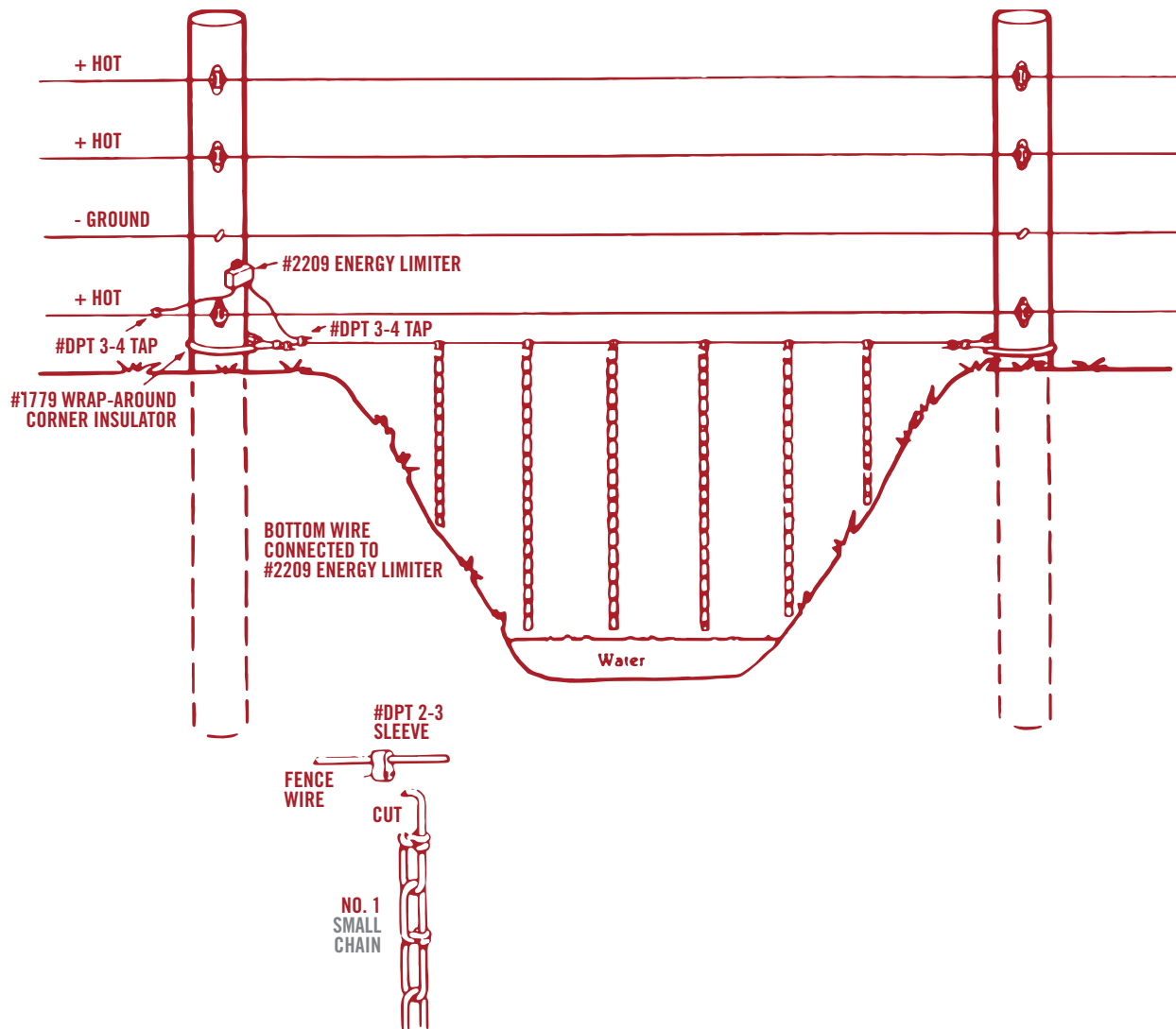
DISCONNECT AND GROUND ENTIRE FENCE

Schematic illustrates how to change hot wires to ground and shut off entire fence.

#2199 Switch, double pole.
Handle up: All wires "ON" (hot).
Handle down: Fence wire "OFF" (grounded) and entire fence grounded.



FLOOD GATE /ENERGY LIMITER



#2209 limits current to bottom wire. Prevents shorted wire from draining current from upper wires. Energy Limiter should be used whenever bottom wire is 6 inches or less from soil. See page 8. Hog, Sheep, Goat and Predator Control Fence in High Tensile guidebook AO-1848.

TROUBLE-SHOOTING YOUR ELECTRIC FENCE

If your electric fence is not working, follow the steps below:

STEP 1. Check the Energizer. Disconnect it from the fence (+) and the ground (-). Make sure it is turned on and check the voltage with a Dare Multi-Lite Tester or Digital Volt Meter. Do not use a household volt meter, use a tester designed specifically for electric fence.

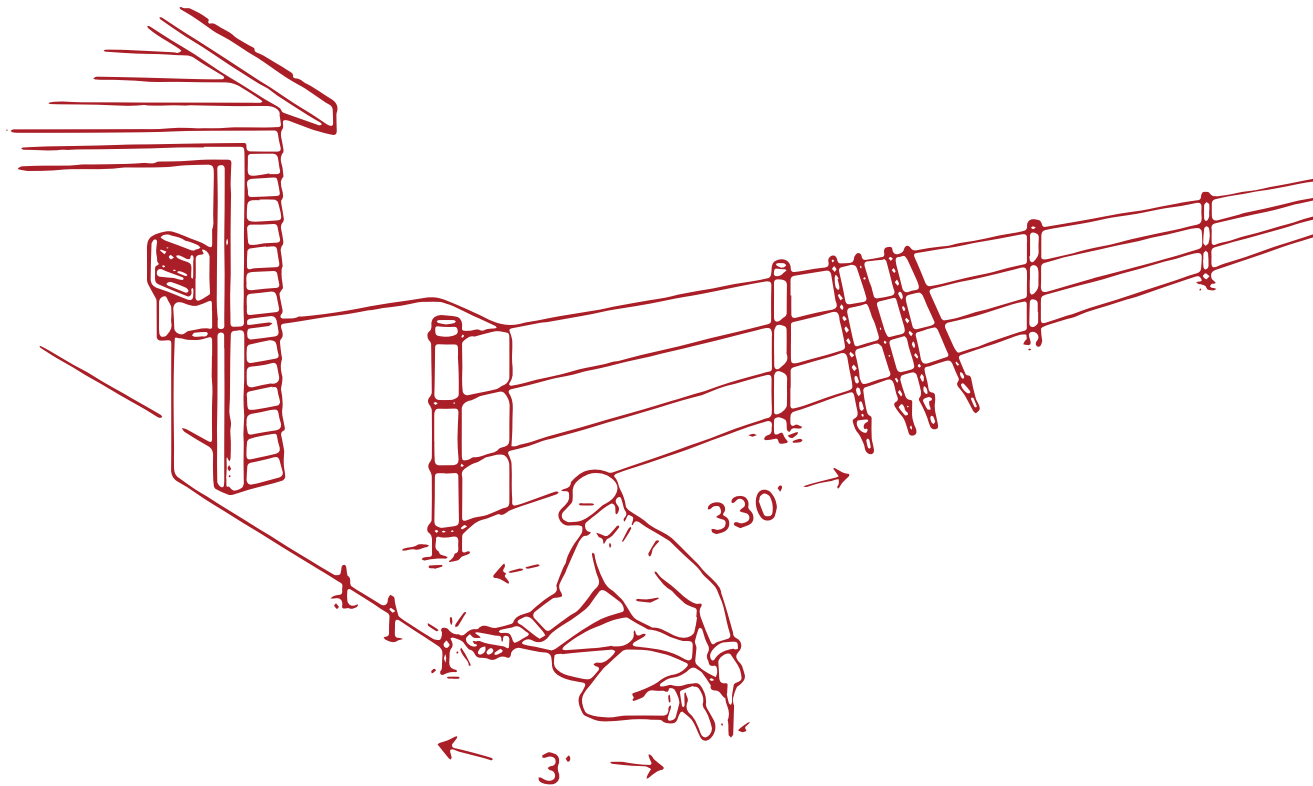
STEP 2. Check the voltage at the first Cut-Off Switch to make sure voltage is getting that far. If OK, go to Step 3.

STEP 3. Disconnect each section of fence where it goes under a gate or is attached to the main fence. Check the voltage to determine which section of fence is causing the problem, and then go to Step 4.

STEP 4. Carefully walk the section of fence with the problem, looking for loose connections or broken insulators.

Slide a stick along the bottom fence wire to knock off stray pieces of wire that are hard to see. Closely inspect gates and corners where problems can arise.

GROUNDING SYSTEM TEST



STEP 1. Create a dead short on the fence line, preferably 330 ft. from the ground rods, or as far as possible if the fence is less than 330 ft. Lean steel posts on a hot wire as shown.

STEP 2. Use a Dare #2411 Digital Voltmeter or similar electric fence meter. Place the meter probe on the ground wire or rods. Extend the meter lead wire as far away as possible, attach to a wire probe and insert probe into the soil.
(Wire probe supplied with Dare #2411).

STEP 3. If the voltage reading exceeds 300 volts, the grounding system is inadequate and more ground rods should be added. Add rods and recheck until voltage reads 300 or less. Generally you will need one ground rod for each Joule of output from your energizer.

WARRANTY

TWO YEAR GUARANTEE

DARE PRODUCTS, INC. warrants this fence energizer to the original purchaser for a period of twenty-four (24) months from the date of purchase, when installed and used in accordance with the enclosed installation instructions. You must retain your receipt for proof of purchase, otherwise the date of manufacture, found on the backside of your energizer, will be used. This warranty covers defects in materials and workmanship to the fence energizer and damage caused by lightning and voltage spikes.

Improper installation, misuse, neglect and tampering of any kind are NOT covered under warranty. No warranty other than the above is expressed or implied. Implied warranties of merchantability and fitness for a particular application are hereby disclaimed unless the law specifically precludes this disclaimer. The manufacturer and seller shall have no liability for damages, incidental or consequential, resulting from or caused by any failure, malfunction or defect of any product.

The sole obligation of Dare Products, Inc. shall be limited to replacement of the defective fence energizer.

**SAVE YOUR
RECEIPT!**

WARRANTY

TO MAKE A WARRANTY CLAIM

1. First disconnect energizer from fence and confirm that voltage output at the energizer terminals is not up to standard 5000+ volts.
2. Before returning product under warranty, please call Dare Products, Inc. at (800) 922-3273, to obtain a Return Goods Authorization number that must accompany the returned product.
3. Enclose a note showing your name, phone number, return address and brief description of the problem.
4. Pack product carefully in oversized carton with crushed newspaper for cushioning.
5. Your product should be shipped prepaid and insured against shipping loss or damage to:

DARE PRODUCTS, INC.

RGA# (call 800-922-3273 for#)
860 Betterly Road
Springfield, MI 49037

SAFETY INFORMATION

 **DANGER** - double insulated: when servicing, use only identical replacement parts and by qualified service personnel only. Double insulated energizers include two systems for insulation.

 **CAUTION:** to reduce the risk of electrical shock do not remove cover. Refer to service personnel.

WARNING: do not connect simultaneously to a fence and any other device such as a cattle trainer or a poultry trainer. Otherwise, lightning striking your fence will be conducted to all other devices.

TO REDUCE THE RISK OF ELECTRIC SHOCK, an ac line operated fence controller has a polarized plug (one blade is wider than the other). The plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet.

This fence controller is not to be permanently mounted using conduit.

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