



ELECTRIC FENCE TROUBLESHOOTING GUIDE



AC/Plug-In



DC/Battery-Operated



Solar

STEP 1: Gather Tools and Energizer Information

You Will Need:



Electric Fence Tester

The following information found on your energizer:

Model Number _____

Serial Number _____

You May Also Need:



Battery Tester



Regular, Phillips Head and Torx Screwdrivers



Spare Insulators and Other Parts



Wirecutters



Ratchet Set

STEP 2: What Kind of Equipment Do You Have?



AC/Plug-In Energizer.....Page 3



DC/Battery-Operated Energizer.....Page 3



Solar Energizer.....Page 4



AC/Plug-In Troubleshooting Steps

1. If using an extension cord, it must be rated for industrial strength and be no longer than 50 feet in length
2. Unplug the energizer
3. Remove both hot and ground wires
4. Plug the energizer back in
5. Check the voltage with the fence tester (see page 5)
6. If voltage is within 20% of product specifications (see page 5):
 - a. Unplug the energizer again
 - b. Replace the hot and ground wires
 - c. Plug the energizer in
 - d. Go to the Grounding System section on page 6
7. If the voltage is more than 20% below product specifications:
 - a. Call 855-592-7322 and reference error code 174.



DC/Battery Troubleshooting Steps

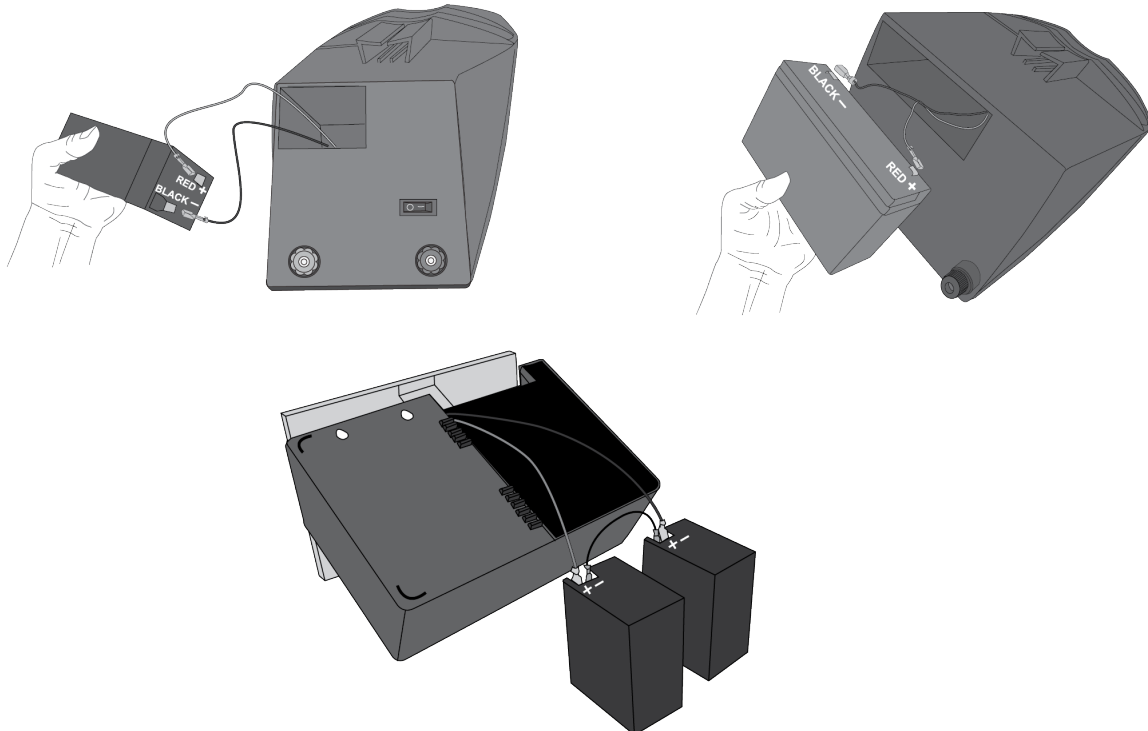
1. Turn off the energizer
2. Remove both hot and ground wires
3. Turn on the energizer
4. Check the voltage with the fence tester (see page 5)
5. If voltage is within 20% of product specifications (see page 5):
 - a. Unplug the energizer again
 - b. Replace the hot and ground wires
 - c. Plug the energizer in
 - d. Go to the Grounding System section on page 6
6. If the voltage is more than 20% below product specifications, follow the steps below.
 - a. Unplug the energizer
 - b. Remove the battery
 - c. Use the battery tester to check the voltage on the battery
7. If battery voltage is accurate, call 855-592-7322 and reference error code 174.
8. If the battery voltage is low, the battery needs to be replaced or charged



Solar Troubleshooting Steps











1. Charge energizer in the off position for at least three full sunny days
2. Remove both hot and ground wires
3. Turn the energizer on
4. Check the voltage with the fence tester (see page 5)
5. If voltage is within 20% of product specifications (see page 5):
 - a. Turn the energizer back off
 - b. Replace the hot and ground wires
 - c. Turn the energizer back on
 - d. Go to the Grounding System section on page 6
6. If the voltage is more than 20% below product specifications, follow the steps below.
 - a. Turn the energizer off
 - b. Remove the battery
 - c. Use the battery tester to check the voltage on the battery
7. If battery voltage is accurate, call 855-592-7322 and reference error code 174.
8. If the battery voltage is low, the battery needs to be replaced

BATTERY LOCATION

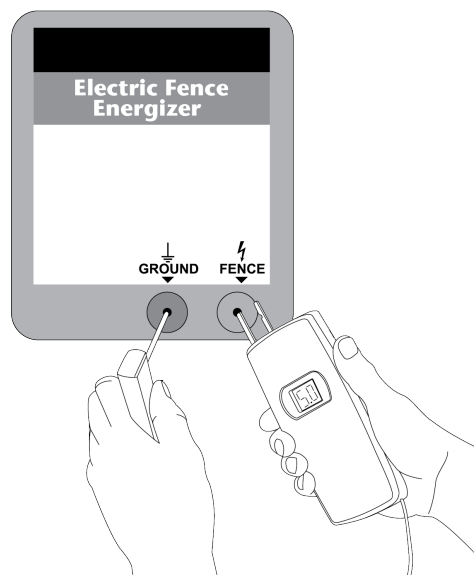


VOLTAGE REQUIREMENTS

Voltage Minimum Requirements

Animal	Minimum recommended voltage on fence line*	Fence Recommendations	Animal	Minimum recommended voltage on fence line*	Fence Recommendations
Deer/Exotics 	4000 - 5000+ volts	6'+ tall to keep out deer, high visibility, minimum 7 strands	Horses 	2000 -3000 volts	White 2" poly tape or high tensile wire recommended, 3-5 strands
Sheep/Goats 	4000 - 5000+ volts	Difficult to confine, 4-6 strands	Pigs 	2000+ volts	To deter from rooting, use 3-4 wires starting 6" from ground
Predators 	4000-5000+ volts	Wires spaced 6-8" apart, high output shock value	Nuisance pests 	1000 - 2000 volts	Smaller animals require closer wire spacing
Bulls/Bison 	3000-4000+ volts	Extra shock needed to control a determined bull, 4 strands minimum	Pets 	700 - 1000 volts	3-4 wires, starting 6" from ground
Cows 	2000-3000 volts	If docile with plenty of pasture, 1-3 strands	Poultry 	500 - 900 volts	Anti-Roost device on commercial poultry feeding systems

TESTING VOLTAGE



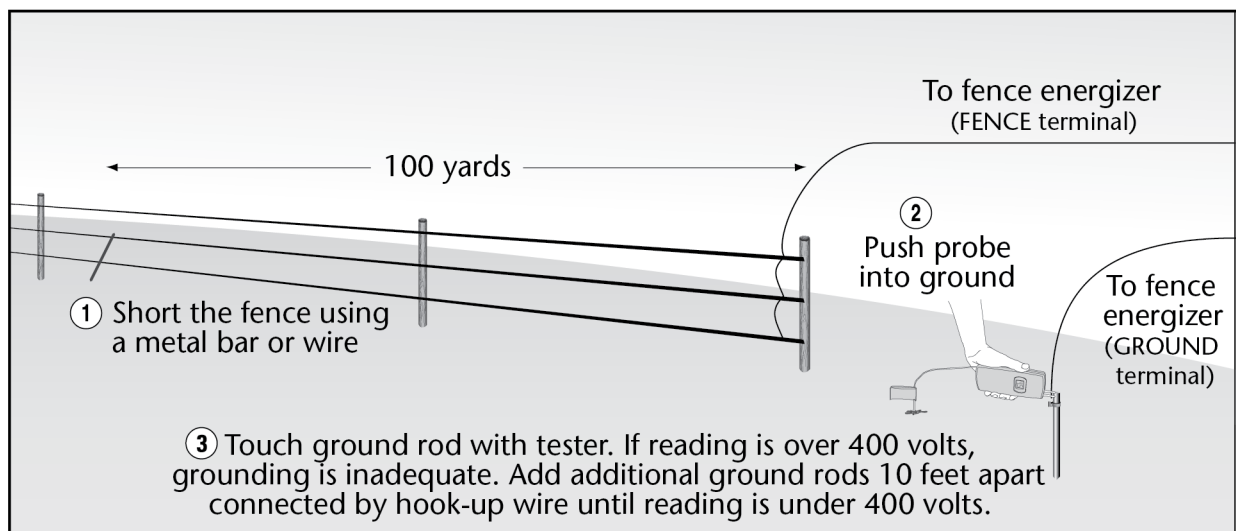
Testing voltage with a fence tester

GROUNDING SYSTEM

Many electric fence issues can be tracked back to the grounding system. Even if your fence has been working fine for years, changes in the soil's moisture level could cause problem. Grounding systems must consist of at least three metal rods (copper, rebar, or galvanized steel), placed ten feet apart and driven at least six feet into the ground. Follow the steps below to test your system.

1. Place a metal bar or rod against your fence, approximately 100 yards away from the energizer
2. Touch the hooked end of your fence tester to the top of the ground rod
3. Place the probe end of the fence tester into the soil

If the voltage is less than 400 volts, your grounding system is fine. Go to the Troubleshooting the Fence Line section on page 6. If the voltage is 400 volts or more, additional grounding is needed. Refer to <http://www.zarebasystems.com/learning-center/installation-guide/ground-rod-installation> or call 855-592-7322 for more information on grounding.

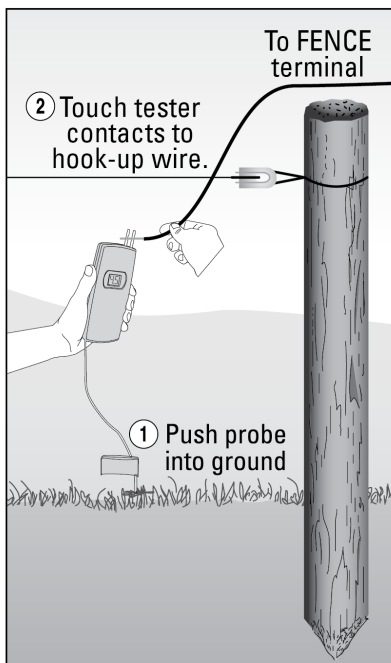


LEAD WIRE

Another possibility is that your electricity is leaking into the ground. To test this:

1. Turn off the energizer
2. Remove the lead out hot wire from the fence
3. Turn the energizer back on
4. Test the lead out hot wire with the fence tester

If the voltage is significantly less than the voltage on your energizer, your electricity is leaking into the ground. Replace your hook-up wires with 20 KV insulated wire and recheck your voltage. If the voltage is similar to your energizer's voltage, follow the steps below to check your fence line.



FENCE LINE

If you've tried everything else and you're still not getting enough electricity, there's no way around it; you're going to need to walk your fence line. Take tools and spare parts with you, and look for the following common problems that can impact your fence voltage:

- Heavy or wet vegetation touching the wires
- Cracked insulators
- Rusty connections
- Wire touching wood
- Splices or jumper wires no longer secure
- Faulty connections at gate openings
- Metal objects within 4 inches of the fence line