Grounding System Test

1. Create a dead short on the fence line, preferably 300 ft. from the ground rods, or as far as possible if the fence is shorter than that. Lean steel posts on the hot as shown to short out your fence.

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

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.

Other Helpful Information Available

- High Tensile Fencing Guide No. AD-1848
- Equine Fencing Guide No. AD-3499
- Electric Fencing Made Easy No. AD-3774 or AD-3973
- Complete Catalog No. AD-3770

Printable Version - www.dareproducts.com
Requests - service@dareproducts.com
Call 1-800-922-3273
Fax 1-269-965-3291

DARE PRODUCTS, INC.
860 Battery Rd.
Battle Creek, MI 49037 USA
Electric Fence Trouble Shooting Flow Chart

START

Disconnect energizer from your fence system... Hot "+" and Ground "-"?

Is Voltage across energizer terminals greater than 5,000? (Models DE20, DE60, DE80 greater than 2,000 Volts?)

Is the power supply on or battery fully charged?

Turn on power or charge battery and go back to START.

Is Voltage measured at terminals < 3,000 Volts? Models DE20, DE60, DE80 < 1,000 Volts?

Connect energizer to fence and ground system.

Is Voltage on main run greater than 3,000 Volts?

Has your fence line been extended?

Fence may be shorted:
  a) Faulty Insulation
  b) Heavy Vegetation
  c) Accidental Short

Discontinue all branching sections from the main run leading from your energizer and check voltage on main run of fence.

Energizer may no longer be large enough. Refer to energizer section chart on website.

Fence may be shorted: a) Faulty Insulation b) Heavy Vegetation c) Accidental Short

Disconnect all branching sections from the main run leading from your energizer and check voltage on main run of fence.

Recheck ground system.

Is ground system voltage greater than 300 Volts?

Is the ground very dry, frozen, or extremely rocky?

Faulty ground system. Refer to instruction manual or follow Step 3 in the Electric Fencing Made Easy Guide - (www.dareproducts.com/800-922-3273)

Install a return ground system shown in Step 3 of the Electric Fencing Made Easy Guide or at www.dareproducts.com

There is most likely high resistance on your fence line. Possible causes: Poor wire splices and connections, wire breaks, too small diameter wire, rust and corrosion from dissimilar metals at connections, using digital voltmeter, start at fence energizer and measure voltage at 150 foot intervals. When voltage drop is found, there is a problem in the last section tested that needs to be fixed. Replace rusted wire, poor connections, and use new wire for connections. Continue repairs on entire fence until voltage exceeds 2,500 Volts.

HELPFUL HINTS

* Use a tester designed specifically for electric fence. A Digital Volt Meter is best.
* Multi-Meters for household use DO NOT WORK.
* DO NOT USE household Romex Cable for underground applications. It will short your fence.
* Increasing your "Ground Field" will boost voltage on fence and lower the ground voltage. Try adding an additional ground rod, test, and repeat if necessary.

Repair this fence run - Replace faulty insulators. Remove excess vegetation, any foreign objects contacting fence, check gates and corners, and make sure underground cable used was rated at 20,000 Volts.

Connect branch runs of the fence one at a time until voltage drop is found: check for:
- Faulty insulators - replace
- Excessive vegetation - trim back
- Foreign objects on fence - remove
- Wire connections - need to be solid
- Underground wire - insulated with material up to 20,000 Volts

Correct problem areas and continue with remaining sections. A fence maintaining 3,000 Volts+ will control most animals.