

Fencer Troubleshooting Tips

Parmak suggests that you check your fence in steps, to help determine the most likely cause of your problem.

Step #1 Digital Meter Reading

Your fence charger has a meter on the front of it that shows the fence condition and voltage being sent out at the terminals of the fence charger. The meter can also be used in troubleshooting the fence line. If the meter is showing 2.0 or lower, you should turn off the unit and disconnect the fence and ground line from the charger. Turn the fence charger back on and see if the meter returns to a higher value. Generally the meter should always read 10.0 or higher without the fence connected. If the meter does return to the higher meter reading without the fence connected, you have a shorting problem somewhere on your fence line. If your meter does not show a higher value (10.0 or higher) without the fence line connected, the charger may be in need of repair.

The reading of guard voltage will vary as fence condition changes (i.e. fence load). Below are sample readings and their meaning and the corresponding fence condition:

Meter Reading: 4.0 or Higher

GOOD fence condition for long haired animals and predator control.

Meter Reading: 2.0 or Higher

GOOD fence condition for short haired animals.

Meter Reading: 1.0 to 2.0

CAUTION-Guard voltage below minimum level for short haired animals.
Check fence.

Meter Reading: Below 1.0

WARNING! -Guard voltage below minimum level. Shock ineffective. Fence shorted.
Check Fence Immediately.

On a properly constructed, well-grounded fence of short length, it is normal to see a guard voltage reading in the mid to upper teens 12.7, 17.5. As additional charged wire is added to the fence, it is normal for the indicated guard voltage will drop due to increased fence load.

If the guard voltage reading drops below 2.0 the fence should be checked for shorts caused by grass, weeds, tree limbs, etc., contacting fence, broken insulator causing short to fence post, fence damage, poor ground, etc. Once the problem on the fence has been eliminated the guard voltage should return to a normal level.

NOTE: The digital meter is very sensitive. If the guard voltage reading goes to 19.9 kV, this indicates foreign voltage on the case of the fence charger and it is causing the meter to read incorrectly. Be sure that the charged fence wire and ground wire are not touching

the fence charger case. Poorly grounded fence installations can also cause the meter to read 19.9kV.

Step #2 Voltage

Next check output voltage of the fencer by itself without the fence connected. You can do this by using an electric fence tester as this is the most accurate way to test your fence. **DO NOT USE A STANDARD MULTI-METER** as they are not designed to handle the high voltages of fence chargers and may become damaged! You can also test your fencer by taking a plastic handled screwdriver and shorting across the terminals on the fence charger. Place the base of the screwdriver on the fence terminal and bring the tip of the screwdriver about 1/8" from the ground terminal. You should get a blue spark that will jump the gap between the screwdriver and the terminal. If you are getting a good charge from it, then the problem is somewhere in either your ground or your fence. You can also use this same test on the fence line if you are using metal T-posts, you can short between the post and the fence line. While this is not the most accurate way to test a fence, it will show you if you are getting voltage on the fence line.

Step #3 Ground Rods

Next check your ground rods. Here are some good tips:

- Use at least two or three 3/8" -- 5/8" diameter, 6 to 8 foot long copper clad or galvanized rod. Drive ground rods a minimum of 6 to 8 feet deep into permanently moist earth.
- **DO NOT** use painted fence post or any metal rod which has a painted surface because paint is an insulator and will not conduct electricity.
- **DO NOT** use utility ground or a water pipe to ground your fence.
- **DO NOT** install fence ground rods within 50 feet of any utility ground system. This causes a poor ground condition. Your fence charger **MUST HAVE** its own separate ground system.
- **DO** install first ground rod within 20 feet of fence charger.
- **DO** use ground clamp to attach ground wire to ground rods. A sample ground clamp is furnished with your fence charger (110V A.C. models only). Additional ground clamps are available from your dealer.
- **DO** replace ground rods every two years or so. The ground rods will rust under ground and over time will no longer be a good ground
- Sandy, rocky, frozen, dry, or clay soil can reduce the effectiveness of your ground rods so additional rods may be needed to increase the shock delivered.

Step #4 Fence

If you are still having problems, you should then check your fence line. Make sure that you are using insulators on all of your posts unless they are fiberglass or plastic posts. Wood posts DO need insulators because while wood is an insulator, it absorbs water and it can then cause a short in the fence.

Make sure you that nothing is leaning against or in contact with the fence that can cause a short.

If you are still having problems, please call the Parmak service dept. at 800-662-1038.