



Lightweight Electric Fence System

Thank you for purchasing the Pentagon™ Electric Fence System. This is the first commercially available electric mesh fence kit that meets or exceeds the guidelines published in the USDA Forest Service Recreation Tech Tips (0723-2305MTDC) in March 2007. Please read the following instructions carefully to become acquainted with the features, assembly, and safe operability of the Pentagon™ Electric Fence. This high performance device must be installed and operated properly in order to achieve the best possible results.

Counter Assault has assembled the highest quality components to provide the optimum performance, battery-operated, lightweight electric mesh fence system available. An electric fencing system is comprised of three main components: (1) energizer, (2) transmission lines, in this case, the mesh poly wire which includes the built in fence posts with insulators, and (3) the grounding path to the earth.

How Does Power Fencing Work? A pulsed electric current is sent along the fence wire from a properly grounded energizer. When the bear touches the fence it completes the circuit between the fence and the ground and receives a short, sharp but safe shock. The shock is sufficiently memorable that the bear should never forget.

The energizer is the heart of the fencing system and Counter Assault has selected the Speedrite AN90. The portable AN90 is operated by four "D" size batteries, which produces 35-45 pulses per minute and delivers 8000-9000 volts, which equates to 0.12 joule output rating, with .16 joules of stored energy, and can last for 30-40 days of continual operation.

Another unique component to this electrical system is the mesh fence. Tests have shown that the mesh configuration with alternating hot (energized) and ground wires is recommended for bears. The mesh containing the semi-rigid stays (the larger vertical poly wire) keep the mesh from drooping, which could allow the hot wires to short out against the ground wires. Additionally, we have incorporated ¾ inch sturdy double prong posts to keep the fence erect and reduce sagging. The mesh fence is also quicker and easier to erect and disassemble.

Pentagon Contents

Part	Qty
• Mesh Fence-1 Roll	53 feet
• Ground Rod	1 ea
• LED Lights (With 6 LR41 Batteries)....	2 ea
• Ground Lead Wire	1 ea
• Storage Bag	1 ea
• Velcro Straps	3 ea
• Electric Fence Placard	1 ea
• Voltage Tester	1 ea
• Speedrite AN90 Energizer	1 ea

Requires - 4 D cell batteries
(not included)



Installation and Assembly Directions

Choose a spot to install the fence where the ground is flat, where no trees or brush will hang over the fence, and where the fence does not block an established game trail. Unroll the fence and grab the posts, allowing the loops of mesh to droop between the posts.

To install the fence:

1. Select the spot for the center of the enclosure, each post will be approximately 9 feet from that center point.
2. Hold the posts and allow the fence mesh to drop.
3. Push the end posts into the ground at your starting point. Do not hammer the posts into the ground.
4. In a pentagon shape, insert each of the remaining poles into the ground to delineate the five sides of the fence. At the last post, push the post into the ground next to the first post; completing the pentagon shape. **FIGURE 1**
5. Use one of the Velcro straps and loop the strap end through the insert hole and strap this to the top of end post #1. Then take the loose end and wrap around end post #6 to connect the two. Posts #1 and #6 are basically the "opening and closing" of the fence enclosure. The Velcro strap can be unwrapped and wrapped repeatedly while erecting the fence. **FIGURE 1**
6. Reposition the individual posts (#2-#5) until you are satisfied with the fence's tension and shape.
7. NOTE: Make sure that the orange wires are on the outside of the post.
8. Place the Energizer on the ground next to the posts just outside the fence. Drive the ground rod into the ground near the energizer.
9. Clip electrical wires together (both top and bottom) with the metal crimped tabs on the mesh fence near the end posts. **FIGURE 1**
10. Turn LED lights on by twisting tight. Then clip the lights to the mesh by any two posts. The lights will initially flash red, white and blue, then only red, indicating low batteries. Replace with LR41 button batteries.
11. To Energize the Bear Fence connect the Yellow (hot) wire to the prong on the top of the energizer and clip to the Metal Fence Connector on the mesh fence. Connect the Green wire to the Ground Rod. **FIGURE 2**
NOTE: If you do not connect the Yellow (hot) wire from the energizer to the proper metal clips on the fence and the GREEN (ground) wire to the ground rod, the energizer will not operate properly.
12. If using an external 6/12 volt power source, you will need to use the optional RED & BLACK power leads as shown in the energizer instructions. Connect RED lead to the + prong on the bottom of the energizer. Connect the BLACK lead to the - prong on the bottom of the energizer. Connect the Red to the positive terminal on the battery and connect the BLACK to the negative terminal on the battery, then refer to # 11 to connect the energizer to the fence.
13. If the soil is very dry, pour water over the ground rod to provide a good earth ground.

Activating the Fence

Please read and become familiar with the Speedrite AN90 Manual and proper use of the energizer.

Safety Information: Important Any alteration to the design of this energizer may cause serious electrical shock and may void the warranty. Inform everyone, especially children, who might possibly come into contact with the electrically charged fence, about its location and operation. Do not allow children to play with energizer or near the electrified wires. Never climb over an electrified fence. Never install an electric fence below high voltage transmission lines. Instruct all persons how to disconnect the energizer in case of emergency.

Inserting Batteries (not included): Read the instructions in the Speedrite AN90 Manual provided on insert page. Ensure that the unit is turned off when installing the batteries.

Note: While the energizer is designed to be weather resistant, install it under cover from the weather whenever practical.

After supplies have been centered within the fence enclosure, close the fence with the Velcro wrap. With the energizer outside the fence, turn it on to a "2" setting. **NOTE: the setting must be at "2" fast to achieve optimum performance.** Prop the bottom of the wires of the fence up with an insulated pole or green branch. Carefully slide the energizer under the fence into the fenced area. The Fence's bottom wire is a ground wire, so you should be able to do so without getting shocked. The energizer must be inside the fence to keep it out of reach of animals. **FIGURE 3**

To test the Bear Fence with the Fence Tester, touch the Probe to the Ground Rod and the lead to a horizontal wire of the fence.

CAUTION: Make sure you are not touching the metal of the lead or the wires of the fence, it will be HOT!

All the lights to 6,000 volts or higher should light up.

If the voltage is less than 5000 volts, recheck the instructions.

Also check to see if any tall grass or any other obstruction is touching the hot wires.

Turn off the energizer before touching the fence.



Common Problems in Fence Installation

Excessive weeds or tree branch touching the fence.

The connection to the ground rod is inadequate. Securely attach ground rod and check to be sure that no corrosion is present.

Poor ground. Pour water over ground rod to provide good earth to ground.

Poor connections between metal crimped tabs, ground lead wire, or energized wire.

Removing the Fence

1. Turn the energizer off.
2. Disconnect the energizer and electrical connections. Remove ground rod.
3. Remove the LED lights.
4. Pull each post from the ground as you walk down the fence line.
5. Gather up the fence by collecting the posts with the loops of the mesh drooped between them. Allow the mesh to fold into the loops, accordion style, as you proceed.
6. Lay the fence flat on the ground and ROLL the mesh around the POSTS
7. Collect all components and place inside storage bag.

PENTAGONTM
Electric Bear Fence

The Pentagon Electric Fence does not replace common sense while recreating in bear country. Do not seek out encounters with bears. Never store odorous items in or around your camping area. Remember: A Fed Bear is a Dead Bear.

Thanks to the following for their help with testing and design:

National Be Bear Aware Campaign www.bebearaware.org

Speedrite By Tru-Test

USDA Forest Service

Missoula Technical Development Center

FIGURE 1



FIGURE 2



FIGURE 3

