

Mains Powered Energizer

Instruction Manual

DISCLAIMER: Whilst every effort has been made to ensure accuracy, neither the manufacturer nor any employee of the company shall be liable on any ground whatsoever to any party in respect of decisions or actions they may make as a result of using this information.

In accordance with the manufacturer's policy of continuing development, design and specifications are subject to change without notice.

Developed and manufactured by, an ISO 9001 2000 Certified Supplier.

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Safety Regulations



IMPORTANT: Read all instructions

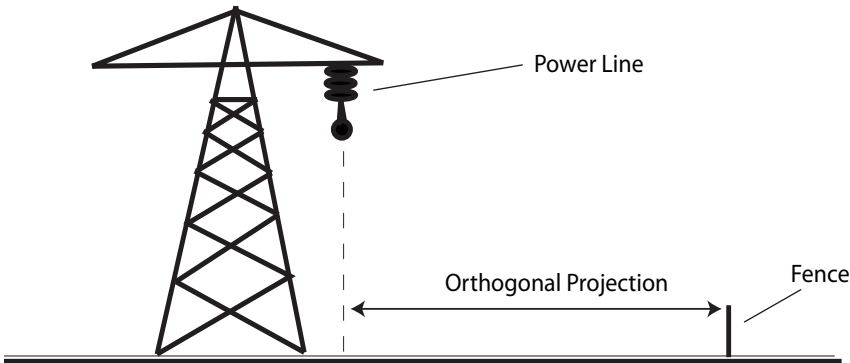
- This appliance is not intended for use by young children or infirm persons unless they are adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.
- Energizer must be installed in a shelter and the supply cord must not be handled when the ambient temperature is below +5 deg C.
- Ensure the Energizer is fully protected from rain, condensation and other sources of moisture.
- Do not mount in places exposed to heat sources (e.g. a sun heated metal wall.)
- Ensure the Energizer has adequate ventilation.
- Electric animal fences and their ancillary equipment shall be installed, operated and maintained in a manner that minimizes danger to persons, animals or their surroundings.
- Electric animal fence constructions that are likely to lead to the entanglement of animals or persons shall be avoided.
- An electric animal fence shall not be supplied from two separate energizers or from independent fence circuits of the same energizer.
- For any two separate electric animal fences, each supplied from a separate energizer independently timed, the distance between the wires of the two electric animal fences shall be at least 2.5m. If this gap is closed, this shall be effected by means of electrically non-conductive material or an isolated metal barrier.
- Do not connect two Energizers to the same earth system.
- Barbed wire or razor wire shall not be electrified by an energizer.
- A non-electric fence incorporating barbed wire or razor wire may be used to support one or more off-set electrified wires of an electric animal fence. The supporting devices for the electrified wires shall be constructed so as to ensure that these wires are positioned at a minimum distance of 150mm from the vertical plane of the non-electrified wires. The barbed wire and razor wire shall be earthed/grounded at regular intervals.
- Follow the recommendations in this instruction sheet regarding earthing/grounding.
- A distance of at least 10m shall be maintained between the energizer earth/ground electrode and any other earthing/grounding system connected parts such as the power supply system protective earth or the telecommunication system earth.
- Connecting leads that are run inside buildings shall be effectively insulated from the earthed/grounded structural parts of the building. This may be achieved using insulated high voltage cable.
- Connecting leads that are run underground shall be run in a conduit of insulating material or else insulated high voltage cable shall be used. Care must be taken to avoid damage to the connecting leads due to the effects of animal hooves or tractor wheels sinking into the ground.

- Connecting leads shall not be insulated in the same conduit as the mains supply wiring, communication cables or data cables.
- Connecting leads and electric animal fence wires shall not cross above overhead power or communication lines.
- If connected to a mains power circuit that doesn't have a Residual Current Device (RCD), then a plug-in RCD should always be used.
- Crossings with overhead power lines should be avoided wherever possible. If such a crossing cannot be avoided it must be made underneath the power line and as nearly as possible at right angles to it.
- If connecting leads and electric animal fence wires are installed near an overhead power line, the clearances shall not be less than those shown in the following table.

Minimum Clearances From Power Lines for Electric Animal Fences

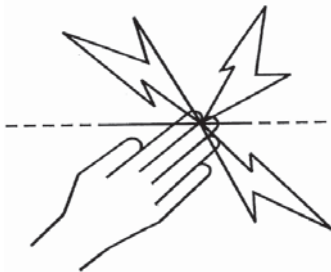
Power Line Voltage (V)	Clearance (M)
Less than 1,000	3
Between 1,000 and 33,000	4
More than 33,000	8

- If connecting leads and electric animal fence wires are installed near an overhead power line, their height above ground shall not exceed 3m.
- This height applies to either side of the orthogonal projection of the outermost conductors of the power line on the ground surface, for a distance of:
 - 2m for power lines operating at a nominal voltage not exceeding 1000V (1 kV);
 - 15m for power lines operating at a nominal voltage exceeding 1000V.




- Electric animal fences intended for deterring birds, household pet containment or training animals such as cows need only be supplied from low output energizers to obtain satisfactory and safe performance.

- In electric animal fences intended for deterring birds from roosting on buildings, no electric fence wire shall be connected to the energizer earth electrode. A warning sign shall be fitted to every point where persons may gain ready access to the Conductors.
- Where an electric animal fence crosses a public pathway, a non-electrified gate shall be incorporated in the electric animal fence at that point or a crossing by means of stiles shall be provided. At any such crossing, the adjacent electrified wires shall carry warning signs.
- Any part of an electric animal fence that is installed along a public road or pathway shall be identified at frequent intervals by warning signs securely fastened to the fence posts or firmly clamped to the fence wires.
- The size of the warning sign shall be at least 100mm x 200mm.
- The background colour of both sides of the warning sign shall be yellow. The inscription on the sign shall be black and shall be either:
 - the substance of "CAUTION: Electric Animal Fence" or,
 - the symbol shown below.



- The inscription shall be indelible, inscribed on both sides of the warning sign and have a height of at least 25mm.
- Ensure all mains-operated, ancillary equipment connected to the electric animal fence circuit provides a degree of isolation between the fence circuit and the supply mains equivalent to that provided by the energizer.
- Protection from the weather shall be provided for the ancillary equipment unless the equipment is certified by the manufacturer as being suitable for use outdoors, and is of a type with a minimum degree of protection IPX4.

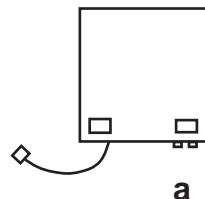
SERVICE OF DOUBLE INSULATED APPLIANCES: In a double insulated controller, two systems of insulation are provided instead of grounding. No equipment grounding means is provided in the supply cord of a double-insulated controller, nor should a means for equipment grounding be added to the controller. Servicing a double insulated controller requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated controller must be identical to the parts they replace. A double insulated controller is marked with the words "DOUBLE INSULATION" or "DOUBLE INSULATED". The symbol for double insulation  may also be marked on the appliance.

4 Step Installation Guide

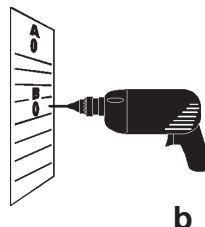
Step 1

Mount the Energizer

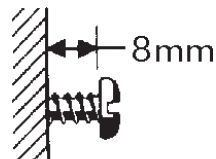
- a) For inside use only. Mount the energizer on a wall, out of reach of children, adjacent to a power outlet. Install where there is no risk of the energizer incurring fire or mechanical damage (illustration a).



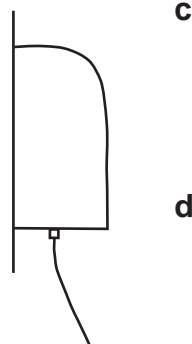
- b) Drill holes using the template on centre pages as a drilling guide.
Use a 4mm (5/32") diameter drill for timber walls or a suitable wall plug for brick and concrete walls (illustration b).



- c) Using the screws clipped to the energizer, secure a screw in hole (Centre A or B) as shown (illustration c).



- d) Hang the energizer on the screw. Fit screw through energizer into hole.



Step 2

Connect to Earth (Ground) System

Using Lead-out Cable remove 5cm (2") of plastic coating from one end of the cable and attach to the green terminal on the energizer. Attach the cable to the earth system by removing 10cm (4") of insulation from the cable at each Earth Stake, then clamp the exposed wire to each stake using an Earth Clamp. Tighten the clamp.

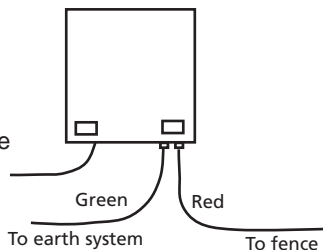
For further instructions on the Earth (Ground) System see "How to Install Earth (Ground) System" section.

Step 3

Connect the fence

Connect energizer's red terminal to the fence using Lead-out Cable remove 5cm (2") of plastic coating from one end of the cable and attach to the red terminal on the energizer. Attach the other end of the cable to the fence using a Joint Clamp.

For instructions on fence installation see "How to Install the Fence" section.



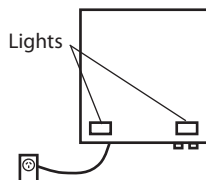
Step 4

Plug the energizer into a power outlet

Check that the lights on the front of the energizer are flashing.

The green (ENERGIZER) indicator light flashes when the energizer is working correctly.

The red (FENCE) indicator light flashes with each fence pulse, if the voltage is over 4000 volts (approx.) to indicate fence condition. If the fence is overloaded the indicator will either flash intermittently or not at all.

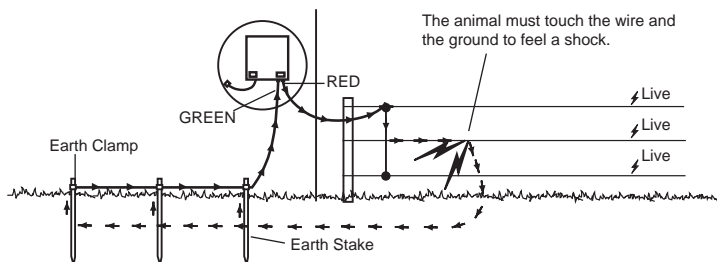


How to Install Earth (Ground) System

Improperly earthed Energizers can cause barns, gates etc to become electrified. Follow earthing instructions carefully.

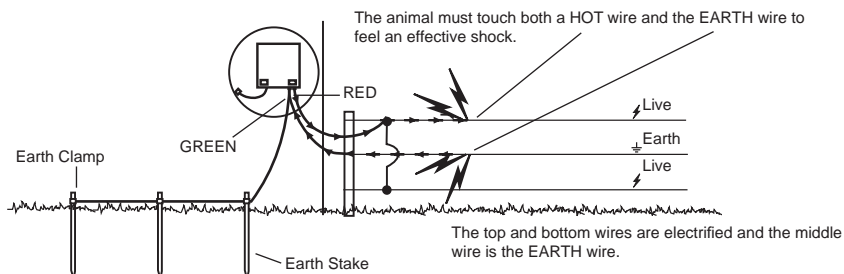
The most effective place for an earth system is in continuously damp soil (illustration a).

a) ALL LIVE WIRE SYSTEM - for areas with good earthing conditions



For dry areas with poor earthing conditions, install the fence using illustration b.

b) EARTH RETURN SYSTEM - for areas with poor earthing conditions

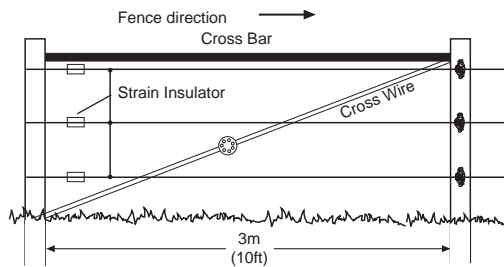


Find a location for your earth system that is permanently damp, has high fertility or salinity and is away from dairy sheds. Install the earth system at least 10m (33ft) from any power supply earth peg, underground telephone or power cable. The best construction is 2m (61/2ft) long galvanised stakes, 3m (10ft) apart, connected to the energizer by high quality Leadout cable Do not use materials that rust.

Use a minimum of 2 earth stakes.

How to Install the Fence

- Plan the fence line. Avoid rough, stony or steep areas if possible. For best electric fence performance use multi-wire (at least 3 wires connected in parallel) fencing.
- Install end strain posts and corner posts. Ensure that all corner posts are well installed to withstand the wire strain.



- Run out the bottom wire between the end posts.
- Tension wires until there is only a slight visible sag.
- Connect all live wires in parallel at the end of each fence section using Joint Clamps.

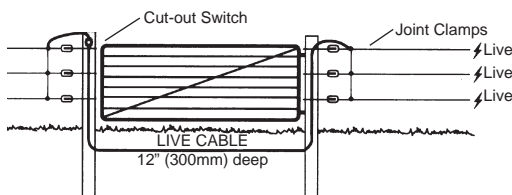
Use Joint Clamps to ensure tight wire connections.

Connect any earth wires together in parallel. Never connect live and earth wires together.

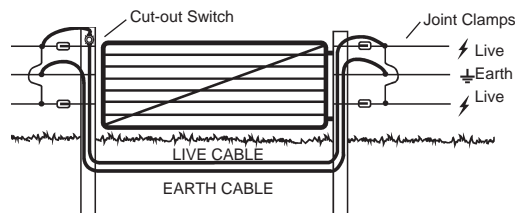
- Conduct the fence system under gateways, rather than overhead. Do not use electric gates to get power across gateways. Install Lead-out Cable in a plastic pipe (for physical protection), 30cm (12") deep. Turn the ends of the pipe down to keep water out.

Connect each end of the cable to the Joint Clamps

ALL LIVE WIRE SYSTEM



EARTH WIRE RETURN SYSTEM

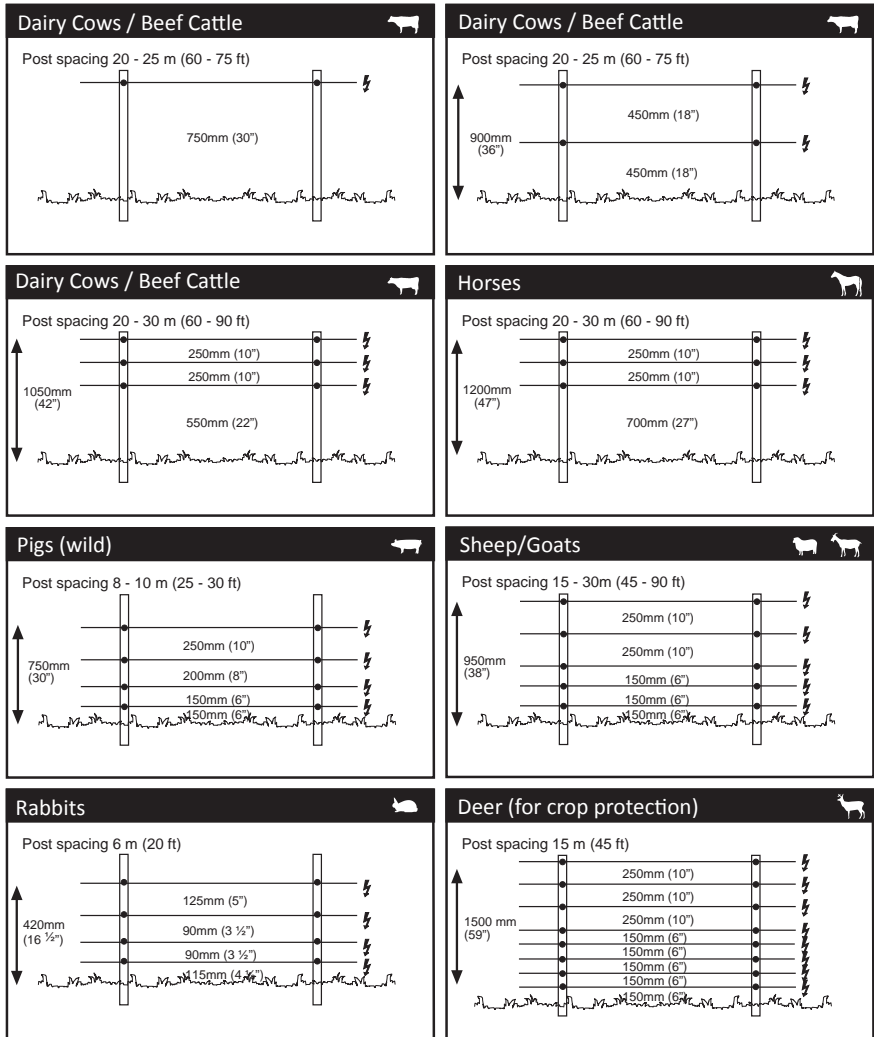


Offset Fence

Existing non-electric fences can be protected to last for many more years simply by attaching Offset Brackets and an electrified wire on one or both sides of the non-electric fence. Use a single offset wire, positioned at two thirds the height of the animal (chest height) to be controlled.

Options for Wire and Post Spacings

These figures are guidelines only for flat country conditions.

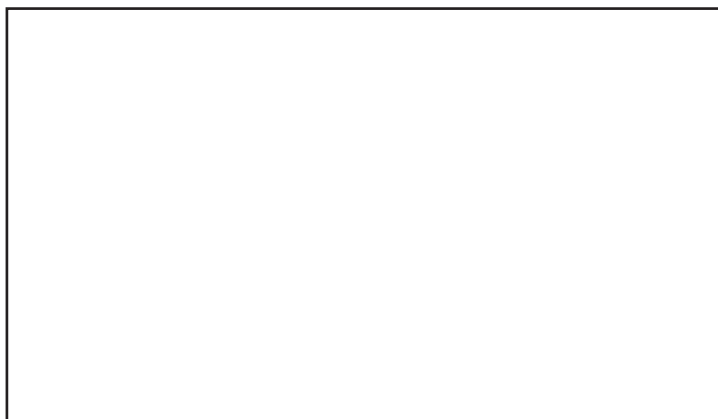


Lightning Strikes

Lightning strikes can damage energizers. Damage can be minimised by disconnecting the energizer from the fence line and unplugging it from the power supply during electrical storms.

Energizer and Fence Maintenance Chart

Fault	Possible Cause(s)	Solution
Energizer doesn't operate	Energizer Off	Switch ON
	Break in supply circuit	Test power point
	Faulty energizer	Have energizer repaired
Electric fence voltage is below 3000V or your stock are escaping	Faulty energizer	Unplug the energizer from the power supply and remove the fence wire from the Red terminal. Plug energizer in again. Using a Digital Volt Meter check the voltage across the terminals. If the voltage is less than 5000V, have energizer repaired.
	Inadequate earthing	Improve the earth system by adding more galvanised earth stakes to the earth system until the earth voltage is 200V or below.
	Short on the fence line	Check the electrical connections are secure eg. from the fence to the red terminal, from the earth system to the green terminal, at gates etc. Check the voltage on the fence every 33m (100ft) using a Digital Volt Meter. Note if the voltage is dropping. The closer to a fault, the lower the voltage reading will be. Become aware of things that cause faults and always be on the lookout for: stray pieces of wire on the fence, heavy vegetation growth, cracked or broken insulators, broken wires.



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Mains Powered Energizer

Template



A

**SEE INSTRUCTIONS FOR
MOUNTING ENERGIZER.**

B



two years from the date of purchase

WARRANTY

This card must be completed by the dealer at the time of purchase and be retained as the proof of purchase.

This product is warranted against faulty material and workmanship for a period of two years from the date of purchase. If any warranted defect occurs during the warranty period, return the product with the proof of purchase to your nearest dealer, distributor, or directly to the manufacturer.

Model:

Serial No:

Name of Owner:

Address:

Date of Purchase:

Dealer Contact Details:

This warranty does not cover defects due to:

Incorrect input voltage

Damage to external wiring

Physical mishandling

Water immersion

Vermin or ant damage

Lightning strike

Damage resulting from battery
leakage or chemicals

Note: This product has been manufactured to comply with international safety standards. The manufacturer and its agents accept no responsibility for any accident caused subsequent to any tampering with or modification or misuse of this product, including repairs or alterations made by anyone other than the manufacturer or its agents.

No conditions, warranties or guarantees, statutory or otherwise, whether oral or in writing (other than service guarantee above), shall attach to this product and its sale and purchase, other than that it will be delivered in good working condition.

Please read the operation manual before use

