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Foreword

Thank you for buying Andmon electric fence energizer. Andmon electronics is an electric fence company who is committed to designing and manufacturing electric fence energizer, tester and accessories. This Energizer has built-in lightning protection devices to reduce the incidence of lightning damage and built-in RFI (Radio Frequency Interference) Suppressed Circuitry. If for any reason you are not happy with your purchase, please return the energizer to your dealer within 30 days of purchase and we will give you a full refund - guaranteed. If you have any questions regarding this product please email us: sales@andmon.com, or contact the store where you purchased this.

Please read this manual carefully before using this product and conserve it well, when you have problems in the process of use you can read it again. Do not let children operate or play with an electric fence energizer.

1. Introduction

This manual describes Andmon electronics' electric fence energizer of :

0.16J model	MINI160
0.25J model	MINI250
0.4J model	MINI400

2. Important safety introduction



WARNING: Read all instructions

- Unless high/low voltage output disarmed of electric fence, don't touch live fence
- Do not let this fence be drenched with water.
- This product must be placed or installed in cool and breezy place. To avoid the direct sunshine is strongly recommended.
- This fence is used to prevent wildlife, any other aim is not being allowed.
- Make sure this guard is earthed. (Don't cut down the fence wire when you are cutting grass.).
- To confirm the fence wire does not touch grass or wood. To cut the grass around the fence wire is necessary sometimes.
- For battery fence energizer, you should check the batteries at intervals. Please replace the batteries when the battery is flat. Take out the batteries when this fence is not be used,

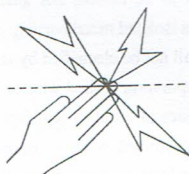
otherwise can cause leakage.

- Do not climb over, through or under a multi -wire electric fence. Use a gate or a specially designed crossing point.
- Do NOT become entangled in the fence. Avoid electric fence constructions that are likely to lead to the entanglement of animals or persons.
- Electric animal fences shall be installed and operated so that they cause no electrical hazard to persons, animals or their surroundings.
- It is recommended that, in all areas where there is a likely presence of unsupervised children who will be unaware of the dangers of electric fencing, that a suitably rated current limiting device having a resistance of not less than 500 ohms be connected between the energizer and the electric fence in this area.
- The appliance is not intended for use by young children or infirm persons without supervision.
- Do not place combustible materials near the fence or energizer connections. In times of extreme fire risk, disconnect energizer.
- Don't dismantle and assemble the main part. Don't make any change to this energizer. Don't touch high voltage part, otherwise can get electric shock.
- Young children should be supervised to ensure that they do not play with the appliance.
- 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 to be closed, this shall be affected by means of electrically non-conductive material or an isolated metal barrier.
- Barbed wire or razor wire shall not be electrified by an energizer.
- A non-electrified 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 150 mm from the vertical plane of the non-electrified wires. The barbed wire and razor wire shall be earthed at regular intervals.
- Where an electric animal fence crosses a public pathway, a non-electrified gate shall be incorporated in the electric 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.
- In areas of public access, use an electric fence warning sign every 10m (33ft) to identify the electrified wire(s).
- Crossing with overhead power lines should be avoided wherever possible. If such a crossing cannot be avoided, it should be made underneath the power line and as nearly as possible to right angles.
- If connecting leads and electric fence wires are installed near an over head power line, the clearances should be not less than those shown below:

Power Line Voltage V	Clearance M
≤ 1000	3

$>1000 \leq 33000$	4
>33000	8

- If connecting leads and electric fence wires are installed near an over head power line, their height above the ground should not exceed 3m.
This height applies either side of the orthogonal projection of the outermost conductors of the power line on the ground surface, for a distance of:
 - 2 m for power lines operating at a nominal voltage not exceeding 1000V;
 - 15 m 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.
- Fence wiring should be installed well away from any telephone or telegraph line or radio aerial.
- 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 Fence" or,
 - the symbol shown:

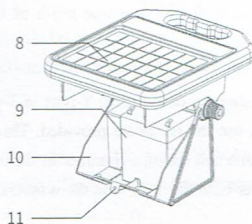
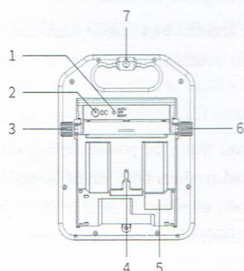


- The inscription shall be indelible, inscribed on both sides of the warning sign and have a height of at least 25mm.
- Ensure that all mains operated, ancillary equipment connected to the electric animal fence circuit provides a degree of isolation between the fence circuit and the supply mains equivalent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

This energizer complies with international safety regulations and is manufactured to international standards. Andmon reserves the right to make changes without notice to any product specification to improve reliability, function or design.

3. Specification

Parts of the electric fence energizer system



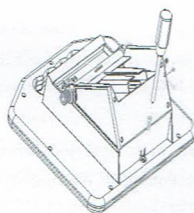
- 1 ON/OFF/Night mode switch
- 2 DC charging input
- 3 Earth output terminal
- 4 Locking hole
- 5 Installation part
- 6 Fence terminal
- 7 Locking hole
- 8 Solar panel
- 9 Battery
- 10 Battery box
- 11 Battery box fixing hole

Power source	.16 J model	0.25 J model	0.4J model
	12V, 4AH, 12V, 4.5AH rechargeable lead-acid battery		
Maximum output			
Voltage	up to 8.5 KV	up to 9.3 KV	up to 10KV
Voltage under 500ohm	up to 2.5KV	up to 2.9KV	up to 3KV
Energy	0.16 J	0.25 J	0.4J
Stored energy	0.11 J	0.18 J	0.3J

Unless otherwise stated, values are typical and normal production tolerances of $\pm 10\%$ should be allowed for

4. Installation guide

Installing the battery



- 1 Place the energizer on a flat surface. Open the battery compartment using a screwdriver (see diagram below).
- 2 Insert the battery.
- 3 Connect the positive (red) lead to the positive (+) terminal on the battery.
- 4 Connect the negative (black) lead to the negative (-) terminal on the battery.
- 5 Close the battery compartment.

Caution! When connecting the battery, be careful not to short-circuit the supply terminals.

Positioning the energizer

Install the energizer:

Adjacent to the electric fence

Preferably in the middle of the electric fence

Where it will receive the most daily sun through out the season

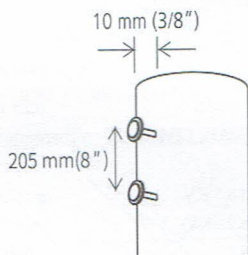
Where a good earth can be obtained

On firm ground away from flooding and out of reach of animals and children (inside a protective fence, if required). The solar panel should face true north in the southern hemisphere and true south in the northern hemisphere.

Mounting the energizer

The energizer can be mounted directly onto a steel Y-post or T-post using the post-mounting slot.

To mount onto a wooden post, use the hardware provided. Thread washers onto the nails. Space the nails 75 mm (3') apart (or one nail length). Hammer in the nails, allowing them to protrude by 10 mm (3/8'). Slide the energizer onto the nails with the washers inside the post-mounting slot.



Connecting to an electric fence

1 Push a 1 m (3'3') earth rod fully into firm ground.

2 Connect the black lead from the Fence earth terminal on the energizer to the earthing system.

3 Connect the red lead from the Fence output terminal on the energizer to the fence. Make sure there is a good contact.

Caution! Make sure the connecting leads drop downwards from the energizer to prevent water from collecting at the terminals.

Operation

Switching on and off

1 To switch on, The pulse indicator light flashes once for each output pulse.

2 To switch off, the pulse indicator light stop

Battery protection model

An intelligent battery management feature puts the energizer into Battery protection mode when battery charge falls below a 'safe operating level'. When in Battery protection mode, the energizer is still on, but it will not deliver a pulse to the electric fence.

The energizer will resume delivering pulses when the solar panel has charged the battery so that it

is above the 'safe operating level'.

Alternatively, the battery can be disconnected, recharged with a battery charger, then returned to the battery compartment and reconnected.

Battery information

Battery charging

The solar panel can fully charge a flat battery in three days, provided the energizer is switched off and there is adequate sunlight. The battery can also be charged using a 14.4V battery charger suitable for charging rechargeable lead-acid batteries. This should have an output voltage of 14.4V and output current not exceeding 1A.

When fully charged, the battery should be able to power the energizer for over three weeks(0.16J model) or three weeks(0.25J model) and two weeks(0.4J model) with no sunlight.

Replacing the battery

If a replacement battery is required, use a 12V, 4.5Ah(12V,4Ah for MINI160), rechargeable lead-acid battery(suitable for all models). Do not use a non-rechargeable battery.

Do not dispose of the battery in a land-fill or in a fire.

In the event of a spill or leakage from a lead-acid battery:

Contain small spills with dry sand, earth and vermiculite. Do not use combustible materials. If possible, carefully neutralise spilled acid with soda ash, sodium bicarbonate, lime, etc.

Wear acid-resistant clothing, boots, gloves and a face shield.

Do not let acid get into the sewerage system.

Neutralised acid must be managed in accordance with approved local, state and federal requirements. Consult your state environmental agency and/or federal EPA.

Energizer maintenance

Clean the solar panel regularly with a soft cloth using glass cleaner or a mild solution of detergent and water. This ensures the solar panel functions efficiently.

When transporting the energizer, protect the solar panel to prevent the glass surface from being damaged.

Energizer storage

If the energizer is stored for an extended period, the battery may discharge and become damaged.

The energizer should be stored inside, next to a window, where sunlight can shine on the energizer each day.

If the energizer cannot be stored in a sunny position, it should be kept in a cool place. The battery should be fully charged and disconnected from the energizer. The battery should be recharged manually every six months using a suitable 12 V battery charger.

Troubleshooting

Problem and action

1 The Pulse indicator light is flashing, but the electric shock delivered by the fence is weak.

Check that the energizer is adequate for the length of the fence. If necessary, reduce the length of

the fence or reduce the number of fence wires. Alternatively, divide the fence-line into smaller zones, with each zone powered by a separate energizer.

2 The Pulse indicator light is not flashing.

3 The battery needs frequent replacement.

Check that the solar panel is clean and is not damaged. Make sure the energizer is positioned to receive maximum sunlight. If necessary, remove any objects or vegetation that might be casting a shadow on the energizer.

4 After the energizer is switched on, the pulse indicator light gives three long permanent flashes, and then the energizer appears to be off, please charge the energizer using a charger.

5. Maintenance

Warning: Don't make bold to dismantle and assemble the guard, if need repair please contact the place of purchase.

Fault	Solution
The Pulse indicator light is flashing, but the electric shock delivered by the fence is weak.	Check that all connections in the fence and earth system are firm and secure. If necessary, clean away any corrosion.
	Check that the earth rod is pushed firmly into firm ground.
	Check for faults in the fence-line caused by trees or vegetation. If necessary, remove obstructions and mend the fence.
	Check that the energizer is adequate for the length of the fence. If necessary, reduce the length of the fence or reduce the number of fence wires. Alternatively, divide the fence-line into smaller zones, with each zone powered by a separate energizer.
The Pulse indicator light is not flashing.	Check that the energizer is switched on.
	If there has been insufficient sunlight to charge the battery, the energizer may be in Battery protection mode. Charge the battery by placing the energizer in full sunlight with the solar panel facing true north in the southern hemisphere and true south in the northern hemisphere and .
	Ensure the battery is connected correctly with the positive (red) lead to the positive(+) terminal on the battery and the negative (black) lead to the negative (-)terminal on the battery.
	Try charging the battery manually using a suitable battery charger. Replace the battery with a new battery. Before installing a new battery, charge it fully using a suitable battery charger. If the pulse indicator light is still not flashing, return the energizer to the dealer

The battery needs frequent replacement.	Check that the solar panel is clean and is not damaged. Make sure the energizer is positioned to receive maximum sunlight. If necessary, remove any objects or vegetation that might be casting a shadow on the energizer.
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6. Guarantee

We grant a warranty of 24 months as standard, starting from the date of the purchase invoice marked. We will only perform warranty services when the faulty unit is returned to us together with a copy of the invoice and warranty card which are issued by the dealer to the user. The unit should be returned in its original or equivalent packaging, please preserve the original packing. The costs for new packing and shipment are absorbed by the customer. In addition, the type label on the unit must be fully legible. If these requirements are not fulfilled, we reserve the right to deny warranty services. Warranty claims are excluded for direct or indirect damages due to:

- 1) Beyond warranty date;
- 2) Transport damage;
- 3) Improper use, operation and refitting;
- 4) Non-observance to the relevant safety instructions and work in the severe environment out of the recommended ones in this manual;
- 5) Beyond installation and use areas of the relevant international standards;
- 7) Influence of foreign objects and force majeure (lightning strike, overvoltage, severe weather, fire etc).