
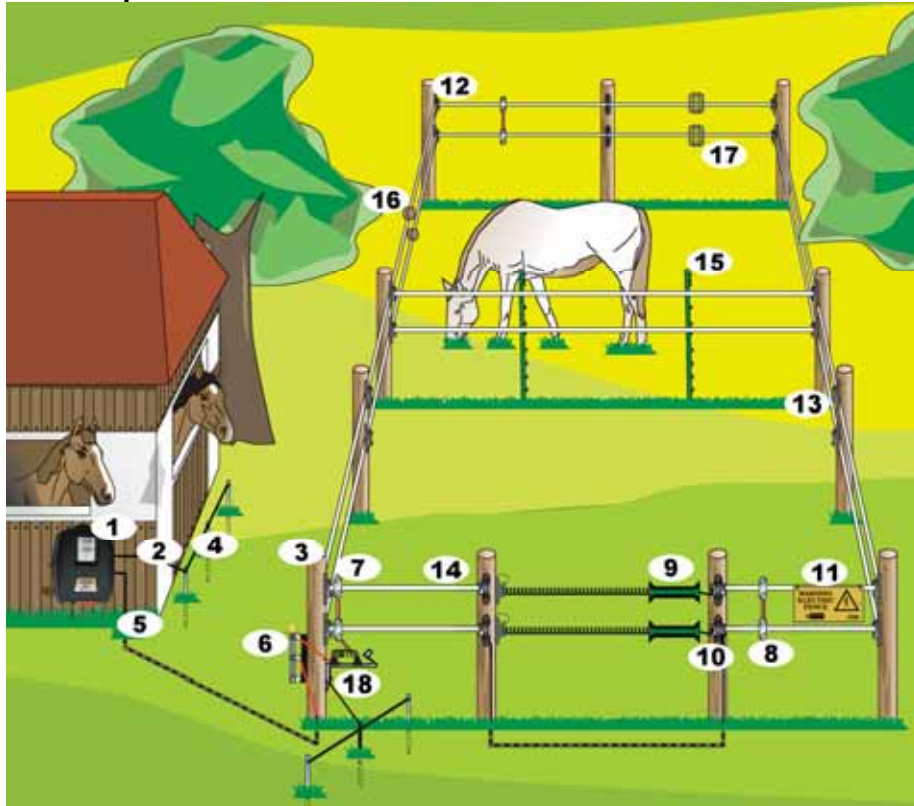


# Operating Instruction Manual

Warning: RISK OF ELECTRIC SHOCK - READ  
AND FOLLOW all instructions and SAVE ALL INSTRUCTIONS, including  
*Specific Operating Instructions*

 We congratulate you on the purchase of your electric fence-energizer. You have acquired a high-quality product, which corresponds to the current safety regulations as well as to the pertinent EC-guidelines (CE). With this appliance, you improve the security of your fence system. Environmental conditions and incorrect installation can influence your fence system, therefore absolute security cannot be guaranteed. For this reason the seller gives no assurance that the fence system is safe against outbreak. To obtain the best results and correct installation please read the following and the enclosed specific instruction manual.

Before installing and operating an electric fence energizer it is important to read all instructions including the *Specific Operating Instructions*, and to follow all instructions for installation and operation.



**Installation of an electric fence system :** (Figure 1)

- |                            |   |
|----------------------------|---|
| 1 Electric Fence Energizer | 10 Insulated Gate Handle                    |
| 2 Ground Wire              | 11 Warning Sign                             |
| 3 Permanent Wood Post      | 12 Corner Insulator                         |
| 4 Grounding rod            | 13 Line Post Insulator                      |
| 5 Underground Cable        | 14 Tape, Rope (or other suitable conductor) |
| 6 Cut-out Switch           | 15 Step-in or Fiberglass Post               |
| 7 Jumper Wire              | 16 Tightener                                |
| 8 Jumper Wire              | 17 Splicer Buckles                          |
| 9 Spring Gate              | 18 Lightning Protection (MWLA shown)        |

**SERVICE Addresses:**  
KENCOVE Farm Fence Inc.  
344 Kendall Lane  
Blairsville, PA 15717

(Subject to change without notice)



## **Safety Instructions :**

**Please follow this instruction closely and store it well when not in use.**

**WARNING: Risk of electrical shock. Do not connect to a fence and to any other device such as a cattle trainer or a poultry trainer. Otherwise, lightning striking your fence will be conducted to all other devices.**

Electric Fences shall be installed and operated in a way that they do not cause any electrical hazard to persons, animals or their surroundings.

Electric Fence constructions which are likely to lead to the entanglement of animals or persons shall be avoided.

An electric fence should **not** be supplied by two (or more) different energizers. Barbed wire or razor wire must not be electrified by an energizer.

For any two (or more) different electric fences, each supplied by a different energizer, the distance between the conductive materials of the two electric fences shall be at least 6.5 ft. If this gap is to be closed, electrically non-conductive material or an insulated metal barrier has to be used.

Any part of an electric fence 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 itself. The background colour of both sides of the warning plate shall be yellow. The inscription on both sides of the warning sign shall be black and shall read WARNING – ELECTRIC FENCE. The size of the warning signs shall be at least 8 x 4 inches.

A distance of at least 50 ft shall be maintained between the energizer earth ground bed and any other grounding system such as the power supply system protective earth or the telecommunication system earth.

Except for low output battery-operated energizers, the energizer ground rods shall penetrate the ground to a depth of at least 5 ft.

Care shall be taken to avoid any damage to cables or pipelines.

Use lead-out wire in building and where soil could corrode exposed galvanized wire. Never use household electrical cable. It is made for maximum of 600 volts and will leak electricity. In times of extreme fire risk, disconnect energizer. Train livestock to electric fence prior to entry into pastures. Allow livestock to approach a powered fence for the first time without stress.

Connecting leads that are run inside building shall be effectively insulated from the grounded structural parts of the building. This may be achieved by using insulated high voltage cable.

Energized/Connecting leads run underground should be run in a conduit of insulating material or use insulated high voltage cable. Avoid damage to the connecting leads due to animal hooves or tractor wheels sinking into the ground.

Any leads connected to the fence or ground shall not be installed in the same conduit as the mains supply wiring, communication cables or data cables. Connecting leads and electric fence wires shall not cross above overhead power or communication lines. Crossings with overhead power lines shall be avoided. If such a crossing cannot be avoided, it shall be made underneath the power line and as nearly as possible at right angles to it.

If connecting leads and electric fence wires are installed near an overhead power line, the clearances shall be not less than those shown in the table shown below.

<b>Power Line Voltage</b>	<b>Air Distance</b>
Less than 1,000 volts	10 ft.
1,000 to 33,000 volts	13 ft.
Greater than 33,000 volts	26 ft.

If connecting leads and electric fence wires are installed near an overhead power line, their height above the ground shall not exceed 6.5 ft.

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:

- 6.5 ft for power lines operating at a nominal voltage not exceeding 1,000 V;
- 50 ft. for power lines operating at a nominal voltage exceeding 1,000 V.

If connecting leads and electric fence wires are installed near a telecommunication line or a telecommunication cable, their distance to the line or the cable shall be at least 6.5 ft.

Electric 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.

Electric fences intended for deterring birds from roosting on buildings, no electric fence wire shall be connected to the energizer earth electrode. The ground connection has to be done with a wire on insulators. A warning plate, as described above, shall be fitted to every point where persons may gain access to the conductors.

Where 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 as described above.

Electric fence energizers have to be used in accordance with the position described in the instruction manual. If the energizer is installed inside a building, the electric fence energizer should be in an inflammable room (stall, stable, barn). No easily inflammable materials may be stored close to the fence, or close to the connections of the electric fence energizer.

To avoid any lightning/surge damage, a lightning diverter/arrestor must be installed on the fence line at a point no less than 50ft. away from the energizer and its grounding system. This diverter or arrestor needs to be at a point on the fence where any lightning/surge has to pass through it before reaching the building and fence energizer. This must be done prior to attaching the leads on to the fence energizer.

**Do not connect to existing ground wires of the power supply system.**

Any user of electric fence systems is legally obligated to control the fence appliance and the fence system regularly, in accordance with the conditions of use, at least once per day.

- visual check of the appliance and the fence system
- measurement of the minimum voltage of 2500V at each point of the fence

For using an electric fence appliance in a barn, only specially constructed appliances may be used.

Never connect battery-operated fencing energizers to a power supply system or similar facilities.

For optimum safety we strongly recommend connecting mains energizers *only* to mains circuits protected by an ground fault circuit breaker (trip current 30mA).

**Services and repairs only by authorized experts!**



**Grounding**

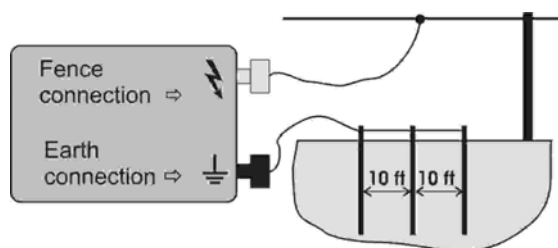
**The correct grounding is extremely important, as the complete function of the energizer depends on it. After complete installation, drive in a rust-protected grounding rod into the ground at a place with preferably high, continuous moisture.**

If necessary, especially in dry areas or low earth conductivity, one or more additional grounding rods have to be used (length: about 3.3 ft). These grounding rods have to be driven into the ground at a minimum distance of approximately 10 ft. of each other.



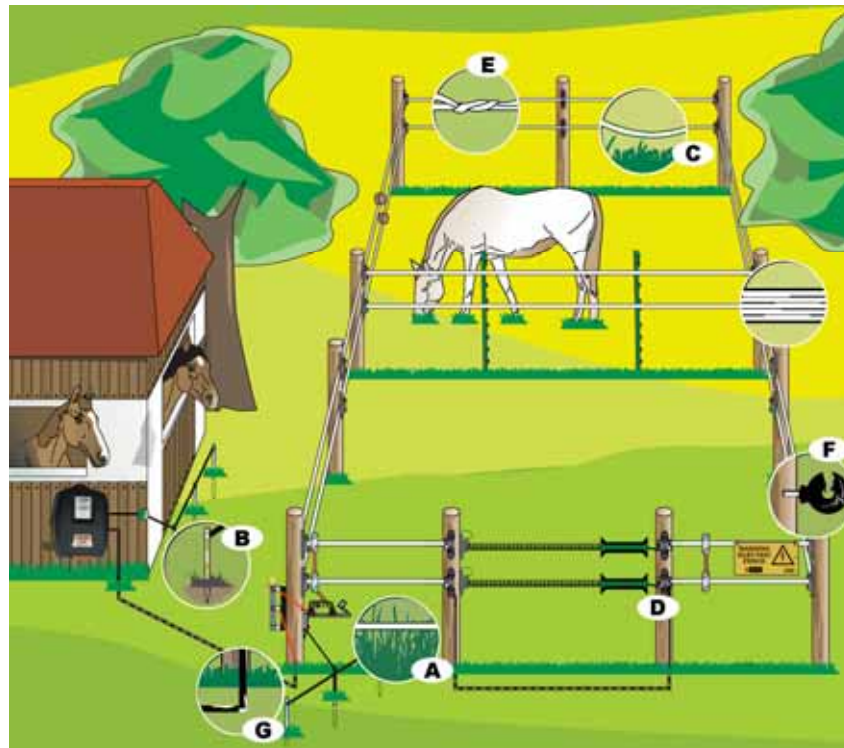
**Put to service**

- **The enclosed specific instruction manual for the energizer has to be read first!**
- **Always make sure that the energizer is switched off and not connected to the power supply system before making any connections to the energizer or fence!**
- Connection plan of the electric fence energizer:



**With battery-operated fencers, pay attention to the correct polarity when connecting the battery: black = minus; red = plus**

**Possible sources of errors:**



<b>Pos.</b>	<b>Sources of errors</b>	<b>Resolution</b>
A	Derivative due to growth at the fence.	Remove growth (mow / trim fence line).
B	Bad grounding, grounding rod too short, rusty, dry ground.	Drive in the grounding rod completely! Use several long grounding rods and connect them with each other.
C	Conductive material lying on the ground (e.g.: tape / wire break, not stretched)!	Repair fence, stretch conductive material.
D	Conductive material is of bad quality (thin conduction wire, high resistance)	Use high-quality conductors with low resistance and thick conductive wires. In case of wide tapes, pay attention to the splices.
E	Conductive material knotted.	Use corresponding special-connectors for wire / tape / rope.
F	Insulator leaks current.	Exchange damaged and weather-beaten insulators.
G	Derivative or short circuit in the fence wire.	Never use an ordinary moisture resistant cable or something like this for connection. Always use high voltage cable.
H	Fence is too long! Has the right energizer been chosen for this use?	Use the right energizer corresponding to the length of the fence and to the type of animal – if necessary, discuss it with your dealer.
I	Does the electric fence energizer work?	Disconnect the energizer from the fence and then switch it on. If the LED blinks, the appliance is okay, if it does not, the appliance is damaged (contact your dealer)! Pay attention to the polarity of the batteries.



## Maintenance of Batteries

The voltage of the batteries has to be checked regularly with an accurate measuring instrument.

### 9 volts dry battery

- Before using the battery, the sticker which closes the air-openings, has to be removed. It is only now that the battery is ready for use.
- Attention: even a discharged alkaline 9V battery can reach, some time after switching off the appliance, an almost normal voltage of 7.5 - 8.5 volts. Nevertheless, the battery is virtually empty and should be disposed of as – with normal use – the voltage will drop below 4.5V.
- Various 9V appliances can also be used with 12 volts batteries. Important: in this case a corresponding adapter-cable from the manufacturer has to be used and the 12V instructions have to be followed.

### 12 volts re-chargeable battery

- A 12V lead battery is already deeply discharged with the low burden which is typical of electric fences at a voltage of 11.9V and should be reloaded without any delay. In order to guarantee an optimum lifetime we advise a recharge of the battery already at a voltage of 12.1 volt.
- Even with an only short-term discharge under 11V a normal battery will be permanently damaged.
- Through overload, i.e. overcharging the battery to a voltage level above 13.8V, not only the battery will be damaged, but also acid may leak from the battery and destroy the electric fencer.
- A battery must never be connected to the appliance for longer than two days without being controlled!
- 12V batteries may only be recharged in well-vented rooms and only with a suitable charger.
- In case of longer intermissions (e.g. during winter) the batteries have to be connected to a charger equipped with an overcharge-protection. Otherwise the batteries could be durably damaged because of their self-discharge.
- Appliances constructed for regular 12V use with a lead battery may never be used with gel batteries. Otherwise, there is high danger of explosion!!!

**After batteries have been discharged, they have to be disposed of properly.**

### **Exclusive Limited Warranty; Limitation of Remedies**

- The Manufacturer/Distributor hereby warrants to the Buyer that the products are and will remain for a period of three (3) years from the date of purchase by the Buyer, as evidenced by the invoice or payment voucher (“Warranty Period”), free of defects in materials and workmanship, **provided that** such products are used for their intended purpose and are properly installed, maintained and serviced in accordance with this Instruction Manual and the Specific Operating Instructions of the products provided to the Buyer.
- Subject to the foregoing, if at any time during the Warranty Period a product fails to conform to the foregoing warranty by reason of defects in materials or workmanship, the Buyer shall promptly notify the Manufacturer/Distributor in writing, and the Manufacturer/Distributor at its option shall repair or replace the defective product or component without charge to the Buyer, except for (A) costs incurred in transporting the product or component parts to and from the Manufacturer/Distributor or the Manufacturer/Distributor’s designated dealer; and (B) charges for labor or other costs incidental to the removal or remounting of the product or component parts repaired or replaced under this Warranty, both of which shall be borne by the Buyer.
- Notwithstanding any provision herein to the contrary, this Warranty shall not extend or obligate the Manufacturer/Distributor to take any action with respect to: (i) products that have been modified, altered, installed, used or operated in a manner which is not recommended by the Manufacturer/Distributor, including any products in which parts are not manufactured or approved by the Manufacturer/Distributor have been installed; (ii) products which have not been regularly and properly serviced in accordance with the Instruction Manual or Specific Operating



Instructions or which have otherwise been neglected; and (iii) ordinary wear and tear, service and maintenance items and replacement items.

- **EXCEPT AS SPECIFICALLY STATED IN THE PARAGRAPH IMMEDIATELY ABOVE, THE MANUFACTURER/DISTRIBUTOR MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTY SET FORTH IN THE PRECEDING PARAGRAPH AND THE OBLIGATIONS AND LIABILITIES OF THE MANUFACTURER/DISTRIBUTOR THEREUNDER REPRESENT THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES AND ARE EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER REMEDIES, WARRANTIES, GUARANTIES OR LIABILITIES, EXPRESS OR IMPLIED, ALL OF WHICH ARE HEREBY EXPRESSLY WAIVED BY THE BUYER. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT SHALL THE MANUFACTURER/DISTRIBUTOR'S LIABILITY HEREUNDER EXCEED THE PURCHASE PRICE FOR THE PRODUCTS, NOR SHALL THE MANUFACTURER/DISTRIBUTOR BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.**

Warranty is only valid if the Buyer uses and properly installs the Lightning Protector – item no. MWLA, or the MLC/MLAI combination. The Limited Warranty is not assignable or transferable. The Limited Warranty is for the benefit of and given only to the original consumer/purchaser of the product.

This Limited Warranty does not apply to defects caused by misuse, improper installation, tampering, neglect, moisture or any other reason not related to defects in material or workmanship of the product. The obligation of the Manufacturer/Distributor under this Limited Warranty is limited to repairing or replacing, at the Manufacturer/Distributor sole discretion, any part of the product which is defective and is covered by the terms of this Limited Warranty. If any covered defect occurs during the warranty period call 1-800-536-2683 for instructions. Replacement or repair will be without cost to you other than shipping cost to repair site. The remedies set forth in this paragraph are your only remedies for any defects, failures or malfunctions of the product.

If you have any questions about the terms of this Limited Warranty, you may write KENCOVE Farm Fence Inc.; 344 Kendall Lane; Blairsville, PA 15717 or call 724-459-8991

Damages caused directly or indirectly by batteries of any kind, over-voltage or out-treading acid are excluded from any warranty.



### **LIMITATION OF DAMAGES**

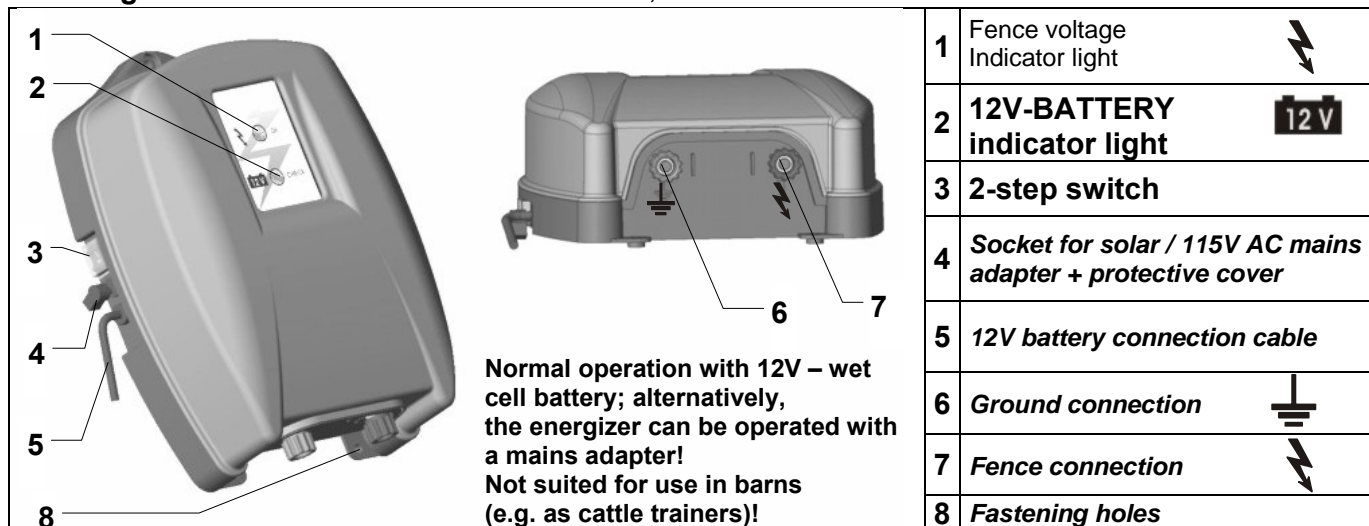
The directions for use of this product must be followed carefully. The effectiveness of fence controllers may depend on the effectiveness of connections, interruption of power source, accidental grounding of wires, weather conditions, or manner of use or application, all of which are beyond the control of the Manufacturer/Distributor or the Seller. All such risks shall be assumed by the Buyer. The Manufacturer/Distributor and the Seller offer this product and the Buyer and user accept it, subject to the foregoing conditions of sale and warranty which may be varied only by written agreement signed by an officer of the Manufacturer/Distributor.

### **RETURNS:**

- 1) Call Kencove Farm Fence Inc at 800-536-2683 (US)/ (724) 459-8991 for RMA number.
- 2) Make sure to put the RMA number or your complete contact information on the box. (Name, daytime phone number, address and RMA number, if called in)

## Specific Operating Instructions for Fence Controller Kencove Battery Units

**Warning: RISK OF ELECTRIC SHOCK – read, follow and SAVE ALL INSTRUCTIONS.**



### a.) Installation

The **unit** must, as a rule, be installed vertically with the connections at the bottom and, if possible, protected against rain, see above picture, left side. In case of wall mounting, it must be mounted against a fireproof wall. **For outdoor installation, a zinc-plated metal casing can be used. This accessory (part No. 44656) protects the unit and also accommodates the battery.**

### b.) Functional description of the unit

Put **unit** into service **WITHOUT** fence and grounding. When connecting the 12V battery, be sure to observe the correct polarities (red + and black -). If the fence light (1) flashes green, the unit is ready for use. If the battery light (2) also flashes red, check the 12V battery for correct voltage. If the fence light (1) does not flash, check the polarity of the 12V connecting cable on the battery or have the unit checked by a technician. When operating the unit with solar module or mains adapter, first remove the protective cover (4).

**Switch positions: 0 = OFF;**

**I = reduced current consumption and output power**

**( = 50%)**

**II = maximum output power and current consumption**

**( = 100%)**

### c.) Functional description with connected fence system ( fence + ground )

	Battery light (2) flashes red	Fence light (1) flashes green	Audible clicks	Output voltage	12V Battery
1	NO	YES	YES	greater than 2500 V = minimum requirement	OK ( >11.9V)
2	NO	NO	YES	less than 2500 V; see fault finding in the enclosed instruction manual (p. 8)!)	OK ( >11.9V)
3	YES	YES	YES	greater than 2500 V = minimum requirement and:	Charge or replace as soon as possible
4	YES	NO	YES	less than 2500 V; see fault finding in the enclosed instruction manual (p. 9)!)	Charge or replace as soon as possible
5	YES	NO	NO	No pulses, deep charge protection activated	Charge or replace at once
6	NO	NO	NO	See b.) Functional description of the energizer, without fence and ground	

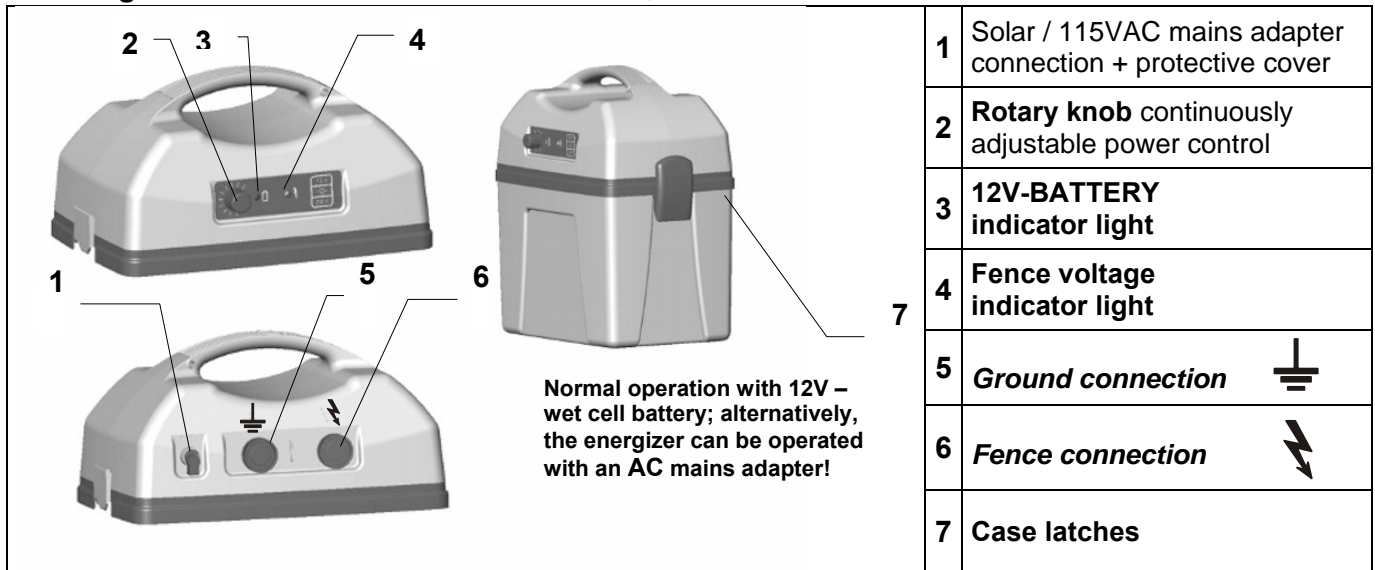
If the fence light (1) flashes faster than approx. once per second, the unit must be disconnected at once and checked by a technician before it can be used again.

For increased running time, a number of Solar modules with support stands can be used. We recommend the use of a wet cell battery of approx. 12V-85Ah. The accessories for this unit are obtainable through specialized dealers!

!!! Attention: Ground rods are not included in the supply (use at least 3 ground rods approx. 3ft long) !!!

## Specific Operating Instructions for Kencove Portable Battery Units

**Warning: RISK OF ELECTRIC SHOCK – read, follow and SAVE ALL INSTRUCTIONS.**



### a.) Functional description of the energizer

Open the energizer by opening the case latches (7) on both sides. Insert the battery into the bottom part, feed out the battery vent line (if present) through the case opening! When connecting the battery, be sure to observe the correct polarities ( red + and black - ). Close the energizer again before putting it into service. Put the energizer into service **without** fence and grounding. If the fence light (4) flashes green, the energizer is ready for use. If in addition the battery light (3) flashes red, check the battery for correct voltage. If the fence light (4) does not flash, check the polarity of the connecting cable on the battery or have the energizer checked by a technician.

Operate the energizer only in vertical position and with closed lid, see above picture, *right side*.

### b.) Functional description with connected fence system ( fence + ground )

	Battery light (3) flashes red	Fence light (4) flashes green	Audible clicks	Output voltage	12V – Battery
1	NO	YES	YES	greater than 3500 V = minimum requirement	OK (greater than 11.9V)
2	NO	NO	YES	less than 3500 V; use the rotary knob (2) to increase the power until the fence light (4) starts flashing <b>Attention: the higher this setting, the more current is consumed!</b> If the green fence light (4) still does not flash in the extreme position, see fault finding in the enclosed instruction manual ( ) æ ^ Å )!	OK (greater than 11.9V)
3	YES	YES	YES	greater than 3500 V = minimum requirement and:	Charge or replace as soon as possible
4	YES	NO	YES	less than 3500 V; use the rotary knob (2) to increase the power until the fence light (4) starts flashing. If it does not flash in the extreme position, see fault finding in the enclosed instruction manual ( ) æ ^ Å )!	Charge or replace as soon as possible
5	YES	NO	NO	No pulses, deep discharge protection activated	Charge or replace at once
6	NO	NO	NO	see a.) Functional description of the energizer, without fence and ground	

The color code on the rotary knob (2) symbolizes the current consumption for the shock power (e.g. green area: reduced shock power with smaller current consumption; red: high shock power with increased current consumption).

If the fence light (4) flashes faster than approx. once per second, the energizer must be disconnected at once and checked by a technician before it can be used again.

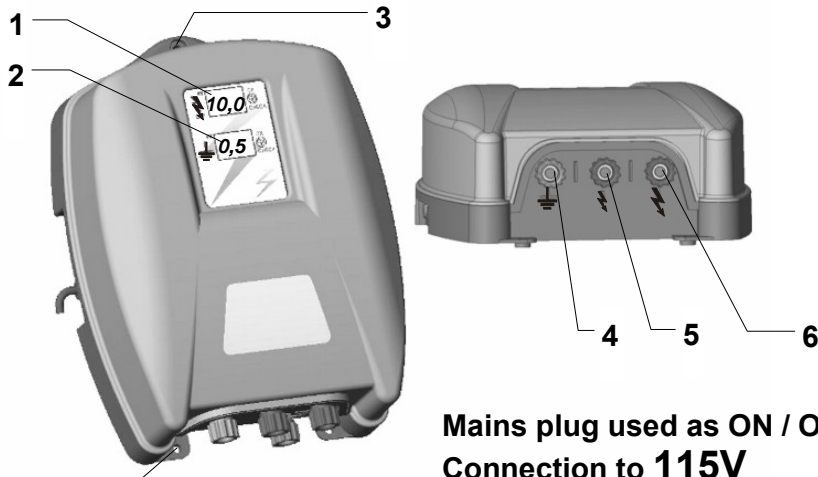
For increased runtime, a number of Solar panels with support stands can be used. The energizer can also be operated with a separate 115V AC mains adapter. We recommend the use of a wet cell battery of approx. 12V-85Ah. The accessories for this appliance are obtainable through specialized dealers!

!!! Attention: Ground rods are not included in the supply (use at least 3 ground rods. 3ft long) !!!






## Specific Operating Instructions for Kencove Digital Fence Controllers (2 LCD)

**Warning: RISK OF ELECTRIC SHOCK – read, follow and SAVE ALL INSTRUCTIONS.**



**Mains plug used as ON / OFF!  
Connection to 115V**

<b>1</b>	Output voltage in kV LCD display with <b>indicator light</b>
<b>2</b>	Earth voltage in kV LCD display with <b>indicator light</b>
<b>3</b>	<b>Mounting holes</b>
<b>4</b>	<b>Ground connection</b> 
<b>5</b>	<b>Fence connection</b> with reduced energy 
<b>6</b>	<b>Fence connection</b> with maximum energy 

### a.) Installation



Mounting holes (3) are provided for wall mounting. The energizer must be mounted against a vertical, fireproof wall with the connections at the bottom, see above picture on left. If installed outdoors, the energizer must also be protected against rain and direct sunlight.

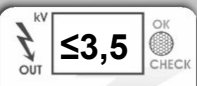

### b.) Function of the fence energizer controller

Put energizer into service **WITHOUT** fence system. Random values are shown on the displays and the indicator lights start flashing green or red. The values are not relevant as long as the fence system is not connected. The energizer is ready for use.

If after connecting the energizer no values are shown on the displays or the indicator lights do not flash, check the supply voltage and/or the power cable. If no fault is found, have the energizer checked by a technician.

### c.) Function of the energizer **CONNECTED** to fence system

Display		OK	CHECK	IDEAL
	Output voltage	more than > 3.5 kV (e.g. 4kV = 4000V) indicator light flashes green	less than ≤ 3.5 kV indicator light flashes red	6.0 – 10.0 kV; indicator light flashes green
	Earth voltage	less than < 1.0 kV; indicator light flashes green	greater than ≥ 1.0 kV; indicator light flashes red	0.0 kV; indicator light flashes green

	Fence not OK; output voltage is less than ( ) 3.5 kV Remedy: Disconnect fence and check energizer first. See fault finding in enclosed instruction manual (] æ ^Á )
	Earth not OK; voltage on earth electrode is greater than ( ) 1 kV Remedy: Check connections and wires to ground bed first. See fault finding in enclosed instruction manual (] æ ^Á )

The energizer can be operated with a **SEPARATE** fence system connected to each fence connection (5 – 6).

If the indicator light flashes faster than once per second, the energizer must be disconnected at once and checked by a technician before it can be used again.

If both fence outputs are used, the display (1) and the corresponding indicator apply to the reduced energy output (5). This equipment carries a limited 3-year warranty in accordance with our Exclusive Limited Warranty; Limitation of Remedies. Please see the attached *Operating Instruction Manual* for warranty terms and conditions.


## Specific Operating Instructions for Kencove Unit (Mains – 2 LCD)


**Warning: RISK OF ELECTRIC SHOCK – read, follow and SAVE ALL INSTRUCTIONS.**


**1** Indicator light fence

**2** *Indicator light earth*

**3** *Fastening holes*

**4** *Earth connection* 

**5** *Fence connection with reduced energy* 

**6** *Fence connection with maximum energy* 

Mains plug is used as ON / OFF!  
Connection to **115 V ~!**

### a.) Installation

Fastening holes (4) are provided for wall mounting. The appliance must be mounted against a vertical, fireproof wall with the connections at the bottom, see above picture, left part. If installed outdoors, the appliance must also be protected against rain and direct sunlight.

### b.) Functional description of the appliance

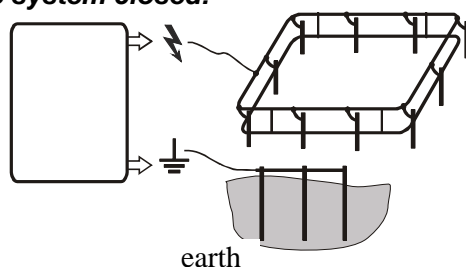
Put appliance into service **WITHOUT** fence system. The indicator lights start flashing green or red. The device is ready for operation. If after inserting the appliance the indicator lights do not flash, check the supply voltage and/or the power cable. If no fault is found, have the appliance checked by a technician.

### c.) Functional description with CONNECTED fence system (earthing + fence)

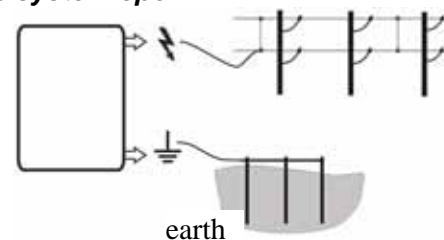
1	Indicator light fence (1)	Flashing green:	State of fence ok = output voltage > 3500V = minimum requirement
		Flashing red:	State of fence faulty = output voltage < 3500V, see operating instructions enclosed, possible sources of error (⚡ ⚡ ⚡)
2	Indicator light earth (2)	Flashing green:	State of connection to earth ok; earth voltage < 1000 V
		Flashing red:	State of connection to earth faulty, earth voltage > 1000 V, see operating instructions enclosed, possible sources of error (⚡ ⚡ ⚡) and connection to earth (pg.4)

### Connection variants:

#### Fence system closed:



#### Fence system open:



The appliance can be operated with a *SEPARATE* fence system connected to each fence connection (5 – 6).

If the indicator light flashes faster than once per second, the appliance must be disconnected at once and checked by a technician before it can be used again.

If both fence outputs are used, the indicator light (1) apply to the reduced energy output (5).

# Specific Operating Instructions for Fence Controller ProJolt MXD

**Warning: RISK OF ELECTRIC SHOCK – read, follow and SAVE ALL INSTRUCTIONS.**

1	Output voltage in kV LCD display with <b>indicator light</b>
2	Earth voltage in kV LCD display with <b>indicator light</b>
3*	Fence loop voltage in kV LCD display with <b>indicator light</b>
4	<b>Fastening holes</b>
5	<b>Earth connection</b>
6	<b>Fence connection</b> with reduced energy
7*	<b>Fence loop</b> input for end of fence, (if possible!)
8	<b>Fence connection</b> with maximum energy

Mains plug used as ON / OFF!  
Connection to **115V ~!**

\*appliance-specific

## a.) Installation

Fastening holes (4) are provided for wall mounting. The appliance must be mounted against a vertical, fireproof wall with the connections at the bottom, see above picture, left part. If installed outdoors, the appliance must also be protected against rain and direct sunlight.

## b.) Functional description of the unit

Put appliance into service **WITHOUT** fence system. Random values are shown on the displays and the indicator lights start flashing green or red. The values are not relevant as long as the fence system is not connected. The appliance is ready for use.

If after inserting the appliance no values are shown on the displays or the indicator lights do not flash, check the supply voltage and/or the power cable. If no fault is found, have the appliance checked by a technician.

## c.) Functional description of the appliance with CONNECTED fence system

Display		OK	CHECK	IDEAL
	Output voltage	> 3.5 kV (e.g. 4kV = 4000V) indicator light flashes green	3.5 kV indicator light flashes red	6.0 – 10.0 kV; indicator light flashes green
	Earth voltage	< 1.0 kV; indicator light flashes green	1.0 kV; indicator light flashes red	0.0 kV; indicator light flashes green
	Fence loop voltage	> 2.5 kV; indicator light flashes green	2.5 kV; indicator light flashes red	3.5 – 10.0 kV; indicator light flashes green

	Fence NOK; output voltage 3.5 kV Remedy: See fault finding in enclosed instruction manual (1 æ ^ Á)
	Earth NOK; voltage on earth electrode 1 kV Remedy: See fault finding in enclosed instruction manual (1 æ ^ Á);
	Fence NOK; input voltage at end of fence 2.5 kV Remedy: See fault finding in enclosed instruction manual (1 æ ^ Á)

### What is a fence loop? (unit -specific)

- The beginning of a fence is connected to the fence output ⚡ (high or low power) on the unit.
- The end of the fence system is connected to the input IN (fence loop connection).

**The LCD display (3\*) then indicates the voltage that is present at the end of the fence!**

**!!! Only the end of a fence system must be connected to the fence loop connection as the latter does not issue pulses to the fence system !!!**

**Also if the fence loop mechanism is not used, non-relevant values will be indicated on the display. These are caused by the interference of the adjacent voltages and can be ignored. Should you find the values irritating, you can deactivate (and activate) the fence loop function by performing the following steps:**

**Step A:** Pull out unit

**Step B:** 1.) Insert unit and pull out after two pulses (cycles).

2.) Reinsert unit and pull out after two pulses.

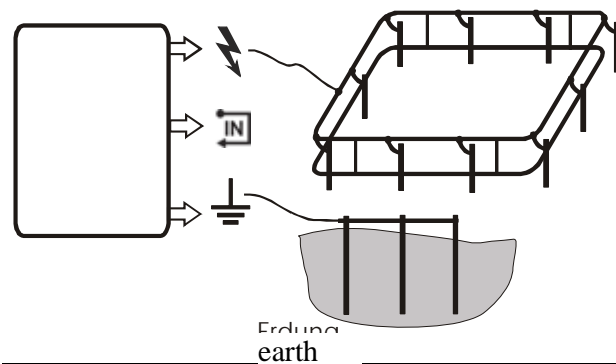
3.) Reinsert unit again and pull out after two pulses.

**Step C:** Insert unit → unit deactivated! Two bars are shown on the display.

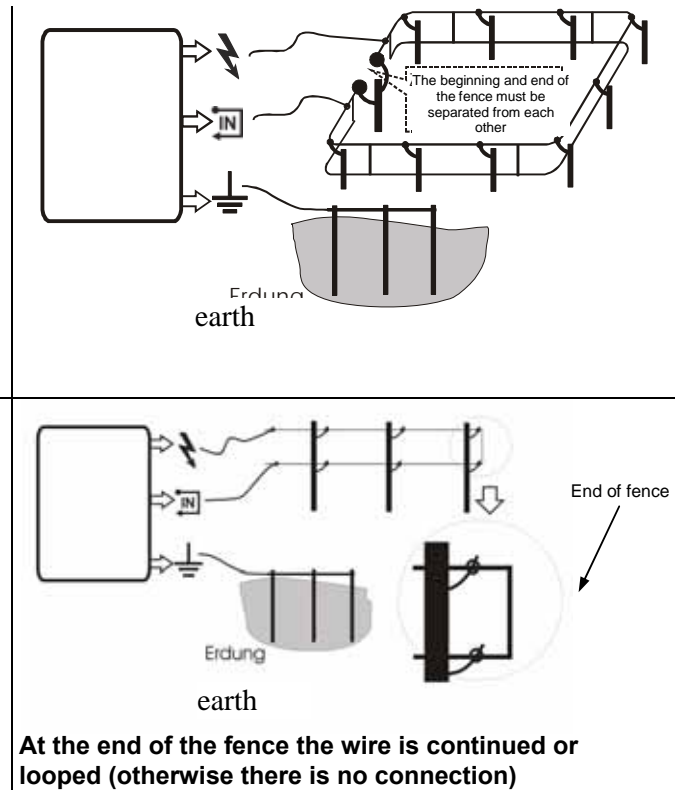
**!!! To activate the fence loop display, repeat the above steps !!!**

### Connection variants:

#### Fence systems with no fence loop:



#### Fence systems with fence loop:



The appliance can be operated with a *SEPARATE* fence system connected to each fence connection (6 – 8).

If the indicator light flashes faster than once per second, the appliance must be disconnected at once and checked by a technician before it can be used again.

If both fence outputs are used, the display (1) and the corresponding indicator apply to the reduced energy output (6).

This equipment carries a limited 3-year warranty in accordance with our Exclusive Limited Warranty; Limitation of Remedies. Please see the attached *Operating Instruction Manual* for warranty terms and conditions.