



PORTABLE  
FENCE ENERGIZER  
**BA20 BA30**  
**BA40 BA80**

Instructions - ENG  
Installatie instructies - NED  
Notice d'installation - FRA  
Betriebsanleitung - DEU  
Monteringsvejledning - DAN  
Instrucciones - ESP  
Monteringsinstruktioner - SVE  
Istruzioni per l'installazione - ITA

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Gallagher BA20 BA30 BA40 BA80 Battery Powered Energizer User Manual for  
animals  
Électrificateur de clôture pour animaux

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## IMPORTANT INFORMATION

**⚠ WARNING: Read all instructions.**

**Save these instructions.**

**⚠ WARNING** - Do not connect to mains adaptors or mains-operated equipment. **If using a 12V rechargeable battery, disconnect the battery from energizer before charging.**

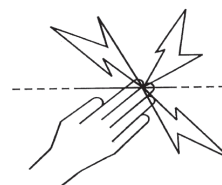
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Young children should be supervised to ensure that they do not play with the appliance.
- Regularly inspect the supply cord, cables, wires and energizer for any damage. If found damaged in any way, immediately cease use of the energizer and return it to a Gallagher Authorised Service Centre for repair in order to avoid a hazard.
- 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 use the energizer with non-rechargeable batteries.
- Do not mount in places exposed to heat sources (e.g. a sun heated metal wall).
- Refer servicing and replacement batteries to a Gallagher Authorised Service Centre.
- Check your local council for specific regulations.
- Fence wiring should be installed well away from any telephone or telegraph line or radio aerial.
- Well maintained electric fences kept clear of vegetation with high quality insulation are extremely unlikely to cause fires. In times of extreme fire risk, disconnect energizer.
- Electric animal fences shall be installed and operated so that they cause no electrical hazard to persons, animals or their surroundings.
- Do NOT become entangled in the fence. Avoid electric fence constructions that are likely to lead to the entanglement of animals or persons.
- **WARNING - INSTALLERS/USERS SHOULD NOTE:** Avoid contacting the fence with the head, mouth, neck or torso. Do not climb over, through or under a multi-wire electric fence. Use a gate or a specially designed crossing point.
- 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 effected 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.
- Follow the energizer manufacturer's recommendations regarding earthing.
- Do not install an earth (ground) system for your electric fence within 10 m (33 ft) of any power, telecommunications or other system.
- Use high voltage lead-out cable in buildings to effectively insulate from the earthed structural parts of the building and where soil could corrode exposed galvanized wire. Do not use household electrical cable.
- Connecting leads that are run underground shall be run in conduit of insulating material or else insulated high voltage lead-out 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 installed 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.
- Crossings with overhead power lines shall be avoided wherever possible. 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 animal fence wires are installed near an overhead power line, the clearances shall not be less than those shown in the table below.

#### Minimum clearances from power lines for electric animal fences

Power line Voltage V	Clearance m
Less than or equal to 1 000	3
Greater than 1 000 and less than or equal to 33 000	4
Greater than 33 000	8

- If connecting leads and electric animal fence wires are installed near an overhead power line, their height above the ground shall not exceed 3 m.  
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 1 000 V;
  - 15 m for power lines operating at a nominal voltage exceeding 1 000 V.
- 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 an earth stake. 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 by electric fence warning signs (G6020) at regular intervals that are 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 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.



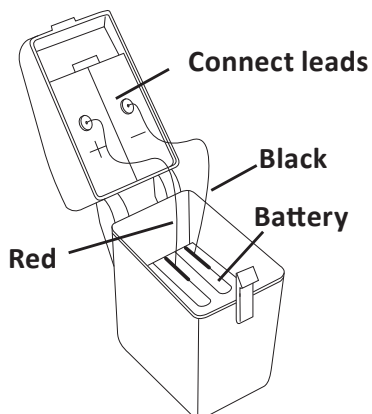
This energizer complies with international safety regulations and is manufactured to international standards. Gallagher reserves the right to make changes without notice to any product specification to improve reliability, function or design. E & OE. The author thanks the International Electrotechnical Commission (IEC) for permission to reproduce information from its International Publication 60335-2-76 ed.2.2 (2013). Annex BB-1. All such extracts are copyright of IEC, Geneva, Switzerland. All rights reserved. Further information on the IEC is available from [www.iec.ch](http://www.iec.ch). IEC has no responsibility for the placement and context in which the extracts and contents are reproduced by the author, nor is IEC in any way responsible for the other content or accuracy therein.

# INSTALLATION GUIDE

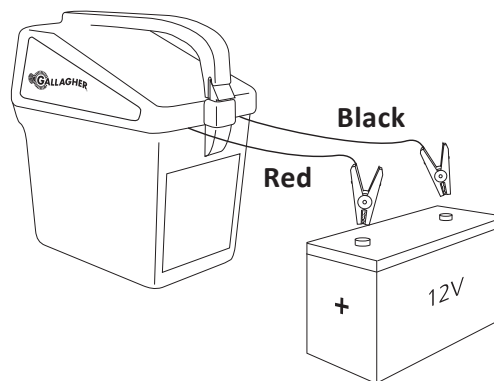
This energizer is designed for simple installation and operation. Please read these instructions. Additional earth connections may be necessary in some areas.

## 1. Connect the battery

### For 9V alkaline battery



### For 12V SLA rechargeable battery



#### **! WARNING:**

Remove internal battery before connecting the 12V SLA external battery.

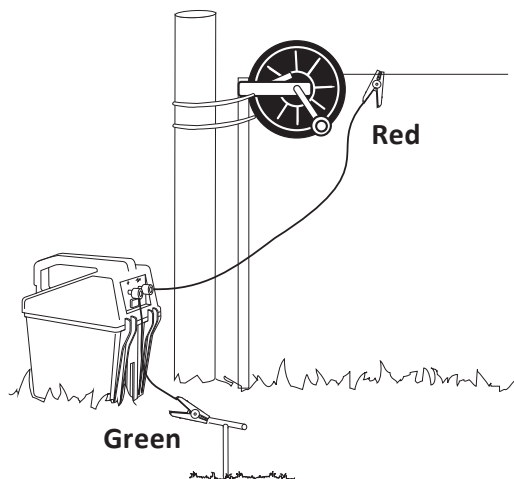
#### **Note:**

12V battery lead set - Optional accessory G596003

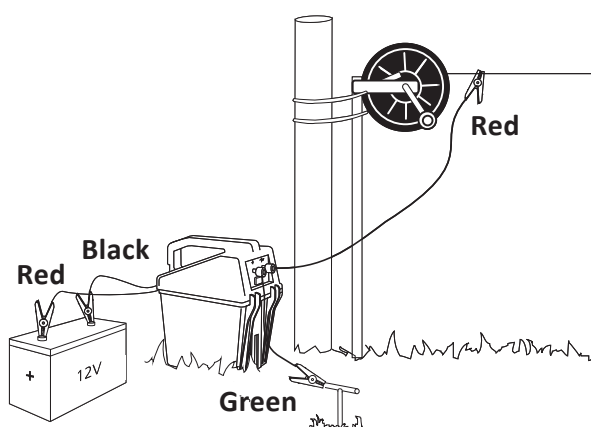
## 2. Connect leads

- Connect the Green earth lead to the earth stake.
- Connect the Red fence lead to the Reel or fence wire.

### For 9V alkaline battery

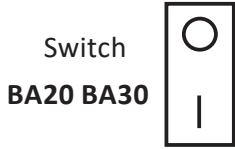
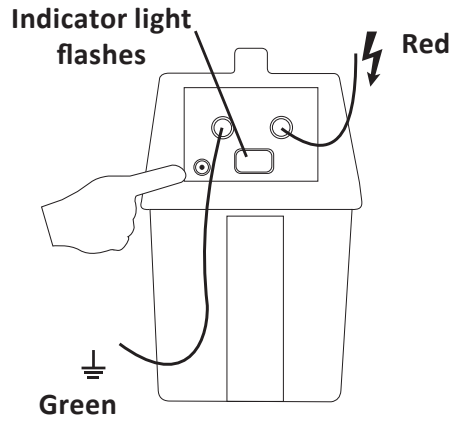


### For 12V SLA rechargeable battery



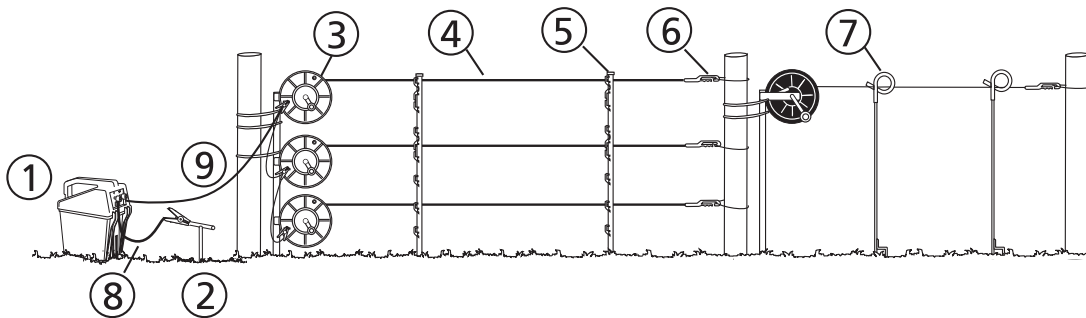
### 3. Switch energizer on

The indicator light flashes green with each fence pulse. No flashing indicates that the battery is flat, or the unit is switched off.



	BA20 BA30	BA40 BA80
○	OFF	OFF
	Normal mode	<b>Full Power Mode</b> Use this mode for training animals
		<b>Normal Mode</b> Manages the performance to give extended battery life

### Portable fence



- 1 Energizer
- 2 Earth stake
- 3 Reel

- 4 Polywire/Turbo Wire
- 5 Treadin Post
- 6 Insul-grip

- 7 Pigtail post
- 8 Earth (Green)
- 9 Live (Red)



## BATTERY LIFE

Battery Life (months)					
	55Ah	120Ah	160Ah	175Ah	210Ah
BA20	3	6	7	8	10
BA30	2	4	5	6	7
BA40 mode I - full power	1	3	4	4	5
BA40 mode II - normal	2	5	6	7	8
BA80 mode I - full power					2
BA80 mode II - normal	1	2	3	4	4

**Note:** BA80 Mode I only suitable for use with 210 Ah battery, rated for 100mA current draw.

### Battery Voltage

<b>BA20 BA30</b>	When the battery voltage is low, the time between pulses increases to more than 2 seconds. This indicates that the battery needs replacing (9V).
<b>BA40 BA80</b>	A red flashing LED indicates the battery voltage is low and the battery needs replacing (9V).

**Note:** There is no low battery indication when using a 12 V battery.

### Important Battery Information

- Use 9V Alkaline or 12V SLA batteries only
- Do not recharge alkaline batteries
- Ensure correct polarity of connections if using a 12V SLA battery
- Remove the battery if the energizer is to be stored unused for a long period
- Do not short circuit battery terminals
- Disposing the energizer – Batteries must be removed from the energizer before the energizer is disposed
- Disposing the battery – Exhausted batteries must be disposed of safely according to local regulations.

# PRODUCT SPECIFICATIONS

	BA20	BA30	BA40	BA80
Battery Type	9V Alkaline			9V 210 Ah Alkaline
	12V Sealed Lead Acid (SLA)(requires adapter G596003)			
Average Current (draw)	24 mA	34 mA	43mA	90mA
Peak Current (draw)	39 mA	61 mA	50 mA	100 mA
Output Voltage (no load)	9.6 kV	9.6 kV	9.6 kV	9.6 kV
Stored Energy	0.17 J	0.25 J	0.4 J	0.8 J
Output Energy (maximum)	0.12 J	0.19 J	0.28 J	0.56 J
Dimensions (HxWxD)	295mm x 160mm x 280 mm			
Weight	1.6 kg			
IP Rating	IPX4			