

Problems

The most common cause of problems with the Fault Finder is flat or poor quality batteries. If your Fault Finder fails to operate, shows no readings, or shows strange symbols on the display, check the battery. If you don't have a battery tester or meter fit a **new** (heavy duty or alkaline) battery and see if the problem disappears. Also see 'Unpacking and Checking'.

Warranty

The Fault Finder is covered by a 3 year warranty against defective parts (excluding batteries) or workmanship. Please see 'For assistance' if you have any problems, return the Fault Finder to JVA along with the warranty slip included with your product, or contact the store of purchase or distributor.

For assistance

If you have any operational problems, difficulties etc. call our nearest JVA dealer. If a service or repair is required please return it to your nearest JVA Service Centre. Alternatively, return it to your local JVA Distributor listed below. More help is available at the WEB site: www.jva-fence.com.au.

The Electric Fence Fault Finder complies with AS/NZS 2064 Group 1 Class B, FCC Part 15, EN55011, EN50082-1.



Important Notes:

- To be used for testing electric fences only. Attempting to measure other high voltages could be extremely dangerous.
- The case is waterproof, condensation can appear inside with large changes in temperature or pressure. Open and allow to dry.
- To clean simply wipe with a damp cloth.
- **Do not open the unit or touch the battery while the Fault Finder is connected to an electric fence, you may damage the unit and receive a shock.**
- DO NOT leave a flat battery in the Fault Finder.

JVA Technologies:

1 Helium Street
PO Box 408
Narangba Qld 4504
AUSTRALIA

Ph: +61 7 31030582
Email: sales@jva-fence.com.au

For a complete list of distributors please see www.jva-fence.com.au



Electric Fence FAULT FINDER

Instructions

Specifications

Voltage: 0.2 to 9.9KV (peak) +/-10%
Current: 1-30 Amps (peak)


Introduction

The Digital Electric Fence FAULT FINDER is the most technologically advanced electric fence fault finder available. It features microprocessor and surface mount technologies to make it the easiest to use and most effective electric fence fault finding device ever made.

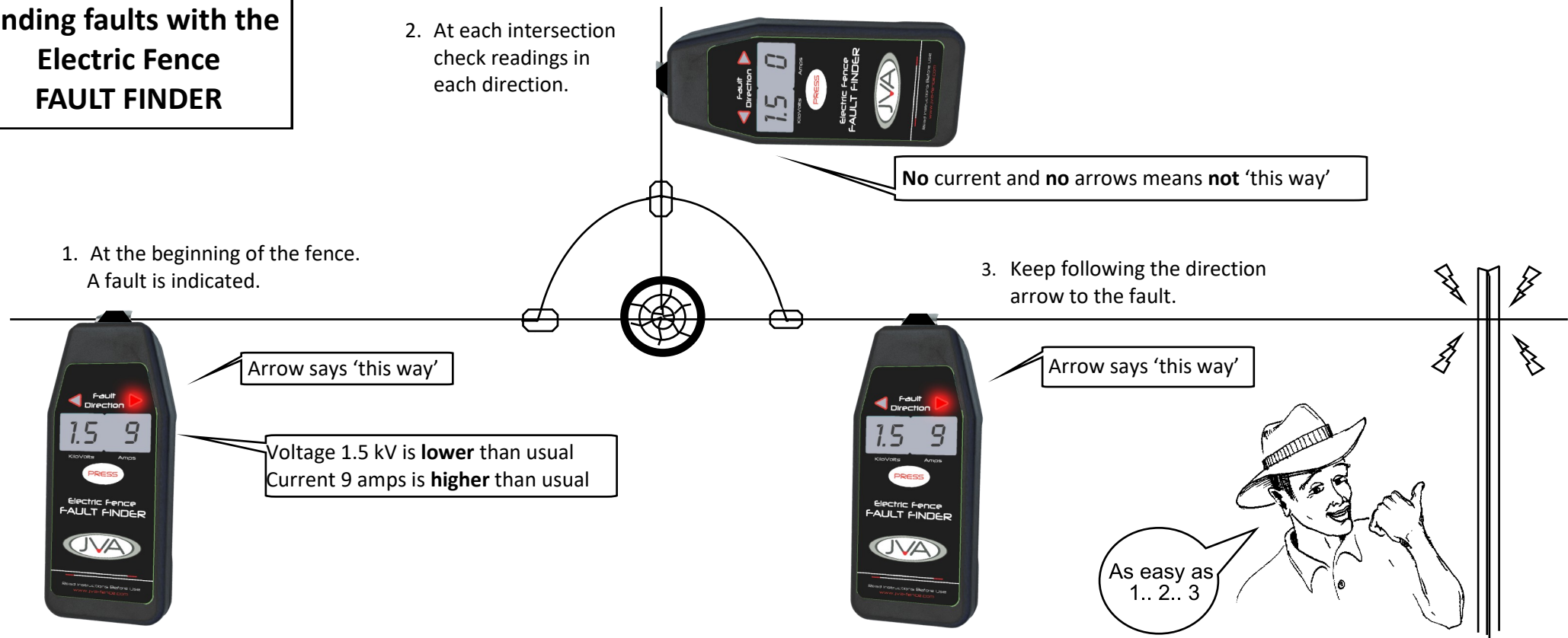
The FAULT FINDER is able to show the peak voltage, peak current and direction to the fault in all electric fences, irrespective of energiser and faults. The FAULT FINDER needs no second (earth) connection to read fence voltage as it uses the capacitance of the user's hand (nothing is felt).

Unpacking and checking

The FAULT FINDER may be packed without a battery or with a battery inside but not connected.

1. Unscrew the 4 large screws from the back of the FAULT FINDER, lift the back carefully (the O-ring may stick), then insert the battery into position. Be sure to match '+' to '+' and '-' to '-'. The FAULT FINDER uses a standard 9 volt battery.
2. Press the button marked PRESS. A decimal place should appear on the left hand side of the display. If no decimal place appears or the battery symbol  remains on the display then replace the battery.

Finding faults with the Electric Fence FAULT FINDER



Types of faults

There are two common types of faults on electric fences:

1. An OPEN CIRCUIT is where the live wire is broken. In the sections of fence after the break there will be NO voltage. These are relatively easy to find by testing the fence for voltage.
2. A SHORT CIRCUIT is where the live wire touches ground or an earth wire, or an insulator breaks down. This leads to a reduced voltage throughout the system and no (or little) voltage at and beyond the fault. When a SHORT circuit occurs a large amount of current flows through the live wires.

Checking your fence

VOLTAGE: Use the FAULT FINDER to measure the voltage on the fence by placing the metal tip over the live wire and pressing the **PRESS** button. The reading is shown by the 2 digits on the left side of the display. If it is **lower** than usual then you may have a short circuit. To be an effective barrier the fence should read higher than 2.5 kV. For **Bi-Polar** Energiser users: A "+" sign in the middle of the LCD shows that the voltage polarity of the wire is positive. This is helpful in determining which of the two live wires you are testing in a Bi-Polar system.

CURRENT: The FAULT FINDER will also be measuring current flow in the fence when the **PRESS** button is pressed. Current flow is shown on the right side of the display. A **higher** than usual reading indicates that you may have a short circuit.

Take the time to "play" with the FAULT FINDER. Place pretend "faults" (short the live wire to

grounded metal) on your fence and "find" them. The experience will be invaluable when you come to find "real" faults. Get to know the "usual" current used by your fence and the "usual" voltages around the system. As a guide, usual current will be approximately 1 amp for every 4 kilometers of live wire. This will also depend on seasonal conditions such as grass and moisture.

Fault Finding Technique

Always start close to the energiser - (But not within 30cm). Where the lead out wire connects to the fence is a good place to start. This way you will always start on the energiser side of a fault.

1. Place the metal tip over the lead out wire and press the **PRESS** button. If the voltage is **lower** than usual and the current is **higher** than usual you may have a short circuit. (see 'Checking your fence') The fault direction arrows will light when the Fault Finder calculates that the leakage (current) is worse (**higher**) than an acceptable value.
2. Follow the direction arrows towards the fault. Check the fence at regular intervals and at every side fence or intersection, also each side of joins and underground cables.
3. If the Fault Finder shows faults in more than one fence line or wire ALWAYS follow the direction with the worst (**highest**) current reading.

Note: for a multiwire fence the current flow will be seen on the "feed" wire but not on the "blind" (dead-end) wires.