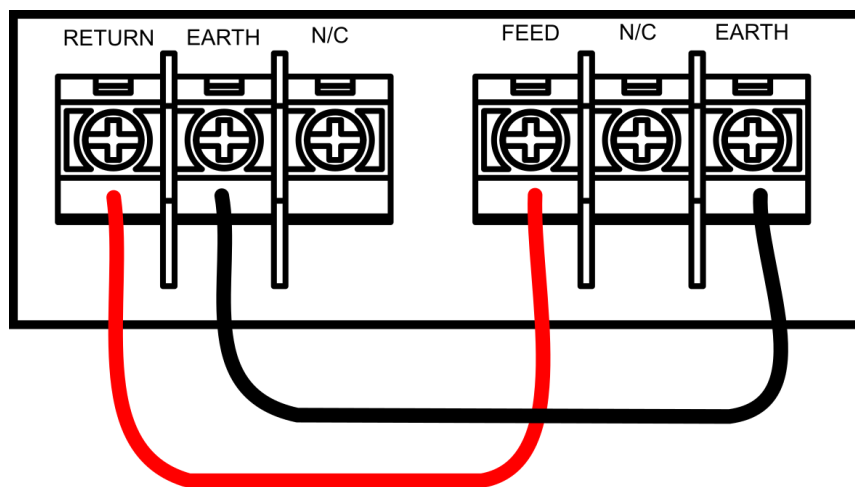# HOW TO BENCH TEST Z-SERIES ENERGIZERS

This document describes a simple "loop back" bench test to ensure that an energizer is working correctly.
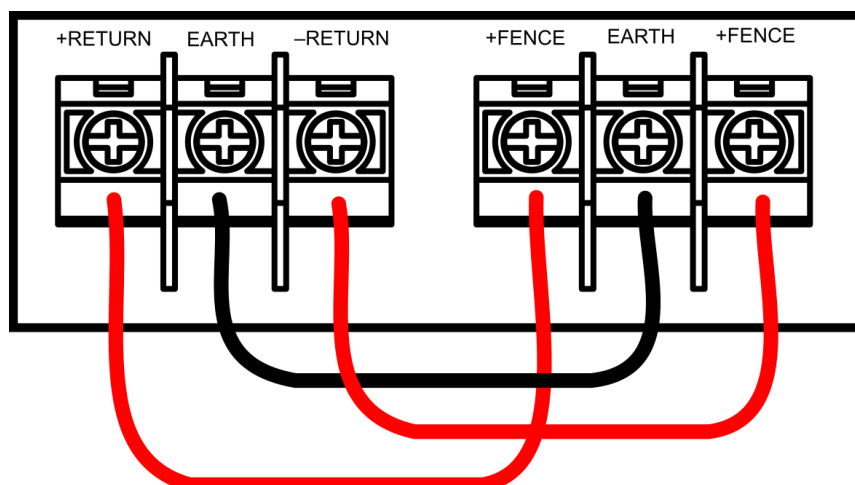Steps:

1. Make sure the energizer is Disarmed
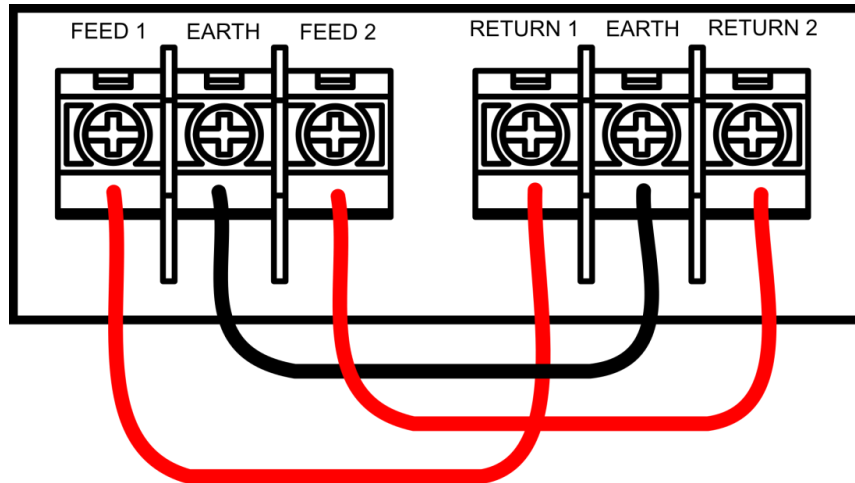2. Wire the high voltage terminals as shown below

STANDARD FENCE WIRING

| RETURN | EARTH | N/C | | FEED | N/C | EARTH |

BI-POLAR FENCE WIRING

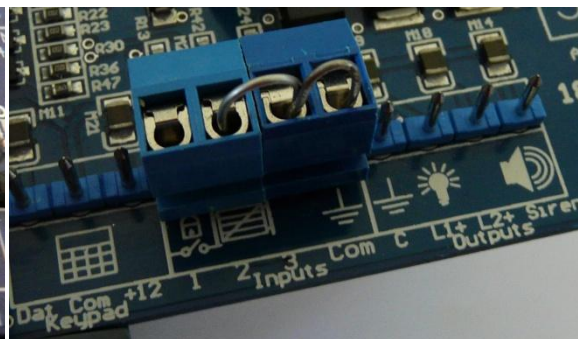| +RETURN | EARTH | −RETURN | | +FENCE | EARTH | +FENCE |

DUAL ZONE ENERGISER WIRING

3. **Put a looped wire over the "gate"** pins of a single zone energizer, or put two looped terminals over the pins marked "2", "3", and "com" over the "inputs" of a dual-zone energizer to stop gate alarm triggering when the energizer is turned armed.
   a. **NOTE:** Skip this if you have a Z14R as this terminal is for Low Power Mode
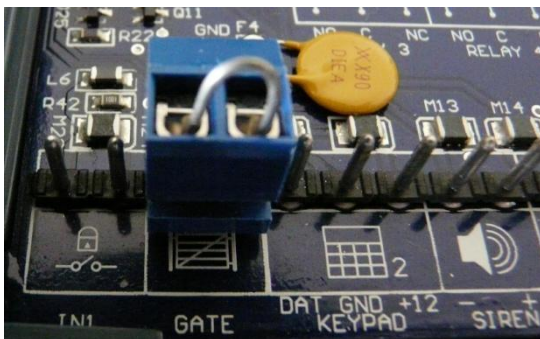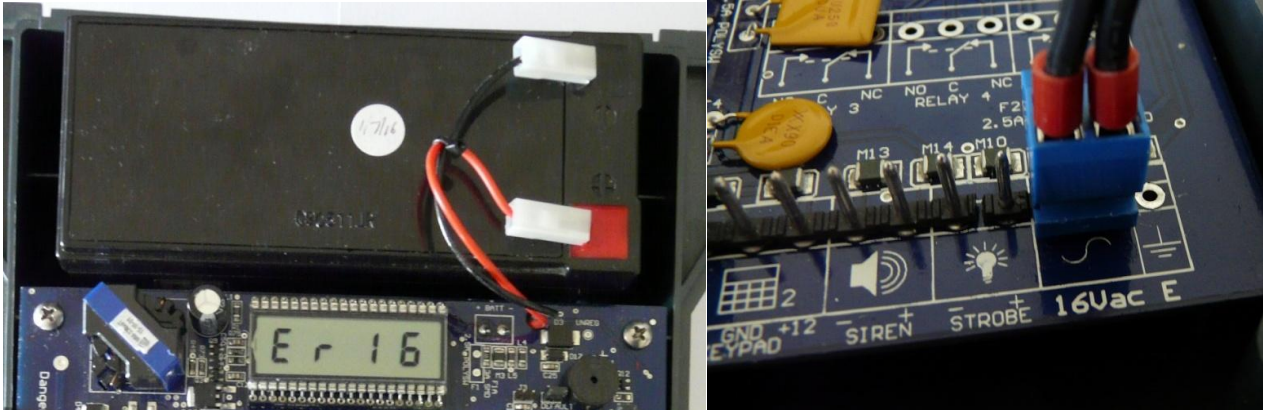

SINGLE-ZONE GATE   DUAL-ZONE GATE

4. **Power the energizer**, by connecting the battery terminals to a 12V lead acid battery. Then connect the 16V AC terminal to the appropriate pins at the bottom of the board.

5. Connect a keypad into the pins marked "KEYPAD" on the bottom of the energizer and Arm the energizer by typing in the User PIN followed by a "#". **The default PIN is 1234.**
   Notes:
   a. The Z14R Energizer has an IR tamper circuit enabled by default that will trip an alarm if the energizer is armed while the case lid is off. Fit a jumper across J3 while testing with the lid off to avoid triggering the alarm.
   b. The Z14R will not arm if the LCD displays Er-16. You will need to default the Energizer for this test.
6. The voltage of the Energiser is displayed on the LCD screen. You should see greater than 8.0kV for Standard (including Dual Zone Energizers) wiring or greater than 4.0kV for Bi-Polar Wiring.
7. Disarm the energizer using the User PIN followed by a "#".

Note: If as an alternative to a Z series keypad, you can wire a switch into IN1 to arm and disarm the energiser.