



# USER MANUAL



# 1 QUICK START GUIDE

## 1.1 THE FULL USER MANUAL

The complete user manuals can be downloaded here:

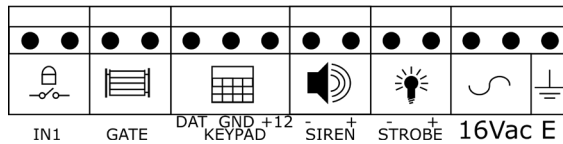
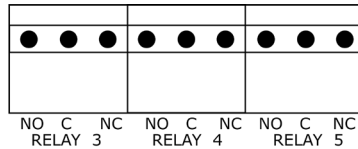
[www.jva-fence.com/z11](http://www.jva-fence.com/z11)

[www.jva-fence.com/z13](http://www.jva-fence.com/z13)

[www.jva-fence.com/z14](http://www.jva-fence.com/z14)

[www.jva-fence.com/z18](http://www.jva-fence.com/z18)

## 1.2 LOW VOLTAGE WIRING



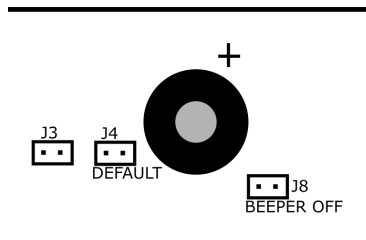
Label	Type	Description
IN1	2 Way	Energizer control input 1 (dry contact) internally wired in parallel with the key switch. Arm energizer when closed
GATE	2 Way	Energizer control input 2 (dry contact). Default function is gate input, normally closed. When the unit is armed and the gate is opened, it will trigger the gate alarm.
KEYPAD	3 Way	Supplies power and data line for an external keypad. The +12 source on these terminals is protected with 1A self resetting fuse.
SIREN	2 Way	Switched 12V output. 30W max, shared between Siren and Strobe. Low side switched
STROBE	2 Way	Switched 12V output. 30W max, shared between Siren and Strobe. Low side switched

Label	Type	Description
16Vac	3 Way	16Vac 1.5A power input plus earth. Connection of the earth is only required where local safety or wiring codes demand it. This should be connected to the cabinet or mains earth NOT the fence earth.
Batt	Battery leads	12V dc or battery connection via F1 (4 Amp slow blow fuse).
Relay 3	3 Way	“Form C” relay with dry contacts. Default operation Fence Alarm
Relay 4	3 Way	“Form C” relay with dry contacts. Default operation Zone Armed
Relay 5	3 Way	“Form C” relay with dry contacts. Default operation General Alarm

## JUMPERS

Jumpers allow you to turn on and off different features, or reset the device to defaults.

JUMPER	FUNCTION
J3	Inhibit AC fail error.
J3(Z14R)	Tamper disable.
J4	Factory default jumper - on for normal operation. Off to return programmable options to factory defaults on power up.
J8	Disable on board beeper
J5, J6 & J7	Supplies +12V to the Common terminal of Relay 3, 4, 5.

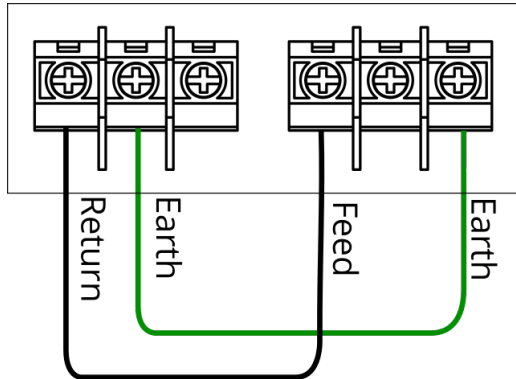


*Jumpers located on the top right hand side of the board*

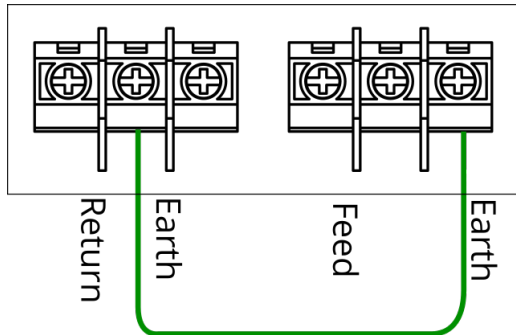
### 1.3 QUICK TEST OF CONFIGURED UNIT

It is a good idea to test the energizer before connecting it to a fence. This will give you confidence that the unit is operating as expected and it also isolates potential fence issues.

To do this, connect your energizer with a “test fence” as shown.



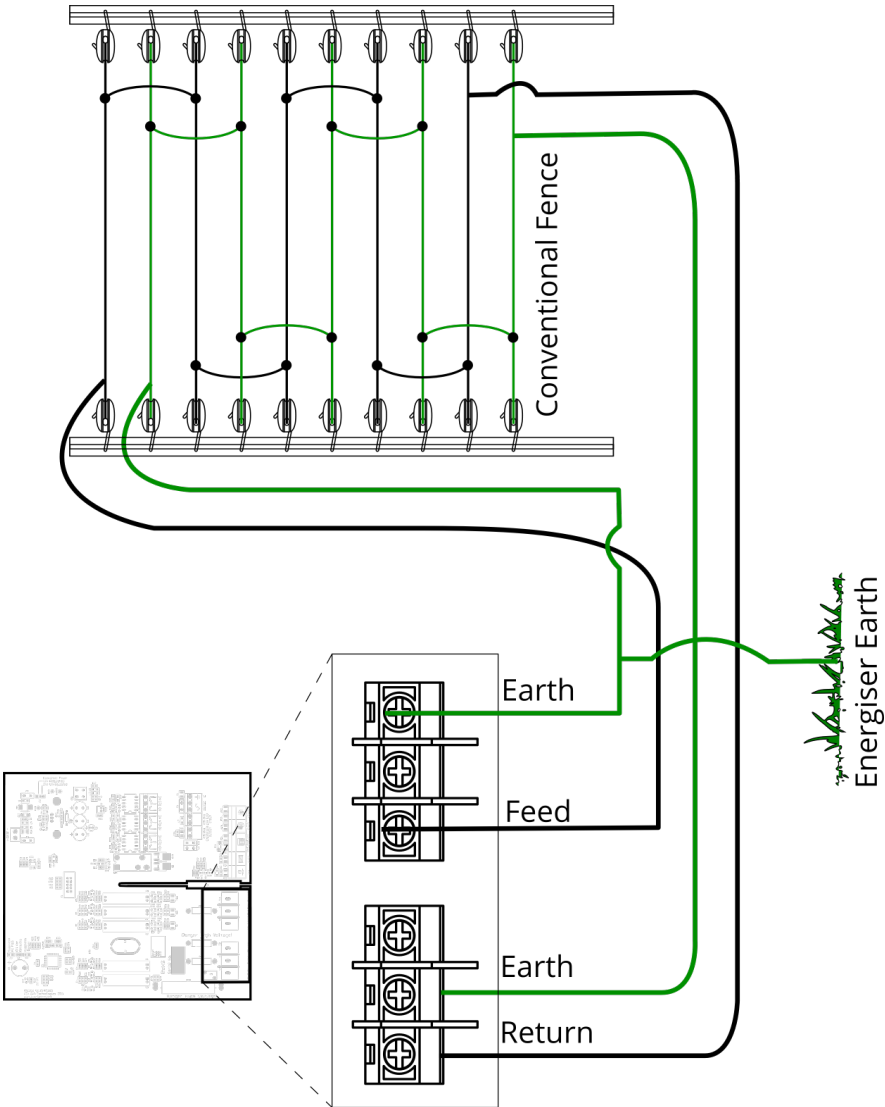
Power the energizer and then Arm it. The unit should begin pulsing and not show any alarms. Disarm the energizer and remove the fence cable as shown.



Arm the energizer once again, after 3 pulses (unless you configured it otherwise) the unit should go into alarm as the fence will appear to be cut. Check that any sirens, strobes or relays activate as expected.

# 1.4 CONNECTING TO THE FENCE

A conventional fence installation including earth loop monitoring.



## 1.5 CHANGING THE PROGRAMMING OPTIONS

Default Installer PIN	012345
Default User PIN	1234

First you have to enter Programming mode.

Command	Key1	Key2	Key3	Key4	Key5	Key6	Key7	Key8	Key9
Enter Programming Mode			Installer Pin				*	0	#

When you have entered Programming mode you can begin to enter the following options to configure your Security Energizer. Default Values are highlighted in grey.

Command	Key1	Key2	Keys 3 and 4		Key5
Change The Installer PIN 6 Digits	0	0	Enter the new 6 digit Installer PIN		#
High Power Mode Power Level	0	1	Enter the value in Hundreds of Volts Example: to set 8.2kV, use 82 for keys 3 and 4. Default is 85 (8.5kV)		#
Low Power Mode Power Level	0	2	Enter the value in Hundreds of Volts Example: to set 1.3kV, use 13 for keys 3 and 4. Default is 11 (1.1kV)		#

Command	Key1	Key2	Keys 3 and 4														Key5
Return Fence Alarm Voltage For High Power Mode	0	3	Enter the value in Hundreds of Volts														#
			Example: to set 3.8kV, use 38 for keys 3 and 4. Default is 40 (4.0kV)														
Return Fence Alarm Voltage For Low Power Mode	0	5	Enter the value in Hundreds of Volts														#
			Example: to set 0.8V, use 08 for keys 3 and 4. Default is 05 (0.5kV)														
Bad/Missed Pulse Count Before Alarm Triggers	0	6	Enter the number of Missed Pulses														#
			Example: to set 14 counts, use 14 for keys 3 and 4. Default is 03														
Battery Alarm Voltage (olts). Alarm Value Shown, Reduced Power is 1V less	0	7	00	01	02	03	04	05	06	07	08	09					#
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5					
Siren On Time (S=Seconds, M=Minutes)	0	8	00	01	02	03	04	05	06	07	08	09					#
			10S	30S	1M	2M	3M	4M	5M	20M	45M	130M					
Siren Off Time (S=Seconds, M=Minutes)	0	9	00	01	02	03	04	05	06	07	08	09					#
			10S	1M	2M	5M	10M	20M	30M	40M	50M	60M					
Siren Cycles	1	0	00	01	02	03	04	05	06	07	08	09					#
			0	1	2	3	4	5	6	7	8	9					

# Quick Start Guide

Command	Key1	Key2	Keys 3 and 4								Key5		
			00	01	02	03	04	05	06	07		08	09
Gate Entry/Exit Delay (S=Seconds, M=Minutes)	1	3	0S	30S	1M	2M	3M	4M	5M	6M	7M	8M	#
Chime Mode	1	4	01	None	02	Door Chime	03	Siren	04	Fence Alarm	05	Gate Beeps Plus Siren	#
Combined Options 1 (add up the options you want. e.g. for Max Power and Limit output: 2 + 4 = 6 Therefore enter 06 for keys 3 and 4	1	6	+2	Maximum Power at all times	+4	Limits output to 2.5J per Zone	+8	Enables IR Tamper.	+16	Stop slaves on comms fail	+32	Stop Energizer sending alarm memory	#
Anti Bridging Threshold	1	7	Enter in the percentage difference required to trigger the Anti-Bridging alarm. e.g. if you require a 10% change in return voltage to trigger the alarm, enter 10 for keys 3 and 4. Default is 00 (Disabled)										#



Command	Key1	Key2	Keys 3 and 4								Key5		
			+1	+2	+4	+8	+16	+32	+64	+128			
Combined Options 2 (like Combined Options 1)	1	8	Siren Chirp on Arm	Enable Entry Exit Gate	4800 Baud	9600 Baud							#
			00	01	02	03	04	05	06	07	08	09	
Auto Re-arm Time S=Seconds, M = Minutes, D=Disabled	2	0	0S	30S	1M	2M	3M	4M	5M	6M	7M		#
												D	
Relay 1	2	1	Options Explained under "1.6.1 Relay Functions" Default is 08										#
Relay 2	2	2	Options Explained under "1.6.1 Relay Functions" Default is 09										#
Relay 3 (Z14R only)	2	3	Options Explained under "1.6.1 Relay Functions" Default is 00										#
Relay 4 (Z14R only)	2	4	Options Explained under "1.6.1 Relay Functions" Default is 02										#
Relay 5 (Z14R only)	2	5	Options Explained under "1.6.1 Relay Functions" Default is 07										#
Group Mode	2	6	00	01	02	etc						15	#
			No Group	Master	Slave 1							Slave 14	
Input 1	2	7	Options Explained under "1.6.2 Input Functions" Default is (Momentary Arm)										#
Input 2	2	8	Options Explained under "1.6.2 Input Functions" Default is 06 (N/O Gate 1)										#

Command	Key1	Key2	Keys 3 and 4	Key5
Exit Programming Mode	*	#		

## 1.5.1 Relay Functions

The table below is for use for the relay programming options mentioned in the table on the previous page.

Keys 3 and 4	Function	Description
00	Fence	Triggers when Zone 1 is Armed and Return Voltage is below the Threshold Voltage In Bipolar - Triggers when the positive output is below the Threshold Voltage
01	Fence or Off	Triggers when Zone 1 is Disarmed or Return Voltage is below the Threshold Voltage
02	Armed	Zone 1 is Armed
03	Fence 2	Bipolar only - Triggers when the negative output is below the Threshold Voltage
06	Fence Bi-Polar	Triggers when energizer is Armed and the fence Return Voltage on either Bi-Polar return line has fallen below the Threshold Voltage
07	General	Triggers on AC Fail, Tamper, Low Battery/Bad Battery, Gate Alarm or Internal error. Latched (internal errors only)
08	Siren	Triggers on Fence Alarm, Gate or Tamper. Will time out after the Siren Time Out time. Latched
09	Strobe	Triggers on Fence alarm, Gate or Tamper. Only turns off on Energizer Disarm. Latched
10	AC Fail	Triggers on AC Fail

Keys 3 and 4	Function	Description
11	Low/Bad Battery	Triggers on Low or Bad Battery
12	Tamper	Triggers when the case has been opened and J3 has been fitted (Z14R only)
14	Gate	Triggers on Gate Alarm
15	Siren Caused by Gate	Behaves like siren, only for Gate Alarms
16	Armed - Low Power Mode	Triggers when Armed in Low Power mode
17	Group Armed	Triggers when group is Armed. Only configurable on group master.
18	Group general	Triggers on group general Alarm. Only configurable on group master.
20	Host Control	This Relay is completely controlled from a Host system such as Perimeter Patrol or a Keypad. If the Host system is disconnected from the Energizer for more than 30 seconds, the Relay will automatically change to the Alarm State
21	Host Control - Not Fail Safe	This Relay is completely controlled from a Host system such as Perimeter Patrol or a Keypad. If the Host system is disconnected then the Relay will maintain its current state until the Host re-connects and requests the relay to change state.

# Quick Start Guide

## 1.5.2 Input Functions

Key3	Input Trigger	Key4	Input Function
0	Normally Open (Active when Closed)	0	Arm when Active / Disarm otherwise
1	Normally Closed (Active when Open)	1	Arm when Active / Disarm otherwise
2	Momentary Toggle (Toggle between states)	2	N/A
3	NO Pulse Extend (Extend a short Close signal by 3 seconds)	3	Low Power when Active / High Power otherwise. Requires Energizer to be Armed
4	NC Pulse Extend (Extend a short Open signal by 3 seconds)	4	Low Power when Active / High Power otherwise. Requires Energizer to be Armed
		5	N/A
		6	Gate is Open when Active / Closed otherwise
		7	N/A
		8	Tamper Alarm triggered when Active
		9	Pass Through input signal to other device

## 1.6 SUMMARY OF KEYPAD FUNCTIONS

Default Installer PIN	012345									
Default User PIN	1234									

Command	Key1	Key2	Key3	Key4	Key5	Key6	Key7	Key8	Key9	Key10
Arm/Disarm		USER PIN			#					
Silence the Energizer Siren	1	4	7	0	#					
Enter Programming Mode		INSTALLER PIN								
Enter Keypad Programming Mode		INSTALLER PIN								
Exit Programming (Any Mode)	*	#								
Change a User PIN, 4 Digits		USER PIN			*	0	#	[New PIN]	#	
Arm All Zones (Multi-Zone Groups)		USER PIN			*	1	0	#		
Arm Specific Zone (up to Zone 15)		USER PIN			*	1	Zone Number		#	
Disarm All Zones		USER PIN			*	2	0	#		
Disarm Specific Zone (up to Zone 15)		USER PIN			*	2	Zone Number		#	
Switch to Low Power Mode (All Zones)		USER PIN			*	4	1	#		
Switch Specific Zone to Low Power		USER PIN			*	4	1	Zone No.	#	#

# Quick Start Guide

Command	Key1	Key2	Key3	Key4	Key5	Key6	Key7	Key8	Key9	Key10
Switch to High Power Mode (All Zones)		USER PIN			*	4	2	#		
Switch Specific Zone to High Power		USER PIN			*	4	2	Zone No.		#
Arm Gate Zone only		USER PIN			*	4	#			
Bypass Siren (All Zones)		USER PIN			*	5	2	#		
Bypass Specific Zone Siren		USER PIN			*	5	2	Zone No.		#
Re-enable Siren		USER PIN			*	5	1	#		
Re-enable Specific Zone Siren		USER PIN			*	5	1	Zone No.		#
Bypass Gate Alarm (All Zones)		USER PIN			*	5	4	#		
Bypass Specific Gate Alarm		USER PIN			*	5	4	Zone No.		#
Re-enable Gate Alarm (All Zones)		USER PIN			*	5	3	#		
Re-enable Specific Gate Alarm		USER PIN			*	5	3	Zone No.		#
Arm in Agricultural Mode (No Alarms)		USER PIN			*	9	Zone No.			
Reset and Display Firmware Version		USER PIN			*	6	8	#		
Reset and Return to Factory Defaults		INSTALLER PIN			*	6	*	6	8	#

Energizer Function	Key1	Key2	Key3	Key4
Clear Alarm Memory	*	1	#	
Display the Group ID of the Energizer	*	2	6	#
Siren Test	*	6	3	#
Battery Test	*	6	4	#

Keypad Specific Function	Key1	Key2	Key3	Key4
Re-Analyse the Energizer Group	*	6	8	#
Keypress Beep On/Off	*	5	1	#
Chimes On/Off	*	5	3	#
Error Tones On/Off	*	5	4	#
Keypad Alarm Tones On/Off	*	5	5	#
Change Backlight Mode	*	8	#	
Display Keypad Model	*	9	#	



DEALER



[WWW.JVA-FENCE.COM](http://WWW.JVA-FENCE.COM) VERSION 25