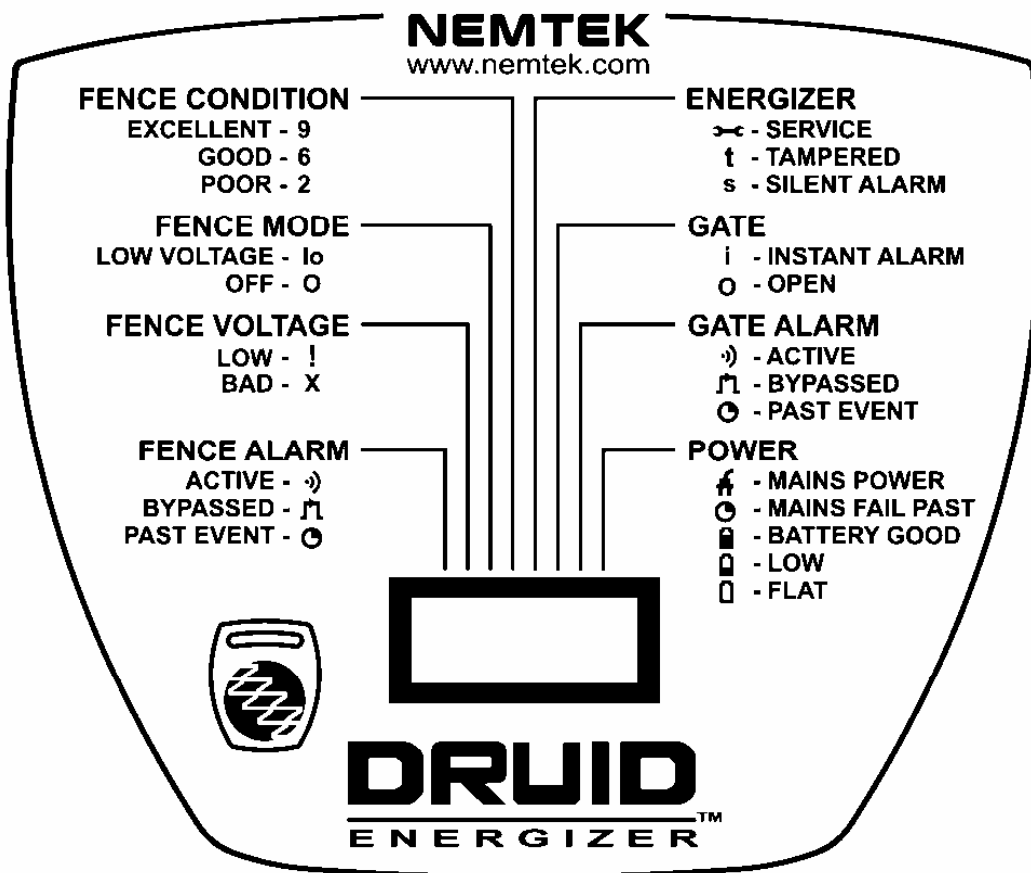




Installer Manual



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INTRODUCTION

The DRUID LCD is a battery (12V 7AH nominal) operated energizer suitable for connection to mains (230V 50Hz nominal).

The batteries to be used are rechargeable lead-acid batteries. Non-rechargeable batteries must not be used. The lead-acid batteries require venting and it is imperative that the energizer be situated in a well-ventilated area.

DISCLAIMER

NEMTEK Holdings (Pty) Ltd or any of its subsidiary companies does not guarantee that the operation of the product will be uninterrupted or totally error free.

Energizer specifications may be altered without prior notification.

The installer is referred to the definitions and general requirements in the Appendix.

The installer must take into consideration the applicable municipal laws concerning the installation of electric fences. General guidelines are available, or refer to the website: <http://www.nemtek.com>. International standards can be viewed at <http://www.iec.ch> and South African standards on <http://www.sabs.co.za>.

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FOREWORD

The DRUID LCD energizer should ideally be operated by means of a remote keypad to obtain access to the many energizer features and receive the greatest protection. It can however be operated by means of a Nemtek tab or remote switch.

The energizer display will be lit with a blue (OFF), green (all is OK), yellow (alarm in history or other medium priority event) or red (active alarm condition exists) background to indicate the energizer's state at a glance and from a distance.

The gate input is active even when the energizer is not energizing the fence. Use the Gate Alarm Bypass function if this input is to be ignored.

The DRUID LCD energizer has many user and installer settings. These settings will be retained even in the event of a total power failure, i.e. the battery runs flat during a prolonged mains failure.

A new battery with a full charge will typically provide in excess of 24 hours backup. Backup time will vary with fence condition though.

The DRUID LCD energizer incorporates an advanced and patented fence voltage regulation, arc detection and avoidance system. What this means is that the fence energy is maintained at a higher level than would normally be achievable using a conventional energizer on the same fence, when factors such as poor or damaged insulators, wet insulators after a rain storm, or salt build up on insulators (at the coast) prevent the fence from supporting a high voltage. A conventional energizer will push all available energy through any arcing that may occur across the insulator, thus reducing the fence's effectiveness. The DRUID LCD energizer however will detect the arcing and then attempt to operate the fence at a voltage just below that at which arcing occurs, thus maintaining higher energy levels on the fence and improving the effectiveness of the fence. Nemtek is the inventor and patent holder of this innovative technology.

MOUNTING & BATTERY REPLACEMENT

STEP 1:

Disconnect mains. Open the lid after removing the two cap screws. Unplug the battery terminals if connected.

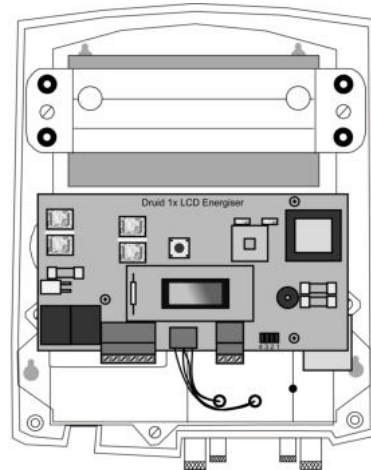
STEP 2:

Remove screws and battery bracket

STEP 3:

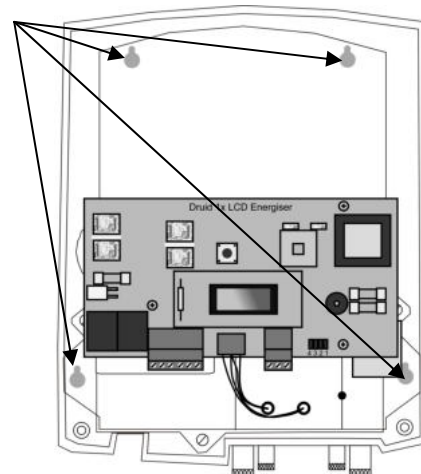
Remove battery

*Dispose of old battery according to legal requirements. Do not replace with a non-rechargeable battery!



STEP 4:

Drill 4 x 8mm holes for mounting the unit. Four nail-in anchors are supplied with the unit. Insert the plastic sleeve of the nail in anchor from the inside of the box and then hammer the screw in with a screw driver and hammer.



NB: Always insert the plastic sleeve from the inside of the box!

STEP 5:

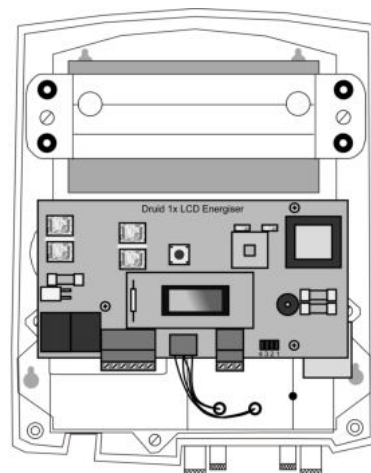
Insert battery with the positive terminal to the top.

STEP 6:

Place the battery bracket back (with plastic offsets at the top) and fasten the screws into place.

STEP 7:

Connect battery wires. Close the lid by hooking the top of the lid in first and then fasten the bottom down with the two cap screws. Apply mains power to the unit.



Note:

Energizer to be mounted vertically against a flat surface, in a well ventilated area. Avoid prolonged exposure to direct sunlight.

PC BOARD REPLACEMENT

STEP 1:

Disconnect mains power and the battery terminals if connected.

STEP 2:

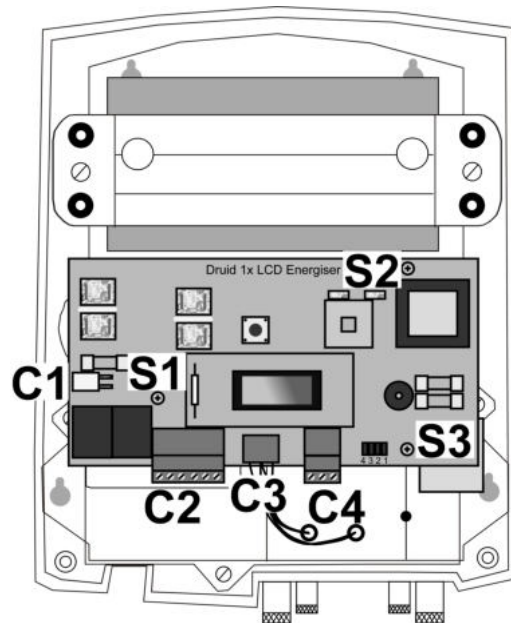
Remove all four connectors, C1 - C4. C3 is removed by pulling upwards on it so that it slides off of the three PCB pins, away from the surface of the PC Board.

STEP 3:

Remove the three PCB screws, S1 - S3.

STEP 4:

To remove the PC Board, gently pull the PC Board upwards, unplugging it from the two connectors beneath it.



STEP 5:

To replace the PC Board, align the spade connectors beneath the PC Board, and gently press the PCB down into place.

STEP 6:

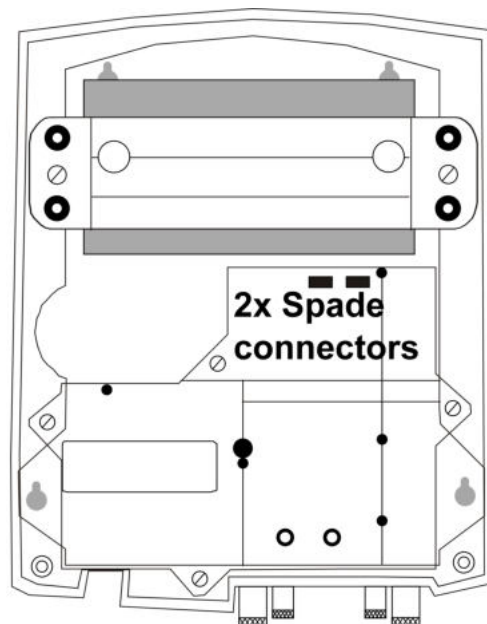
Re-insert and tighten the three PCB screws.

STEP 7:

Reconnect the four connectors to the PC Board.

STEP 8:

Reconnect the battery terminals and apply mains power.

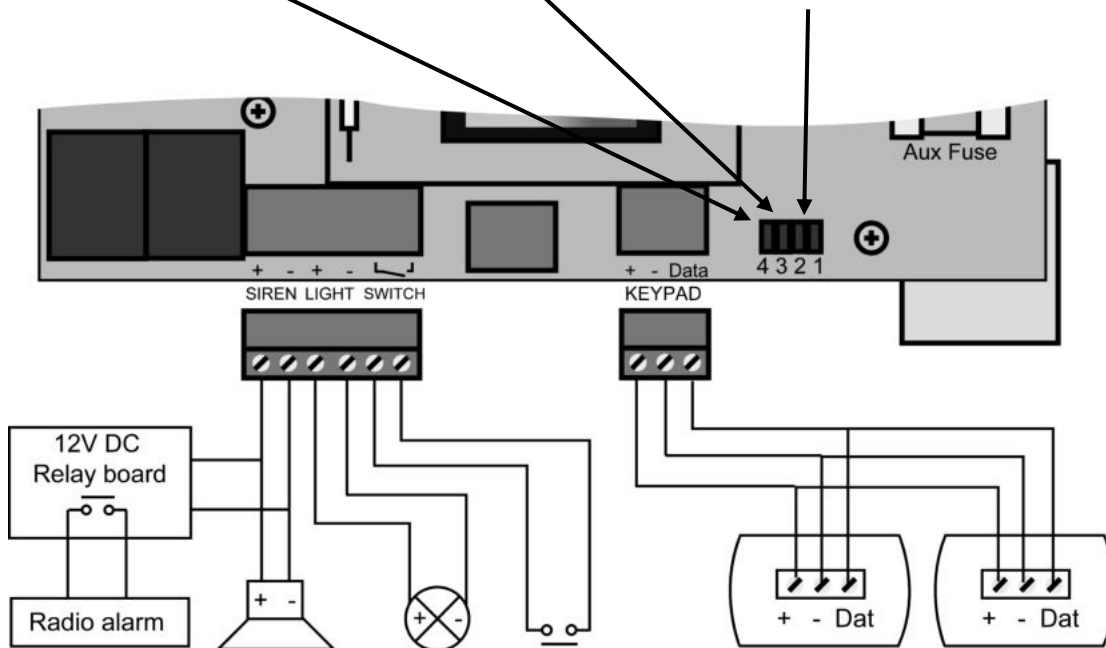


CONNECTIONS & CONFIGURATION

The configuration jumpers can be disabled by entering the installer keypad code **4020*#**.

J3 is enabled only if the configuration jumpers are enabled and the display is set using the keypad to show GOOD, CHECK or BAD, (factory default).

Fence Installation Test Mode Select		LC Display Information Select		Switch Input Function Select		
J4	Description	J3	Description	J2	J1	Description
Off	Test mode disabled	Off	Show GOOD, CHECK or BAD	Off	Off	Gate Switch Input
On	Test mode enabled	On	Show Vp Out, Vp Ret	Off	On	Remote On/Off Input
				On	Off	Panic Button Input
				On	On	High/Low Power Input



20W max
12V DC
Siren

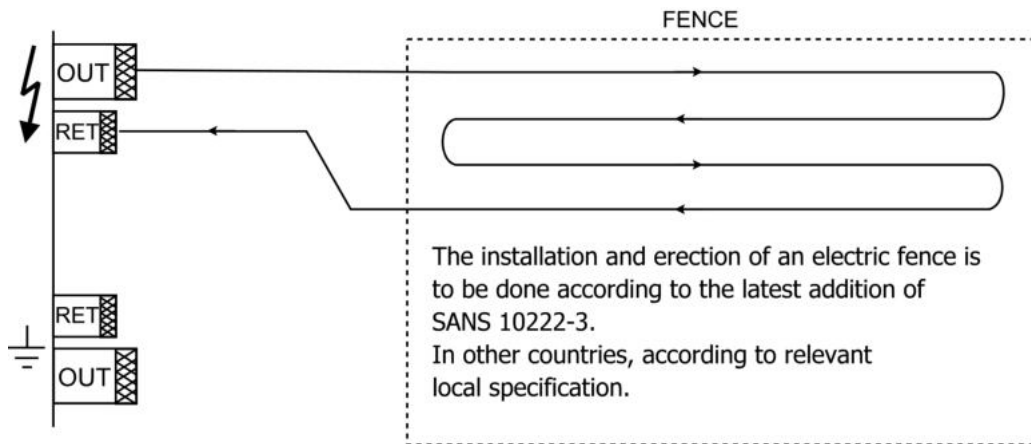
12V DC
Strobe
light

Gate SW
or
On/Off SW
or
Panic SW
or
Hi/Lo SW

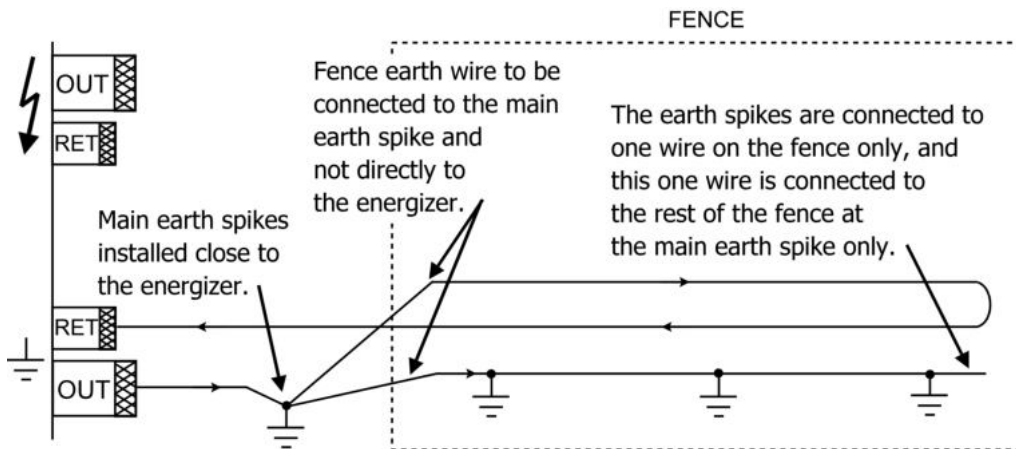
Maximum of two Nemtek
Druid LCD keypads and
100m of comms cable.

FENCE WIRING DIAGRAMS

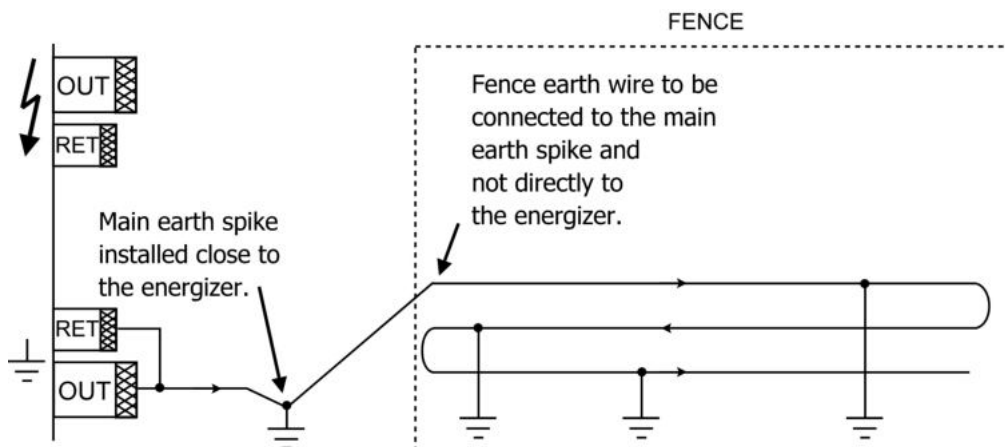
Live wire connection



Earth wire connection with earth loop monitoring (preferred)



Earth wire connection with no earth loop monitoring



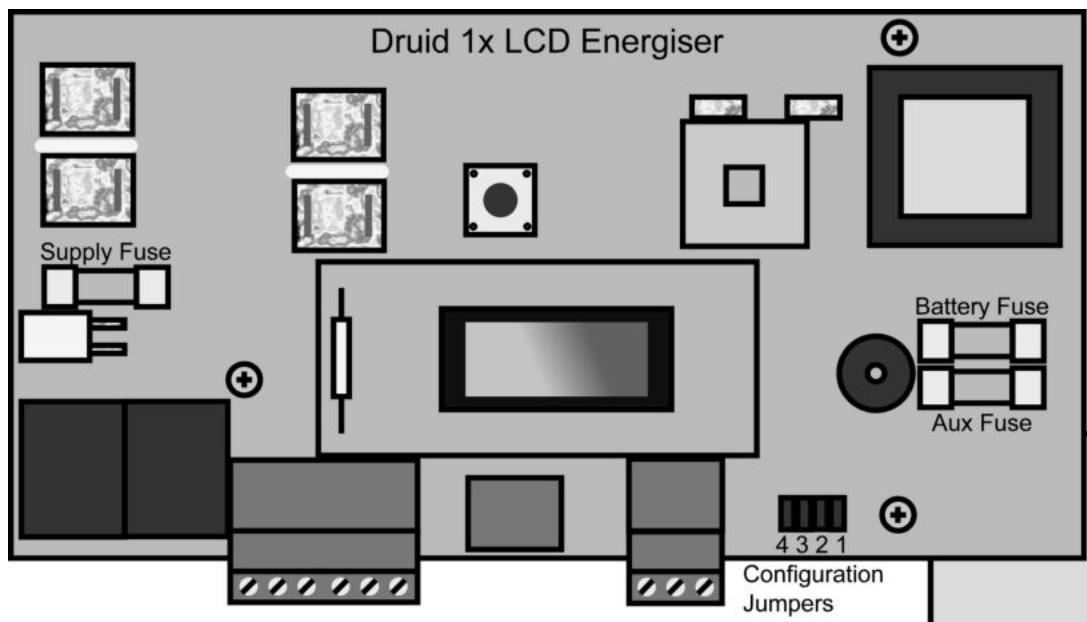
DETAILED SERVICE INDICATORS

When the energizer front cover is opened while displaying a service ⚡ condition, if the service condition is still present, further information will be displayed indicating the cause of the service indicator as listed below.

- A = Aux fuse fault
- I = Fence interference detected
- S = HV Charging circuit fail, SCR fail or rapid triggering
- B = Battery fuse or battery fault
- T = Temperature of internal charging circuitry too high for too long
- V = Output voltage sense error

FUSE DESCRIPTION AND FAULT SYMPTOMS

All Fuses are 2A fast blow.



Supply Fuse:

Energizer displays ☐, ☐ or ☐ instead of the mains present symbol ⚡.

Battery Fuse:

Energizer does not operate when mains power is disconnected.

Aux Fuse:

Siren, strobe, keypad and LCD backlight do not function.

INSTALLATION NOTES

- Keep the wires to the fence separate from the keypad, gate, siren, strobe and mains wiring.
- Do not try and modify the energizer. Any unauthorized modifications will null and void the warranty and possibly render the unit illegal.
- If the remote On/Off facility is used, the wire between the remote switch and the energizer can be up to a 100m in length. The switch contact must be closed for the fence to be energized. For security reasons it is better to use an intelligent FOB on the keypad bus.
- A remote receiver can obtain 12VDC from the keypad bus. Current consumption must not exceed 0.1 Amps. This is not sufficient to supply power for an armed response transmitter.
- The siren and strobe light together must not draw more than 1.75Amps.
- To connect a radio alarm transmitter or alarm panel to the energizer, use an isolation relay between the strobe light output and the panel. Never use the energizer battery to power a radio alarm transmitter or alarm panel.
- The wire between the magnetic gate switch and the energizer can be up to a 100m in length, but must not run in parallel with the fence wires. The gate switch must be open circuit if the gate is open.
- The remote keypad cable must not exceed a 100m in total length. Avoid running this cable in parallel with any fence (high voltage) wires.
- You can connect a total of two keypads or FOB units to one energizer. Each must have a unique address setting.
- Use HT (high voltage) wire between the fence and energizer, including the earth wire. Never run these wires in the same conduit or through the same hole as the low voltage wiring.
- Always use ferrules or line clamps to connect two high voltage wires together. Avoid using dissimilar materials for connections like copper on steel.
- The fence must be earthed properly with three earth electrodes close to the energizer. The distance between the fence earth electrode and any other earth systems shall be not less than 2m for a security fence installation. (Typically a suburban property installation) , and 10m for an agricultural fence installation. (Typically a rural property installation.)
- When replacing the front of the energizer, hook the top in first while holding it an angle and then push it closed at the bottom. Fasten the lid down with the two cap screws.
- Always test the fence after installation for correct short and open-circuit alarming at various points along the fence. Activate the fence installation test mode by inserting configuration jumper J4, and then perform this test. Do not forget to remove J4 after testing has been completed.
- Do not use the energizer with non-rechargeable batteries.
- The energizer contains a sealed lead-acid battery that will vent to the atmosphere under certain conditions. For this reason it is imperative that the energizer be installed in a well ventilated area.
- Refer to the applicable laws concerning the installation of electric fences in your area.

PROGRAMMABLE OPTIONS

RESTORE FACTORY DEFAULTS

2 3 8 9 #

Returns the energizer configuration, including all PINs to their factory default values

Enter this code within 60s of powering the energizer on after complete power removal, i.e mains and battery power removal simultaneously.

ENTER PROGRAMMING MODE

__ _ INSTALLER PIN _ _ * 0 #

Enables programming mode

Programmable options can only be changed once the energizer is placed into programming mode. The keypad will beep three times if the code is accepted. The factory default installer PIN is **012345**. Programming mode will timeout and exit after five minutes or upon entering the ***#** exit code.

CHANGE INSTALLER PIN

0 0 NEW INSTALLER PIN #

Changes the factory default six digit installer PIN to a new six digit PIN

SIREN ON TIME

0 1 m s * #

Sets the siren on (active) time

m = minutes, s = x10 seconds

Programmable range is **0101*#** (10s) to **0141*#** (4m:10s)

Factory default value is **0120*#** (2m:0s)

Siren active time is the amount of time that the siren will sound before automatically turning off, if not reset by the user.

SIREN OFF TIME

0 2 m s * #

Sets the siren off (inactive) time

m = minutes, s = x10 seconds

Programmable range is **0201*#** (10s) to **0241*#** (4min:10s)

Factory default value is **0230*#** (3min:0s)

Siren off time is the amount of time that the siren will be forced to remain off after having automatically timed out (siren on time) from a previous alarm condition.

EVENTS BEFORE RE-ARM TIMEOUT 0 3 0 ? * #

Sets the total unacknowledged events before the re-arm time comes into play
? = total events before re-arm time

Programmable range is **0301*#** (1 event) to **0307*#** (7 events)

Factory default value is **0303*#** (3 events)

See SIREN RE-ARM TIME below.

SIREN RE-ARM TIME 0 4 d h h m m * #

Sets the sirens re-arm time period

d = day, hh = x10 hours + hours, mm = x10 minutes + minutes

Programmable range is **0400001*#** (1min) to **0471402*#** (7d:14h:02min)

Factory default value is **0410000*#** (1d:00h:00min)

The re-arm time comes into play after the siren has sounded for the set number of events without being manually reset by the user. This is required by law to prevent an alarm from sounding indefinitely while the owner is not home to correct the alarm condition.

STROBE LIGHT RELAY FUNCTION 0 0 1 ? * #

Selects between strobe light or fence on/off indication

? = 0 (strobe light) or 1 (fence on/off indication)

Factory default value is **0010*#** (strobe light function)

The strobe light relay can be assigned to be active when an alarm is triggered (0) or to indicate when the fence is energized (1)

GATE SWITCH INPUT FUNCTION 1 1 0 ? * #

Sets the function assigned to the gate switch input, if the configuration jumpers have been disabled. (See code **402?*#**).

? = 0 (gate), 1 (remote on/off), 2 (panic button), 3 (fence high/low power)

Factory default value is **1100*#** (gate input)

As a gate switch input, open circuit represents the gate is open.

As a remote on/off input, the fence is activated and deactivated as detailed in the GATE INPUT TOGGLE SELECT function below.

As a panic button input, the alarm will sound if the input is open circuited.

As a fence high/low power input, the fence will run in high power mode when the input is closed circuit and in low power mode when the input is open circuit.

GATE INPUT TOGGLE SELECT **1 1 1 ? * #**

Selects toggling or direct on/off control of the fence, when the gate switch input is assigned the remote on/off function above.

? = 0 (direct control) or 1 (toggle control)

Factory default value is **1111*#** (toggle control)

With direct control, the fence is energized when the switch input is open circuit.

With toggle control, the fence operating state is toggled each time the switch input changes from a closed to open circuit.

GATE ALARM DELAY TIME **1 0 m s * #**

Sets the gate alarm delay time

m = minutes, s = x10 seconds

Programmable range is **1001*#** (10s) to **1041*#** (4min:10s)

Factory default value is **1010*#** (1min:0s)

The gate alarm will only sound once the gate has remained open for longer than the GATE ALARM DELAY time. The GATE ALARM INSTANT user code can be used to temporarily override this delay period, and the GATE ALARM BYPASS user code can be used to temporarily disable the gate alarm function.

FENCE CONDITION CHECK LEVEL **2 0 1 ? * #**

Sets the value at which the CHECK message will be displayed should the fence condition indicator reduce to or below this set value.

? = check level between 3 and 6

Programmable range is **2013*#** (3 = fair to poor) to **2016*#** (6 = good)

Factory default value is **2014*#** (4 = fair)

FENCE STATE AT POWER ON **2 0 2 ? * #**

Sets the operating state that the fence is returned to after a complete power failure has ended.

? = 0 (off), 1 (on) or 2 (fence returns to on/off state at power loss)

Factory default value is **2022*#** (fence returns to on/off state at power loss)

A complete power failure occurs when the energizer shuts down due to the internal battery running flat during a prolonged mains power failure.

FENCE INTERFERENCE ALARM 2 0 3 ? * #

Enables or disables the fence interference detected alarm function.

? = 0 (disabled), 1 (enabled)

Factory default value is **2031*#** (enabled)

Fence interference may occur when a neighboring fence come into contact with the fence been driven by this energizer, when overhead power lines induce voltage onto the fence, or when criminals attempt to defeat the energizer fence alarm detection mechanism.

FENCE HIGH POWER VOLTAGE 2 1 k v * #

Sets the energizer output voltage during high power operation.

k = kilo volts, v = x100 volts

Programmable range is **2160*#** (6.0kV) to **2192*#** (9.2kV)

Factory default value is **2190*#** (9.0kV)

The fence condition indication value is affected by this value. Setting this value to a lower voltage will cause the fence condition indication to increase towards 9 (excellent) as the energizer works less hard to maintain the lower set voltage on the fence.

FENCE HIGH POWER CHECK LEVEL 2 2 k v * #

Sets the value at which the CHECK message will be displayed should the fence return voltage reduce to below this set value when operating in high power mode.

k = kilo volts, v = x100 volts

Programmable range is **2230*#** (3.0kV) to **2260*#** (6.0kV)

Factory default value is **2240*#** (4.0kV)

The check level must always be set above the alarm level for the new setting to be accepted.

FENCE HIGH POWER ALARM LEVEL 2 3 k v * #

Sets the value at which the BAD message will be displayed, and at which the alarm will sound should the fence return voltage reduce to or below this set value when operating in high power mode.

k = kilo volts, v = x100 volts

Programmable range is **2320*#** (2.0kV) to **2350*#** (5.0kV)

Factory default value is **2330*#** (3.0kV)

The alarm level must always be set below the check level for the new setting to be accepted.

FENCE ALARM DELAY**2 5 ? ? * #**

Sets the number of violating fence pulses that have to occur before the alarm is activated.

?? = number of pulses before alarm occurs

Programmable range is **2501*#** (1 pulse) to **2515*#** (15 pulses)

Factory default value is **2503*#** (3 pulses)

FENCE LOW POWER VOLTAGE**2 7 k v * #**

Sets the energizer output voltage during low power operation.

k = kilo volts, v = x100 volts

Programmable range is **2710*#** (1.0kV) to **2730*#** (3.0kV)

Factory default value is **2715*#** (1.5kV)

FENCE LOW POWER ALARM LEVEL**2 8 k v * #**

Sets the value at which the BAD message will be displayed, and the alarm will sound should the fence return voltage reduce to or below this set value when operating in low power mode.

k = kilo volts, v = x100 volts

Programmable range is **2805*#** (0.5kV) to **2825*#** (2.5kV)

Factory default value is **2808*#** (0.8kV)

FENCE CONTROL ALGORITHM**3 0 1 ? * #**

Sets the fence control algorithm.

? = 0 (conventional) or 1 (arc detection and avoidance)

Factory default value is **3011*#** (arc detection and avoidance)

Conventional control will output a maximum of 8kV onto the fence to reduce the risk of arcing across insulators. Setting the FENCE HIGH POWER VOLTAGE to a value greater than 8kV will not raise the output voltage beyond 8kV when using conventional control.

MAGNETIC SWITCH**4 0 1 ? * #**

Enables or disables the magnetic switch.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4011*#** (enabled)

When using a keypad, disable the magnetic switch to increase the level of security offered.

CONFIGURATION JUMPERS**4 0 2 ? * #**

Enables or disables the configuration jumpers.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4021*#** (enabled)

TAMPER ALARM**4 0 3 ? * #**

Enables or disables the tamper alarm function.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4031*#** (enabled)

When enabled, the tamper alarm will sound if the energizer front is opened while the fence is energized. The tamper symbol **t** will always be shown on the display, regardless of whether the tamper alarm is enabled or disabled.

SERVICE ALARM**4 0 4 ? * #**

Enables or disables alarming during a service condition.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4041*#** (enabled)

DISPLAY INSTALLER TEL NUMBER**4 0 5 ? * #**

Enables or disables the displaying of the installers telephone number during a service condition.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4050*#** (disabled)

When enabling this function, don't forget to set a new telephone number using the (10 digit new telephone number)# code below.

SHOW KEY PRESSES ON LCD **4 0 6 ? * #**

Enables or disables the displaying of keypad key presses on the energizer display.

? = 0 (disabled) or 1 (enabled)

Factory default value is **4061*#** (enabled)

For increased security when the energizer and keypad are far apart, it may be desirable to disable this function and so prevent the user PIN being read from the energizer display.

SOLAR POWER INSTALLATION **4 0 7 ? * #**

Modifies the energizer operation for permanent battery operation.

? = 0 (disabled, requires mains power) or 1 (solar installation)

Factory default value is **4070*#** (disabled)

If the energizer is to be run permanently from battery power, which is typically the case when running a solar powered site, then enabling this function will prevent the energizer from reacting to mains power loss as an error condition.

SET INSTALLER TEL NUMBER **__ 10 Digit Installer Tel Number __ #**

Sets the telephone number to be displayed during a service condition.

The telephone number must be exactly 10 digits long and the displaying of this number must be enabled, as the factory default is to not display this number. (See code **4051*#**)

EXITING PROGRAMMING MODE *** #**

Exits programming mode.

APPENDIX

Basic definitions

- **Electric Fence:**
A barrier which includes one or more electric conductors, insulated from earth, to which electric pulses are applied by an energizer
- **Connecting Lead:**
An electric conductor, used to connect the energizer to the electric fence or the earth electrode
- **Electric Security Fence:**
A fence used for security purposes which comprises an electric fence and a physical barrier electrically isolated from the electric fence
- **Public Access Area:**
Any area where persons are protected from inadvertent contact with pulsed conductors by a physical barrier
- **Pulsed Conductors:**
Conductors which are subjected to high voltage pulses by the energizer
- **Secure Area:**
An area where a person is not separated from pulse conductors below 1,5m by a physical barrier

General requirements for electric security fences

Electric fences shall be installed and operated so that they cause no 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 shall not be supplied from two different energizers or from independent fence circuits of the same energizer.

For any two different electric fences, each supplied from a different energizer with independent timing, the distance between the wires of the two electric fences shall be at least 2.5m. If this gap is to be closed, this shall be affected by means of electrically non-conductive material or an isolated metal barrier.

Barbed wire or razor wire shall not be electrified by an energizer.

Any part of an electric fence which is installed along a public road or pathway shall be identified at frequent intervals by prominently placed warning signs securely fastened to the fence posts or firmly clamped to the fence wires. The size of the warning signs shall be at least 100mm x 200mm. The background colour of both sides of the warning plate shall be yellow. The inscription on the plate shall be in black.

The warning sign shall typically appear as depicted in the figure below. The inscription shall be indelible, inscribed on both sides of the warning plate and have a height of at least 25mm.



Warning signs shall be placed at;

- each gate
- each access point
- intervals not exceeding 10m
- adjacent to each sign relating to chemical hazards for the information of emergency services.

Gates in electric security fences shall be capable of being opened without the person receiving an electric shock.

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

Connecting leads that are run underground shall be run in a conduit of insulating material or else insulated high voltage cable shall be used. Care shall be taken to avoid damage to the connecting leads due to external factors.

Connecting leads 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.

Mains supply wiring shall not be installed in the same conduit as signaling leads associated with the electric security fence installation.

Where an electric security fence passes below bare power line conductors, the highest metallic element shall be effectively earthed for a distance of not less than 5m on either side of the crossing point.

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

<u>Power Line Voltage</u>	<u>Clearance</u>
Equal or less than 1kV	3 meter
Greater than 1kV, but equal or less than 33kV	4 meter
Greater than 33kV	8 meter

If connecting leads and electric fence wires are installed near an overhead power line, their height above the ground shall not exceed 3m.

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

- 2m for power lines operating at a nominal voltage not exceeding 1kV
- 15m for power lines operating at a nominal voltage exceeding 1kV

Electric security fences and their ancillary equipment shall be installed, operated and maintained in a manner that minimizes danger to persons, and reduces the risk of persons receiving an electric shock unless they attempt to penetrate the physical barrier, or are in a secure area without authority. Exposed conductive parts of the physical barrier shall be effectively earthed.

A spacing of 2.5m shall be maintained between non insulated electric fence conductors or non insulated connecting leads supplied from different energizers. This spacing may be less where conductors or connecting leads are covered by insulating sleeving, or consist of insulated cables, rated to at least 10kV.

This requirement need not apply where the separately energized conductors are separated by a physical barrier, which does not have any openings greater than 50mm.

A vertical separation of not less than 2m shall be maintained between pulsed conductors fed from different energizers.

Ensure that all ancillary equipment connected to the electric security 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 from 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.

PROGRAMMABLE OPTIONS SUMMARY

RESTORE FACTORY DEFAULTS	2 3 8 9 #
ENTER PROGRAMMING MODE	(6 digit installer PIN) * 0 #
CHANGE INSTALLER PIN	0 0 (new 6 digit installer PIN) #
SIREN ON TIME	0 1 m s * #
SIREN OFF TIME	0 2 m s * #
EVENTS BEFORE RE-ARM TIMEOUT	0 3 0 ? * #
SIREN RE-ARM TIME	0 4 d h h m m * #
STROBE LIGHT RELAY FUNCTION	0 0 1 ? * #
GATE SWITCH INPUT FUNCTION	1 1 0 ? * #
GATE INPUT TOGGLE SELECT	1 1 1 ? * #
GATE ALARM DELAY TIME	1 0 m s * #
FENCE CONDITION CHECK LEVEL	2 0 1 ? * #
FENCE STATE AT POWER ON	2 0 2 ? * #
FENCE INTERFERENCE ALARM	2 0 3 ? * #
FENCE HIGH POWER VOLTAGE	2 1 k v * #
FENCE HIGH POWER CHECK LEVEL	2 2 k v * #
FENCE HIGH POWER ALARM LEVEL	2 3 k v * #
FENCE ALARM DELAY	2 5 m s * #
FENCE LOW POWER VOLTAGE	2 7 k v * #
FENCE LOW POWER ALARM LEVEL	2 8 k v * #
FENCE CONTROL ALGORITHM	3 0 1 ? * #
MAGNETIC SWITCH	4 0 1 ? * #
CONFIGURATION JUMPERS	4 0 2 ? * #
TAMPER ALARM	4 0 3 ? * #
SERVICE ALARM	4 0 4 ? * #
DISPLAY INSTALLER TEL NUMBER	4 0 5 ? * #
SHOW KEY PRESSES ON LCD	4 0 6 ? * #
SET INSTALLER TEL NUMBER	(10 digit installer tel number) #
EXITING PROGRAMMING MODE	* #

DOCUMENT REVISION HISTORY

1 May 2009, Rev 1.0 First release.
21 Sep 2009, Rev 1.1 Pg12, 'Siren off Time' typo in example codes corrected.