

ELECTRIC FENCING PRODUCTS THAT DELIVER PEACE OF MIND



safe, smart, secure.

NEMTEK
Electric Fencing Products





peace of mind.

Nemtek, a pioneer in its field, has become the benchmark for the security electric fencing industry. The Nemtek group manufactures a full range of energizers and fencing hardware and has become a globally known and respected company.

Nemtek products have become a household name and are now being specified by many governments, local authorities and industries as the product of choice to protect their utilities, correctional facilities and defence infrastructures. This has been achieved by Nemtek's continuous innovation, fast response to the changing dynamics experienced in the security field, the reliability of their products and the continuous support and close working relationship with their clients.

This brochure offers you a holistic look into the electric fencing products that Nemtek designs and manufactures, which include a comprehensive range of electric fencing energizers and a complete range of fencing hardware. The Nemtek range addresses many types of fencing needs ranging from domestic, retail and commercial, to airports, power stations, defence facilities and utilities.

Nemtek's experience in the security field has revolutionised the way game farm and animal farm energizers are designed, not only to keep animals in, but now they also offer security experience and communication techniques to combat the theft of animals by poachers.

For more details and information on Nemtek's products visit – www.nemtek.com

ELECTRIC FENCING PRODUCTS THAT DELIVER PEACE OF MIND



freedom.

WHY ELECTRIC FENCING FOR SECURITY?

DETER, DETECT AND DELAY

A high voltage shock combined with a physical barrier will deter anyone from attempting to penetrate the perimeter fence.

The detecting ability of a Nemtek electric fence energizer will give an alarm when the perimeter of the property being protected has been infiltrated.

By keeping the perimeter protected using an electric fence, the attempted break in of the protected area is delayed, giving additional time for a reaction team to respond.

WHY SECURITY ELECTRIC FENCING FOR GAME AND ANIMAL CONTROL?

Traditionally electric fence energizers for animal farming control did not have a fence monitor to detect a break in the fence.

The detecting feature has become an integral part of game and animal control. It allows the user to monitor the condition of the fence at the energizer without having to patrol the fence regularly, thus saving time and money. Poaching of game is an additional problem faced by game reserves and game farms but the security features offered by the Nemtek electric fencing energizers can assist in this battle.

NEMTEK™ FAMOUS BRANDS

- **Druid™ energizers**
- **Wizord™ energizers**
- **Merlin Stealth™ energizers**
- **Sage™ management systems**
- **FenceScope™ fence tool**



Nemtek has become the benchmark in the electric security fencing industry.

The Nemtek group manufactures and supplies a full spectrum of energizers and fencing hardware for industrial, commercial and residential applications, and is the product of choice to protect and deliver peace of mind.

Patents:

Nemtek's innovative culture has resulted in the company filing for many patents and trademarks around the world to protect its intellectual property and inventive spirit.

CONTENTS

ENERGIZERS

Druid™ 2	1
Druid™ 13 LCD, 15 LCD	2
Wizord™ 4	3
Merlin 4	3
Merlin Stealth M15S, M18S, M25S, M28S	4
Merlin Stealth M113S	5
Nemtek keypads	5
Energizer specifications	6

NETWORKED ENERGIZER AND COMMUNICATING ACCESSORIES

Merlin Stealth Master M25S, M28S	8
Communication cards	8
Sage™ and Fence Probe Software	9
Proxy management system	10

FENCING BRACKETS AND ACCESSORIES

Wall top bracket	11
Bracket accessories	12
Omega brackets	13
Offset brackets	14
Free standing brackets	15

FENCING WIRES AND CABLES

Fence wires	16
High voltage cable	17
Wire and cable connectors	17

INSULATOR RANGE

Plastic insulators	18
Porcelain insulators	19

GATE CONTACTS

	19
--	----

WIRE TENSIONING SYSTEMS

	20
--	----

GENERAL FENCING ACCESSORIES

Fencing tools and wire dispensers	22
Fence Scope™ multi tool	23
Energizer enclosures	24
Gate handle and springs	24
Earth spikes	24
Cut out switch	24
Magnetic contacts	24
Warning devices	25
Earth loops	26
Lightning diverters	27
General information	27

ENERGIZERS

DRUID™ 2



The Druid 2, a recent introduction to the extensive range of security energizers, was created for the needs of smaller fence requirements in an urban environment. Many features that are only available on our higher end energizers are now offered as a standard to this range. The Druid 2 can work as a standalone unit using an on/off tag to keep the operation very basic and simple to operate.

FEATURES

- High voltage monitor will alarm when the live wires are tampered with
- Earth wire monitor alarms when there is tampering with the earth wires
- Easy to use tag switch for controlling the unit
- Connectable to an armed response radio
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy



DRUID™ 13 LCD, 15 LCD



The Druid 13 and 15 offer 3.0 J and 4.6 J output energy and even though they belong to the Druid 2 range, these products offer many more benefits.

Using the Adaptive Power Technology (APT), pioneered and patented by Nemtek, these two energizers offer a new and unique method in detecting how much power a fence can accept and handle before it starts to arc and waste energy, thus maximising the power on the fence.

Changes in the surrounding environment can affect a fence's efficiency. The APT actively analyses the fence and adapts the transfer of power as required to ensure maximum performance.

These Nemtek energizers are an excellent choice for coastal areas, where the salt build-up during the dry season can result in increased power losses along the fence. The APT feature will modify the output pulse to maximise the transfer of power onto the fence and minimise arcing. The energizer ensures that the fence only receives the amount of power it can manage thus making it energy efficient and economical.



- LCD display shows information which is quick and easy to read
- The background colours of the LCD display, give a quick glance indication of the energizer status without the user having to approach the unit in order to read the display. For example "green" indicates all is fine, "orange" indicates that attention is required and "red" indicates an alarm condition. The coloured lights are visible from a distance, and are quick to spot
- The Druid LCD range can accept up to two keypads to remotely control the energizer
- Quick walk test mode on the system offers the installer a quick test facility to walk the fence and test it
- High voltage monitor will alarm when the live wires are tampered with
- Earth wire monitor alarms when there is tampering with the earth wires
- Easy to use tag switch for controlling the unit if the keypad option is not used
- Connectable to an armed response radio
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Internal battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy

WIZORD™ 4



The Wizord 4 is the logical choice for domestic and light industrial installations where a medium powered energizer is required. This generation of energizers has been field tested for many years and boasts unsurpassed reliability. Simple to install and easy to maintain.

FEATURES

- High voltage monitor will alarm when the live wires are tampered with
- Earth wire monitor will alarm when the earth wires are tampered with
- Easy to use tag switch for controlling the unit
- Can be upgraded to a Merlin 4 energizer
- Connectable to an armed response radio
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- Siren and strobe outputs to indicate fence condition

MERLIN 4



The Merlin 4 offers what the Wizord 4 has in terms of features, but with remote control through a dedicated keypad. The keypad also allows the user and the installer to program and control the energizer from a remote location. This allows the energizer to be installed near the fence and the keypad to be located where it is most convenient for the user. Additional features that the standard Wizord does not have, can be enabled through the keypad.

FEATURES

- Siren trigger times and frequency can be adjusted as required
- Voltage outputs can be controlled to reduce or increase the output energy as required by the user
- High and low voltage modes to change the power output of the energizers and yet keep the alarming capability intact
- Gate chime to notify if the gate has been opened and closed
- Bypass options for the siren, strobe and gate as required
- Siren times can be programmed to suit the different needs of the user

MERLIN STEALTH M15S, M18S, M25S, M28S

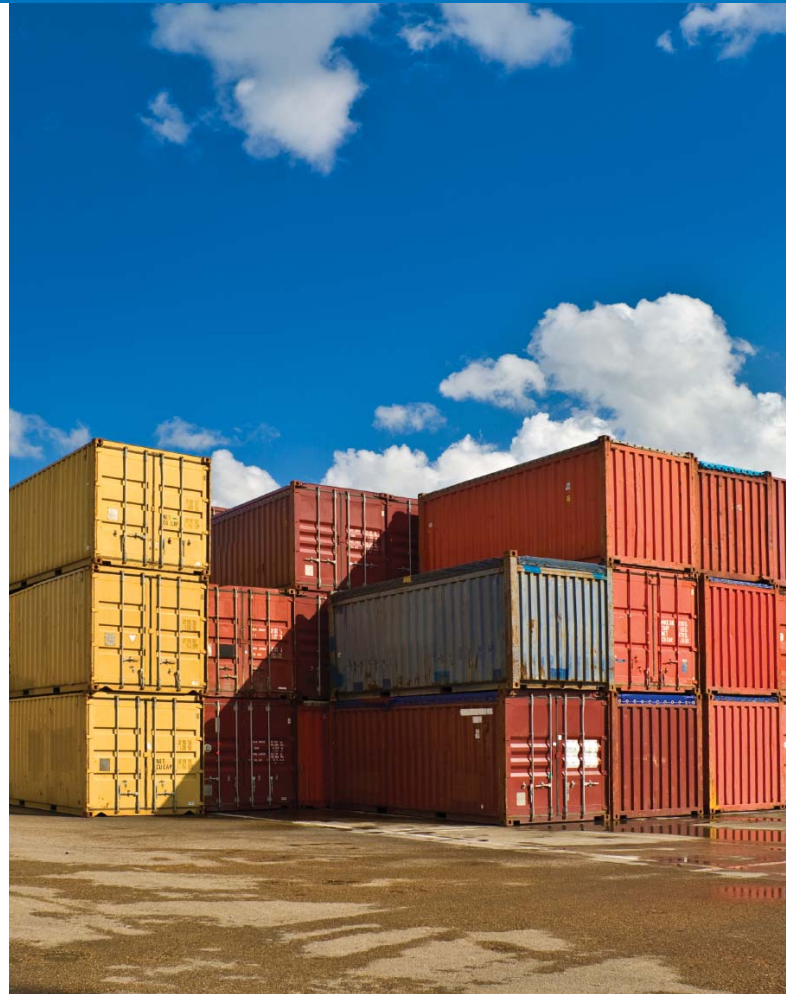


The Nemtek Merlin Stealth is a powerful range of energizers, that can be used as simple high end security energizers, but can also be programmed to offer a customised solution. The Merlin Stealth range is ideal for higher security requirements and can be networked if required. There are:

- Single zoned energizers, the M15S, M18S, and the M113S which are ideal for game and animal control
- Dual zone energizers, the M25S and the M28S offer two monitored zones in one energizer

SINGLE (M15S, M18S) AND DUAL ZONE (M25S, M28S) ENERGIZER FEATURES

- High voltage monitor will alarm when the live wires are tampered with
- Earth wire monitor alarms when there is tampering with the earth wires
- Easy to use tag switch for controlling the unit with a keypad being optional
- Connectable to armed response
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges



- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- RS 232 output, which can be used to connect the energizer into a networked system

M25S AND M28S ADDITIONAL FEATURES

Dual zone energizers boast the same features as the single zoned Merlin Stealth energizers, with a few extras. This makes the unit a cost effective solution where more than one zone is required.

- Dual zones, both in High voltage and Earth wire monitoring
- Synchronised zones to conform to the IEC 60335-2-76 output characteristics
- Smart design allows the maximum amount of energy to be transferred to the zone that needs it, yet the combined energy of the two zones will not exceed the legal maximum permitted
- Ideal product for networking and large fence system requirements
- RS 232 output, which can be used to connect two dual zone energizers to create a four zone system



MERLIN STEALTH M113S

The Merlin Stealth Energizer™ M113S, is a high powered energizer and revolutionises game farm and other animal control needs, by offering a monitored electric fence energizer. This allows the user to monitor the status of the fence at the energizer, and react quicker to faults on the fence. The M113S can power up large fences and helps reduce the negative effects of vegetation growing along the fence.

FEATURES

- Output energy peaks at 12.7 joule into 210 Ohms
- Higher energy output at higher resistances where it's needed towards the end of the fence
- Safety has not been compromised to achieve higher output energy and the unit complies to IEC 60335-2-76 requirements
- High voltage monitor will alarm when the live wires are tampered with
- Earth wires are monitored and alarm when tampered with
- Easy to use tag switch for controlling the unit
- Gate monitor input monitors the status of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- Solar panels can be connected to the M113S in areas where conventional mains power is not available.

NEMTEK KEYPADS

The Nemtek range of energizers can be controlled using a keypad. The five types of keypads available are:

- Druid 13 and 15 keypad
- Merlin 4 keypad
- Merlin Stealth single zone keypad
- Merlin Stealth dual zone keypad
- Merlin Stealth energizer 20 zone keypad



ENERGIZER SPECIFICATIONS

Nemtek Energizer Brand	Druid			Wizord	Merlin	Merlin Stealth™					Stealth Master	
Model Number	2	13 LCD	15 LCD	4	4	M15S	M18S	M25S	M28S	M113S	M25M	M28M

High Voltage Outputs

Typical energy output into 500 Ohms load (Joules)	2J	3J	4.6J	3.7J	3.7J	4.8J	7.6J	4.8J	7.6J	7.0J (500 Ohms) 12.7J (210 Ohms)	4.8J	7.6J
Output Voltage into an open circuit	7 400V	9 000V	9 000V	8 000V	8 000 V	8 500V	9 300V	8 500V	9 300V	8 400V	8 500V	9 300V
High or Low Voltage modes, alarm monitoring is enabled in both modes	Fixed	Yes	Yes	Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Output voltage settings can be changed for both the High and the Low voltage modes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Number of High Voltage monitored zones	1	1	1	1	1	1	1	2	2	1	2	2
Number of Earth loop monitored zones	1	1	1	1	1	1	1	2	2	1	2	2
Adaptive Power Technology (APT), reducing false alarms and arcing on the fence	No	Yes	Yes	No	No	No	No	No	No	No	No	No
Fence Interference detection from foreign energizers	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No

Energizer Controls and Displays

Keypads for the remote control of the energizer	No	2 max	2 max	No	4 max 1 incl	4 max	4 max	4 max	4 max	4 max	4 max	4 max
Tag switch – to control the energizer without using a keypad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote On/Off input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Displays the output and return voltages	No	Yes	Yes	No	No	No	No	No	No	No	No	No
Display type	LED	LCD	LCD	LED	LED	LED	LED	LED	LED	LED	LED	LED

Gate and Panic Button inputs

Timed gate switch input, used to monitor open and closing of the gate	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Panic button input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*

Alarm outputs

Siren output, time programmable	Fixed	Yes	Yes	Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strobe light output to visually indicate an alarm condition	1	1	1	1	1	1	1	2	2	1	2	2

Power supply and battery backup systems

Mains supply voltage***	240V	240V	240V	240V	240V	240V	240V	240V	240V	240V	240V	240V
Typical power consumption under normal operating conditions	17VA	18VA	18VA	18VA	16VA	27VA	23VA	27VA	25VA	32VA	27VA	25VA
Internal battery backup system in case of power failure, capacity of battery	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah
Typical standby time, with a fully charged battery	24 hrs	24 hrs	24 hrs	36 hrs	24 hrs	6 hrs	8 hrs	7 hrs	6 hrs	7 hrs	7 hrs	6 hrs
Solar power panels can be connected to power the energizers, (recommend Watt size for 24 hr operation)**	-	60 Watts	60 Watts	60 Watts	60 Watts	120 Watts	140 Watts	120 Watts	140 Watts	160 Watts	120 Watts	140Watts
Solar voltage regulator	-	5 Amp	5 Amp	5 Amp	5 Amp	9 Amp	10 Amp	9 Amp	10 Amp	12 Amp	9 Amp	10 Amp
Deep cycle battery size recommended in Amp hours (20 % discharge over a 24 hr cycle)	-	60 Ah	60 Ah	60 Ah	60 Ah	120 Ah	150 Ah	120 Ah	150 Ah	150 Ah	120 Ah	150 Ah

Nemtek Energizer Brand	Druid			Wizord	Merlin	Merlin Stealth™					Stealth Master	
Model Number	2	13 LCD	15 LCD	4	4	M15S	M18S	M25S	M28S	M113S	M25M	M28M

Wire length per energizer (live wires in a series system) for both solid and stranded wires

Galvanised wires, 1.2 mm <ul style="list-style-type: none"> Optimal performance up to Maximum 	2km	3km	5km	3km	3km	8km	10km	2x4km	2x5km	15km	2x4km	2x5km
	4km	5km	8km	5km	5km	18km	25km	2x9km	2x13km	35km	2x9km	2x13km
Galvanised wires, 2.0 mm, 2.24 mm <ul style="list-style-type: none"> Optimal performance up to Maximum 	3km	3.3km	5km	4km	4km	16km	20km	2x8km	2x10km	20km	2x8km	2x10km
	6km	6.6km	12km	10km	10km	35km	50km	2x17km	2x25km	50km	2x17km	2x25km
Stainless Steel 1.0 mm, 304 and 316 grade <ul style="list-style-type: none"> Optimal performance up to Maximum 	0.5km	0.6km	0.7km	0.6km	3km	0.6km	0.7km	2x0.7km	2x0.8km	0.8km	2x0.7km	2x0.8km
	0.6km	0.9km	1km	5km	0.9km	0.9km	1km	2x1km	2x1.2km	1.2km	2x1km	2x1.2km
Stainless Steel 1.2 mm, 304 and 316 grade <ul style="list-style-type: none"> Optimal performance up to Maximum 	0.6km	0.7km	0.8km	0.7km	0.7km	0.8km	1km	2x0.8km	2x1km	1km	2x0.8km	2x1km
	0.9km	1km	1.1km	1km	1km max	1.1km	1.3km	2x1.1km	2x1.3km	1.3km	2x1.1km	2x1.3km
Stainless Steel 1.6 mm, 304 and 316 grade <ul style="list-style-type: none"> Optimal performance up to Maximum 	1.2km	1.4km	1.6km	1.4km	1.4km	1.6km	2km	2x1.6km	2x2km	2km	2x1.6km	2x2km
	1.8km	2km	2.2km	2km	2km	2.2km	2.6km	2x2.2km	2x2.6km	2.6km	2x2.2km	2x2.6km
Stainless Steel 2.0 mm, 304 and 316 grade <ul style="list-style-type: none"> Optimal performance up to Maximum 	1.8km	2.1km	2.4km	2.1km	2.1km	2.4km	3.3km	2x2.4km	2x3km	3km	2x2.4km	2x3km
	2.7km	3km	3.3km	3km max	3km	3.3km	3.9km	2x3.3km	2x3.9km	3.9km	2x3.3km	2x3.9km
Aluminium Wire 1.6 mm and 2.0 mm <ul style="list-style-type: none"> Optimal performance up to Maximum 	6km	8km	10km	8km	8km	32km	40km	2x16km	2x20km	40km	2x16km	2x20km
	12km	16km	20km	16km	16km	60km	80km	2x30km	2x40km	80km	2x30km	2x40km
Multi energizer systems												
Using the Stealth Master system, per Master								up to 9	up to 9			
Using the Sage system and the Nemtek fence probe software, number of energizers per Sage						up to 32	up to 32	up to 32	up to 32			
Using the Proxy controller and Cortech software, number of energizers per Proxy						up to 32	up to 32	up to 32	up to 32			
Compliance												
IEC 60335-2-76	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Cispr 14, EN 61000,	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

YES* indicates that this function is available at the cost of another function, further details are on our website www.nemtek.com. Output energy is a function of component tolerance and energy settings, and is reduced during power failure.

** Solar Panel sizes and Battery capacities are based on the exposure to sunlight in southern Africa and can change depending on the location of the solar panels.

*** All energizers are manufactured with a 240 Volts transformer, 110 Volts are available on request. Batteries are supplied as a standard, and are removed if the product is to be air freighted.

Specification may change without prior notice.

NETWORKED ENERGIZER AND COMMUNICATING ACCESSORIES

MERLIN STEALTH MASTER M25S, M28S

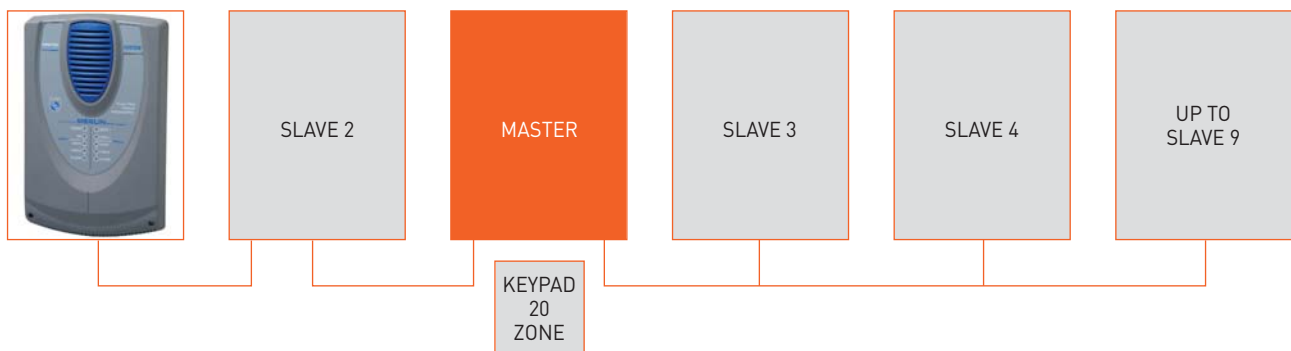
The Merlin Stealth Master energizer, is a dual zone energizer and can control up to nine standard Merlin Stealth dual zone energizers. That means a total of 10 energizers can be controlled together and divided up into 20 fence zones.

Any number of dual zone energizers can be networked, forming a basic 4 zone, 6 zone or up to the 20 zone system as required.

The complete control of the system is done through a 20 zone keypad which is supplied with the Merlin Stealth Master energizer.

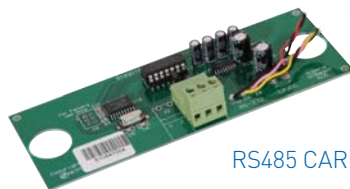
FEATURES OFFERED BY THE 20 ZONE MASTER CONTROLLER SYSTEM

- The master energizer is also an energizer with two zones thus the cost per zone is reduced
- It can be configured with any number of energizers that the system requires (max of 10 including the master)
- Uses existing proven standard Merlin Stealth dual zone energizer units as slaves
- Multi energizers offer an increased level of security – the zones run independently, so even if there is a breach of 1 zone, the rest of the zones will not be compromised
- Individual slave energizers can also be controlled by the 20 zone keypad
- Controls the energy output per adjacent zones so that the system does not exceed the maximum legally permissible output

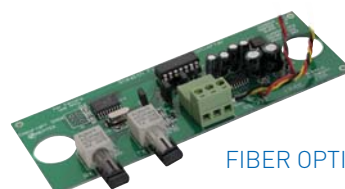


COMMUNICATION CARDS

Both the Fiber Optic card and the RS485 cards can be installed inside the Merlin Stealth energizer housing and are powered by the energizer. Fiber Optic cards are the preferred option and must be used in high lightning areas.

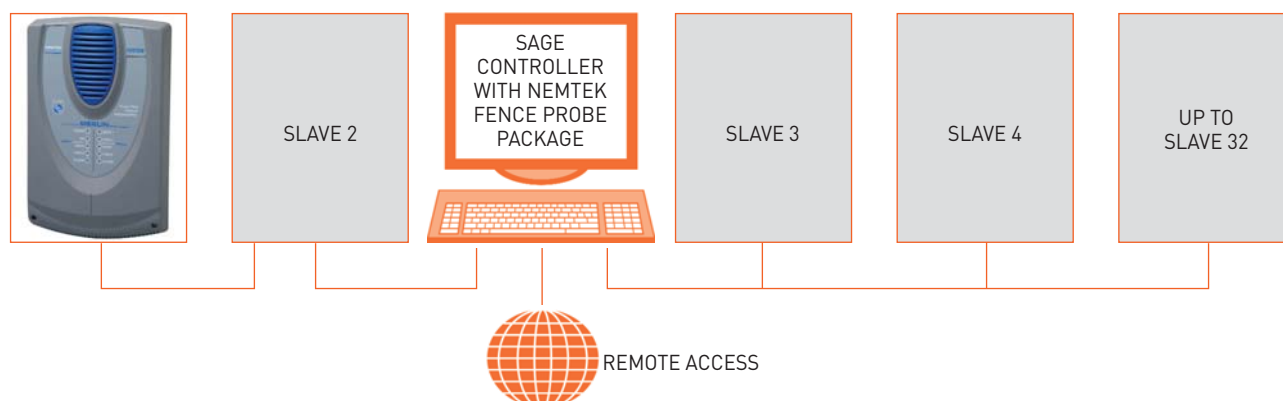


RS485 CARDS



FIBER OPTIC CARD

SAGE™ AND FENCE PROBE SOFTWARE



The Sage controller enables multi energizers to be networked and controlled from a multitude of user interfaces, which can be located locally to the system, or anywhere in the world.

The information generated from the Sage controller can then be used in conjunction with our Nemtek Fence Probe graphic package to simplify and increase the user's ability to control the system. This system is used in areas requiring

- a high level of control and flexibility
- accountability of the operators
- detailed real time reporting
- recording and monitoring of the system or systems

Many single energizer sites, such as cellphone towers, electrical switching stations and sub stations, can be controlled from a single security point.

Many options are available when setting up the system, allowing for tailor-made security solutions. Access and control of the security system can be achieved by a computer on the network, mobile phones, PDAs, internet access, dial in and dial out.

REMOTE ACCESS

- TCP/IP protocols supported include http, ppp, snmp and ssh, allowing for control of the system through any web browser and secure password control
- Cellular phones, using GPRS modems offer another feature that can be used to control the system and extract information

- Local network management, for localised control of the security system

GRAPHIC SOFTWARE AND CONTROL

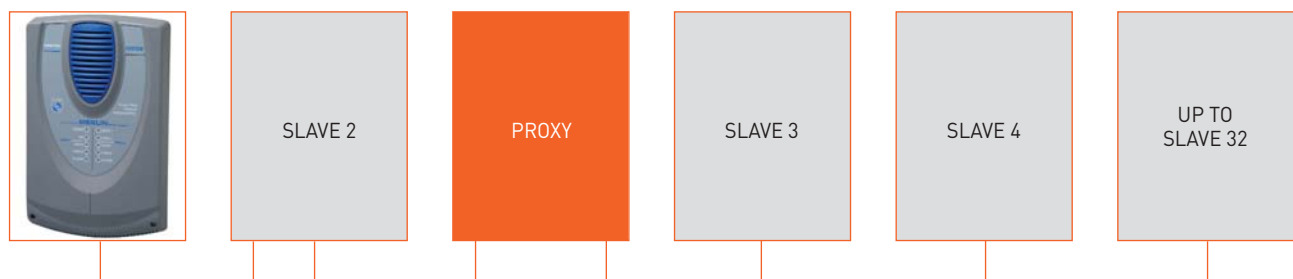
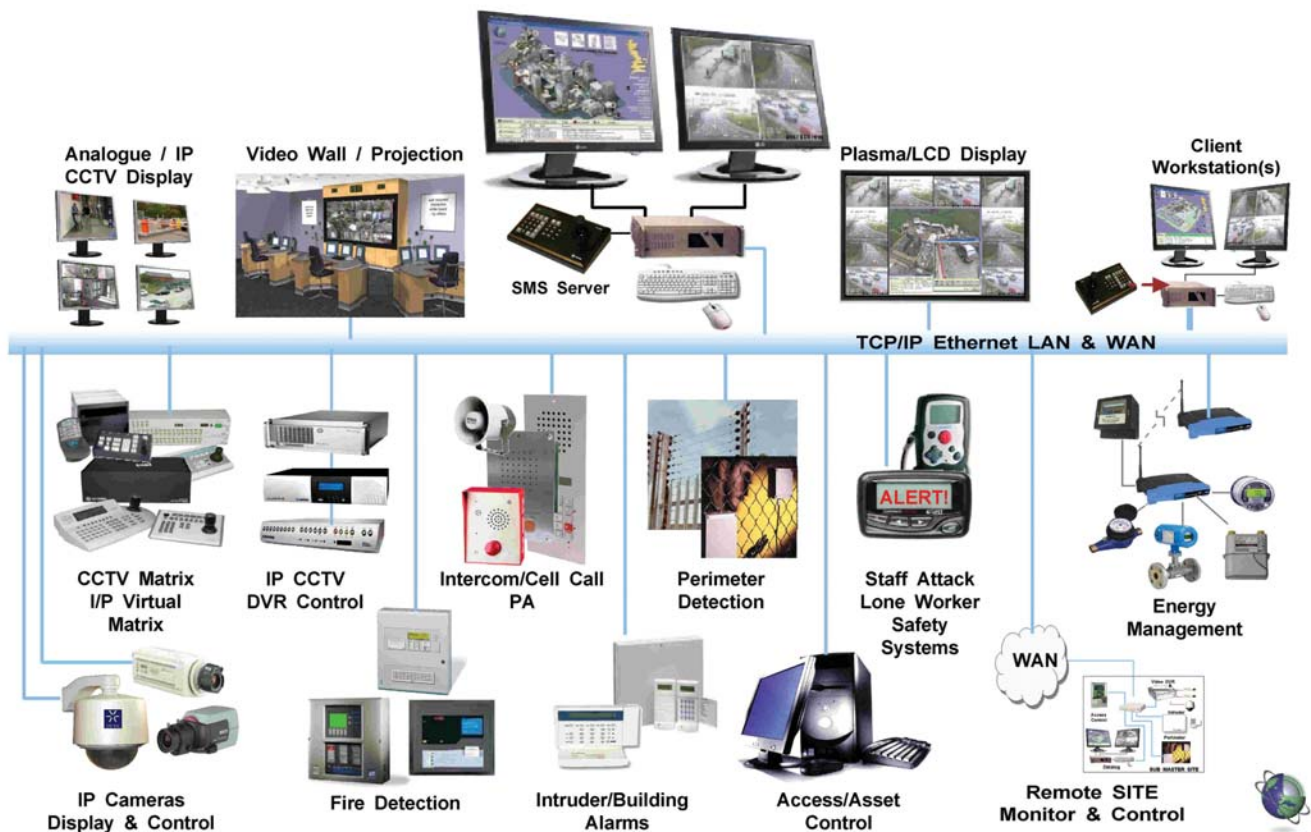
The Nemtek Fence Probe software is a graphical user interface for supporting any number of Sage controllers. Utilising the snmp protocol, network management becomes operator independent. A log of all events is recorded automatically. Different events may require different responses and actions. Certain events may require a simple graphical warning on a screen, such as mains failure or gate bypass, whilst others may require the sending of emails and SMS messages to technical support staff.



PROXY MANAGEMENT SYSTEM

Cortech Developments is a company that specialises in large scale security and control software (integration). Nemtek's Merlin Stealth energizer can interface with this software using the Proxy controller. The Proxy allows the electric fence to be interfaced with the Cortech software management systems enabling the electric fence to be part of a larger security system.


Please visit www.cortech.co.uk for further information.



FENCING BRACKETS AND ACCESSORIES

WALL TOP BRACKET

Nemtek brackets are made to a high standard to maximise security and long life in the field. The bracket forms an integral and very important part of the Nemtek security electric fence. The level of security achieved is directly affected by the choice of bracket, the number of wires forming the electrical barrier and the distance between the brackets. Nemtek offers a large range of brackets to suit most wall types and applications. They are made mainly from steel and are finished in a high quality coating of outdoor powder, or hot dip galvanised for coastal conditions. Our factory can on request manufacture different types of designs and finishes.

		
<ul style="list-style-type: none"> • Round bar • 5 or 6 wires • PC or HDG finish • 600 mm or 750 mm long 	<ul style="list-style-type: none"> • Round bar PVC • 5 wires • PVC finish • 600 mm long 	<ul style="list-style-type: none"> • Flatbar straight and angled • 5 or 6 wires • PC, HDG or HDG and PC finish • 700 mm or 800 mm long
		
<ul style="list-style-type: none"> • Squaretube straight and angled • 6, 8, 10 or 12 wires • PC, HDG or HDG and PC finish • 1 000 mm or 1 200 mm long 	<ul style="list-style-type: none"> • T-pole • 6 wires • PC or HDG finish • 600 mm long 	<ul style="list-style-type: none"> • Profile pole • 6 wires • PC or HDG finish • 340 mm long






PC: Powder coated finish

HDG: Hot dip galvanised

HDG and PC: First hot dip galvanised and then powder coated

BRACKET ACCESSORIES



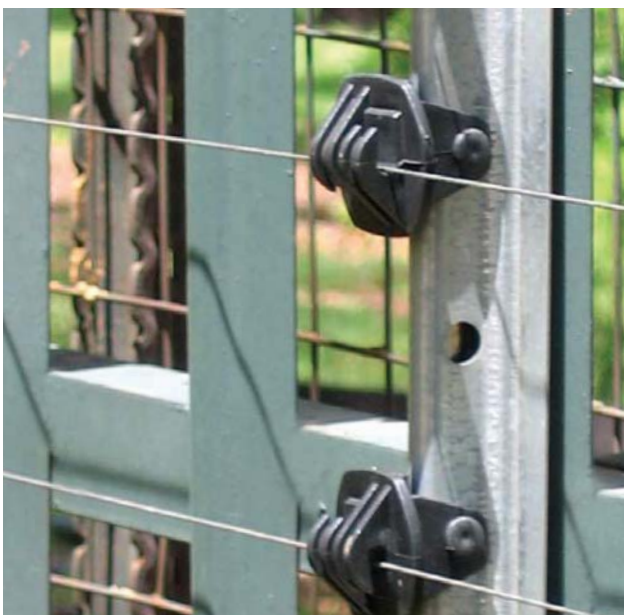
	<p>WALL TOP BRACKET STAYS</p> <p>Nemtek stays are made to complement the bracket range. They offer a sturdy construction and support for the brackets on the corners and at the end of a fence.</p> <ul style="list-style-type: none"> • 600 mm or 750 mm long stays with a diameter of 8 mm • 1 000 mm long stays with a diameter of 10 mm • available in black or white powder coated or a hot dip galvanised finish
	<p>LUGS</p> <p>Lugs are used with the stays and are available for both the 8 mm and 10 mm stays.</p>
	<p>STAY SLEEVE</p> <p>Insulates the stay thus reducing the potential of false alarm.</p> <ul style="list-style-type: none"> • UV stabilised plastic for a long life span
	<p>HAMMER DRIVE NAIL IN ANCHORS</p> <ul style="list-style-type: none"> • Nylon plug and screw • Available for all bracket sizes • Zinc for coastal applications
	<p>COACH SCREWS AND PLUG</p> <ul style="list-style-type: none"> • Hot dip galvanised for coastal applications • Available for the squaretube bracket

OMEGA BRACKETS

The Omega bracket offers a flexible solution to the piggy back systems, where an electric fence can use the mechanical strength of an existing fence to reduce the cost of constructing a complete new system. The Omegas can also be used to secure windows and roofs, thus making this bracket an extremely versatile and flexible solution. The pre punched holes allow options of where insulators can be fixed.

FEATURES

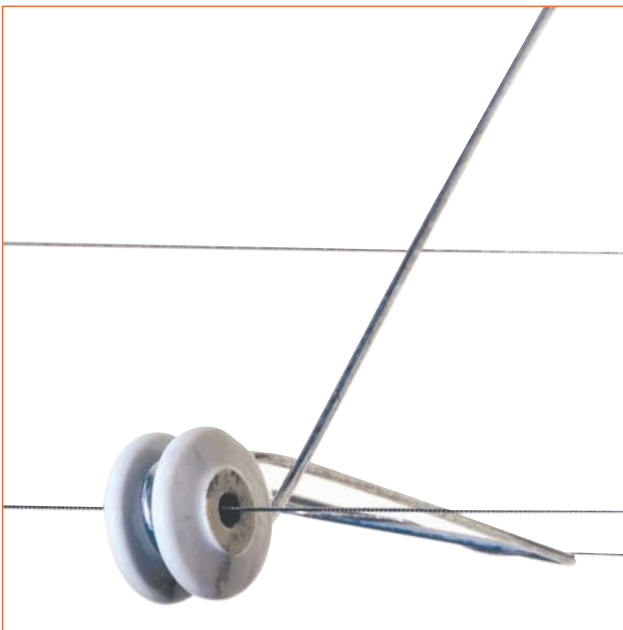
- Available in pre-galvanised grade of mild steel for inland use
- Hot dip galvanised for coastal use where corrosion is high
- Available in precut lengths 900 mm, 1 200 mm, 1 500 mm, 1 800 mm, 2 100 mm, 2 400 mm, 3 000 mm, making it versatile and flexible where different lengths are required
- Backing plates in 2 400 mm and 3 000 mm are available and used on corners or at the end of the fence where a stronger Omega is required.
- Light weight, easy to transport reducing handling time and transport costs
- Can be configured and installed in various ways, refer to our website www.nemtek.com





OFFSET BRACKETS

Offset brackets utilise the strength and rigidity of an existing fence reducing costs of the electric fence system. They are generally used for animal control and are available in 4 mm galvanised high tensile steel.



1. Live wire offset bracket

Available in 225 mm offset and 450 mm. Heavy galvanising option on request.



2. Live and earth wire offset bracket

Available in 225 mm offset and 350 mm. Heavy galvanising option on request.

FREE STANDING BRACKETS



Purpose designed angled corner poles and stays are an easy and quick installation solution for most free standing security requirements.

ANGLE CORNER POSTS

- Available for both a 2 m high fence (20 wire) and a 2.4 m high fence (24 wires)
- Pre punched holes for quick and easy assembly
- Stay supports are manufactured for both types of angled corner post
- Available in a painted and hot dip galvanised finish

ROUND CORNER POSTS

- Available for both a 2 m high fence (20 wire) and a 2.4 m high fence (24 wires)
- Pre drilled holes for the S-hook reduce installation time
- Stays are manufactured for both types of round corner post
- Available in hot dip galvanised finish

Y STANDARD POST HOT DIP GALVANISED

- Hot dip galvanised for corrosion resistance protection in a coastal environment
- Available in 2.4 m length for a 2.0 m high fence
- Pre punch round hole to fit the Nemtek Y standard insulators and the Nemtek Pop through insulator

Y STANDARD POST BLACK BITUMEN

- Available in black bitumen painted for corrosion resistance protection
- Available in 2.4 m length (2 m fence) and a 3 m length (2.4 m fence) construction
- Pre punch square hole to fit the Nemtek Y standard insulators



FENCING WIRES AND CABLES

FENCE WIRES

NEMTEK STRANDED WIRES

The Nemtek Stranded wires are made of high tensile material making them hard to cut thus increasing the level of security. The flexibility offered by the stranded wire construction makes working with this wire easier during installation and results in a neat clean look on the fence without compromising the fence performance.

- Galvanised A grade stranded wire, 1.2 mm, 1.6 mm, 2.0 mm. The larger diameters offer lower electrical resistance for longer fence lines, are hard to cut, and have a longer life span.
- Stainless steel grades 304 and 316 stranded wire, 1.2 mm and 1.6 mm diameter. The stainless steel offers a high resistance to corrosion, giving it a longer life. The 316 grade is the wire of choice for highly corrosive coastal areas.

NEMTEK SOLID WIRES

A variety of solid Nemtek wires are available to address the different environmental, mechanical strength, and electrical resistance requirements.

- Galvanised solid wires, light and heavy galvanised, 2.24 mm diameter. This high tensile wire is generally used for freestanding fencing where a high strength mechanical fence is needed and is generally used for game and animal control fencing applications.



- Stainless steel grade 304 and 316 solid wires, 1.0 mm, 1.2 mm diameter. Solid stainless steel offers a high resistance to corrosion and a longer life span on the fence, with the 316 grade being the wire of choice for highly corrosive coastal areas.
- Aluminium solid wire, 1.6 mm and 2.0 mm wire. Aluminium wire has a very low electrical resistance allowing long fences to be powered up from only one energizer and its high resistance to corrosion offers a long life span on the fence.

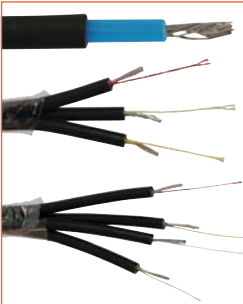
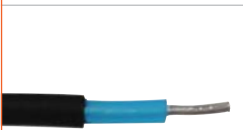



	WIRE DESCRIPTION	RESISTANCE (OHMS/KM)	CORROSION GUIDELINE*
Galvanised wire range	Stranded galvanised wire – 1.2 mm	175	Inland – Dry favourable conditions + 50km from coast
	Stranded galvanised wire – 1.6 mm	100	Inland – Dry favourable conditions + 50km from coast
	Stranded galvanised wire – 2.0 mm	60	Inland – Dry favourable conditions + 50km from coast
	Light galvanised high strain wire – 2.24 mm	50	Inland – Dry favourable conditions + 50km from coast
	Heavy galvanised high strain wire – 2.24 mm	50	Marine / Industrial 500 m-3km from coast
Stainless steel 304 grade	Solid stainless steel wire – 1.0 mm	1 000	Coastal areas – inland +5-25km from coast
	Solid stainless steel wire – 1.2 mm	700	Coastal areas – inland +5-25km from coast
	Stranded stainless steel wire – 1.2 mm	700	Coastal areas – inland +5-25km from coast
Stainless steel 316 grade	Solid stainless steel wire – 1.0 mm	1 000	Coastal / Industrial, 0-500 m from coast
	Solid stainless steel wire – 1.2 mm	700	Coastal / Industrial, 0-500 m from coast
	Solid stainless steel wire – 1.6 mm	390	Coastal / Industrial, 0-500 m from coast
	Solid stainless steel wire – 2.0 mm	250	Coastal / Industrial, 0-500 m from coast
	Stranded stainless steel wire – 1.2 mm	700	Coastal / Industrial, 0-500 m from coast
Aluminium	Aluminium Alloy 1.6 mm solid	27	Coastal / Industrial, 0-500 m from coast
	Aluminium Alloy 2.0 mm solid	14	Coastal / Industrial, 0-500 m from coast



* This table serves as a guideline only. For more accurate information, please seek professional advice on the corrosion environment and local conditions.

HIGH VOLTAGE CABLE

Nemtek offers a range of High Voltage lead out cables from your energizer to the fence and for all other insulated high voltage transmissions. The High Voltage cables have been designed for a long life expectancy and low resistance on permanent fencing systems in most weather conditions. All Nemtek High Voltage Cables are double insulated.

	<p>S-SERIES HIGH VOLTAGE CABLE</p> <p>The S-Series High Voltage Cables can be used with all the Nemtek solid and stranded galvanised and stainless steel wire.</p> <ul style="list-style-type: none"> • Stranded wires offer a flexible cable for ease of use • Slim line designed for ease of installation and an aesthetically pleasing look • The 3 core and 4 core S-Series is faster to install than the standard single core high voltage cable
	<p>A-SERIES HIGH VOLTAGE CABLE</p> <p>The A-Series high voltage cable is used with the range of aluminium wires and galvanised earth spikes.</p> <ul style="list-style-type: none"> • Ideal for coastal conditions where aluminium wire is used • Low electrical resistance reducing power and voltage drops over large distances
	<p>G-SERIES HIGH VOLTAGE CABLE</p> <p>The G-Series Alloy High Voltage Cable can be used with all the Nemtek solid and stranded galvanised and stainless steel wire.</p> <ul style="list-style-type: none"> • It can be used where an economic version of the S-Series is required • Double insulated, stranded wires offer a flexible cable for ease of use • Slim line design for ease of installation and an aesthetically pleasing look • White or black colour available to match the fence








WIRE AND CABLE CONNECTORS

	<p>FERRULES</p> <ul style="list-style-type: none"> • Available in tinned copper, aluminium and stainless steel • Ferrules offer a permanent connection and cannot be removed offering a high security connection • Good mechanical connection for a good electrical conductivity • Tinned copper is available in 6 mm, 10 mm and 16 mm; aluminium in 6 mm and 10 mm; and stainless steel in 6 mm
	<p>LINE CLAMPS</p> <p>The line clamps are used for the larger wire diameters.</p> <ul style="list-style-type: none"> • Can connect after the wire has been installed • Galvanised for a long life

INSULATOR RANGE

PLASTIC INSULATORS

Nemtek offers a range of plastic and porcelain insulators. The plastic products are all UV stabilised for external use and only virgin materials are used in their manufacture which are designed for a long life.

	<p>ROUND BAR INSULATOR</p> <ul style="list-style-type: none"> • used with the 10mm roundbar • flexible inner core for increased clearance • black and white
	<p>FLAT BAR INSULATOR</p> <ul style="list-style-type: none"> • quick fit clips on the top and bottom for faster installation • feed through clip option built in • easy to change and maintain • black and white
	<p>NAIL ON INSULATOR</p> <ul style="list-style-type: none"> • large clips for heavy duty applications • larger clearance to eliminate power leakage • black and white
	<p>Y STANDARD INSULATOR</p> <ul style="list-style-type: none"> • quick fit design – easy to replace when required • suitable for Omega and Y standard brackets • anti climb shear pin • black and white
	<p>POP THROUGH HOLE INSULATOR</p> <ul style="list-style-type: none"> • secure through insulator • larger creepage distance to reduce power loss • black and white
	<p>STRAIN INSULATOR</p> <ul style="list-style-type: none"> • suitable for fences using up to 2.5 mm wire • larger creepage distance to reduce power loss • black and white
	<p>TENSION BOBBIN INSULATOR</p> <ul style="list-style-type: none"> • heavy duty large insulator • used with offset bracket where fire is not a concern • black only

PORCELAIN INSULATORS

Fireproof insulators are generally used on game farms or farms where the likelihood of fire is high. These Nemtek insulators are made of porcelain and can withstand high temperatures for a prolonged period of time.

FEATURES

- Fireproof
- Large design to reduce power loss
- Suitable for long runs
- Can withstand high tension



GATE CONTACTS

HEAVY DUTY SLIDING GATE CONTACT




- Used for series wiring of the gate
- Suitable for any sliding gate
- Robust construction using stainless steel and brass, making it suitable for outdoor use in most climates
- Large location plates allow for increased tolerance












WIRE TENSIONING SYSTEMS

TENSIONING SYSTEMS AND ACCESSORIES

	<p>COMPRESSION SPRING LIMITER</p> <ul style="list-style-type: none"> • Available in a standard tension (silver) spring which can tension 1.2 mm wires and a heavy tension (gold) spring which can tension up to 1.6 mm wires • It eliminates galvanic reaction between dissimilar metal thus reducing rust and can be used with any type of wire • Available in black and white for aesthetic reasons
	<p>MINI NYLON TITAN TENSIONER</p> <ul style="list-style-type: none"> • The fence needs to be tensioned after installation, especially when the system needs maintenance due to sagging wires • It eliminates galvanic reaction between dissimilar metal thus reducing rust • Ideal for tensioning wires up to 1.2 mm galvanised or stainless steel, and up to 1.6 mm aluminium wire • A large headed screwdriver, which is generally easily available, is used to turn the spindle
	<p>HYBRID NYLON TENSIONER</p> <ul style="list-style-type: none"> • Offers what the compression spring and the mini nylon titan has to offer in one easy to use system. Available in a standard tension (silver) spring which can tension 1.2 mm wires and a heavy tension (gold) spring which can tension up to 1.6 mm wires • Combination of two tensioning systems, an active system to expand and compress as required, and the mini titan can take up any slack that has been created over time

	<p>HYBRID BB HEAVY DUTY NYLON TENSIONER</p> <ul style="list-style-type: none"> • A hardy heavy duty tensioner for all weather types • Can tension from a 1.2 mm up to a 2.5 mm wire, making it very versatile • It eliminates galvanic reaction between dissimilar metal thus eliminating rust and can be used with any type of wire
	<p>STANDARD TENSIONER</p> <ul style="list-style-type: none"> • Galvanised permanent fence wire strainer • Can tension from a 1.2 mm up to a 2.5 mm wire • Only used for galvanised wires to avoid galvanic reaction
	<p>COMBO TENSIONER STANDARD</p> <ul style="list-style-type: none"> • Insulator and tensioning system combined, minimising the need for an insulator • Hot dip galvanised body • Can tension from a 1.2 mm up to 2.5 mm wire • Only used for galvanised wires to avoid galvanic reaction
	<p>COMBO TENSIONER PORCELAIN</p> <ul style="list-style-type: none"> • Insulator and tensioning system combined • Hot dip galvanised body • Fireproof insulator
	<p>LARGE TAIL HOOK</p> <ul style="list-style-type: none"> • Stainless steel hook for long life expectancy • Large tail to fit the Nemtek range of tensioning devices • Quick fit onto the Nemtek round and flat bar insulator
	<p>HOOK BOLT</p> <ul style="list-style-type: none"> • Electro galvanised hook bolt, so only suitable for inland use • Adjustable nut for finer adjusting
	<p>S-HOOK</p> <ul style="list-style-type: none"> • Hot dip galvanised for long life expectancy • Heavy duty durable design • Suitable for the Omega brackets, angled and round corner poles

GENERAL FENCING ACCESSORIES

FENCING TOOLS AND WIRE DISPENSERS



LARGE WIRE DISPENSER

- Portable design



BRAIDED WIRE REEL HOLDER

- Hot dip galvanised wire dispenser
-



KNIPPEX WIRE CUTTER

- Designed for high tensile wire cutting



PROFESSIONAL CRIMPING TOOL

- Durable ferrule crimping tool



HALF INCH RACHET

- For the Hybrid BB heavy duty tensioner
-



Y STANDARD POST DRIVER

- Used as a hammer to drive Y standards into the ground



DISTANCE MEASURING WHEEL

- Quick, walk along distance measuring tool
-

FENCE SCOPE™ MULTI TOOL



Helping you diagnose and optimise your electric fence installation

FOUR USER SELECTABLE MODES OF OPERATION

- Fence Probe – quickly indicates the direction of a fault, showing the voltage and current
- Fence Energy – accurately measures the output energy (joules)
- Fence Scope – can record and display the waveform of the pulse
- Fence Noise – shows the amount of electromagnetic interference generated by the fence or energizer

FEATURES

- Advanced high speed 16bit microprocessor design
- Large graphic display with resolution of 128 x 64 picture elements
- Backlit display for ease of reading in low light conditions
- Audio tone frequency output varies depending on the voltage for a quick measurement
- Intelligent auto off function for non intrusive battery life extension
- Internal battery voltage measurement for precise battery status
- Simple five key user interface
- Designed for use up to 16kV
- Supplied with high quality test clips and leads
- Supplied with additional external load resistor assembly enabling characterisation of an energizer at 500 Ohm
- Handy carry case available as an optional extra

PHYSICAL SPECIFICATIONS

Display (LCD)	128 x 64 pixels, landscape orientation, 1bit/pix colour depth
Operating Temperature	-10 °C to +50 °C
Storage Temperature	-20 °C to +60 °C
Battery Type	9V alkaline, 6LR6 / PP3, (17 mm x 26 mm x 48 mm)
Battery Life	50 hours typical (without using backlight)
Size	102 mm W x 50 mm H x 192 mm L
Weight	298g (with battery), 251g (without battery)

ENERGIZER ENCLOSURES



METAL ENCLOSURE

- Powder coated metal enclosure with an inspection window
- Available in two sizes:
 - (h) 560 x (w) 310 x (d) 200
 - (h) 610 x (w) 460 x (d) 200



FIBREGLASS ENCLOSURE

- Weather proof plastic
- For coastal applications with a stainless steel latch
- (h) 450 x (w) 300 x (d) 80

GATE HANDLE AND SPRINGS



INSULATED HANDLE WITH HOOK

- Gate way handle used with the galvanised spring
- Non slip grip



GALVANISED SPRING 3.5M

- Used with the insulated handle with hook to secure gates



GATE HANDLE WITH SPRING

- Used to secure gate

EARTH SPIKES



- Galvanised earth spike with nuts and washer



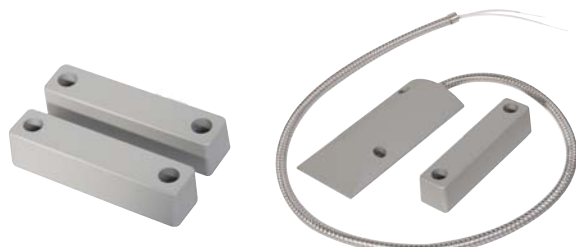
- Copper earth spike with nuts and washer

CUT OUT SWITCH



- Isolates section of fence to allow for easy maintenance and fault finding

MAGNETIC CONTACTS



- Magnetic contacts are made of aluminium and are used to monitor the status of a pedestrian or vehicle gate



WARNING DEVICES



WARNING SIGNS

- Available in Nemtek branded or unbranded.
- Custom-made version available to order
- UV protected for long life
- Wire clips on the warning sign reduce installation time
- Custom-made version available
- Compliance requirements, every 10 m and change of direction
- IEC 60335-2-76 compliance



HIGH VOLTAGE FLASHING LIGHT

- Flashes with every high voltage pulse generated on the fence, a clear indicator that the fence has voltage pulsating on it



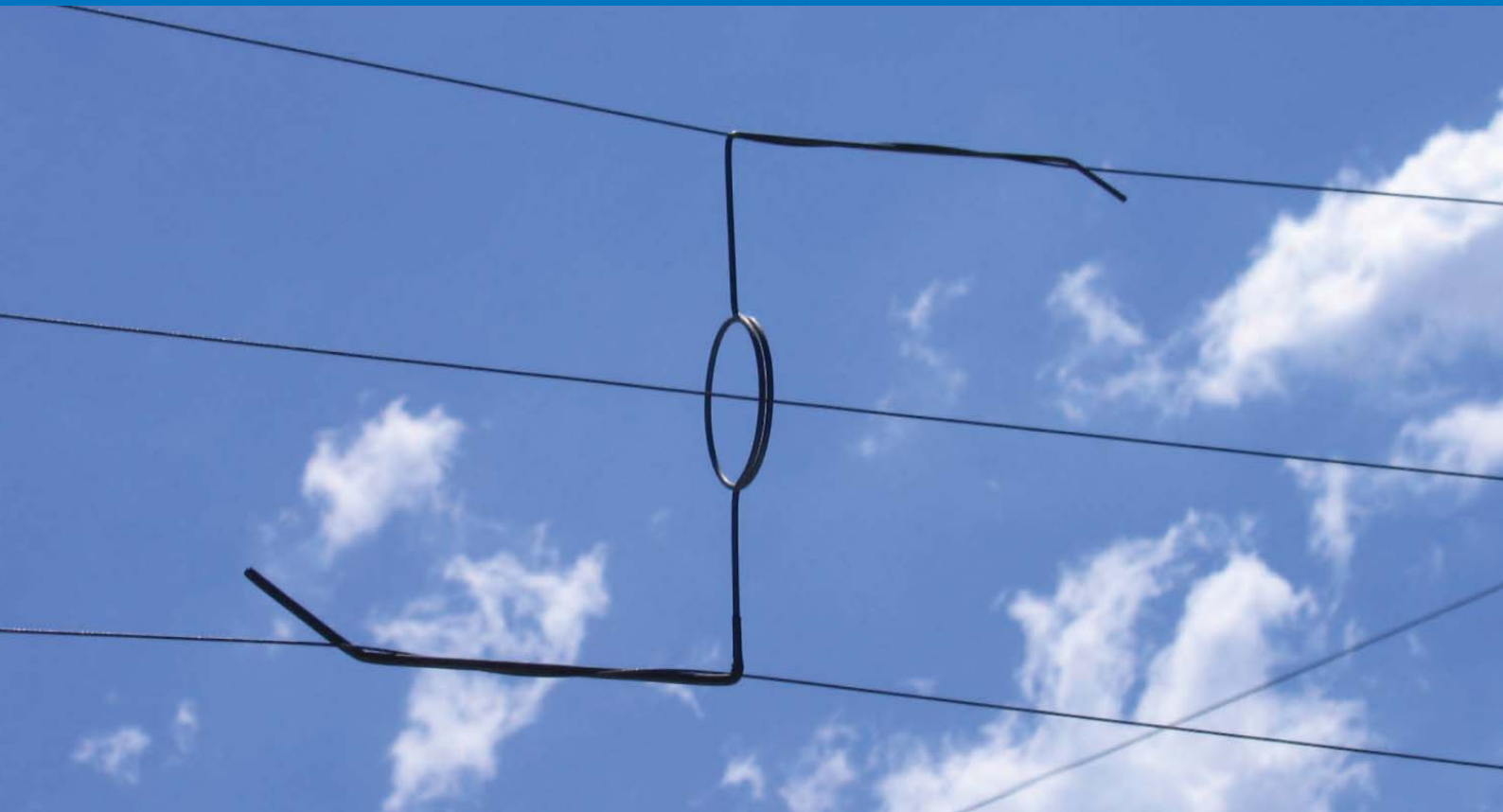
SIRENS

- Alarm annunciation of fence condition when in alarm
- Available in 15 and 25 watt power output
- 12 volt DC supply



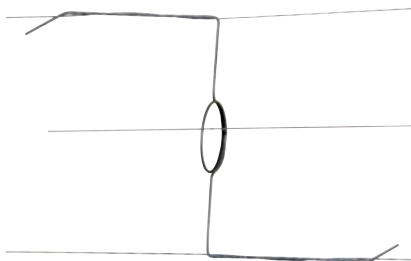
STROBE LIGHTS

- Visual indicator of an alarm
- Used to show the status of a fence after an alarm condition offering a visual alarm event memory
- 12 volt DC supply



EARTH LOOPS

Earth loops are used to enhance the level of security offered by an electric fence by detecting attempted separation of fence wires and leaving just enough room for natural movement of the live wire. When the earth wire touches the loop a connection is made and the alarm will sound.



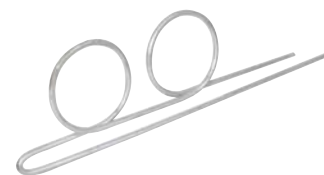
IN LINE LOOP

- Installed onto the fence wire, generally between the earth wires
- Available in galvanised for the galvanised wires and in stainless steel for the stainless steel wires



WALL MOUNTED EARTH LOOPS

- Installed onto the wall protecting the bottom wires on a wall top fence
- They offer protection against lifting of the fence wires
- Available in stainless steel, angled or straight to marry up to the type of Nemtek bracket used



GROUND ANTI CREEP LOOP

- Used in the free-standing applications to reduce the possibility of lifting of the fence
- Concreted for maximum stability
- Available in hot dip galvanised finish for a long life

LIGHTNING DIVERTERS

Lightning and power surge are the most common cause of electronic failure to energizers. Nemtek energizers have extensive lightning protection built into the units to help reduce the possibility of damage. Additional external lightning protection reduces the likelihood of surge coming through the fence wires and the mains supply into the energizer thus assisting in the protection of the energizer.

Lightning kits help divert any power surge that may occur on the fence line away from the energizer and into the ground.

Nemtek offers four kits for protecting the energizer from surges:



- LDK1.** Offers protection for a single zone fence energizer
- LDK2.** Offers protection for a single zone fence energizer as well as mains protection
- LDK3.** Offers protection for a dual zone fence energizer
- LDK4.** Offers protection for a dual zone fence energizer as well as mains protection

GENERAL INFORMATION

WARRANTIES: Energizer electronics come with a two year warranty, subject to our standard terms and conditions as set out on the Nemtek website.

COMPLIANCE: Nemtek energizers and products conform to the standards set out by the IEC 60355-2-76, CISPR 14 and EN 6100. Please refer to energizer section of the Nemtek website for more details www.nemtek.com

SPECIFICATIONS: Product details can change without prior notice. This brochure is for general information and marketing purposes only.

TERMS AND CONDITIONS OF SALE: Sales of all Nemtek products are done subject to our standard terms and conditions of sale and our distribution agreements. Nemtek terms and conditions of sale are available at all Nemtek branches.

Authorised distributors and representative offices are available around the world, please contact us at: exports@nemtek.com for further information.



CONTACT DETAILS

Head Office 64 Vervoer Street, Kyasands, Randburg, South Africa
Kyasands: Tel: +27 (0) 11 462 8283, Fax: +27 (0) 11 462 7132

Exports: exports@nemtek.com,
Tel: +27 (0) 11 462 8283, Fax: +27 (0) 11 462 7132

Nelspruit: Waterfall Ave, Riverside Industrial, Nelspruit, South Africa
Tel: +27 (0) 13 752 2187, Fax: +27 (0) 13 752 2188

Edenvale: Unit 4, Meadowdale Park, Cnr Dick Kemp & Herman Rd, Edenvale, South Africa
Tel: +27 (0) 11 453 1970, Fax: +27 (0) 11 453 1858

Cape Town: 27 B Concord Crescent, Airport City, Cape Town, South Africa
Tel: +27 (0) 21 386 3742, Fax: +27 (0) 21 386 5573

KwaZulu-Natal: Unit 30, Devon Park, 11 Devon Road, Pinetown, South Africa
Tel: +27 (0) 31 701-2125

www.nemtek.com