ELECTRIC FENCING PRODUCTS THAT DELIVER PEACE OF MIND

30
YEARS
30 years of designing and
manufacturing innovative
electric fencing solutions

NEMTEK
Electric Fencing Products

introduction

The Nemtek group is a globally known and well-respected company manufacturing a full range of energizers and fencing hardware. With our pioneering products, we have become the benchmark for the security electric fencing industry and the products of choice for many governments, local authorities and industries to protect defence infrastructures, correctional facilities and utilities.

Our success has been achieved by:
- Our continuous innovation, resulting in unique, trailblazing and often patented products and technologies
- The reliability and efficiency of Nemtek products
- Our fast response to the ever-changing market and customer needs
- Our unparalleled customer service and the continuous support and close working relationships we foster with our customers

This brochure offers you an overview of the electric fencing products that we design and manufacture, including a comprehensive range of electric fencing energizers and a complete range of electric fencing hardware. We have products available that can reliably address many different types of fencing needs ranging from residential, retail, industrial and commercial, to airports, power stations, prisons, defence facilities and other utilities.

Our unbeatable experience in the security field has revolutionised the design of game and animal farm energizers. These energizers now offer security features and communication capabilities, to not only keep animals in, but to also effectively combat the theft and injury of animals by poachers and predators.

For more details and information on our products, visit **www.nemtek.com**

NEMTEK™ FAMOUS BRANDS

- Druid™ energizers
- Wizord™ energizers
- Merlin Stealth™ energizers
- FenceScope™ fence tool
- Dual Action Tensor Sensor (DATS)
- Perimeter light

- Adaptive Power Technology (APT™)
- Nemtek Agri
- Omega brackets
- Modulus brackets
- FenceMeter
- Tension Sensor

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

NEMTEK SERVICE SUPPORT AND TRAINING

Nemtek offers support and advice for customers' security needs, including expert advice on the design of your fence and choice of hardware and electronics.

The Nemtek Training Academy also offers fully accredited training courses, including COC accreditation at select branches and online. International training is also available online or through our Nemtek partners around the world. For any advice, enquires or training information please email **websales@nemtek.com**

residential

Nemtek's extensive range of quality and innovative security electric fencing products help ensure the safety and well-being of households. Nemtek products are trusted and recommended by many homeowners to offer better security for their families and friends.

Economical, reliable and effective designs have been Nemtek's focus for more than 30 years, ensuring exceptional electric fence performance daily. A dynamic design team develops new and existing products to continually expand the security solutions available to homeowners.

The continually evolving and inventive Nemtek range offers innovative solutions for many residential applications, with numerous choices to ensure that the right product is available to make homes secure without compromising on aesthetics. The large range of wall-top brackets and posts make it easy to secure most walls offering a range of effective and reliable security solutions.

commercial

Nemtek has advanced security solutions for commercial applications. Car and boat showrooms; office and commercial parks; caravan, car and motor home displays; outdoor showrooms; and retail complexes are often targeted by criminals and vandals. Nemtek has identified this need for secure perimeter protection combined with aesthetically pleasing designs that do not compromise on the effectiveness and the performance of the electric fence.

Modulus bracket and post systems are just some of the trusted solutions which ensure that the security electric fencing products are visually appealing without compromising on their effectiveness and reliability.

industrial

Solar farms, oil refineries, steel industries and mining sites often need to be protected from intruders, both from a safety and a security point of view. The need to protect large industrial areas has been met by Nemtek's range of full-height fencing solutions. Nemtek systems can be added onto existing fences (piggyback) or can be completely freestanding where no fence exists. In many instances multiple fence zones are required and the modular design of Nemtek energizers makes this easy to achieve.

utilities

Government facilities and critical infrastructures need to be protected. Power distribution facilities, water reservoirs, transport depots, pumping stations and gas pipelines are some of the types of utilities that often need to be protected, as disruptions or interferences can cause large-scale implications for governments, cities and the community as a whole.

In many instances protection is required to prevent harm to individuals by stopping them from gaining access to sensitive or dangerous areas such as train depots or even electrical transformers and electrical distribution areas.

The Nemtek range of hardware, software and energizer design will ensure that a reliable security solution is available for these infrastructures.

high security

Nemtek manufactures all its products with high security in mind but certain sites require different types of high-security solutions.

The Nemtek range of products can be integrated with other technologies such as cameras. These high-security sites can also be remotely accessed and monitored with the Nemtek solutions. Our vast experience in these types of sites in many different parts of the world have made Nemtek a trusted source for products and knowledge to address most high-security needs.

These sites include prisons, airports, naval bases, border fences, embassies, mints and money distribution points.
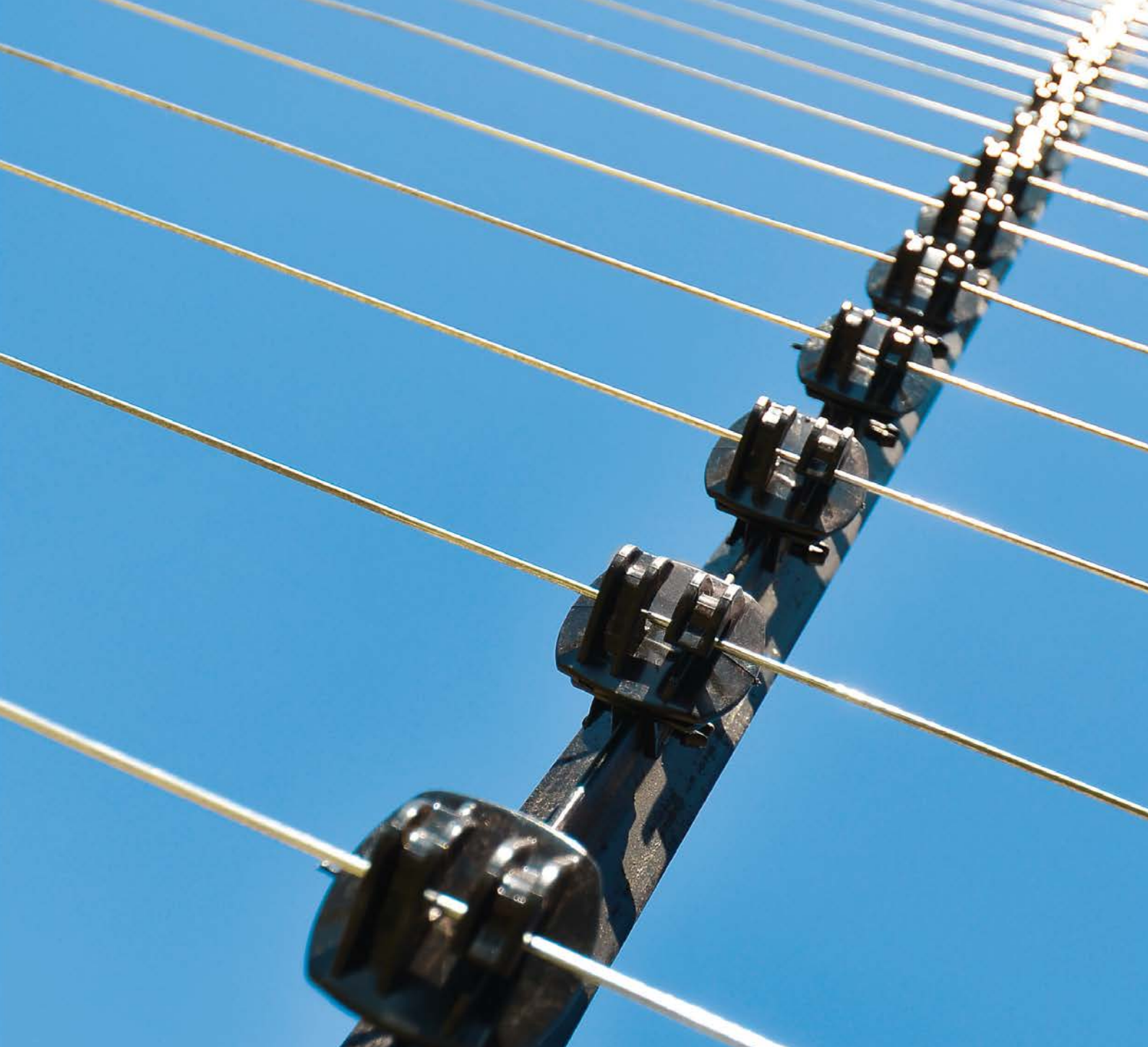
REASONS FOR USING AN ELECTRIC FENCE

1 **DETECT** **2** **DETER** **3** **DELAY**

When a physical barrier, such as a wall or a fence, is combined with an electric fence it will deter attempts to infiltrate the protected perimeter. The electric fence delivers a high-voltage shock that is non-lethal but memorable to the potential intruder. The Nemtek electric fence energizer has a detecting feature which produces an alarm when the protected perimeter has been breached or tampered with. By using an electric fence, the attempted break-in of the protected area can be delayed, giving additional time for a reaction team to respond to the breach.

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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 conform to international electric fencing safety standards. Please refer to the 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's 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 **exports1@nemtek.co.za** or **websales@nemtek.com** for further information.

TRAINING COURSES: The Nemtek Training Academy offers training courses for beginners and advanced training on the principles of electric fencing and also on all the products that it manufactures. The scheduled course dates are displayed on our website on **www.nemtek.com** or email us at **trainingoffice@nemtek.com**. For international training courses, please email **exports1@nemtek.co.za**.

ENERGIZERS

ENERGIZERS: SINGLE ZONE

WIZORD

The Wizord energizers have been field tested for many years and boast unsurpassed reliability. Simple to install and easy to maintain.

SINGLE ZONE

2J OUTPUT

WIZORD 2i (E-WIZ2I)

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed

SINGLE ZONE

3.7J OUTPUT

WIZORD 4i (E-WIZ4I)

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed

MERLIN 4i

The Merlin 4i energizers have been field tested for many years and boast unsurpassed reliability. Simple to install and easy to maintain.

SINGLE ZONE

3.7J OUTPUT

MERLIN 4i WITH KEYPAD (E-MER4I)

The Merlin 4i includes a keypad for controlling and programming the energizer. The energizer can be installed near the fence and the keypad can be situated where it is most convenient for the user. This allows the user to control the energizer remotely, with up to four keypads (EE-MKP).

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Gate chime available to alert that the gate has been opened or closed
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad

MERLIN STEALTH SINGLE ZONE

The Merlin Stealth single zone energizers are a powerful range that can be used from residential to high-end security needs. These energizers can be controlled by a tag and/or a keypad. The energizers can be programmed to offer customised solutions.

SINGLE ZONE

7.6J OUTPUT

MERLIN STEALTH M18S (E-M18S/V1)

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to four keypads
- Powered by 230V mains and includes built-in battery for back-up power
- Two built-in gate alarm inputs to monitor if the gates are open or closed

SINGLE ZONE

MERLIN STEALTH SINGLE ZONE KEYPAD (EE-M1Z2GK)

The Merlin Stealth energizer can also be controlled and programmed with the optional LED single zone keypad.

- The energizer can be installed near the fence and the keypad can be situated where it is most convenient for the user
- Up to four keypads can be connected to one Merlin Stealth energizer
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad

ENERGIZERS: SINGLE ZONE WITH LCD DISPLAY

DRUID

The LCD display in the Druid range makes information on the status and performance of the energizer quick and easy to read. Using the Adaptive Power Technology (APT) pioneered by Nemtek, these energizers are capable of detecting how much power a fence can accept and handle before it starts to arc and waste energy. This maximises the power on the fence and minimises false alarms.

SINGLE ZONE

3J OUTPUT

APT

DRUID 13LCD (E-DRUID/13/LCD)

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Walk test mode for easy fence testing
- The LCD background changes colour to help identify the fence condition
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to two keypads

DRUID 15LCD (E-DRUID/15/LCD)

SINGLE ZONE
4.6J OUTPUT
APT

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Walk test mode for easy fence testing
- The LCD background changes colour to help identify the fence condition
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to two keypads

DRUID 18LCD (E-DRUID/18/LCD)

SINGLE ZONE
7.6J OUTPUT
APT

- Ideal choice for long distance series electric fencing systems that require monitoring
- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Walk test mode for easy fence testing
- The LCD background changes colour to help identify the fence condition
- Powered by 230V mains and includes built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to two keypads

DRUID SINGLE ZONE KEYPAD (EE-DR.LCD/KP)

SINGLE ZONE

The Druid single zone energizers can also be controlled and programmed with the optional LED single zone keypad.

- The energizer can be installed near the fence and the keypad can be situated where it is most convenient for the user
- Up to two keypads can be connected to one energizer
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad

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ENERGIZERS: DUAL ZONE

MERLIN STEALTH DUAL ZONE

The Merlin Stealth dual zone energizer is a powerful range that can be used from residential to high-end security needs and is a cost-effective solution where more than one zone is required. Separation of the fence into zones allows easy identification of the zone affected by fence faults or tampering. 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. These energizers can be controlled by a tag and/or a keypad. The energizers can be programmed to offer customised solutions.

TWO ZONE

7.6J OUTPUT

MERLIN STEALTH M28S-X (E-M28S/V1)

- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Easy-to-use tag included for controlling the energizer
- Optional keypad for controlling and programming the energizer.
  This allows the user to control the energizer remotely, with up to four keypads
- Powered by 230V mains and includes built-in battery for back-up power
- Two built-in gate alarm inputs to monitor if the gates are open or closed

TWO ZONE

MERLIN STEALTH DUAL ZONE KEYPAD (EE-M2ZKP)

- The Merlin Stealth dual zone energizer can also be controlled and programmed with the optional LED dual zone keypad
- The energizer can be installed near the fence and the keypad can be situated where it is most convenient for the user
- Up to four keypads can be connected to one energizer
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad

ENERGIZERS: DUAL AND FOUR ZONE WITH LCD DISPLAY

DRUID

The LCD display in the Druid range makes information on the status and performance of the energizer quick and easy to read. Using the Adaptive Power Technology (APT) pioneered by Nemtek, these energizers are capable of detecting how much power a fence can accept and handle before it starts to arc and waste energy. This maximises the power on the fence and minimises false alarms. Synchronisation between energizers can be achieved through cabling, or by using the Druid synchronisation modules which use orbiting satellites eliminating the need for cabling between the energizers.

DRUID 25LCD (E-DRUID/25/LCD)

- Two independently monitored and controlled zones
- Each zone can be set independently to be on/off or in high/low voltage modes
- Can be programmed into alarm sensor mode allowing it to be integrated into a separate burglar alarm system
- Four zones can easily be created by linking two Druid 25LCD energizers together using the Druid four zone keypad
- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Powered by 230V mains and includes a built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to two keypads
- The Relay Expansion card can be used to increase the number of information outputs from the energizer
- Walk test mode for easy fence testing
- The LCD background changes colour to help identify the fence condition

DRUID 28LCD (E-DRUID/28/LCD)

- Two independently monitored and controlled zones
- Each zone can be set independently to be on/off or in high/low voltage modes
- Can be programmed into alarm sensor mode allowing it to be integrated into a separate burglar alarm system
- Four zones can easily be created by linking two Druid 28LCD energizers together using the Druid four zone keypad
- Built-in alarm monitors tampering or faults on the high voltage and earth fence wires
- Connectable to armed response radio or GSM module
- Lightning and power surge protection
- Intelligent power saving to extend battery life
- Powered by 230V mains and includes a built-in battery for back-up power
- Built-in gate alarm input to monitor if the gate is open or closed
- Optional keypad for controlling and programming the energizer. This allows the user to control the energizer remotely, with up to two keypads
- The Relay Expansion card can be used to increase the number of information inputs and outputs from the energizer
- Walk test mode for easy fence testing
- The LCD background changes colour to help identify the fence condition

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TWO ZONE

## DRUID DUAL ZONE KEYPAD (EE-DR.LCD/KP/2Z)

- The Druid dual zone energizer can also be controlled and programmed with the optional LED dual zone keypad
- The energizer can be installed near the fence and the keypad can be situated where it is most convenient for the user
- Up to two keypads can be connected to one energizer
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad

FOUR ZONE

DRUID FOUR ZONE KEYPAD (EE-DR.LCD/KP/4Z)

- Two Druid dual zone energizers can be controlled and programmed with the optional LED four zone keypad to form a four zone system
- The energizers can be installed near the fence and the keypad can be situated where it is most convenient for the user
- Up to two keypads can be connected
- The fence voltage outputs can be adjusted using the keypad
- The siren and gate outputs can be bypassed using the keypad
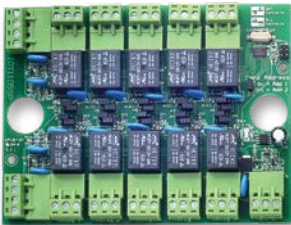
DRUID RELAY EXPANSION CARD (EE-LCD2X/REL)

- This expansion card can be used to increase the number of information inputs and outputs from the energizer
- It can be installed in the Druid 25 and 28 LCD energizer housing
- It has four inputs which can be used to switch the individual zones on/off and to switch between high and low voltage for each zone
- It has ten relay outputs which can be used to indicate:
    – Mains failure
    – Battery low
    – Zone 1 and zone 2 alarms
    – Zone 1 and zone 2 check fence alarms
    – Service conditions
    – Tamper conditions
    – Communication timeouts

SYNCHRO-NISE

DRUID SYNCHRONISATION MODULE (EE-LCD2X/GPSYNC)

Synchronisation between energizers has traditionally been done by physically connecting the energizers through wiring. The groundbreaking Nemtek synchronisation module synchronises the energizers using satellites. This eliminates the need for wiring between energizers, saving on costs and making the installation quicker and easier.

- Easy to install and ready to use
- Watertight housing for external installation

ENERGIZER CONTROLLERS

The Nemtek Druid controller FG7C LCD touch-screen controls up to 32 Nemtek Druid dual zone energizers. Electric-fencing systems can also be integrated with the Nemtek fence probe software (E-NDFP01) or to a third-party security management system using the FG7C.

64 ZONE
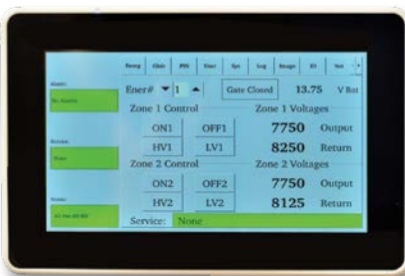
DRUID CONTROLLER FG7C

- Up to 32 Druid dual zone energizers providing up to 64 zones can be controlled
- Up to 2 Nemtek network IO cards can be controlled
- Can be used in conjunction with multiple Smart IO relay cards
- Graphic image of the site with zones and the fence and energizer conditions can be displayed on the LCD screen
- Commands can be sent to the energizers using the touchpad
- Logs containing system details are recorded
- Allows for three different types of users with different access levels to be set up
- Can be configured to allow TCP/IP connectivity for integration with third-party software and systems
- For large-scale systems, additional FG7C controllers can be added together
- Available in wall mount (E-FG7C/DRUID/WM) and panel mount (E-FG7C/DRUID/PM) options

FG7C RS485 INTERNAL CARD (EE-FG7C/485/TW)

- RS485 communication card
- Fits inside the FG7C controller
- Input included for the Tension Wire sensors (E-TWS1)

FG7C NEMLINK INTERNAL CARD + TENSION WIRE (EE-FG7C/NLE/TW)

- Ethernet communication
- Fits inside the FG7C controller
- Input included for the Tension Wire sensors (E-TWS1)

SMART CARD CONTROLLER

Smart IO relay cards use the network to control either a Node 2 controller, a Druid 25 LCD, a Druid 28 LCD or the Druid Network IO Card 8 + 1. Multiple smart cards can be used to control multiple devices.

SMART IO RELAY CARD (EE-PRIO8/NL)

- 8 digital inputs
- Available in a RS485 version (EE-D/485/1)
- 8 programmable relay outputs and 1 good communication relay output
- Robust surge protection is included on all inputs and outputs
- All relays can be individually configured to be independent dry contacts or common-ground wet contacts with 12V nominal output
- Each relay has a very useful LED indicator to show if the relay is energized
- 3 communications debug LED indicators for Tx, Rx and Valid Command
- 1 power-on LED indicator
- In addition to the input states, the IO card also reports on temperature and supply voltage levels
- Removable connectors to ease replacement
- Designed to mount into a Nemtek Power Pack (PP-2.0AMP)

MULTI ZONE SYSTEMS

Nemtek offers a variety of solutions for multi-energizer systems. These solutions can be tailored to suit a wide variety of specific needs. The selection will depend on the site, the level of security required and the type of communication link or interface required with other systems on the site.
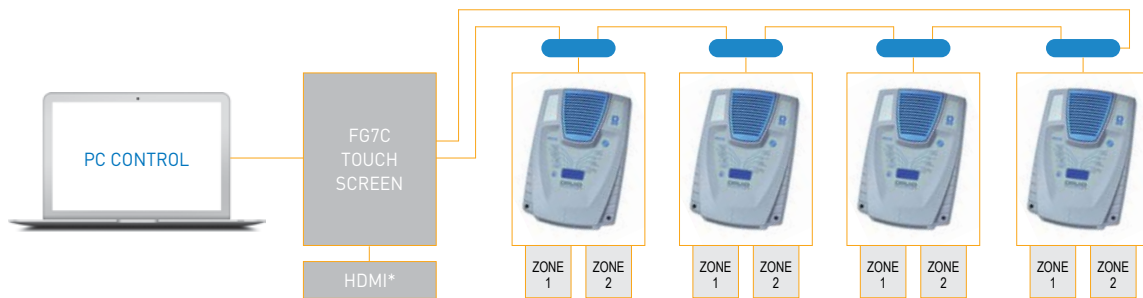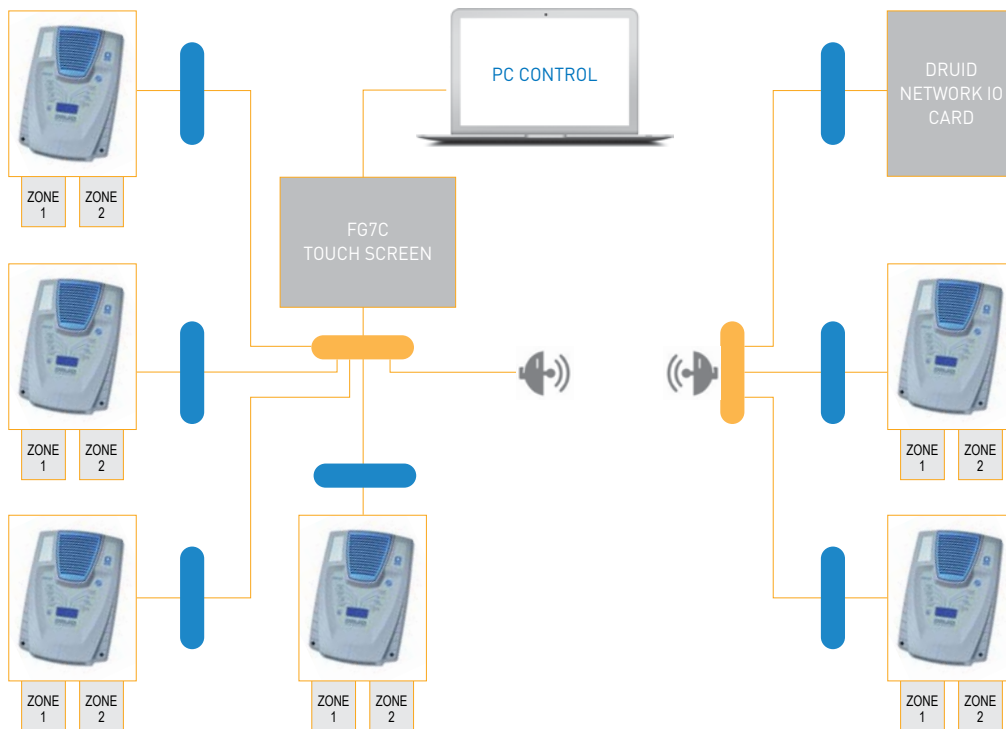
Diagram 1: Daisy-chain configuration

Diagram 2: Star configuration

Communication cards

Network switch

Microwave link

* When using HDMI the FG7C screen is disabled.

NEMTEK DRUID FENCE PROBE SOFTWARE WITH FG7C


64 ZONE

31 NETWORK IO CARDS

PC CONTROL

REMOTE ACCESS

NEMTEK DRUID FENCE PROBE SOFTWARE (E-NDFP01)

Nemtek Druid Fence Probe software provides computer interaction with one FG7C controller, 32 dual zone Druid LCD energizers and up to 31 Druid Network IO cards.

Visual map images of the electric fence and its zones can be displayed on a computer screen. This software enables a site to be controlled from a remote location.

A programmable timer function can control water pumps, lights and other remote functions using the Druid Network IO card. Logs record the operational history of the system over time.

Communication cards

* When using HDMI the FG7C screen is disabled.

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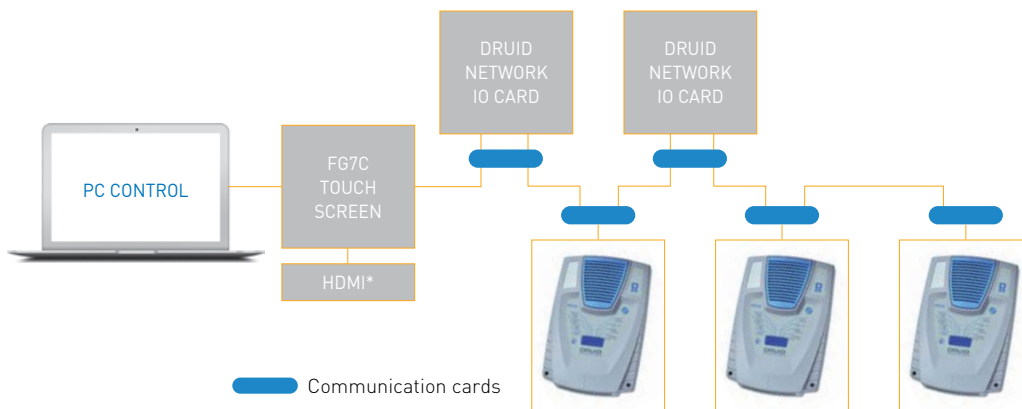
COMMUNICATION CARDS AND CONVERTORS

SINGLE-MODE FIBRE CONVERTORS

- Available with SC (EE-FC/SM/SC) and ST (EE-FC/SM/ST) type connectors
- For networking over fibre with the Druid D25 or D28 energizers

MULTI-MODE FIBRE CONVERTOR

- Available with ST type connector (EE-FC/MM/ST)
- For networking over fibre with the Druid D25 or D28 energizers

SINGLE-MODE ETHERNET TO FIBRE CONVERTOR (EE-ETF/SM/SC)

- Available with ST type connector (EE-ETF/SM/ST)
- TCP/IP connectivity
- Receive (Rx) and Transmit (Tx) LED lights
- Power light

MULTI-MODE ETHERNET TO FIBRE CONVERTOR (EE-ETF/MM/ST)

- TCP/IP connectivity
- Receive (Rx) and Transmit (Tx) LED lights
- Power light

DRUID NEMLINK CARD (EE-LCD2X/NLE)

- Communication card for linking the Druid D25 or D28 energizer to a RJ45 ethernet port
- For networking of the Druid D25 or D28 and FG7C over a local area network (LAN)
- Fits inside the Druid D25 and D28 energizer housing

DRUID RS485 CARD (EE-D/485/1)

- RS485 communication card
- Fits inside the Druid D25 and D28 energizer housing
- For communication and synchronisation over a star or daisy-chain RS485 network

Special precautions should be taken when connecting any network to an electric fencing system. These networks will be exposed to a greater risk from lightning damage. To minimise this increased risk, use a separate network for the electric fencing system or use galvanic isolation to separate the two networks.

DRUID NETWORK IO CARD (EE-FGIO8/NL)

- Programmable network IO card
- Eight relay outputs with LED indication, individually set for potential free contacts or 12V output
- Eight inputs with individually selectable pull-ups

DRUID NEMLINK CARD – NETWORK IO (EE-LCD2X/NLIO)

- Communication card for linking the Druid Network IO card (EE-FGIO8/485) to an RJ45 ethernet port
- For networking an IO card to the FG7C over a local area network (LAN)

POWER SUPPLY PACK

The Nemtek Power Pack, including battery, provides a stable power source and back-up power during a mains failure.

POWER PACK 2AMP
(PP-2.0AMP)

- 2Amp power supply with a 7AH battery included
- Lightning and power surge protection
- The power pack can house the following:
    – Power Supply Trigger module (SR-FL/24PCB)
    – Druid Network IO card (EE-FGIO8/NL)
    – Smart IO relay card (EE-PRI08/NL)
    – Node Controller (E-TW/NODE1, E-TW/NODE2)

Node 2 Controller

Light PCB Power Supply Trigger Module

Smart IO Relay Card

FENCE TESTERS

FENCE SCOPE MULTI TOOL (TL-FS)

Measures energy in joules

Shows direction of faults

Optional pouch (TL-FSTP)

Advanced fence diagnostic features

4-in-1 diagnostic tool

The Fence Scope is a 4-in-1 tool which helps diagnose problems on your fence to optimise electric fence installation and ensure that the fence continues to operate at ideal levels.

There are four operation modes to select from:
- **Fence probe mode** – quickly indicates the direction of a fence fault, showing the voltage and current.
- **Fence energy mode** – accurately measures the output energy along the fence. This mode can be used to test the size of the shock the intruder will receive at any point along the fence by simulating the intruder. This helps to ensure that the voltage and the energy is sufficient along the entire fence to deliver an appropriate shock to the intruder.
- **Fence scope mode** – this can record and display waveforms of the electric fence pulse. Distortions in the waveform (wave shape) generally indicate that there are fence faults.
- **Fence noise mode** – this shows the amount of electromagnetic interference generated by the fence or energizer. This feature assists in finding cracked or broken insulators, sparks and shorts along the fence.

FENCE METER (TL-FM)

The Nemtek Fence Meter helps diagnose problems on your fence to optimise the electric fence installation and ensure that the fence operates at an ideal level.

FEATURES:

- Patented fence probe offers more accurate readings
- Quickly and easily locates faults along the fence line
- Large display for easy reading
- Displays current, voltage and the direction of a fault
- Lightweight with a convenient belt clip
- Slimline, rugged design with a water-resistant case
- Low battery warning
- Automatic energizer-polarity detection
- Can be used with most energizers

EASY FENCE TESTER (TL-EFT)

The frequency of the flashing LEDs will change as the voltage increases or decreases. The slower the flashing rate, the lower the voltage. The intensity of the light remains the same so it can be seen from afar irrespective of the fence voltage. It is installed between the earth and live wire to indicate the status and condition of the fence for peace of mind.

FEATURES:

- Includes clips to connect to wire or polytape
- Indicates power on the fence for peace of mind
- Visible from up to 1km at night and 100m during the day
- No batteries required
- Uses minimal power from the fence
- The frequency of the flashing LEDs indicates the amount of voltage on the fence The longer the period between flashes, the lower the voltage on the fence
- Highly visible LEDs allow for a 160-degree viewing angle. This allows the light to shine into the secure area only
- Can operate from 0.9kV to 12kV
- Can be used with most electric fence energizers

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ENERGIZER SPECIFICATIONS

Nemtek Energizer Brand	Wizord ™		Merlin	Merlin Stealth ™		Druid ™				
Model Number	**2i**	**4i**	**4i**	**M18S**	**M28X**	**13 LCD**	**15 LCD**	**18 LCD**	**25 LCD**	**28 LCD**
Energizer Dimensions										
	L285 x W212 x D120			L370 x W232 x D145		L285 x W212 x D120		L370 x W232 x D145	L400 x W270 x D125	
High-Voltage Outputs										
Typical energy output into 500 Ohms load (Joules)	2J	3.7J	3.7J	7.6J	7.6J	3J	4.6J	7.6J	2 x 2.4J	2 x 3.7J
Output voltage into an open circuit	7 400V	8 000V	8 000V	9 300V	9 300V	9 000V	9 000V	9 600V	9 000V	9 000V
High or low voltage modes. Voltage settings can be set for both the high and the low voltage modes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of high-voltage monitored zones	1	1	1	1	2	1	1	1	2	2
Number of earth loop monitored zones	1	1	1	1	2	1	1	1	2	2
Adaptive Power Technology (APT)						Yes	Yes	Yes	Yes	Yes
Fence interference detection from foreign energizers		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Energizer Controls and Displays										
Keypads for the remote control of the energizer	No	No	4 max 1 incl	4 max	4 max	2 max	2 max	2 max	2 max	2 max
Tag switch – to control the energizer without using a keypad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote on/off input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes	Yes
Displays the output and return voltages						Yes	Yes	Yes	Yes	Yes
Display type	LED	LED	LED	LED	LED	LCD	LCD	LCD	LCD	LCD
Gate and Panic Button Inputs										
Timed gate switch input, used to monitor opening and closing of the gate	Yes*	Yes*	Yes*	Yes	Yes	Yes*	Yes*	Yes*	Yes	Yes
Panic button input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes	Yes
Alarm Outputs										
Siren output, time programmable	Fixed	Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strobe light output to visually indicate an alarm condition	1	1	1	1	2	1	1	1	2	2
Power Supply and Battery Back-up Systems										
Mains supply voltage***	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V
Typical power consumption under normal operating conditions	17VA	18VA	16VA	27VA	27VA	18VA	18VA	25VA	18VA	23VA
Internal battery back-up system in case of power failure, capacity of battery	7Ah	7Ah	7Ah	7Ah	7Ah	7Ah	7Ah	7Ah	7Ah	7Ah
Typical standby time, with a fully-charged battery	24 hrs	24 hrs	24 hrs	8 hrs	6 hrs	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs
Solar voltage regulator	5Amp	5Amp	5Amp	15Amp	15Amp	5Amp	10Amp	15Amp	10Amp	15Amp
Solar power panels can be connected to power the energizers, (recommended Watt size for 24-hour operation)**	60 Watts	60 Watts	60 Watts	140 Watts	140 Watts	60 Watts	90 Watts	140 Watts	90 Watts	140 Watts
Deep cycle battery size recommended in Amp hours (25% discharge over a 24-hour cycle)	60Ah	60Ah	60Ah	150Ah	150Ah	60Ah	100Ah	150Ah	100Ah	150Ah

Nemtek Energizer Brand	Wizord ™		Merlin	Merlin Stealth ™		Druid ™				
Model Number	2i	4i	4i	M18S	M28X	13 LCD	15 LCD	18 LCD	25 LCD	28 LCD
Wire Length per Energizer (Live Wires in a Series System) for Both Solid and Stranded Wires										
Galvanised wires, 1.2mm										
• Optimal performance up to	2km	3km	3km	10km	2 x 5km	3km	5km	10km	2 x 2.5km	2 x 3km
• Maximum	4km	5km	5km	25km	2 x 13km	5km	8km	25km	2 x 4km	2 x 6km
Galvanised wires, 1.6mm and 1.6mm XL										
• Optimal performance up to	2km	3km	3km	14km	2 x 7km	3km	5km	12km	2 x 2.5km	2 x 3km
• Maximum	4km	6km	6km	28km	2 x 15km	5km	8km	24km	2 x 4km	2 x 6km
Galvanised wires, 2.0mm and 2.0mm XL										
• Optimal performance up to	2.5km	3.5km	3.5km	16km	2 x 8km	3.3km	5.5km	14km	2 x 2.8km	2 x 3.5km
• Maximum	5km	7km	7km	30km	2 x 15km	5.6km	9km	28km	2 x 5km	2 x 7km
Galvanised wires, 2.24mm										
• Optimal performance up to	3km	4km	4km	20km	2 x 10km	3.8km	6km	20km	2 x 3km	2 x 4km
• Maximum	6km	10km	10km	50km	2 x 25km	6.6km	10km	50km	2 x 6km	2 x 10km
Stainless steel 1.0mm, 304 and 316 grade										
• Optimal performance up to	0.5km	0.6km	0.6km	0.7km	2 x 0.8km	0.6km	0.7km	0.8km	2 x 0.6km	2 x 0.7km
• Maximum	0.6km	0.9km	0.9km	1km	2 x 1.2km	0.9km	1km	1km	2 x 0.9km	2 x 1.1km
Stainless steel 1.2mm, 304 and 316 grade										
• Optimal performance up to	0.6km	0.7km	0.7km	1km	2 x 1km	0.7km	0.8km	1km	2 x 0.7km	2 x 0.9km
• Maximum	0.9km	1km	1km	1.3km	2 x 1.3km	1km	1.1km	1.3km	2 x 1km	2 x 1.2km
Stainless steel 1.6mm, 316 grade										
• Optimal performance up to	1.2km	1.4km	1.4km	2km	2 x 2km	1.4km	1.6km	2km	2 x 1.5km	2 x 1.9km
• Maximum	1.8km	2km	2km	2.6km	2 x 2.6km	2km	2.2km	2.6km	2 x 2.1km	2 x 2.5km
Stainless steel 2.0mm, 316 grade										
• Optimal performance up to	1.8km	2.1km	2.1km	3.3km	2 x 3km	2.1km	2.4km	3.3km	2 x 2.3km	2 x 2.9km
• Maximum	2.7km	3km	3km	3.9km	2 x 3.9km	3km	3.3km	3.9km	2 x 3.2km	2 x 3.8km
Aluminium wire 1.6mm and 2.0mm										
• Optimal performance up to	6km	8km	8km	40km	2 x 20km	8km	10km	40km	2 x 6km	2 x 8km
• Maximum	12km	16km	16km	80km	2 x 40km	16km	20km	80km	2 x 12km	2 x 16km
Aluminium wire 2.5mm										
• Optimal performance up to	6km	8km	8km	40km	2 x 20km	8km	10km	40km	2 x 6km	2 x 8km
• Maximum	12km	16km	16km	80km	2 x 40km	16km	20km	80km	2 x 12km	2 x 16km
Multi-Energizer Systems										
Can be used in multi-energizer network system									Yes	Yes
Compliance										
IEC 60335-2-76 CISPR 14, EN 61000	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Output energy is a function of component tolerance and energy settings and is reduced during power failure.

YES* Indicates that this function is available at the cost of another function, further details are on our website **www.nemtek.com**.
**   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 230Vac ± 10% transformer, 110 Volts are available on request. Batteries are supplied as a standard.

Specification may change without prior notice.

TENSION SENSORS

DUAL ACTION TENSION SENSOR

The patented Nemtek Dual Action Tension Sensor – (DATS) can detect a change of tension in the fence wire. It uses the electric fence monitoring circuit to create an alarm condition on the energizer. The dual action increases the likelihood of an intruder being detected and reduces the possibility of tampering. The DATS2 is used with wire diameters up to 1.6mm for wall top applications and the DATS3 is for wire diameters up to 2.5mm for free standing fences.

DATS2 (TS-DATS2/XL, TS-DATS2/SS)

- Detection range (straight line) up to 50m
- Is paired with the Heavy-Duty Compression Spring Hybrid (ES-CNT2HB) so the tension in the fence wires can be adequately maintained
- Detects a change in tension on a fence line
- Detects an open circuit at its first-stage trigger
- Detects a dead short at its second-stage trigger
- Constructed from robust material to suit all wire types up to 1.6mm
- There are two models available to cater for different wire types; TS-DATS2/XL is used with the galvanised and aluminium fence wires and the TS-DATS2/SS for the stainless steel wires
- Easy to install and retrofit onto most existing Nemtek electric fences

DATS3 (TS-DATS3/XL, TS-DATS3/SS)

- Detection range (straight line) up to 50m
- Is paired with the Heavy-Duty Compression Spring Hybrid (ES-CNT4HB) so the tension in the fence wires can be adequately maintained
- Detects a change in tension on a fence line
- Detects an open circuit at its first-stage trigger
- Detects a dead short at its second-stage trigger
- Constructed from robust material to suit all wire types up to 2.5mm
- There are two models available to cater for different wire types; TS-DATS3/XL is used with the galvanised and aluminium fence wires and the TS-DATS3/SS for the stainless steel wires
- Easy to install and retrofit onto most existing Nemtek electric fences

DATS BRIDGING WIRES
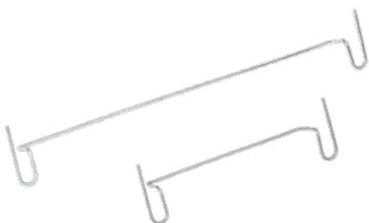
- Available in galvanised finish 100mm (EA-DBW2.0X100G) and 200mm (EA-DBW2.0X200G)
- Available in stainless steel finish 100mm (EA-DBW1.8X100SS) and 200mm (EA-DBW1.8X200SS)

TENSION SENSOR SYSTEM

The Nemtek tension sensor system measures tension changes on the fence wire and will set off an alarm if the wires are cut or if there is an attempt to part the wires in order to gain entry. Each sensor is placed in the middle of a straight run and can detect up to a 100m span of wire. The tension sensor system can be combined with an electric fence system creating a formidable detection and deterring barrier.

There are two types of controllers available to control the Nemtek tension sensors. The first is the FG7C tensor sensor controller which offers a visible display of the site and the sensors. The second type is the Node controller (Node 1 or Node 2) which interfaces with the tension sensors and can be controlled via a third-party platform such as an alarm system. The Node controllers can be used in conjunction with the Smart cards on a network for larger systems.

TENSION SENSOR CONTROLLER FG7C

- The tension sensor controller FG7C is a seven-inch LCD display screen that can be used to control up to 31 tension wire sensors and a network IO card
- Graphic images of the site with zones and the fence condition can be displayed on the LCD screen
- Commands can be sent to the tension wire sensors to configure them and adjust their sensitivity
- Logs containing system details are recorded
- Allows for three different types of user with different access levels to be set up
- Can be configured to allow TCP/IP connectivity for integration with third-party software and systems
- Available in panel mount (E-FG7C/TW/PM) and wall mount (E-FG7C/TW/WM) options

DRUID NETWORK IO CARD (EE-FGIO5)

- Programmable network IO card with four relay outputs to create four zones and one global alarm output
- Relays individually set for potential free contact or 12V output
- Used with an FG7C controller

NODE 1 CONTROLLER (E-TW/NODE1)

The Tension Sensor Node 1 can communicate and interface with the Smart IO relay card through a network.

- Robust surge protection is included on all inputs and outputs
- 2 relay outputs
- 3 sets of communications debug LED indicators for Tx and Rx
- 1 power-on LED indicator
- Removable connectors ease replacement
- Designed to mount into a Nemtek Power Pack (PP-2.0AMP)
- Two separate sensor input channels – each capable of up to 31 tension sensors

NODE 2 CONTROLLER (E-TW/NODE2)

The Node 2 communicates and interfaces with third-party security systems through the two relays provided.

- Robust surge protection is included on all inputs and outputs
- 2 relay outputs
- 1 power-on LED indicator
- Monitoring of temperature and supply voltage levels can be reported on
- Removable connectors ease replacement
- Designed to mount into a Nemtek Power Pack (PP-2.0AMP)
- Two separate sensor input channels – each capable of up to 31 tension sensors

TENSION WIRE SENSOR (E-TWS1)

- The tension wire sensor can detect a rapid change of tension and send an alarm condition to the controller
- Built-in filter to reduce unwanted false alarms due to weather conditions and changes in tension over time
- Will notify the controller if an adjustment is required on the sensor
- Can be programmed from the controller
- UV stabilised polymers for outdoor use
- Stainless steel mountings and fasteners are included with the sensor

TENSION SENSOR DUMMY (E-TWS2)

- Used to reduce the cost of a system where not all wires need to be monitored
- Looks the same as a normal tension wire sensor
- UV stabilised polymers for outdoor use
- Stainless steel mountings and fasteners are included with the sensor

MYLAR SCREEN 3 CORE CABLE (CB-TWC/200)

- UV stabilised 200m roll of Mylar Screen 3 Core cable
- Communication cable to connect the sensors to the FG7C controller

TENSION WIRE SENSOR BRACKETS

The bracket with sensor will set off an alarm if the wires are cut or if there is an attempt to part the wires in order to gain entry. Each tension sensor is placed in the middle of a straight run and can detect up to a 100m span of wire. The tension sensor system can be combined with an electric fencing system creating a formidable detection and deterring barrier.

SIDE MOUNT BRACKET – SINGLE SENSOR (E-TW/1WSM/S)

- The tension wire sensor can detect a rapid change of tension and send an alarm condition to the controller
- Built-in filter to reduce unwanted false alarms due to weather conditions and changes in tension over time
- Will notify the controller if an adjustment is required on the sensor
- Can be programmed from the controller
- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

WALL TOP BRACKET – THREE WIRE SENSOR (E-TW/3WS)

- The tension wire sensor can detect a rapid change of tension and send an alarm condition to the controller
- Built-in filter to reduce unwanted false alarms due to weather conditions and changes in tension over time
- Will notify the controller if an adjustment is required on the sensor
- Can be programmed from the controller
- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

SIDE MOUNT BRACKET – SINGLE WIRE (E-TW/1WSM/P)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

WALL TOP BRACKET – THREE WIRE (E-TW/3WP)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

WALL TOP BRACKET – SINGLE SENSOR (E-TW/1WS)

- The tension wire sensor can detect a rapid change of tension and send an alarm condition to the controller
- Built-in filter to reduce unwanted false alarms due to weather conditions and changes in tension over time
- Will notify the controller if an adjustment is required on the sensor
- Can be programmed from the controller
- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

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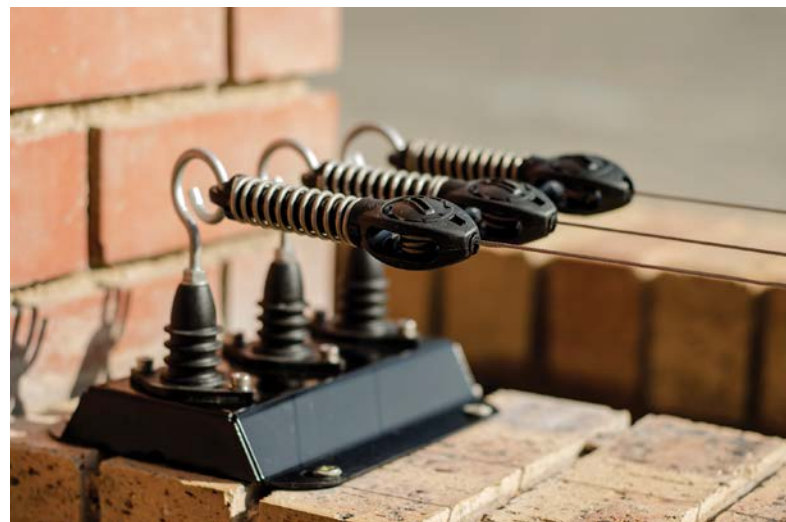
WALL TOP BRACKET –
SINGLE WIRE (E-TW/1WP)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

WALL TOP BRACKET –
THREE WIRE STEP (E-TW/3WP45)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

WALL TOP BRACKET –
SINGLE STEP (E-TW/1WP45)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer
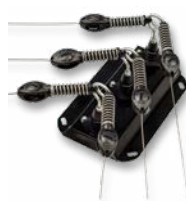
WALL TOP BRACKET –
THREE WIRE CORNER (E-TW/3WC)

- Heavy duty design
- Hot dip galvanised and powder coated finish
- Can be electrified using a Nemtek energizer

PERIMETER ALARM LIGHT SYSTEM

The perimeter alarm light system can be installed onto most of the Nemtek electric fencing brackets and posts. The lights are installed at 6m to 9m intervals along the electric fence line to illuminate the area. When the electric fence energizer alarms, the perimeter alarm lights will illuminate the specific zone that has been triggered. This could help detect and thus deter the intruder from attacking the fence line. The lights can also be triggered manually at any time using a remote control. The lights are LED, consuming low energy and will be illuminated immediately. They also face downward, thus minimising light pollution.

POWER SUPPLY TRIGGER MODULE (SR-FL/24PCB)

- Input voltage 12VDC
- Maximum input current consumption 2A
- Output voltage 25.5V
- Maximum output current 800mA* at 25°C
- Maximum number of connected light modules 40 (20 sets)
- Trigger input voltage 10 – 30VDC**
- Maximum trigger input current consumption 1.5mA**
- Number of trigger inputs 3 (configurable as wet or dry contacts)
- Mounting 3 x 3mm holes***

* Over-current protected
** Jumpers configured for dry contact
*** Designed to mount inside a Nemtek Power Pack (PP-2.0AMP)

(SR-FL/6LED)
(LIGHT MODULE 6 LED)

DUAL LIGHT MODULE WITH MOUNTING BRACKET (SR-FL/DUAL)

- Lights are installed at 6m to 9m intervals along the fence line with 200m coverage on a power pack
- Lights are downward-facing
- Lights are LED so no warm-up time is required
- Lights can be triggered in three ways
    – Energizer alarm trigger
    – Remote on and off
    – Day/night switch
- Minimum luminous intensity 99 000mcd
- Emission colour Ultra-bright white
- Illumination angle 30°
- IP rating is IP67

LOW-VOLTAGE CABLE (CB-2CFLC)

- Low-voltage cabling is run along the fence line to provide power to the lights
- 100m roll

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BRACKETS AND ACCESSORIES

WALL TOP BRACKETS

Nemtek brackets are made to a high standard to maximise security and ensure long life in the field. 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 from steel and are finished in a high-quality outdoor powder coating, or are hot dip galvanised for coastal conditions. Our factory can manufacture different types of designs and finishes on request.

ROUND BAR
- 5, 6 or 8 wires
- PC, HDG or PC and HDG finish
- 600mm, 750mm or 1000mm long

FLAT BAR
- Straight or angled
- 5 or 6 wires
- PC, HDG or PC and HDG finish
- 730mm or 830mm long

SQUARE TUBE
- Straight or angled
- 6, 8, 10 or 12 wires
- PC finish
- 995mm, 1 195mm, 1 395mm or 1 595mm long

SQUARE TUBE TOP BEND
- 6, 8 or 10 wires
- PC finish
- 995mm, 1 195mm or 1 395mm long

SQUARE TUBE JURASSIC
- Straight or angled
- 6, 8 or 10 wires
- HDG or PC and HDG finish
- 995mm, 1 195mm or 1 395mm long
- Ideal for coastal use

SQUARE TUBE JURASSIC TOP BEND
- 6 or 8 wires
- HDG or PC and HDG finish
- 995mm or 1 195 mm long
- Ideal for coastal use

PC: Powder coated finish in black or white. **HDG:** Hot dip galvanised. **HDG and PC:** First hot dip galvanised and then powder coated.

PROFILE POLE
- 6 wires
- PC, HDG or PC and HDG finish
- 385mm long

T-POLE
- 6 wires
- PC, HDG or PC and HDG finish
- 600mm long

SQUARE TUBE SHIELD T-POLE
- 8 wires
- Offering high security
- Large base plate for stronger mounting
- PC or HDG finish
- 760mm long
- Option 2 allows for 10 lines with 2 insulators on the stem

SQUARE TUBE SHIELD WITH BASE
- 8 wires
- Offering high security
- Large base plate for stronger mounting
- PC or HDG finish
- 760mm long
- Additional insulators can be added onto the back to create a 9 or 10 wire
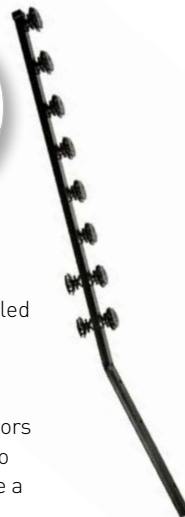
SQUARE TUBE SHIELD
- Straight and angled
- 8 wires
- Black PC finish
- 1 195 mm
- Additional insulators can be added onto the back to create a 9 or 10 wire

SQUARE TUBE SHIELD PIN
- Straight
- 6 wires
- HDG or HDG and PC
- 695mm long
- Additional insulators can be added onto the back to create a 7 or 8 wire

SQUARE TUBE POPEM
- Straight and angled
- 9 wires
- HDG finish
- 1195mm long

NEMTEK
Electric Fencing Products
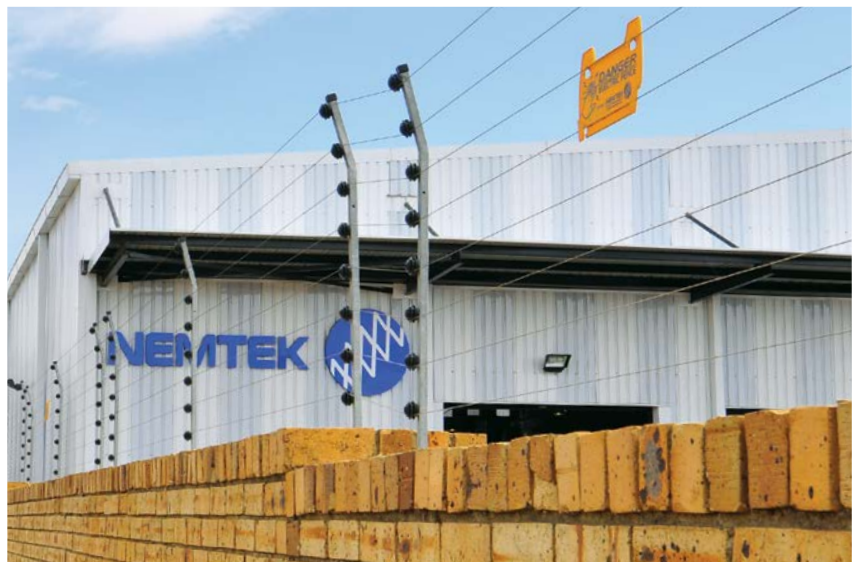
WALL TOP BRACKET ACCESSORIES

STAY AND LUG
- 600mm black PC (EST/L/B) and white (EST/L/W)
- 750mm black PC (EST/L/BL) and white (EST/L/WL)
- 600mm HDG (EST/L/HD)
- 750mm HDG (EST/L/HDL)
- 600mm is for flat bar and round bar brackets, 750mm is for 6 line and 8 line square tubing

STAY HEAVY DUTY
- 1 000mm black PC (ESTBL10) and white (ESTWL10)
- 1 000mm HDG (ESTHDL10)
- Used with the 10 wire and 12 wire square tube brackets

STAY SLEEVE
- UV stabilised insulator for the stays
- For 600mm stay black (ESTSSB) or white (ESTSSW)
- For 750mm stay black (ESTSLB) or white (ESTSLW)
- For 1 000mm stay black (ESTSLBL10) or white (ESTSLWL10)

LUGS
- Used with the stays and available for both the 8mm and 10mm stays
- For 8mm stay (EA-L635)
- For 8mm stay HDG (EA-L635/HDG)
- For 8mm stay Aluminium (EA-L635/ALU)
- For 10mm stay (EA-L670)

ROUND BAR STAY CLAMP
(EA-RAT)
- Used in conjunction with the 8mm stay and lug to secure the stay on to the round bar

NAIL-IN ANCHORS
- 6mm x 40mm (100 box): ideal for inland use (EA-640)
- 6mm x 60mm (100 box): ideal for inland use (EA-660)
- 8mm x 80mm (50 box): ideal for inland use (EA-880)
- 6mm x 40mm (100 box): ideal for inland and coastal use (EA-640/XL)
- 6mm x 60mm (100 box): ideal for inland and coastal use (EA-660/XL)
- 8mm x 80mm (50 box): ideal for inland and coastal use (EA-880/XL)

HAMMER DRIVE ANCHORS
- Hammer drive with zinc alloy ideal for coastal use
- 6mm x 50mm (100 pack) (EA-HDP650)
- 6mm x 65mm (100 pack) (EA-HDP665)

COACH SCREW AND PLUG (EA-CSSET/HD)
- Hot dip galvanised for coastal use
- Ideal for use with the Nemtek square tube brackets
- 8mm x 75mm (50 pack) including wall plug and washer

TEK SCREWS – SELF DRILLING
- 12 x 25mm: inland and coastal use (EA-TEK12X25/HDG)
- 12 x 38mm: inland and coastal use (EA-TEK12X38/HDG)
- 12 x 65mm: inland and coastal use (EA-TEK12X65/HDG)
- 14 x 75mm: inland and coastal use (EA-TEK14X75/DM)
- 14 x 102mm: inland and coastal use (EA-TEK14X102/DM)
- 14 x 142mm: inland and coastal use (EA-TEK14X142/DM)

FREE STANDING SYSTEM

INTERMEDIATE POSTS

Nemtek has a range of products available to set up a free standing electric fence. These include corner and end posts for tensioning the fence and intermediate posts for guiding the wires between the posts.

INTERMEDIATE POSTS (Y-PICKETS)						
	Nemtek picket intermediate posts	Number of wires	Number of holes	Fence height	Finish	Associated insulators
	Nemtek Y-picket – 1.5m Bitumen (EY-Y15NB) Hot dip galvanised (EY-Y15NHD)	Up to 12	12 100mm spacing	1.2m	Bitumen or hot dip galvanised	Picket insulator (EI-PI)
	Nemtek Y-picket – 2.4m Bitumen (EY-Y24NB) Hot dip galvanised (EY-Y24NHD)	Up to 20	20 100mm spacing	2.0m	Bitumen or hot dip galvanised	Picket insulator (EI-PI)
	Nemtek Y-picket – 3.0m Bitumen (EY-Y30NB) Hot dip galvanised (EY-Y30NHD)	Up to 24	24 100mm spacing	2.4m	Bitumen or hot dip galvanised	Picket insulator (EI-PI)
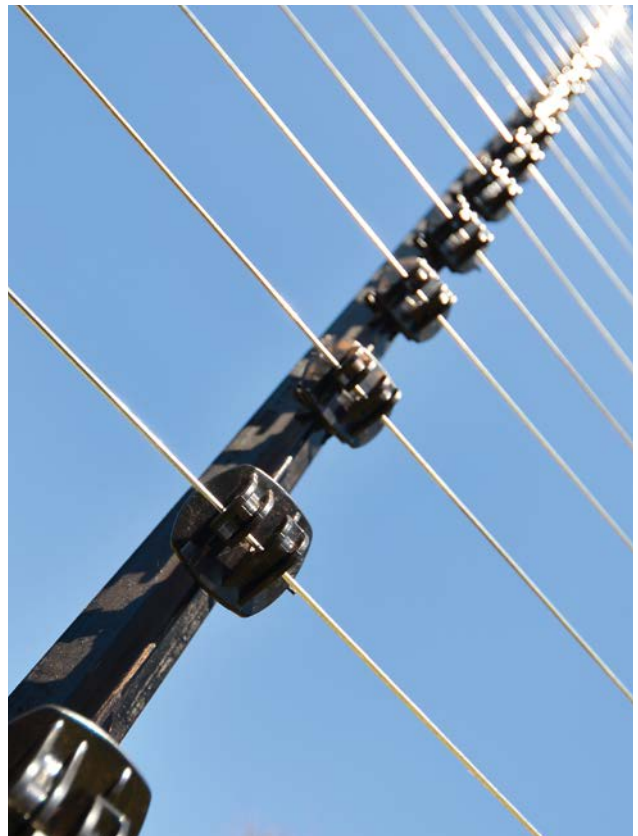
CORNER, END POSTS AND ASSOCIATED STAYS

CORNER, END POSTS AND ASSOCIATED STAYS					
Round-corner and end-straining posts	Number of wires	Number of holes	Fence height	Finish	Associated stays
Round tube 76 x 2mm/1.5m (EY-CPR7620HD15)	12	2 x 12	1.2m	Hot dip galvanised	Round 38 x 2mm/1.5m (EY-CSR3815HD)
Round tube 76 x 2mm/2.4m (EY-CPR762HD24)	20	2 x 20	2.0m	Hot dip galvanised	Round 38 x 2mm/2.4m (EY-CSR3824HD)
Round tube 76 x 2mm/3.0m (EY-CPR762HD30)	24	2 x 24	2.4m	Hot dip galvanised	Round 50 x 2mm/3.0m (EY-CSR5030HD)
Round tube 95 x 2mm/2.4m (EY-CPR9520HD24)	20	2 x 20	2.0m	Hot dip galvanised	Round 50 x 2mm/2.4m (EY-CSR5024HD)
Round tube 95 x 2mm/3.0m (EY-CPR9520HD30)	24	2 x 24	2.4m	Hot dip galvanised	Round 50 x 2mm/3.0m (EY-CSR5030HD)

Nut (EA-SCRM10NUTSHD)
Bolt (EA-SCRM10X120H)

Black powder coated finish available to order

OMEGA BRACKETS

The Omega bracket is a versatile and flexible solution for use with an existing fence. The mechanical strength and structure of the existing fence is used to set up the electric fence. This reduces the time and cost of constructing a completely new fencing system. The pre-punched holes provide flexibility for the placement of the insulators.

FEATURES

- Available in pre-galvanised grade of mild steel for inland use
- Hot dip galvanised for coastal use where corrosion is high
- Available in pre-cut lengths, making it versatile and flexible where different lengths are required
- Lightweight and easy to transport reducing handling time and transport costs
- 2mm Omegas used for corners, end posts and gates where the bracket will be under stress of tensioning
- All 2mm Omega brackets are hot dip galvanised for coastal use
- All 1mm Omega intermediate posts are used to carry the wires

OMEGA DOUBLE SHIELD INSULATOR

OMEGA BRACKET FINISH	OMEGA THICKNESS	OMEGA BRACKET – PRE-CUT SIZES (mm)						
		900mm	1 200mm	1 500mm	1 800mm	2 100mm	2 400mm	3 000mm
PRE-GALVANISED	1mm	EY-PR275/0900/1	EY-PR275/1200/1	EY-PR275/1500/1	EY-PR275/1800/1	EY-PR275/2100/1	EY-PR275/2400/1	EY-PR275/3000/1
HOT DIP GALVANISED	1mm	EY-PRHDIP0900/1	EY-PRHDIP1200/1	EY-PRHDIP1500/1	EY-PRHDIP1800/1	EY-PRHDIP2100/1	EY-PRHDIP2400/1	EY-PRHDIP3000/1
	2mm				EY-PRHDIP1800/2	EY-PRHDIP2100/2	EY-PRHDIP2400/2	EY-PRHDIP3000/2

OMEGA BRACKET ACCESSORIES

S-HOOK (ES-HK/EP)
- Suitable for end posts and gates
- Hot dip galvanised finish

90 DEGREE S-HOOK
(ES-HK/EP/90DEG)
- Suitable for corner posts
- Hot dip galvanised finish

180 DEGREE S-HOOK
(ES-HK/EP/DS)
- Suitable for splitting zones along straight runs
- Hot dip galvanised finish

OMEGA PULL THROUGH ASSEMBLY (EI-BTL2, ES-HK/EP/PTH)
- Ideal for wire change of direction in inner corners
- Quick and easy to install

OMEGA SPACER (EY-O/SWT)
- Used to offset the Omega bracket away from the fence or wall
- Can be used on flat or round surfaces

OMEGA INSULATOR (EI-OB)
- Quick fit design
- Double-tracking fin to reduce tracking and arcing
- Available in collapsible version (EI-OB/C)

HEAVY DUTY COMPRESSION SPRING (ES-CNT3)
- Can be used with any type of electric fence wire
- Can tension up to 2mm wire
- Stainless steel spring maintains constant tension on the fence
- Silver spring

HYBRID BB HEAVY DUTY NYLON TENSIONER (ES-CTNTBB)
- Can be used with any type of electric fence wire
- Can tension from 1.2mm to 2.5mm wire, making it very versatile

HYBRID COMPRESSION SPRING 4 (ES-CNT4HB)
- Can be used with any type of electric fence wire
- Can tension up to 2.24mm galvanised wire
- Can tension up to 2mm stainless steel wire
- Can tension up to 2.5mm aluminium wire
- Stainless steel spring maintains a constant tension on the fence
- Can be adjusted as required with the built-in ratchet
- Used with DATS3

OMEGA WELDED BRACKETS
- Heavy duty welded brackets to secure the 2mm Omega posts onto the end and corner post
- Available in three different lengths: 75mm (EY-OS/WS075AU), 112mm (EY-OS/WS112AU) and 180mm (EY-OS/WS180AU)

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MODULUS SYSTEM

The patented Modulus brackets are designed with flexibility in mind. By using the different components, a full range of sizes and different applications can be formulated. It gives the installer flexibility on the spacing of the insulators, number of insulators and height of the fence. The key components are the two-way and three-way brackets. The two-way is primarily used as an intermediate bracket. The three-way is used as an end tensioning post, as a corner post, to change the wire direction, or as an inline strain post on long, straight walls.
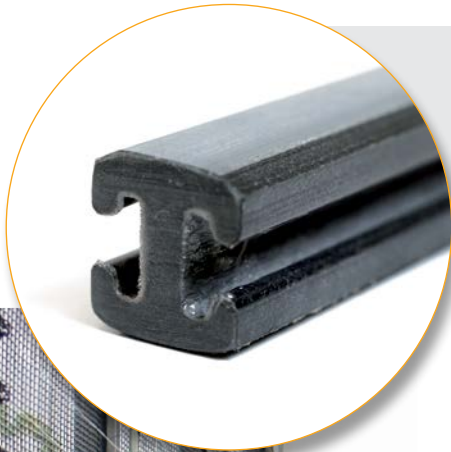
KEY FEATURES OF THE MODULUS SYSTEM
- Durable and can be installed in the most harsh environments
- Light to transport and easy to handle
- Insulators can be installed on both sides

MODULUS TWO-WAY BRACKET
- 2 660mm/27 wire (EMOD-2660C)
- 2 360mm/24 wire (EMOD-2360C)
- 1 960mm/20 wire (EMOD-1960C)
- 1 160mm/12 wire (EMOD-1160C)
- 960mm/10 wire (EMOD-960C)
- 460mm/5 wire (EMOD-460C)

MODULUS END CAP 19x19
(EMOD-BENDCAP)

MODULUS SLIDE INSULATOR
(EMOD-BSLD)

MODULUS MOUNTING BRACKET
Single hole (EMOD-BRKT)

MODULUS THREE-WAY BRACKET
- 2 660mm/27 wire (EMOD-3WS2660C)
- 2 360mm/24 wire (EMOD-3WS2360C)
- 1 960mm/20 wire (EMOD-3WS1960C)
- 1 160mm/12 wire (EMOD-3WS1160C)
- 960mm/10 wire (EMOD-3WS960C)
- 460mm/5 wire (EMOD-3WS460C)

MODULUS END THREE-WAY CAP 26x19

(EMOD-BENDCAP 3)

MODULUS SPACER

(EMOD-BSPR)

MODULUS HOOK

(ES-HK/MOD)

MODULUS BASE (EMOD-BB)
- Used to secure up to a six-wire Modulus bracket onto a wall
- Upright or at an angle as required

MODULUS BASE

(EMOD-BB)

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FENCE WIRE, CABLE AND ACCESSORIES

FENCE WIRES

Nemtek offers a variety of wires to address different electric fencing requirements.
The type of wire needed will depend on environmental factors, mechanical strength and electrical resistance.

Nemtek aluminium wire has the lowest resistance allowing long fences to be powered up, reducing the number of energizers needed. Nemtek stainless steel wire is recommended for corrosive and coastal environments. Nemtek galvanised wire offers good electrical conductivity and mechanical strength.

WIRE RANGE AND DESCRIPTION	WIRE DIAMETER	SPOOL SIZE	RESISTANCE OHMS/KM	CORROSION GUIDELINE*			
				INLAND	COASTAL	INDUSTRIAL	DISTANCE FROM THE COASTLINE
GALVANISED/GALFAN (XL)							
Stranded wire (EW-T12/BB)	1.2mm	680m	175	Yes			+50km
Stranded wire (EW-T12)	1.2mm	2 990m	175	Yes			+50km
Stranded wire (EW-T16)	1.6mm	1 560m	100	Yes			+50km
Stranded wire (EW-T16XL)	1.6mm	1 560m	100	Yes	Yes		+5km
Stranded wire (EW-T20)	2.0mm	1 000m	60	Yes			+50km
Stranded wire (EW-T20XL)	2.0mm	1 000m	60	Yes	Yes		+5km
Solid light galvanised (EW-G2.24/25KG)	2.24mm	825m	50	Yes			+50km
Solid light galvanised (EW-G2.24)	2.24mm	1 650m	50	Yes			+50km
Solid heavy galvanised (EW-G2.00HG25KG)	2.0mm	1 034m	50	Yes	Yes	Yes	+0.5km
Solid heavy galvanised (EW-G2.00HG)	2.0mm	2 069m	50	Yes	Yes	Yes	+0.5km
Solid heavy galvanised (EW-G2.24HG25KG)	2.24mm	825m	50	Yes	Yes	Yes	+0.5km
Solid heavy galvanised (EW-G2.24HG)	2.24mm	1 650m	50	Yes	Yes	Yes	+0.5km
STAINLESS STEEL 304							
Stranded 304 (EW-TSS304/8)	1.2mm	800m	700	Yes			+50km
Stranded 304 (EW-TSS304/16)	1.2mm	1 600m	700	Yes			+50km
Solid wire 304 (EW-SS1/304)	1.0mm	1 985m	1 000	Yes			+50km
Solid wire 304 (EW-SS12/304)	1.2mm	1 375m	700	Yes			+50km
STAINLESS STEEL 316							
Stranded 316 (EW-TSS316)	1.2mm	800m	700	Yes	Yes	Yes	+0.1km
Solid wire 316 (EW-SS1/316)	1.0mm	1 985m	1 000	Yes	Yes	Yes	+0.1km
Solid wire 316 (EW-SS12/316/7)	1.2mm	770m	700	Yes	Yes	Yes	+0.1km
Solid wire 316 (EW-SS12/316)	1.2mm	1 375m	700	Yes	Yes	Yes	+0.1km
Solid wire 316 (EW-SS16/316)	1.6mm	770m	390	Yes	Yes	Yes	+0.1km
Solid wire 316 (EW-SS20/316)	2.0mm	495m	250	Yes	Yes	Yes	+0.1km
ALUMINIUM ALLOY WIRE							
Stranded wire (EW-AL16/S)	1.6mm	1 000m	31	Yes	Yes		+5km
Stranded wire (EW-AL20/S)	2.0mm	1 000m	18	Yes	Yes		+5km
Solid wire (EW-AL16)	1.6mm	1 000m	27	Yes	Yes		+5km
Solid wire (EW-AL20)	2.0mm	1 000m	14	Yes	Yes		+5km
Solid wire (EW-AL20/1500)	2.0mm	1 500m	14	Yes	Yes		+5km
Solid wire (EW-AL25/1200)	2.5mm	1 200m	9	Yes	Yes		+5km

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

HT CABLES

Nemtek offers a range of high-voltage cables (HT) to use with your energizer and for all other insulated high-voltage transmissions. The HT cables have been designed for a long life expectancy and are double insulated.

CABLES (S-SERIES)
- The S-Series HT cables can be used with all the Nemtek galvanised and stainless steel wires
- Available in black 30m (EH-BS030S), 100m (EH-BS100S), 200m (EH-BS200S), 500m (EH-BS500S) and 1 000m (EH-BS1000S) spools
- Available in white 30m (EH-3BS030), 100m (EH-WS100S) and 200m (EH-WS200S) spools
- The multi-core S-Series makes the installation faster and neater
- Available in black three-core 30m and 100m spools (EH-3BS100); four-core 100m spools (EH-4BS100) and five-core 100m spools (EH-5BS100)

ALUMINIUM CABLE (A-SERIES)
- The A-Series HT cables can be used with all the Nemtek aluminium wires
- Available in 1.6mm solid inner aluminium alloy conductor in 100m (EH-AS100), 200m (EH-AS200), 500m (EH-AS500) and 1 000m (EH-AS1000) spools
- The multi-core A-Series makes the installation faster and neater
- Available in black three-core 30m (EH-3AS030) and 100m (EH-3AS100) spools

UNDERGATE CABLE (U-SERIES)
- The U-Series HT cable is used with both galvanised and aluminium wires
- Available in 1.6mm heavy galvanised inner conductor; 25m (AH-UC1.6/25), 50m (AH-UC1.6/50) and 100m spools (AH-UC1.6/100)
- Available in 2.5mm heavy galvanised inner conductor; 25m (AH-UC2.5/25), 50m (AH-UC2.5/50), 100m (AH-UC2.5/100), 200m (AH-UC2.5/200) and 500m (AH-UC2.5/500) spools

STAINLESS STEEL CABLE (SS-SERIES)
- The SS-Series HT cables can be used with all the Nemtek stainless steel wires – 316
- Available in black 100m spools (EH-BINOX100S)

WIRE TENSIONING SYSTEMS

WIRE TENSIONERS – PLASTIC

The Nemtek engineering plastic wire tensioners can be used with any type of fencing wire. The plastic material eliminates galvanic reaction between the tensioner and the wire which reduces rust.

COMPRESSION SPRING 1 (ES-CNT)
- Can tension up to 1.2mm wire
- Stainless steel spring maintains constant tension on the fence
- Silver spring
- Available in white (ES-CNTW)

COMPRESSION SPRING 2 (ES-CNT2)
- Can tension up to 1.6mm wire
- Stainless steel spring maintains constant tension on the fence
- Gold spring
- Available in white (ES-CNT2W)

HEAVY DUTY COMPRESSION SPRING 3 (ES-CNT3)
- Can tension up to 2mm wire
- Stainless steel spring maintains constant tension on the fence
- Silver spring

HYBRID COMPRESSION SPRING 1 (ES-CNTHB)
- Can tension up to 1.2mm wire
- Combination of a compression spring and a ratchet tensioner
- Silver spring

HYBRID COMPRESSION SPRING 2 (ES-CNT2HB)
- Can tension up to 1.2mm galvanised and stainless steel wire
- Can tension up to 1.6mm aluminium wire
- Combination of a compression spring and a ratchet tensioner
- Gold spring
- Used with the DATS2

HYBRID COMPRESSION SPRING 3 (ES-CNT3HB)
- Can tension up to 1.6mm galvanised and stainless steel wire
- Can tension up to 2mm aluminium wire
- Combination of a compression spring and a ratchet tensioner
- Silver spring

HYBRID COMPRESSION SPRING 4 (ES-CNT4HB)
- Can tension up to 2.24mm galvanised wire
- Can tension up to 2.0mm stainless steel wire
- Can tension up to 2.5mm aluminium wire
- Stainless steel spring maintains a constant tension on the fence
- Can be adjusted as required with the built-in ratchet tensioner
- Silver spring
- Used with the DATS3

MINI NYLON TENSIONER (ES-DT/MN)
- Can tension up to 1.2mm galvanised and stainless steel wire
- Can tension up to 1.6mm aluminium wire
- Can be adjusted with a ratchet tensioner

● 5kg working force   ● 8kg working force   ● 15kg working force

COMBO TENSIONER HYBRID BB (ES-CTNTBB)
- Can tension from 1.2mm to 2.5mm wire, making it very versatile
- Engineered plastic material eliminates galvanic reaction between dissimilar metals, thus eliminating rust
- Can be used with any type of wire
- UV stabilised insulated tensioner

COMBO TENSIONER HYBRID BD (AS-WSI/BD)
- Can tension steel wires up to 3.0mm
- Can tension poly wires up to 3.5mm
- Working force up to 450kg
- UV stabilised insulated tensioner
- Engineered plastic material eliminates galvanic reaction between dissimilar metals, thus eliminating rust

WIRE TENSIONERS – METAL

COMBO TENSIONER – STANDARD (ES-CTS)
- Galvanised permanent fence wire tensioner with built-in insulator (plastic)
- Can tension from a 1.2mm to 2.24mm wire
- Only use with galvanised wires to avoid galvanic reaction

COMBO TENSIONER – PORCELAIN (ES-CTP)
- Galvanised permanent fence wire tensioner with built-in insulator (porcelain)
- Can tension from a 1.2mm to 2.24mm wire
- Only use with galvanised wires to avoid galvanic reaction

TENSIONER AND INSULATOR HOOKS

MODULUS AND JURASSIC HOOK (ES-HK/MOD)
- Stainless steel hook for long life expectancy
- Quick fit onto the Nemtek Modulus slide insulator and the Jurassic insulator

LARGE TAIL HOOK (ES-H/LT)
- 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
- Heavy duty 2.5mm large tail hooks available (ES-H/LT/2.5)

HOOK BOLT (ES-HB)
- Electro-galvanised hook bolt for inland use
- Adjustable nut for finer adjustment

S-HOOK (ES-HK/EP)
- Hot dip galvanised for long life expectancy
- Heavy duty durable design
- Suitable for angled and round corner poles

90 DEGREE S-HOOK (ES-HK/EP/90DEG)
- Hot dip galvanised for long life expectancy
- Heavy duty durable design
- Suitable for Omega brackets

180 DEGREE S-HOOK (ES-HK/EP/DS)
- Hot dip galvanised for long life expectancy
- Heavy duty durable design
- Suitable for Omega brackets

THROUGH HOLE S-HOOK (ES-HK/THR/HDG)
- Hot dip galvanised for long life expectancy
- Heavy duty durable design

U-HOOK (ES-HK/UH304)
- Stainless steel hook for long life expectancy
- Heavy duty durable design

WIRE AND CABLE CONNECTORS

	LINE CLAMP BOLT TYPE 6mm and 8mm • XL galvanised 6mm (EA-LC6) • Stainless steel 6mm (EA-LC6/SS) • The 6mm line clamp is used for up to 1.6mm wires • XL galvanised 8mm with wave washer (EA-LC8/D) • The 8mm line clamp is used for up to 2.0mm wires	
	LINE CLAMP U-TYPE 8mm (EA-LC8/MG) • XL galvanised 8mm • This line clamp is used for up to 2.24mm wires	
	CLAW CLAMP (EA-LC8/C) • Can be utilised to change direction of wire • XL galvanised • Can be used for larger wire diameters • This line clamp is used for up to 3.0mm wires	
	ALUMINIUM FERRULE • 6mm (EA-F6AFT) used with 1.6mm aluminium wire • 10mm (EA-F10AFT) used with 2.0mm aluminium wire **TINNED COPPER FERRULE** • 6mm (EA-F6S) used with 1.2mm galvanised wire • 10mm (EA-F10) used with 1.6mm and 2.0mm galvanised wire • 16mm (EA-F16) used with 3.0mm galvanised wire **STAINLESS STEEL FERRULE** • 6mm (EA-F6S/SS) used with 1mm and 1.2mm stainless steel wire • 10mm (EA-F10S/SS) used with 1.6mm and 2mm stainless steel wire	
	BRIDGING WIRES • Reduces installation time, with an aesthetic and neat finish • Available in galvanised finish 100mm (EA-BW/1.8x100HD) and 200mm (EA-BW/1.8x200HD) • Available in stainless steel finish 100mm (EA-BW/1.6x100SS) and 200mm (EA-BW/1.6x200SS)	

WIRE DISPENSERS

LARGE WIRE DISPENSER
(EW-JENNY)
• Portable design
• From 2.0mm up to 3.0mm wire
• Up to 50kg roll coil dispenser

BRAIDED WIRE REEL HOLDER (EW-T/RH)
• Hot dip galvanised wire dispenser
• For 1mm, 1.2mm, 1.6mm and 2mm spools of wire

INSULATORS

PORCELAIN INSULATORS

BOBBIN – PORCELAIN (EI-BPFL)
- Fireproof and long lasting
- Large design to reduce power loss
- Available in boxes of 10 units (EI-BPFL10)

STRAINER – PORCELAIN (EI-STFP10)
- Fireproof and long lasting
- Large design to reduce power loss
- Suitable for long runs
- Can withstand high tension
- Available in boxes of 10 units

PLASTIC INSULATORS

ROUND BAR INSULATOR
- Available in black (EI-BRBB) and white (EI-BRBW)
- Used with the 10mm round bar
- Flexible inner core for increased clearance

FLAT BAR INSULATOR
- Available in black (EI-BFBB) and white (EI-BFBW)
- Quick fit clips on the top and bottom for faster installation
- Feed through or clip option built in
- Easy to change and maintain

NAIL-ON INSULATOR
- Available in black (EI-NOB) and white (EI-NOW)
- Large clips for heavy duty applications with thicker wires
- Larger clearance to eliminate power leakage

Y-STANDARD INSULATOR
- Available in black (EI-YB) and white (EI-YW)
- Quick fit design – easy to replace when required
- Suitable for Y-standard brackets
- Anti-climb shear pin

OMEGA INSULATOR
- Available in black (EI-OB)
- Double-tracking fin to reduce tracking and arcing
- Quick fit design for the Omega bracket
- Anti-climb version available (EI-OB/C)

OMEGA PULL THROUGH INSULATOR (EI-BTL2)
- Heavy duty and durable design
- Large clearance distance to reduce power loss and arcing
- Black only

POP THROUGH HOLE INSULATOR
- Available in black (EI-POPEM\B\ULT) and white (EI-POPEM\W\ULT)
- Secure through insulator
- Larger clearance distance to reduce power loss and arcing

STRAIN INSULATOR – JUMBO
- Available in black (EI-STB/J) and white (EI-STW/J)
- Suitable for fences using up to 2.0mm wire
- Larger clearance distance to reduce power loss and arcing
- Suitable for low- to medium-tensioned fences

STRAIN INSULATOR – ULTRA
- Available in black (EI-STB/R) and white (EI-STW/R)
- Suitable for fences using up to 2.5mm wire
- Larger clearance distance to reduce power loss and arcing
- Suitable for medium-tensioned fences

STRAIN INSULATOR – HARDENED ULTRA
- Available in black (EI-STB/R/H) and white (EI-STW/R/H)
- Suitable for fences using up to 3.0mm wire
- Suitable for high-tensioned fences

PICKET INSULATOR
- Available in black (EI-PI)
- Used with Nemtek Y-picket
- Double-tracking fin to reduce tracking and arcing
- Quick fit design clip

JURASSIC INSULATOR – SLOTTED
- Available in black (EI-JIB6.20/S) and white (EI-JIW6.20/S)
- Wire slot for quick installation
- Larger clearance distance to reduce power loss and arcing

JURASSIC INSULATOR – THREAD THROUGH
- Available in black (EI-JIB6.20) and white (EI-JIW6.20)
- For high security
- Larger clearance distance to reduce power loss and arcing

SHIELD INSULATOR
- Available in black (EI-SI)
- For high security
- Larger clearance distance to reduce power loss and arcing
- Feed through or clip option built in

BUSBAR INSULATOR (EI-SBI)
- Suitable for electrically separating two steel items
- Can be used with a shock box

SELF TAPPER HOOK (EA-JSTH)
- Used with the Shield and Jurassic insulators
- Available in a long version (EA-JSTH/L)
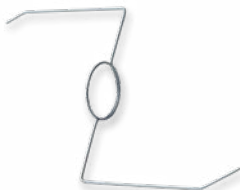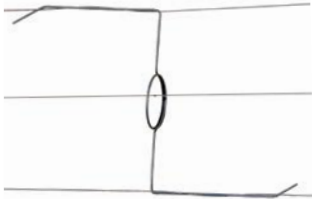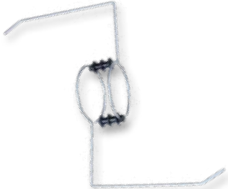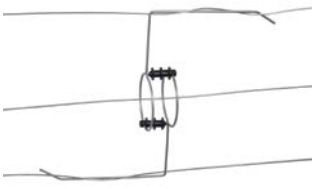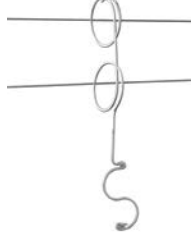
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GENERAL ACCESSORIES

FENCE ACCESSORIES

WARNING SIGNS (EA-WRS2/N)
- Custom-made warning signs are available to order
- Wire clips on the warning sign reduce installation time

FENCE LIGHT – TIMED
- The frequency of the flashing LEDs indicates the voltage level on the fence. The longer the period between flashes, the lower the voltage on the fence
- Grey fence light for galvanised and aluminium wire (inland use) (SR-FL/TL/G)
- Blue fence light for stainless steel wire (coastal use) (SR-FL/TL/SS)

CUT-OUT SWITCH (AA-COS)
- Isolates a section of the fence to allow for easy maintenance and fault finding

STROBE LIGHT
- Strobe light (12VDC)
- Waterproof (IP67)
- Green (SR-STRG) and red (SR-STRR)

DOUBLE POLE LIGHTNING PROTECTION (EA-LIDII)
- Lightning-protection system inhibits lightning and diverts the voltage spikes caused by lightning
- Stainless steel components for long life

TAG (EE-WIZ4/MAGNET)
- Fits onto a key ring
- Most Nemtek energizers can be switched on and off, or reset using the Nemtek tag

STATUS INDICATOR (SR-SL)
- Red, green and blue LEDs (12VDC)

SIREN 15 WATT
- 15 Watt dual-tone siren (12VDC) (SR-10)
- 15 Watt 6-tone siren (12VDC) (SR-6T)

SIREN 30 WATT (SR-30)
- 30 Watt dual-tone siren (12VDC)

EARTH SPIKES

HOT DIP GALVANISED 1M LONG (EA-EAG1)	HOT DIP GALVANISED 1.2M LONG (EA-EAG12)	COPPER-CLAD 1M LONG (EA-EAN)	COPPER-CLAD 1.2M LONG (EA-EAN/L)	EARTH SPIKE LUG (EA-LEAN) *use with copper-clad earth spikes only

- Hot dip galvanised or copper-clad earth spikes with nuts and washers
- Available in both 1.0m and 1.2m lengths
- The double nut and washer allow for a good electrical connection with the HT cables
- Conductive earthing compound available to enhance earthing conditions (EA-CEC)

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 a wire touches the loop, a connection or short is made and the alarm will sound.

IN-LINE LOOP
- Installed onto the fence wire, generally on the earth wires
- Available in galvanised finish (EY-1LOOP)
- Available in stainless steel (EY-1LOOP/SS)

EARTH LIVE LOOP (EY-1LOOP/EL)
- Installed onto the fence wire, generally on the live wires
- Available in galvanised finish

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 depending on the type of Nemtek bracket used
- Angled (EA-WML/A)
- Straight (EA-WML/S)

GROUND ANTI-CREEP LOOP (EY-ANTICREAP)
- Used in the freestanding applications to reduce the possibility of lifting of the bottom fence wires
- Concreted for maximum stability
- Hot dip galvanised finish for a long life

![NEMTEK - Electric Fencing Products]

GATE SYSTEMS

The Nemtek gate contacts have a robust construction and use stainless steel and brass metal components, making it suitable for most environmental conditions.

2-WAY GATE CONTACT
(EA-SGC07)
- Used for series wiring of a gate
- Suitable for sliding gates
- Lug connectors

2-WAY GATE CONTACT
(EA-SGC13)
- Used for series wiring of a gate
- Suitable for sliding gates
- Brass connectors
- Available with earth plate (EA-SGC13/EARTH)

3-WAY GATE CONTACT
(EA-SGC193W)
- Effective short to earth detection over sliding gates
- 2 live and 1 earth connectors with lugs
- Available with brass connectors (EA-SGC193WB)

GATE MOUNTING BRACKET (EA-SGC/UNIB)
- Heavy duty design
- Hot dip galvanised
- For both the 2-way and the 3-way gate contacts

FENCING TOOLS

COMPACT HEAVY DUTY CUTTER
(TL-MNHW)
- Designed for high-tensile wire cutting, up to 3.5mm wire

DISTANCE-MEASURING WHEEL
(TL-DMW)
- Quick, walk-along distance-measuring tool

KNIPEX WIRE CUTTER
(TL-MN)
- Designed for high-tensile wire cutting, up to 2.5mm wire

PROFESSIONAL CRIMPING TOOL
(TL-CRP)
- Durable ferrule crimping tool

HALF-INCH RATCHET TENSIONER
(TL-RAT1/2)
- Used to tension the Hybrid combo tensioners

Y-PICKET POST DRIVER
(TL-PDY)
- Used as a hammer to drive Y-pickets into the ground

SOLAR POWER

SOLAR PANELS
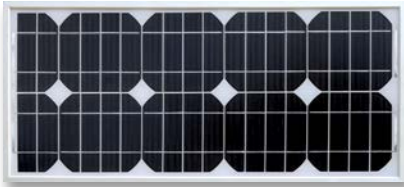
Nemtek solar panels offer a reliable source of power for electric fence systems in remote areas or where AC power supply is unreliable.

Module characteristics	SOL-SYS40W	SOL-SYS90W	SOL-SYS140W
Maximum power (Pmax)	40 watt	90 watt	140 watt
Open-circuit voltage (Voc)	21.6V	21.6V	21.6V
Weight	4.2kg	8kg	11.5kg
Module dimensions	610 x 510 x 30mm	970 x 670 x 35mm	1 516 x 670 x 35mm

SOLAR REGULATOR (SOL-REG140)

The LED solar regulator offers advanced Maximum Power Point (MPP) technology for over 90% efficiency when used with a 140Watt solar panel. It can also be used with solar panels ranging from 20Watt to 200Watts, making it very flexible. Solar panels larger than 140Watt can be used in areas where sunlight intensity is low increasing the capture of sunlight.

- Power-handling capability 140W
- Solar panel input range 20W ~ 200W
- Maximum load supply current 10A
- The LED display indicates and shows solar charge, battery condition and load indication
- Set to operate as a 12VDC system
- The regulator is equipped with various devices to protect its electronics
- Battery charge voltage suitable for Flooded, AGM and Gel lead-acid battery types

MOUNTING BRACKETS

POLE MOUNT BRACKET (AA-AE50BR)

- Quick and easy to install onto most of Nemtek's solar panels
- Use on panel: 40W and 90W
- Hot dip galvanised

ENCLOSURE MOUNT BRACKET (SY-SYZ040R)

- Quick and easy to install onto most of Nemtek's solar panels
- Adjustable angle: 15, 30 and 45 degrees
- Use on panel: 20W, 40W, 90W and 140W
- Made from extruded aluminium with stainless steel fasteners

BATTERIES AND BATTERY BOXES

BATTERIES

Battery Characteristics	BAT-B07	BAT-B12	BAT-B28	BAT-B50	BAT-B100
Nominal voltage	12V	12V	12V	12V	12V
Nominal capacity	7Ah	12Ah	28Ah	50Ah	100Ah
Type	Sealed rechargeable battery				
Weight	2.15kg	3.4kg	9kg	16kg	29.8kg
Dimensions (L x W x H in mm)	151 x 65 x 95	151 x 99 x 101	175 x 165 x 126	229 x 138 x 213	329 x 172 x 218

BATTERY BOXES

BATTERY BOX 50Ah (BAT-B50/BOX)
- Battery box with a 50Ah battery will allow you to have portable 12V power for a range of outdoor uses
- Outdoor protection for the 50Ah battery
- Strong and sturdy design
- 280mm (L) x 190mm (W) x 240mm (H)
- UV stabilised for long life

BATTERY BOX 100Ah (BAT-B100/BOX)
- Battery box with a 100Ah battery will allow you to have portable 12V power for a range of outdoor uses
- Outdoor protection for the 100Ah battery
- Strong and sturdy design
- 410mm (L) x 238mm (W) x 263mm (H)
- UV stabilised for long life

CABLES FOR BATTERIES AND SOLAR PANELS

Solar panel cables are used to carry the current from the solar panels, to the regulator, to the batteries and to the energizer.

- The 2.5mm solar panel cables are used for solar panel sizes up to 40W (SOL-PW/B/25, SOL-PW/R/25)
- The 6.0mm solar panel cables are used for solar panel sizes up to 140W (SOL-PW/R, SOL-PW/B)
- Available in red and black

ENERGIZER ENCLOSURES

ALUMINIUM BOX S (ENC-ALU/S)
- Internal dimensions:
  (h) 610 x (w) 450 x (d) 260mm
- External dimensions:
  (h) 640 x (w) 450 x (d) 310mm
- Medium capacity to house an energizer, solar regulator and a deep cycle battery
- Ventilated aluminium box
- Available in shock box version (ENC-SHBOXS)

ALUMINIUM BOX L (ENC-ALU)
- Internal dimensions:
  (h) 610 x (w) 800 x (d) 300mm
- External dimensions:
  (h) 640 x (w) 800 x (d) 350mm
- Ventilated aluminium box
- Large capacity to house double energizers, solar regulator and deep cycle batteries
- Available in shock box version (ENC-SHBOX)

ALUMINIUM BOX XL (ENC-ALU/XL)
- Internal dimensions:
  (h) 760 x (w) 800 x (d) 300mm
- External dimensions:
  (h) 790 x (w) 800 x (d) 350mm
- Ventilated aluminium box
- Large capacity to house double energizers, solar regulator and deep cycle batteries
- Available in shock box version (ENC-SHBOXXL)

ENCLOSURE STANDS
- Hot dip galvanised stands for the aluminum enclosures
- Optional U-bracket (ENC-KDS/UB0LT) is required when creating a concrete base
- Stands 1 180mm high off the ground
- Available in two sizes. Small enclosure stand (ENC-KDS/S) and a larger enclosure stand (ENC-KDS)

ENCLOSURE STAND U-BRACKET (ENC–KDS/UBOLT)
- Use with concrete to secure the enclosure stand into the ground

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FIBREGLASS ENCLOSURE

(ENC-EMB-A)

- (h) 305 x (w) 305 x (d) 155mm
- Ideal for outdoor use
- Ideal for general use

FIBREGLASS ENCLOSURE

(ENC-RL6D-P)

- (h) 450 x (w) 300 x (d) 210mm
- Ideal for outdoor use
- Ideal for smaller energizers

FIBREGLASS ENCLOSURE

(ENC-AP3-A)

- (h) 620 x (w) 470 x (d) 265mm
- Ideal for outdoor use
- Ideal for larger energizers

METAL ENCLOSURE (ENC-SB/WIZ)

- (h) 460 x (w) 305 x (d) 230mm
- Powder coated steel enclosure for indoor and inland use
- Display window for easy viewing
- Lockable with a padlock
- Ideal for the smaller range of energizers

METAL ENCLOSURE (ENC-SB/STEALTH)

- (h) 610 x (w) 460 x (d) 230mm
- Powder coated steel enclosure for indoor and inland use
- Display window for easy viewing
- Lockable with a padlock
- Ideal for the larger range of energizers

GENERAL PURPOSE ENCLOSURES

- Mini (h) 100 x (w) 100 x (d) 50mm (ENC-C51)
- Small (h) 150 x (w) 110 x (d) 70mm (ENC-C52)
- Medium (h) 190 x (w) 140 x (d) 70mm (ENC-C53)
- Large (h) 305 x (w) 205 x (d) 110mm (ENC-C54)

ELECTRIC FENCE COMPONENT CHECKLIST

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ENERGIZERS	
Single zone energizers	Wizord: W2i, W4i Merlin: 4i and Merlin Stealth: M18S Druid: D13LCD, D15LCD, D18LCD
Dual zone energizers	Merlin Stealth: M28X Druid: D25LCD, D28LCD
Four zone systems	Use two Druid D25LCD or D28LCD energizers and one four zone keypad
Multi zone systems	Druid FG system Druid Fence Probe software with FG7C
Multi zone communication	Fibre optic: single mode, multi-mode Wireless: Microwave RS485
Synchronisation module	For the Druid D25LCD/D28LCD energizers
Druid relay expansion card	Druid D25LCD/D28LCD energizer relay expansion card
Keypads	Merlin and Druid range
FENCING POSTS AND BRACKETS	
Wall top brackets	Round bar, flat bar, square tubing-pole, profile poles, T-pole Stays and stay sleeves for corners Lugs and rubber clamps for the stays
Freestanding fencing posts	Nemtek Y-pickets Corner poles and stays Insulators: Picket, pop through, strain
Omega brackets	1mm bracket intermediate 2mm bracket, corner and end post Omega mounting brackets: plastic spacer and welded brackets Insulators: Omega double shield Pull through assembly with insulator
Modulus brackets	Two-way and three-way Modulus insulators: slide and spacer Mounting bracket
Bracket fasteners	Nail-in anchors, hammer drives, tek screws, coach screws
FENCE WIRES AND CABLES	
Fence wires	Galvanised, stainless steel, aluminium. Solid or stranded
Cables (HT Cables)	A-series, U-series, S-series (single- and multi-core) and SS-series Communication cables for sirens and keypads
WIRE TENSIONING SYSTEMS AND CONNECTORS	
Tensioners	Spring tensioners Ratchet tensioners Spring tensioners with built-in ratchet (Hybrid)
Hooks	Large tail, Modulus and Jurassic, S-hook, through hole S-hook, U-hook, 90 degree hook and 180 degree hook
Bridging wires	100mm and 200mm bridging wires available in stainless steel and hot dip galvanised
Wire and cable connectors	Line clamp: Bolt type, U-type and Claw-type Ferrules: stainless steel, aluminum, tinned copper

INSULATORS	
Plastic	Round bar, flat bar, nail-on, Y-standard, Omega, Omega-pull through, pop through hole, strain, picket, Jurassic, Shield and tension bobbin
Porcelain	Bobbin, strain and busbar
Tension Sensors	DATS2 and DATS3, Tension Sensor System
GENERAL ACCESSORIES	
Warning signs	Required every 10m, direction change and on each gate. Custom warning signs available
Fence light	High-voltage fence-timed light indicator
Cut-out switch	High-voltage cut-out switch
Lightning protection	Double pole lightning protection
Siren and strobe lights	Sirens 15 Watt (single or 6-tone) or 30 Watt. Strobe light (red or green)
Earth and live loops	Wall mount, in-line, in ground
Earth spikes	Copper cladded and galvanised, 1m and 1.2m
Gate contacts and gate mounting bracket	Two-way and three-way sliding gate contacts with earth plate (alarm when open). Mounting bracket
Conduit and accessories	20mm and 25mm
ENCLOSURES	
Energizer enclosures	Powder coated steel with window (indoor and inland use) Aluminium enclosure Fibre glass enclosure
Shock box enclosure	Aluminium available in small, large and extra large
Freestanding enclosure stand	U-bolt to secure stand in concrete
General purpose enclosures	Plastic available in mini, small, medium, and large types
SOLAR POWER	
Solar panels and mounting brackets	40 Watt, 90 Watt and 140 Watt solar panels. Pole mount and mounting brackets
Solar regulators	12V 10Ah LED regulator
Deep cycle batteries	50Ah and 100Ah
TOOLS AND TESTERS	
Fence scope multi-tool and pouch	Four-in-one (directional fault finder, joule meter, scope and noise meter). Handy tool pouch
Fence meter	Digital fence meter used to easily diagnose fence problems to optimise the installation and ensure the fence operates at an ideal level
Easy fence tester	Clipped onto the fence for easy testing and shows the high and low voltage condition of the fence
Crimping tool	For the 6mm, 10mm and 16mm ferrules
Ratchet tool	Used with the combo hybrid tensioners
Wire dispensers	Reel or coil dispenser
Wire cutters	Heavy duty, Knipex cutter
Drill bits	Steel and masonry drill bits. SDS masonry drill bits
Y-picket driver tool	For the Nemtek Y-pickets
Distance-measuring wheel	Site measurement in metres

TIPS TO INCREASE YOUR SECURITY

Nemtek's world-class products are designed and manufactured to ensure a high-security solution and offer reliability for many years. Due to the large range of products on offer, here are a few tips to ensure your system meets your security needs and operates reliably:

- Spacing between fence wires must not exceed 100mm. This will reduce attempts to part wires. Earth or live loops fitted on the fence will cause an alarm when there is an attempt to part the wire.
- The bottom fence wire, where possible, should be live and fitted with an anti-creep loop where there is a threat of lifting. The top wire must also be live.
- All electric fencing live wires must be connected in a series circuit so that a cut live wire can be detected anywhere along the fence.
- Spacing between posts must not exceed 3 metres. This will discourage attempts to part wires. In the case of freestanding fencing it is recommended that a shorter post be placed between the main posts reducing the span to 1.5m. This in-between shorter post will stop any attempts to lift the bottom wires. Ensure that the ground under the freestanding fencing is secure and not easy to dig under. The height of the freestanding fence must be at least 2m.
- The height of the bracket above the wall is important; the higher the wall brackets the more it discourages attempts to step over the fence. The wider walls will need higher and angled brackets to cover the span of the wall top and reduce any chance of standing on the wall.
- The fence wires must be under constant tension using compression springs. This will improve the aesthetics and the security of the fence.
- Installing tension-sensing devices increase the likelihood of an intruder being detected and reduces the possibility of tampering by the lifting and parting of the wires.
- Alarm zone lengths should not be longer than 200 metres. The zones should be powered by an energizer with independently monitored zones. This will help locate a fault more quickly. This is not always possible due to cost and location constraints. In high-security areas shorter zones are recommended.
- No two zones must rely on each other being intact to operate effectively and must be independently alarm-monitored. This is important in the case of an attempted multi-point entry breach of the fence.
- Gates can be a weak point. Make sure that sliding gates cannot be lifted up off the rack and be slid open. In the case of swing gates, they can be forced open when they are closed. These gates can be monitored for unauthorised entry using a magnetic switch.
- Ensure that the fence is kept free of vegetation.

Frequent testing of the fence is imperative. A few points along the fence line must be tested.

NEMTEK
Electric Fencing Products

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