



JVA Electric Security Fence System

perimeter intruder detection system



Today's society has changed a lot over the previous years. Crime rate have gone up. Criminals have become bolder and more dangerous. They have learned to practically over come anything than can be put in their way. That is until now! This is the time to take security and protection a step higher with the *latest technology, highly effective, proven and the best in perimeter security protection.*

Security

The need for higher levels of security to deter intruders is growing worldwide. Whereas in the past a security fence was merely a passive physical barrier, the reality of today's world prescribes the use of an active intrusion detection system that reacts to any intrusion attempts, preventing or delaying intruder access and one that is not reliant on human surveillance. The technology was recently introduced to Malaysia and is becoming increasingly popular as part of plans to protect property owners, government and business owners.

How it work

Every second the JVA electric fence controller unit discharges a very short-duration, safe, high voltage impulse down the fence live wire and monitors the voltage at the end of this live wire, thereby checking that the voltage is being maintained along the entire fence line. In the event of a voltage drop caused by either shorting, cutting or poor maintenance, the monitor will trigger an alarm, thus alerting you.

Worldclass Certification & Standards

Manufactured to meet the most stringent international safety standards, the JVA range is in a class of its own when it comes to features and benefits at an affordable price.

The JVA electric fence controller units used are tested by internationally recognized laboratory and comply with :

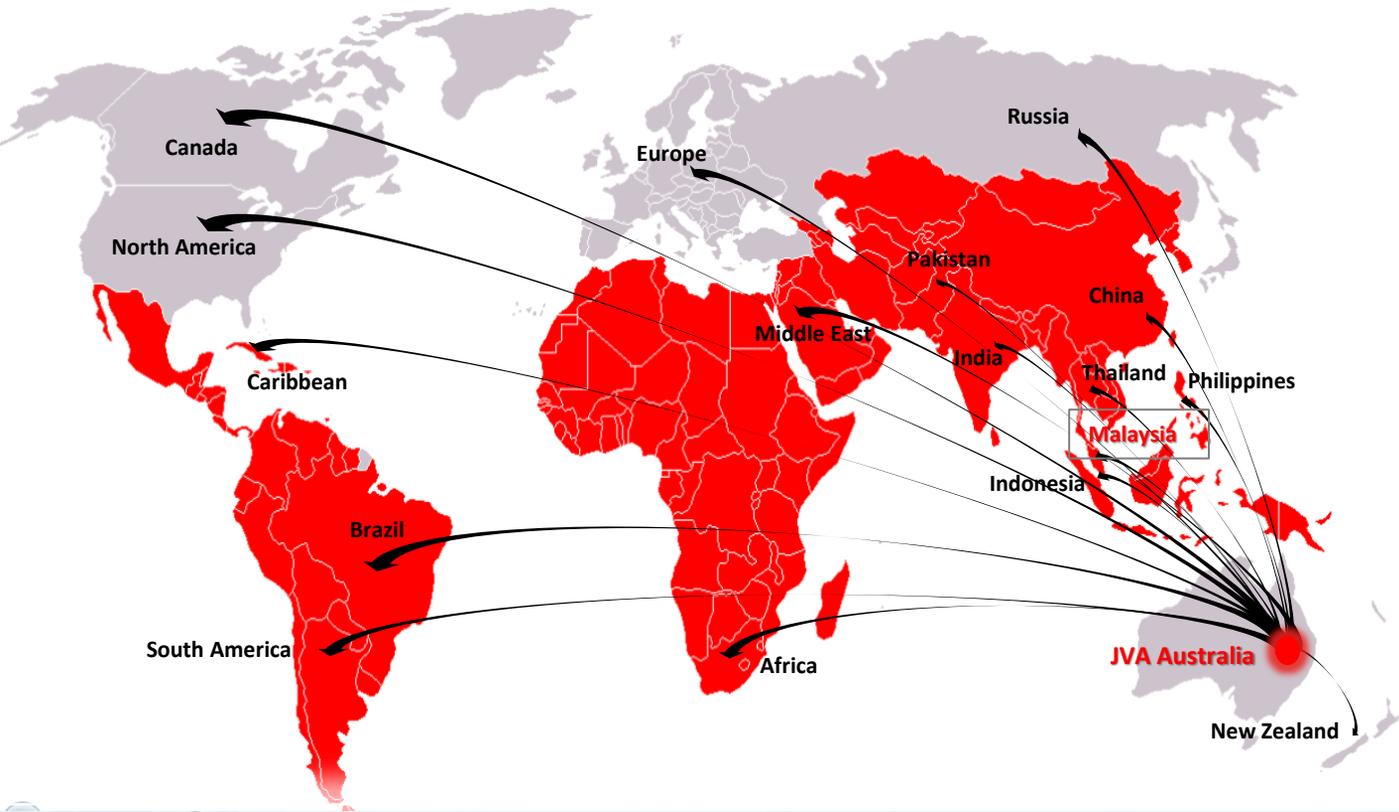
- International IEC Standard 60335:2: 76
- Malaysia Standard MS IEC60335-2-76: 2007
- Suruhanjaya Tenaga (Energy Commission)

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STANDARDS
MALAYSIA





JVA Electric Security Fence System is a proven, affordable, latest technology and highly effective perimeter intrusion detection system to protect your property and ensure that intruders do not unlawfully enter your property.

It is the first line of defense and enhances the ability to detect and respond to break-ins or intrusion immediately. The intruder will get a short, sharp, painful but *Non-Lethal, Safe* high voltage (5,000 volts - 10,000 volts) electric shock once the intruder touches any of the electric fence wires and if any of the electric fence wire is cut, electric security fence system is breached and will trigger an alarm - the security siren and auxiliary equipment such as GSM intrusion alert system is activated.

It is already a proven physical intruder security alert system to many of our customers and all are pleased with our JVA Electric Security Fence System.

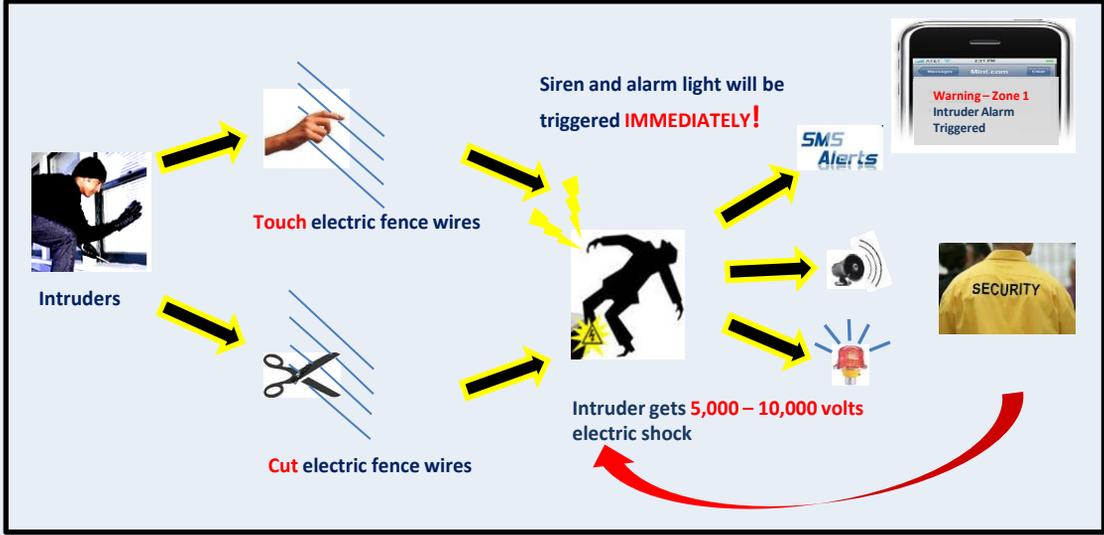
An optional *GSM intrusion alert system* can be connected with the JVA electric fence energiser and when the system is breached, it will immediately send out SMS text messages to 8 pre-set mobile phone numbers (all Malaysia GSM networks) to alert you of an intrusion.

The JVA Electric Security Fence System can be installed to any existing fence, existing brick wall, gates, building, roofs and all types of existing perimeter fences.

JVA Electric Security Fence System

■ **DETER** ■ **DELAY** ■ **DETECT**

✓ Proven security protection ✓ 24 hours a day security protection and NEVER SLEEPS! ✓ Powerful High Voltage Shock



JVA Electric Security Fence System security consists of an unobtrusive network of wires carrying a powerful electric pulse around the perimeter and at access point. On contact, the intruder receives a powerful and controlled shock which is usually sufficient to deter potential intruders but does not raise an alarm. If, despite the shock, an attempt is made to scale the fence or cut the electric fence wires, an alarm is then automatically triggered – the security siren and auxiliary equipment such as the GSM intruder alert system are activated.

Our JVA Electric Security Fence System is suitable for the following application :

- Residential areas
- Gated and guarded residential community
- Factories & Commercial Complexes
- Warehouses
- Telecommunication RBS Stations
- Irrigation Control Monitoring Stations
- Detention & Rehabilitation Camps
- Border Security
- Agriculture Plantation & Estates
- Aqua-culture Farms
- and many other applications



The JVA Electric Security Fence System is a modular, dual zone, security electric fence energiser. Purpose built for control and monitoring of perimeter security electric fences. It can meet all of the perimeter security requirements of commercial installations to fully integrated high security installations.

The JVA Electric Security Fence System can be programmed and controlled using an LCD keypad which displays voltages and alarm conditions in real-time. However, the powerful features of the JVA Z14 system, such as database logging and a site plans, are fully realised when the Perimeter Patrol™ PC software is used.

The JVA Z28 can be networked with several energisers to form a pulse synchronised group. This is perfect for larger sites which require multiple electric fence zones. The JVA Z14 system can be controlled on-site using either the LCD keypad, in a control room using Perimeter Patrol™ software or even anywhere in the world using the TCP/IP LAN adapter. The system can be controlled on schedule to automatically switch to high voltage mode outside of normal operating hours.

For very high security applications, the JVA Z14 system gives a massive 18KV to 20KV voltage difference between the wires. The JVA Z14 system have built-in rechargeable battery backups which provide 8 hours continuous use in high power mode and 3 days continuous use in low power mode if AC mains fail and can be programmed to automatically switch to low power mode if it detects AC mains fail. This allows the system to continue to monitor the integrity of the fence for a much longer period of time.

The JVA Z14 dual pulse energisers are modular which makes the system very versatile and can support a limitless amount of zones. When multiple energisers are used in groups, they automatically synchronise with each other via the data bus (or TCP/IP LAN), which makes all the JVA Z14 pulse simultaneously. The system offers an enormous variety of programmable input/output options which can be expanded even further with the use of optional relay modules.

JVA Z14 systems are fully compliant with IEC60336-2-76 and MS IEC60335-2-76, AN/NZS 60336-2-76:2003 international standards.



JVA Z14 Features:

- High-Voltage, Single-Zone Fence Monitor triggers alarm when live wires are tampered with
- Earth Wire-Monitor triggers alarm when the earth wires are tampered with
- LCD Voltage *Out* and *Return* Display
- Gate Monitor input to monitor the gate
- Dynamic Voltage Monitoring minimising arcing and false alarms when maximising power and battery life
- 4 Joules maximum output energy
- Compliant with International IEC Standards IEC60335-2-76
- Built-in Lightning and Surge Protection
- Internal Battery Backup in case of power failure
- Up to 24-Hour Monitoring in the event of power failure
- High and low power options
- Energiser supplied with secure Key Switch Operation Diagnostic Mode
- 2 Standard Fully Programmable Relays plus option for three or more on request
- Keypad Compatible – Add Z-Range Keypad
- Available in Bi-Polar Option on request
- Pulse Synchronisation in group mode

High voltage, Single-Zone Fence monitor triggers alarm when live wires are tampered with

Up to 24-Hour Monitoring in the event of a power failure

Powerful, modular and versatile. Can support a limitless of zones

LCD Voltage Out and Return Display

Compliant with IEC60335-2-76 and MS IEC60335-2-76

Diagnostic Mode

Key switch operation

Status Light – Power, Armed, Fence, Gate, Status

THE JVA Z14 can be networked with several energisers to form a Pulse Synchronised group

High and low power options

2 Standard Fully Programmable Relays

4 Joules maximum output energy

Built-in Lightning and Surge Protection

Dynamic Voltage Monitoring minimising arcing and false alarms while maximising power and battery

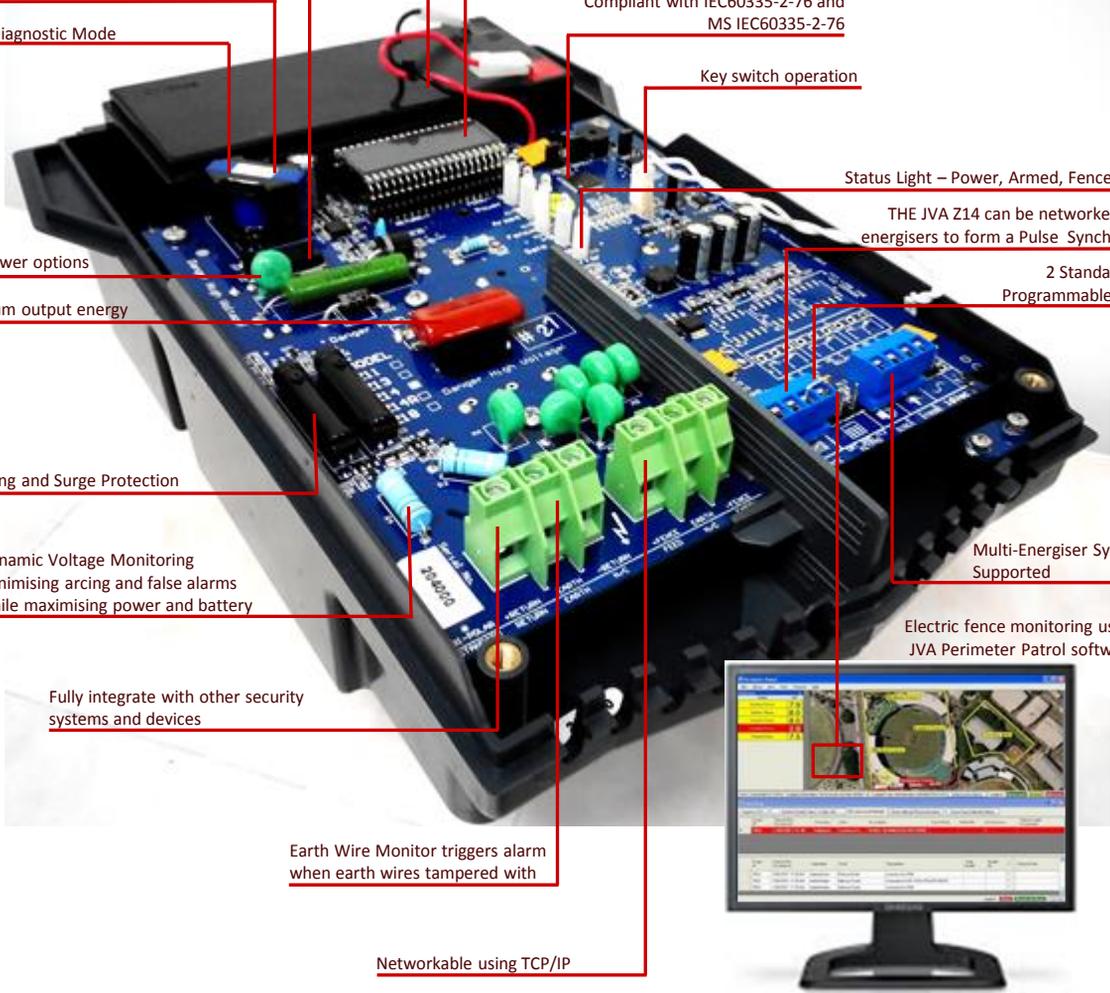
Multi-Energiser Synchronisation Supported

Fully integrate with other security systems and devices

Electric fence monitoring using JVA Perimeter Patrol software

Earth Wire Monitor triggers alarm when earth wires tampered with

Networkable using TCP/IP





JVA Range of Energisers
JVA Electric Fence Monitors
JVA Perimeter Patrol Software
Accessories

The Z series of security electric fence energisers provide the power and intelligence to run a security electric fence from the smallest domestic installation up to a multi-zone industrial site. The Z range may be connected to a building alarm access control system. They may also be synchronized and networked.



JVA Z14 - Single Zone Security Electric Fence Energisers

- *The JVA Z11, Z13, Z14 and Z18 models have 1, 3, 4 and 8 peak output Joules respectively.
- *The Z14 and Z18 may be configured as Bi-Polar (Z1xA) or conventional.
- *They have many advanced features including LCD display and keypad control.
- *The Z14R (R for relays) has electrical safety authority approval for sale in Australia and New Zealand



JVA Z28 - Dual Zone Security Electric Fence Energisers

- *The Z28 is a dual zone conventional (non Bi-Polar) security electric fence energiser.
- *The Z28 has 8 Joules total output (4 Joules per Zone)



JVA ZM1 - Electric Fence Monitor

The ZM1 may be used in conjunction with any standard electric fence energiser to provide the power control and monitoring required to run a security electric fence. In operation it is almost identical to a Z series energiser, although the ZM1 can also detect and alarm on power flow changes, meaning it can monitor from the start of the fence without a requiring a return



JVA ZM20 - Electric Fence Monitor

The ZM20 is designed to be used in conjunction with any JVA energiser to provide the power, control and monitoring required to run a large security electric fence. In operation it is similar to a Z series energiser, with the added ability to split the fence into up to 20 pre-set sectors for more precise alarm event reporting



JVA Perimeter Patrol Software

JVA now has three levels of PC control software.

1. Perimeter Patrol Lite, for small installations.
2. Perimeter Patrol Pro, for larger systems
3. JVA Mimic. A PC based replacement for traditional LED mimic screens



JVA has a full range of insulators, tensioners, gate switches, JVA remote control, fence nite lite, standing pole, line clamps, earth loops, electric fence wires, insulated cables, outdoor metal enclosures, batteries, solar panels, warning signage, gate contacts, switches and tools.



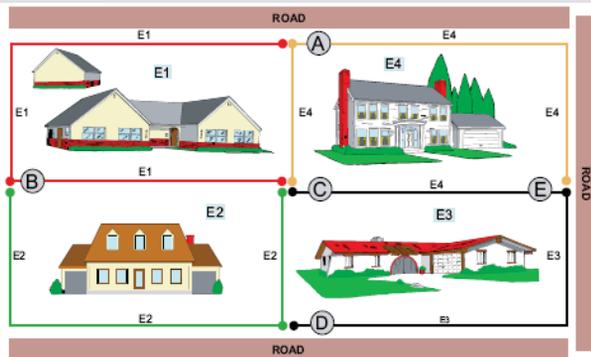
JVA Specifications	Z11	Z13	Z14	Z18	Z28
Stored energy	3J	5J	6J	12J	12J
Output energy 500ohm	1.8J	3J	4J	8J	8J
Output voltage maximum	10kv	10kv	10kv	10kv	10kv
Output voltage LCD display	Keypad	●	●	●	●
Return voltage LCD display	Keypad	●	●	●	●●
Backup time maximum	24hrs	24hrs	18hrs	18hrs	18hrs
Ext 16VAC transformer	●	●	●	●	●
Battery volts	12v	12v	12v	12v	12v
Battery capacity	7Ah	7Ah	7Ah	7Ah	7Ah
Pulse frequency	0.8s Hz				
Pulse width	0.3ms	0.3ms	0.3ms	0.3ms	0.3ms
Alarm delay	★	★	★	★	★
Siren time out	★	★	★	★	★
Bi-polar capability			●	●	
Compliant (IEC60335-2-76)	Yes	Yes	Yes	Yes	Yes

JVA Features	Z11	Z13	Z14	Z18	Z28
Fence monitor	●	●	●	●	●
Low voltage monitor	●	●	●	●	●
Armed response	●	●	●	●	●
On / Off reset key	●	●	●	●	●
Remote control option	●	●	●	●	●
Keypad voltage display	●	●	●	●	●
Keypad temper alert	●	●	●	●	●
Microprocessor	●	●	●	●	●
Programmable	●	●	●	●	●
Earth monitoring	●	●	●	●	●
Software controllable	●	●	●	●	●
Security	●	●	●	●	●
Solar power option	●	●	●	●	●
Number of Zones	1	1	1	1	2
Multi-Zone Pulse Synchronization	●	●	●	●	●

Group Pulse Synchronisation



Synchronised System – internal view



The synchronisation of electric fence energiser pulses powering different zones of a multi-zone electric security fence, is a necessary safety requirement to prevent someone from receiving a potential dangerous shock. The danger arises when multiple zones, powered by different energisers, intersect each other as is often in urban security installations.

The zones may be electrically isolated from each other at the point of intersection. However, it is possible for someone to touch two different zones simultaneously. Should this happen, the possibility exists that a person will receive a shock which will be either of a greater magnitude or a higher frequency that is safe or legal.

So the purpose of synchronising the electric fence pulses is to limit their frequency and magnitude to ensure that these are within safe levels. By pulsing the energisers in a group simultaneously, it is possible to receive a shock only one per pulse cycle.

Group Synchronisation Pulse Feature

In certain installations, such as gated and guarded community estates, large commercial, industrial complexes and border fencing, it may be preferred to sectorise a fence line by installing a number of individual energisers then linking them together in a group. In this group mode, with the Z-Range Energisers will each power a specific sector of fence line, they will now act as one energiser by pulsing in perfect synchronisation with each other, while also ensure that the energy output of the group meets legal requirements.

Notes

1. Each energiser within the group can be switched on or off individually and the group's master energiser can even be turned off without affecting the others
2. The slave energiser will alarm if the keypad bus is broken between it and the master
3. The keypad may be disconnected after programming the system, as it is not required for group operation



Group Synchronised System



JVA Perimeter Patrol Software



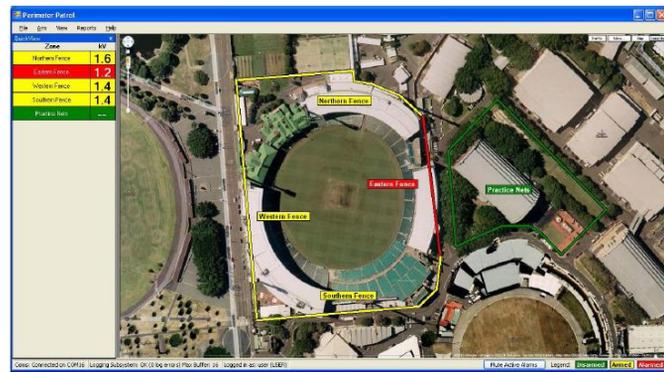
JVA Perimeter Patrol™ adds PC connectivity, communications and control to your security electric fence, giving you the peace of mind that comes from being able to check that your fence is working wherever you are.

Perimeter Patrol™ runs on a standard Microsoft Windows PC connected to JVA Security Electric Fence Energisers via PAE051 (RS232), PAE100 (RS485) or PAE212 (TCP/IP Ethernet) adapt

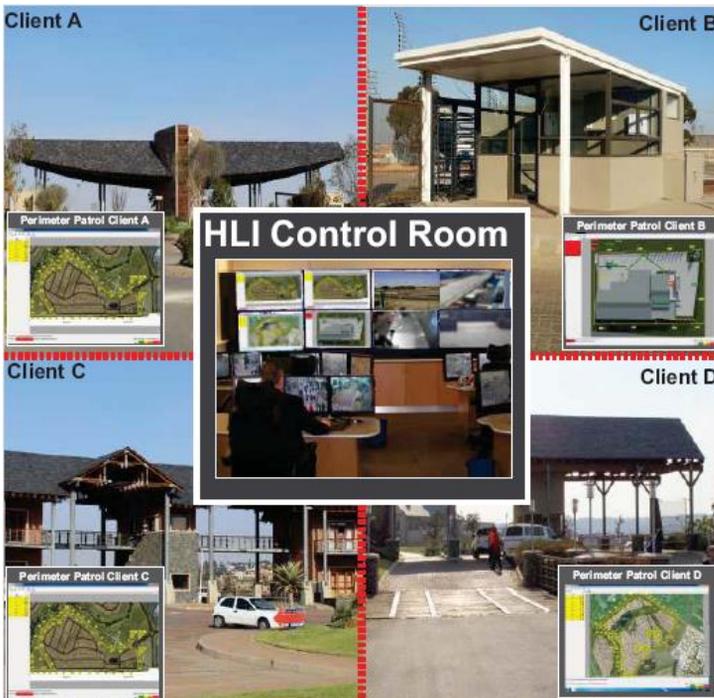
JVA Perimeter Patrol Advanced adds PC connectivity, TCP/IP communications, SQL Database and Server Client options to the security electric fence, giving peace of mind that comes from being able to check that the fence is working from anywhere of the world.

JVA Perimeter Patrol Advanced runs on a Microsoft Windows based PC connected to JVA security electric fence energisers via RS232, RS485, Fiber Optic Cable, TCP/IP interface cards and Wireless.

JVA Advanced Perimeter Patrol



JVA Perimeter Patrol High Level Interface



The High Level Integration Program (HLI) allow the user to take control of multiple Perimeter Patrol sites and display all the sites on one control screen. This is ideal for offsite management.

JVA HLI is a server that accepts incoming connections from multiple remote Perimeter Patrol sites and sends the information back to them. In order to have high level integration, the JVA Range of devices must first be able to communicate with a JVA application such as a Perimeter Patrol running a Windows based PC.

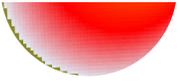
JVA HLI Integration options available include a DLL based Software Developer's Kit (SDK) with documentation and basic control demo Windows Form application and OPC which will enable third party OPC compliant GUI to access and control connected Z Series devices. For the systems integrators, the DLL approach is the fastest and most flexible method of making live connections between their applications and JVA Z Series 's devices.

The JVA Perimeter Patrol High Level Integration (HLI) allows one to customize, monitor and control JVA Electric Security Fence Systems from within one's own software environment. The software connects to the JVA Perimeter Patrol program over an encrypted TCP/IP Connection.



gated & guarded community









*JVA electric fence products are proudly designed
and manufactured in Australia*

JVA Electric Security Fence System
perimeter intruder detection system