



**Home security**  
***Electric fence energizer***  
***TH-2008 Series***

Dragon Cai/Product Manager

Shenzhen Tongher Technology Co.,Ltd

Electric fence manufacturer since 2007 in China

# Home smart guard



# Shenzhen Tongher Technology Co.,Ltd

specializes in manufacturing perimeter and security electric fence control system with its own R&D department

is a leading electric fence manufacturer in China with excellent technology and products. Dedicating to provide stable products, solution and professional services.

With 10 years experience, Tongher has become the leading electric fence supplier and system provider in China and offer full range of electric fence series: security electric fence and livestock electric fence--- perfect performance and competitive price!



# **Introduction of electric fence**

**1,What is electric fence**

**2,Theory of electric fence**

**3,How it works**

**4,Specification**

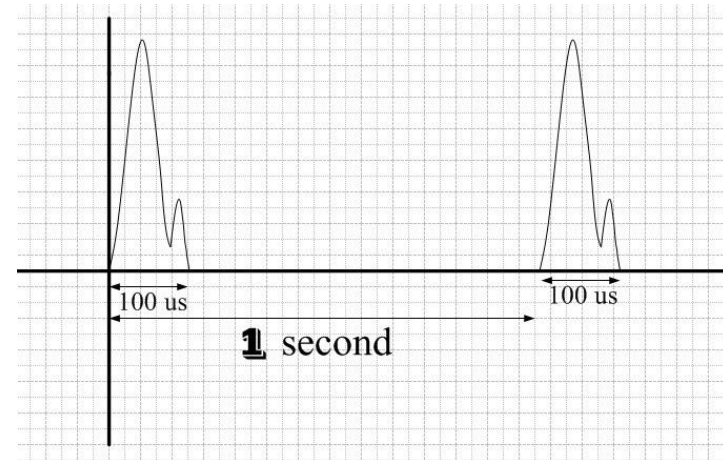
# What is electric fence?

- Electric fence is a physical and psychological barrier to deter animals or people with high voltage pulsed shock.
- There are two kinds of electric fence, one is for agricultural and the other for home security.
- Tongher offers home security fence energizer for integrated, such as conjoined with CCTV camera, alarm system, sensor, etc.
- Short, sharp, safe current or voltage to human beings

# Theory of electric fence

**The shock current travels through the body and into the earth ground where they are standing.**

**The effect of the shock on the people depends on the amount of shock current, the duration of the shock, and the body weight of the person.**



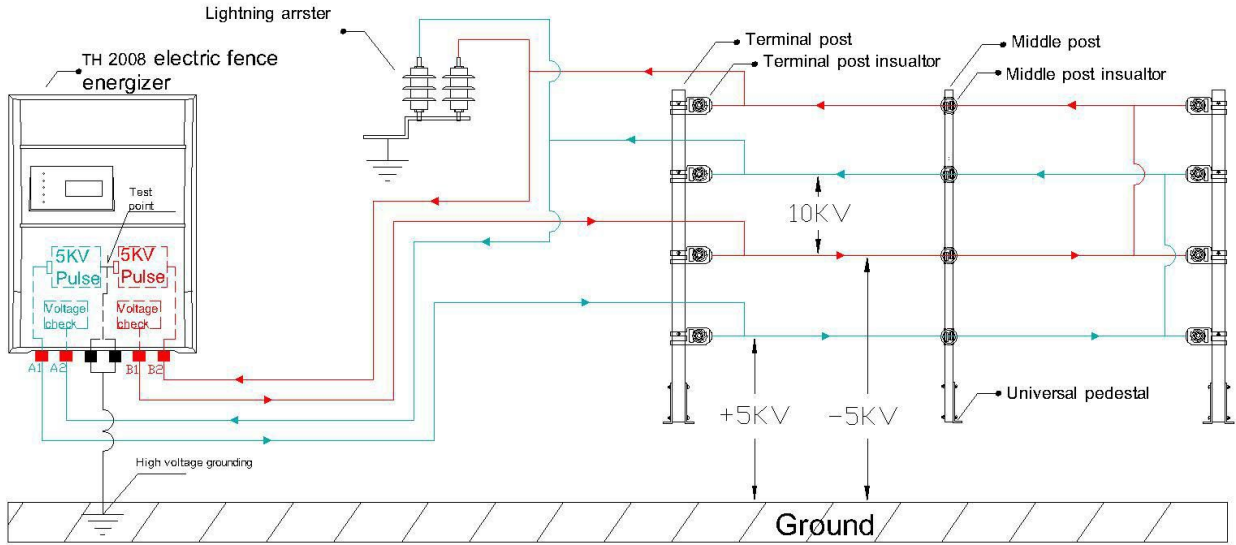
# Electric fence system

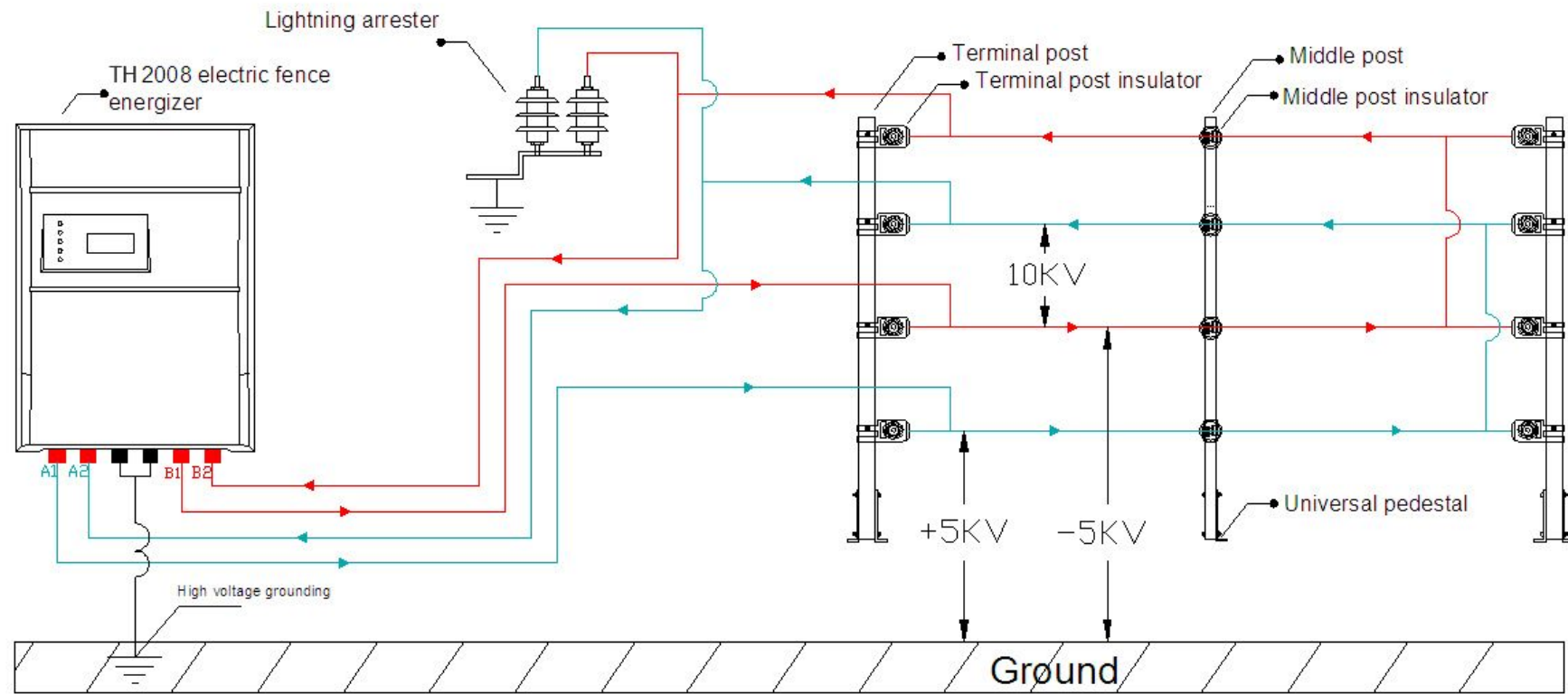
1, Fence

2, Energizer

3, Communication

4, Control







# How it works



## 1, Circuit complete

Pulsed voltage comes out from the energizer, to the fence wire, then goes through the human body, to the ground, at last goes back to the energizer.



## 2, Factors affect the shock: Time of shock, Voltage, Current, Energy



# Specification

- ◆ Differential voltage output technology: every wire has voltage, and differential voltage between the two adjacent wires.
- ◆ LCD or LED indicate the working state and the voltage on every wire.
- ◆ High/low voltage switch manually, long-distance auto switch on/off.
- ◆ Short circuit, break and tamper alarm, Self-inspection System for equipment fault.
- ◆ Waterproof casing and downward appearance design.
- ◆ RS 485 bus control, keypad, computer, network and multiple long distance management solution.
- ◆ DC12V, NC/NO dry contact alarm output, can work with other modern security products.



# Interface Specification

# Solution

A thick, yellow, curved line that starts on the left and arches towards the right, ending in a vertical bar.

1, Self control smart solution

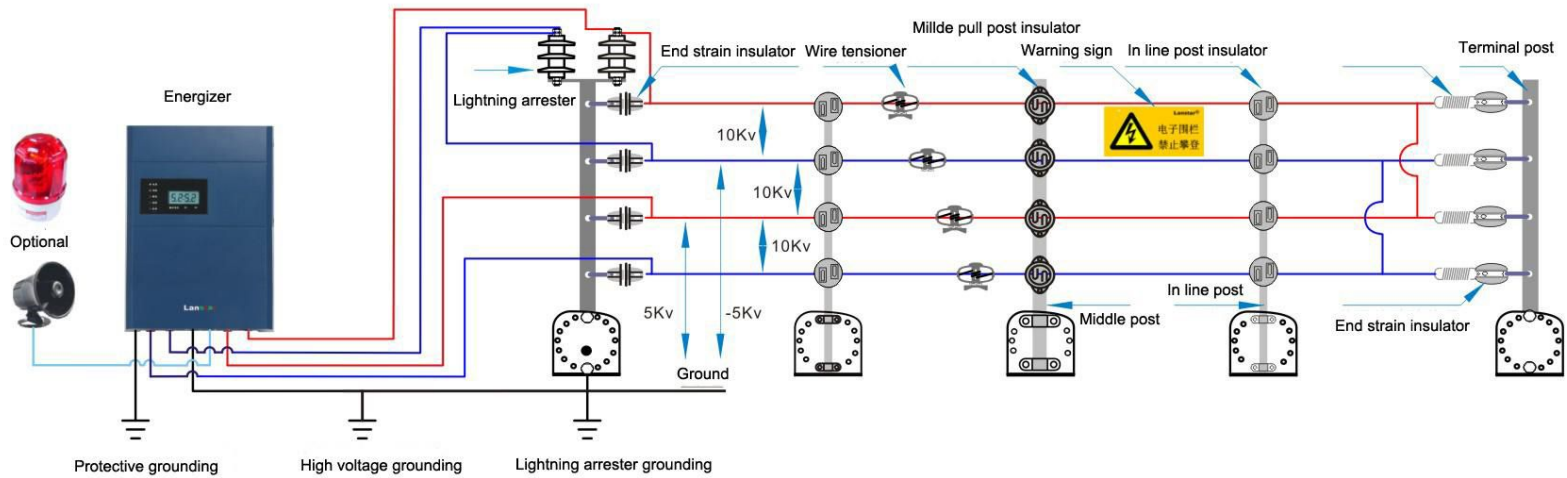
2, Keypad control solution

3, Computer control (Direct and network) solution

A thick, yellow, curved line that starts on the left, dips down, and then rises towards the right, ending in a vertical bar.

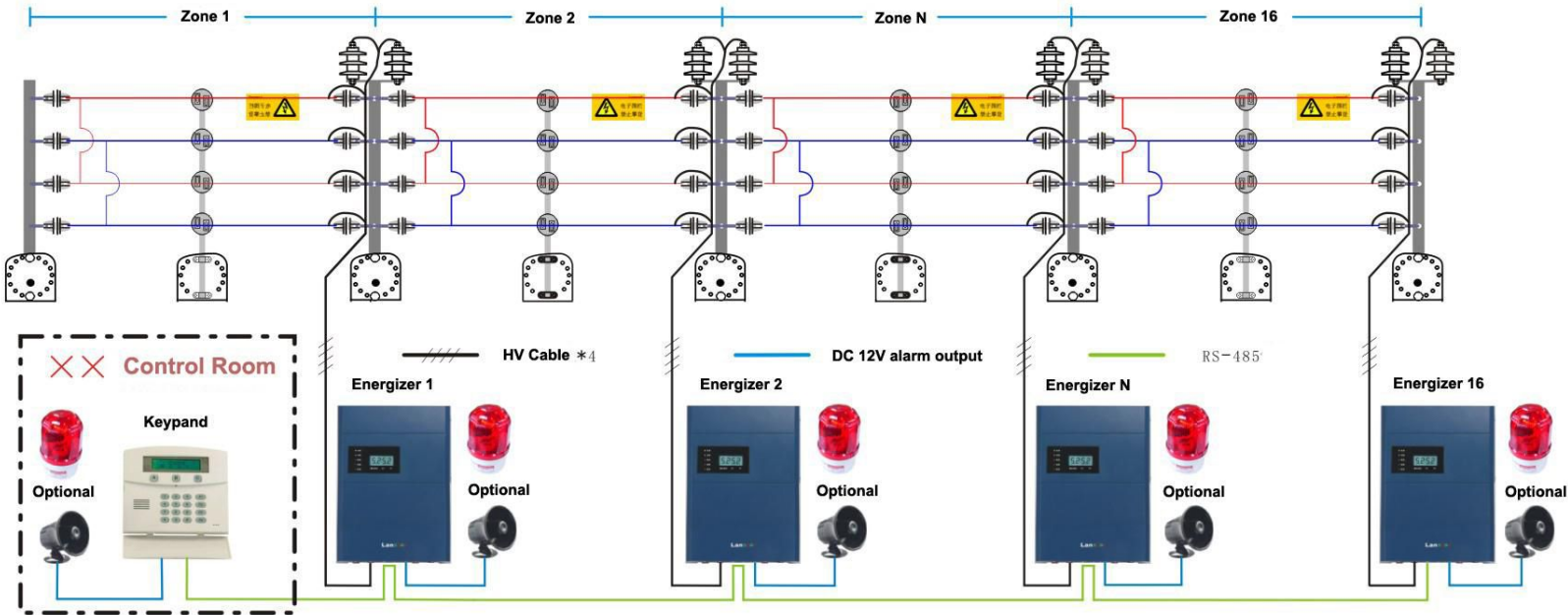
# Self control

## Self control system



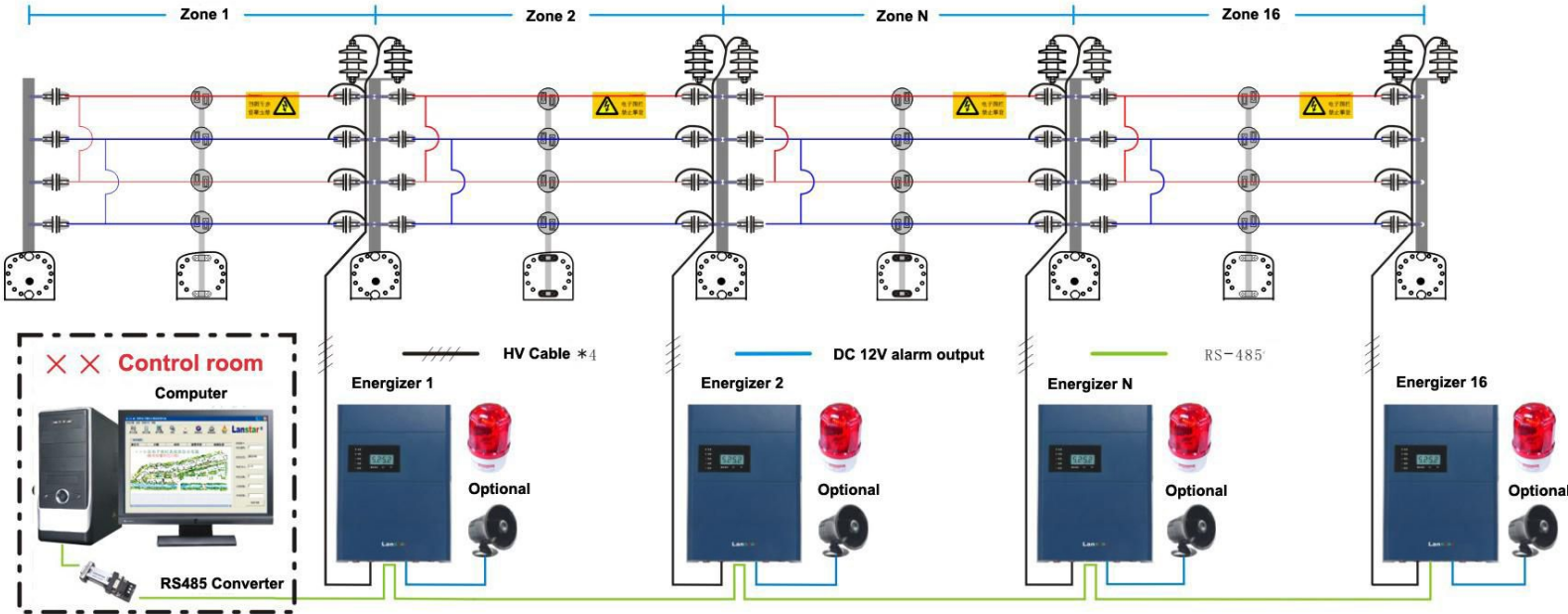
# Keypad control

## Keypad control system



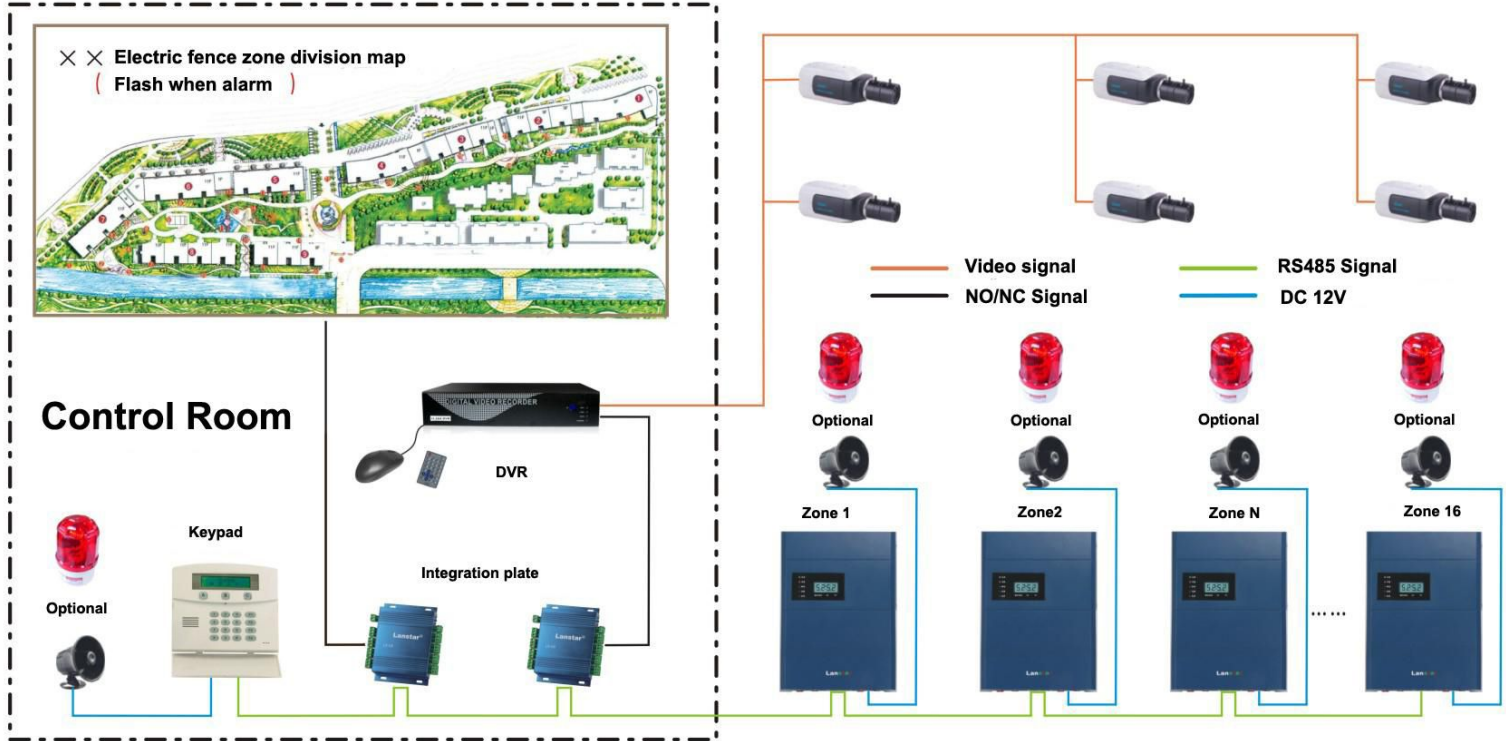
# Computer control

## Computer control



# Integration

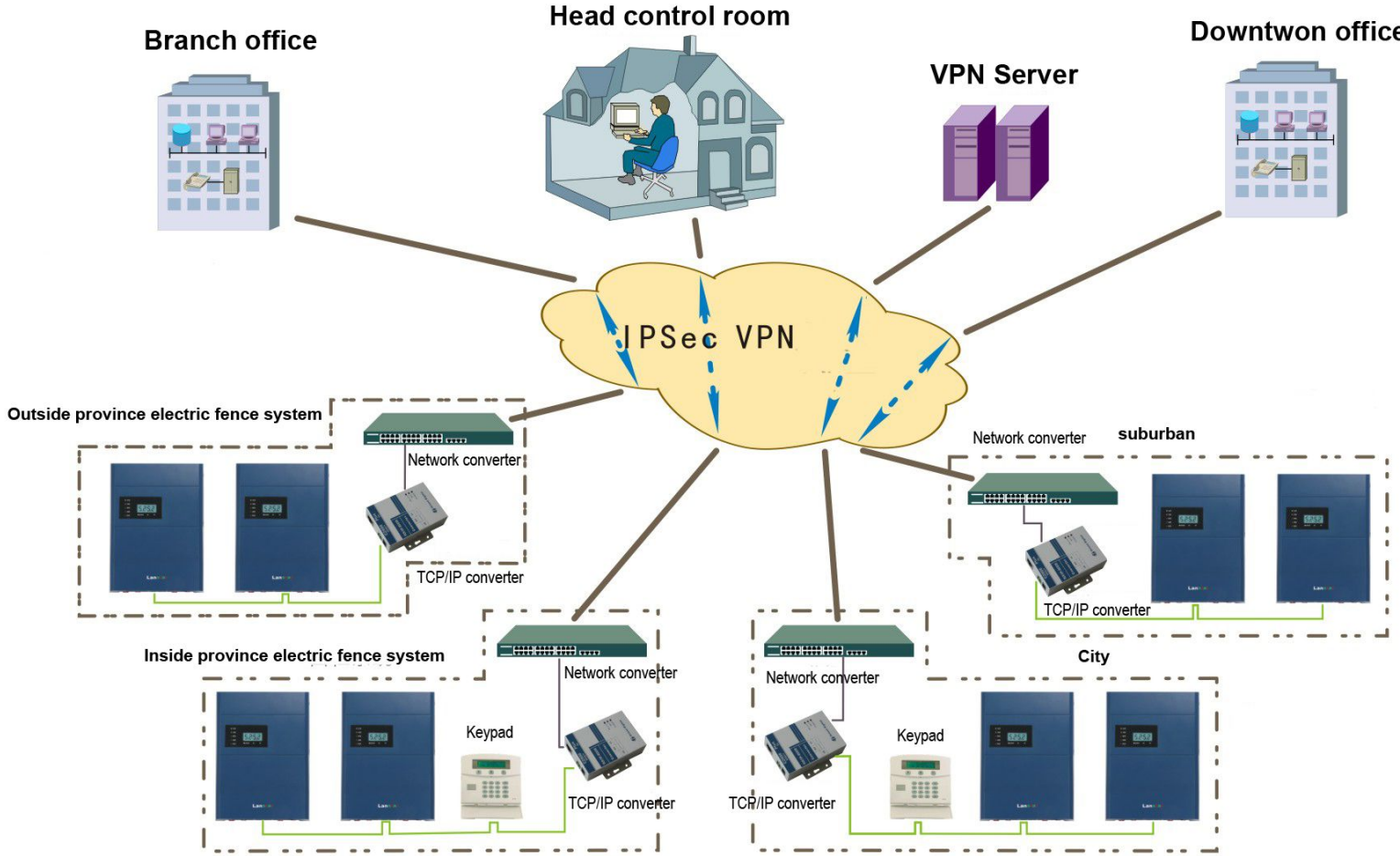
## Integration electric fence system





# VPN network control

LX-2008 VPN network control



# Benefit of using electric fence

1, Cost effective

2, Easy to install and maintain

3, Deter burglar and intrusion

4, Integrate with other security product

# Problem finder



1, Energizer

2, Short circuit

3, Wire cut

4, No signal

5, Can not control with keypad

Question	Eliminated methods	
Communications failure	keypad	<ol style="list-style-type: none"> <li>1、 check the connection between controller and keypad</li> <li>2、 check the voltage switch of controller whether in auto mode</li> <li>3、 check the armed zone number of keypad whether conform to the controller( the default monitor zone number of controller is 2)</li> <li>4、 When there are many controller in one electric fence system ,check whether have monitor zone number duplicated situation</li> </ol>
	computer	<ol style="list-style-type: none"> <li>1、 Check the connection of computer and controller correctly or not</li> <li>2、 Check the voltage switch of controller whether stay in auto situation</li> <li>3、 Check R232 transform to RS485 whether double action data</li> <li>4、 Check the port of computer and software correct or not</li> <li>5、 Check the added monitor zone number of computer software whether conform to the zone number of controller on electric fence</li> <li>6、 If there are many controllers on a electric fence system, check whether exist duplicated zone number situation.</li> </ol>
break	<ol style="list-style-type: none"> <li>1、 Check whether the connection of outer electric fence break or short circuit, use the multimeter to test every loops go through, the resistance of two loops should be strong enough..</li> <li>2、 When turn low voltage situation, check whether the tie-in connection good or not</li> </ol>	
Short circuit	<ol style="list-style-type: none"> <li>1、 When controller connects power supply, the two high voltage output loops whether connect the outer fence or use wire in short circuit.</li> <li>2、 Check the port of alarm output whether exist short circuit.</li> <li>3、 Whether only use the battery as power supply ( backup battery first use, if the power is weak, after charge 12 hours, then can work normally.</li> </ol>	



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