

Electric Fencing for Home Security (page 1 of 3)

Home security electric fencing increases the protection of your property by acting as a significant deterrent to all but the most tenacious of intruders, both human and animal. Our home electric fencing kits for home security are designed to be easy and simple to install, whilst being fairly unobtrusive when fitted. Electric fencing is perfectly legal in the UK, so long as it is on your property, meets all EU product standards and basic HSE (Health & Safety Executive) guidelines, including being at the right height and clearly marked.

Installed properly, electric fencing is:

- Safe
- Legal
- Cost effective
- Quick and easy to install
- An effective deterrent to intruders
- Ideal for homes, car lots, builder's yards & more

An electric fence for protecting property is usually fitted to the top of an existing wooden fence or garden wall, using specially designed, angled fence posts. There are generally 3 or more lines to the electric fence and, in our DIY kits, there are two 'live' wires and two 'earth' lines. Power to the electric fence is provided by a security fence 'energiser', which sends 4000-8000V down the wires at about 1-second intervals; each pulse lasts only a few millionths of a second!



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The 'live' electric fence wires work on an 'open circuit' basis, i.e. they do not return to the energiser. The energiser is, however, connected to an 'earth spike', so when a person touches the live fence they complete the circuit from the fence, through their body to the earth, back to the energiser and receiving a shock in the process. Of course, this only works if they are standing on the ground at the time, so an electric fence for home security also includes at least one earth line, which is connected to the energiser. This means that, when a person touches a live wire and earth line at the same time, they receive a shock, even if their feet are no longer touching the ground.

When we designed our home security electric fencing products, we realised that supplying mains power in the garden can sometimes be expensive and problematic. The benefit of mains power is that there are no batteries to replace or recharge, but if that is not possible, all of our systems can be run off of a 12V battery. These batteries are similar to car batteries, but they are 'deep cycle' type, so they can be regularly discharged and recharged without being damaged, unlike car batteries. To make life even easier, we offer a 'solar power' option, which means that you should never have to recharge a battery again! Obviously, as a security product, it is important that the fence is permanently energised, even in the event of a power failure. To overcome this, the new **Javelin** energiser is fitted with an internal backup battery.

Main components of an electric fence:



Electric Fence Energisers (Fencer): The energiser is the heart of the fence, sending regular pulses of high voltage (low current) electricity along the fence line. Our exclusive 'Javelin' energiser puts out about 8000V, producing a painful shock that is completely safe. With integrated battery backup, the Javelin is always protecting your property.



Fence Posts and Insulators: For home security, angled fence posts are fitted to the top of your existing fence or wall. Being angled, they make it significantly more difficult for an intruder to get over the fence without touching the electric line. The insulators hold the fence wire in place and stop any short circuits.



Earthing System: The energiser is connected to the 'live' fence line and to the 'earth' via two earth spikes, driven 0.5m into the ground. This is exactly the same as the earth pin on a domestic plug. When an intruder completes the circuit with their body, they receive a shock. Earth spikes must be located at least 10m from any other earth, e.g. the house.



Electric 'Polywire': Your home security fence has four lines of polywire, two 'live' and two 'earth'. When the intruder touches a 'live' and the ground, or a 'live' and an 'earth' line, they complete the circuit with their body and receive a painful shock. Polywire is a little like garden twine, but has 4 metal strands woven into it.

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Installation Guidelines:

The HSE (Health & Safety Executive) publishes a number of guidelines on the use of electric fencing for various applications, including as part of a security system. The most recent is 'OM 2011/04', which can be read in full on the HSE's website: <http://www.hse.gov.uk/foi/internalops/oms/2011/04/>

1. An electrified element to an outer fence or wall can be fitted, so long as the main (non-electric) structure is at least 1.8m in height. Whilst not mandatory, for domestic premises we also suggest that the angled electric fence posts in the kit are fitted so that they are tilting into the protected area. These two precautions are designed to limit the possibility of accidental shock, as well as the possible risk of infringing on boundaries.
2. For commercial premises, the HSE advise that the fence top should be angled outwards. Where that is not possible, you should increase the height of the non-electrified part to 2.0m
3. All modern electric fence energisers used in the UK, without special licence, must produce less than 5-joules and comply with BS EN 60335-2-76: 2005
4. Any fence fitted with an electrified part must be clearly labelled at the beginning and end of the fence and at least every 10m in between. Warning signs must be at least 200 x 100mm and yellow, fitted at 1.5m from the ground. Where children may be present, the sign should be repeated at 0.8m; this could be achieved by having signs every 5m, alternating between 1.5m and 0.8m

