Active Infra-red Perimeter Protection

Wireless solar-powered active infra-red beams and receivers

This system is designed to provide instant protection against the spiralling scourge of rural theft without the hassle and expense of running cables. It is based around a series of wireless active infra-red beams, which signal back to the farmhouse immediately an intrusion is detected.

Using the system, selected vulnerable areas can be protected by an invisible infra-red cordon. Any intrusion through this cordon will trigger an alarm in the house. This alarm will alert you to the intrusion, providing instant indication of the location.

Where remote monitoring is needed, the we have a receiver with a built-in telephone dialler and another with a built-in GSM dialler, which will immediately alert you or a neighbour in the event of an intrusion. Up to six numbers can be called in sequence. A high-power siren and / or lighting may also be installed, to act as a very effective deterrent.

As the sensors are wireless, absolutely no preparatory groundwork is required, and the sensors can be installed in a matter of minutes. If the need arises, it's a simple matter to relocate sensors to provide protection just where you need it. It really is that easy… and because there are no cables to run, it works out extremely cost-effective.

An extremely high degree of immunity to false alarm is provided by the sophisticated dual-beam sensors. We have a variety of beam-lengths up to 200m, allowing long stretches of vulnerable perimeter to be protected. We also have a wide range of accessories, and sensors to monitor vulnerable doors, internal areas and to detect fire, mains-failure, machinery shutdown etc. Please call us to discuss your requirements.

Solar-powered active infra-red beam sets:

Each beam comprises a transmitter and a receiver. One unit goes at each end of the beam, and a built-in radio transmitter will relay the alarm to a receiver / control unit up to a kilometre away the instant the beams are broken.
An extremely high degree of immunity to false alarm is provided by the sophisticated dual-beams, which must both be broken simultaneously to cause an alarm.

Remote Solar Panel

If either of the beam sensors is to be located in a permanently shaded location, you can connect a little remote solar panel to ensure its battery remains topped up. Measures approx 3" x 2".

Single-channel receiver:

The simplest of the receivers available on this system. Comes with a clean relay contact, which is activated when the beam is broken. The receiver connects to the mains with the power adaptor provided. The relay output can be used to power an external siren or a security lighting controller.

Six-channel receiver / buzzer:

The ideal receiver for use a Gateway Alarm. Comes with a built-in buzzer and a clean relay contact, both of which are activated when the beam is broken. The receiver connects to the mains with the power adaptor provided. The relay output can be used to power an external siren or a security lighting controller. Up to six beam-sets can be used with the receiver, and visual indication is provided of which beam has been triggered.

Eight-channel receiver:

This receiver is a building block designed to incorporate the external beams into an existing alarm system or CCTV set-up. It provides a clean relay contact for each of the eight channels. The receiver connects to the mains with the power adaptor provided, or it can derive its 12V power supply from whatever alarm or CCTV system it is connected to. Up to eight beam-sets can be used with the receiver, and visual indication is provided of which beam has been triggered.

Eight-channel receiver / dialler:

This receiver features a built-in landline telephone dialler, which will call up to six numbers when the system is triggered. It comes with a mains adaptor and is armed and disarmed with a remote control keyfob, from up to a kilometre away. Up to eight beam-sets can be used with the receiver, and visual indication is provided of which beam has been triggered.

Eight-channel receiver / GSM dialler:

This receiver features a built-in GSM telephone dialler, which will call up to six numbers when the system is triggered. It has built-in sim card (Vodafone sim provided as standard, but can be used on any network) and will perform text messages and / or voice calls to provide instant remote monitoring. No landline is required, and the receiver can be powered by a 12V battery if no mains supply is available. It comes with a mains adaptor and is armed and disarmed with a remote control keyfob, from up to a kilometre away. Up to eight beam-sets can be used with the receiver, and visual indication is provided of which beam has been triggered. (Phone not provided)

Complete system with landline dialler:

With a beam-length of 40m, this is ideal for gateways and driveways, and the fact that it has a built-in auto-dialler makes it an incredibly economical way of setting up a remote monitoring system for your property. When it's triggered, the sensor will send a signal to the receiver in the house up to a kilometre away. This receiver has a built-in dialler that will call up to six numbers. It can also be used to switch on external lighting and sound a siren. Up to eight beam sets can be used on the system. It is armed and disarmed with the keyfob provided. All-in-all, a very useful piece of kit at a fabulous price.

4-beam perimeter protection system with dialler:

A comprehensive perimeter protection system comprising four 60m beam-sets and an 8-channel receiver with a built-in dialler. The external beams are completely weatherproof and wireless, with a built-in battery and a small solar panel on top which keeps the battery fully charged, even in our unreliable climate. They have been designed to function perfectly for a month with no sunlight.

The receiver can be located up to a kilometre from the sensors (although buildings and other obstructions will reduce this to some extent). It has a dialler that will dial up to six numbers when triggered. It is armed and disarmed with a remote keyfob (supplied).

Single-beam system with GSM dialler:

A 40m dual beam combined with our state-of-the-art 8-channel receiver / GSM dialler to provide perimeter protection and remote monitoring where no landline is available. It will send text messages and / or voice calls to up to six telephone numbers when triggered. Perfect for remote applications and construction sites. Up to seven additional dual beams may be added to the system.
It is armed and disarmed with a remote keyfob (supplied).

Accessories:

A variety of accessories is available including:

Internal PIR sensor / transmitter
Internal door contact / transmitter
Wireless smoke alarm / transmitter
Laser-pen for aligning beams
Solar-powered external siren
Solar-powered Repeater (adds 1km to transmitting range)
Remote control keyfob

Note: Although the packaged systems above have been quoted with specific beam lengths, these can be tailored to suit your requirements, using our range of active infra-red beams from 20m - 200m. Just give us a call on 01573 440761, describe your application and we'll put a system together for you.

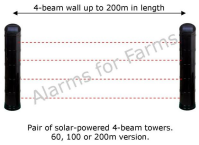
Quad-Beam Infra-Red Towers

Quad-beam Infra-red Cordon System:

A complete system using state-of-the-art two-direction active infra-red quad-beam towers. Only four units are required to form an impregnable square (or rectangle). Transmitting range to the receiver is a kilometre. Towers are completely self-contained and wireless. Available in three configurations as follows:

Two-direction Active Quad-Beam Tower:

A pair of active infra-red beam towers. One tower contains a beam emitter and the other a beam receptor. The emitter projects four beams up to 60m, and the receptor receives the four beams. An alarm is generated when all four beams are broken simultaneously. The towers are completely wireless. They have a built-in battery pack, which is kept charged by a small solar panel on the top of the tower. The battery will keep the unit going for up to a month without sunlight, and for satisfactory operation, the towers need only a couple of hours' sunlight a fortnight.



The sensors must be bolted to the ground. The optics are adjustable to accommodate rising or uneven ground, but there must be a completely clear line of sight between the two towers. Each tower is 730mm (29") high.

Two-direction Active Quad-Beam Tower:

An active infra-red beam tower. Each tower contains either a beam emitter or a beam receptor. The emitter projects four beams up to 200m, and the receptor receives four beams from another tower. The transmitter and receptor can be swivelled by up to 180 degrees, allowing you to form a square using just four units. As the optics are adjustable, the towers can be used to protect irregular shapes (see the diagram on the left). You must use an even number of towers, half of which will be emitters and half receptors. It sounds complicated, but it all makes perfect sense. Call us on 01573 440761 to talk it through.

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The towers are completely wireless. They have a built-in battery pack, which is kept charged by a small solar panel on the top of the tower. The battery will keep the unit going for up to a month without sunlight, and for satisfactory operation, the towers need only a couple of hours' sunlight a fortnight.