

Immobilising stolen cars – more than a remote possibility



The technology exists to remotely disable a stolen vehicle, but the market is hamstrung by legal restraints that differ from country to country. Telematics Update's **Sharon Gill** investigates to see who's allowed to do what, where, when and how.

CAR THEFT is big business. For both individuals and sophisticated syndicates, no other type of criminal activity offers such attractively high profits for such minimal risk.

Increasingly inventive technology to prevent vehicle theft has created a more sophisticated and resourceful criminal element. The appearance of a newly developed anti-theft device on the market is the trigger for tech-savvy car thieves to pull out all the stops to crack it.

Europol estimates that around 450,000 stolen vehicles are trafficked out of the EU every year, raking in a tidy profit of around 6.75 billion.

Interpol acknowledges that vehicle theft is often linked to organised crime and terrorism. According to Interpol's research, illicit vehicle trafficking generates around US\$19 billion in profits, which disappears into a parallel economy.

While official statistics indicate that car theft in the US, Europe, Australia and South Africa is decreasing, this is cold comfort to the 2.1 million Americans, Europeans, Australians and South Africans whose cars are stolen every year.

Some anti-theft measures actually work, which interferes with the car thief's means of earning a living. But there are other ways to relieve an owner of his vehicle.

The latest available statistics reflect that vehicle hijacking is still a serious problem in various parts of the world, particularly in South Africa, where more

than 13,000 cars and trucks are hijacked every year.

Giving up your vehicle when faced with the business end of a hijacker's gun is slightly less galling if you know the thief won't get very far.

There are systems that pinpoint a vehicle's location; systems that disable the vehicle either after a pre-determined time or distance, or on command from a service provider's control room or the vehicle owner's cell-phone; and systems that remotely lock the car doors.

While the technology exists to provide various options, the market is crippled by legislation.

The debate appears to focus on



PAUL KIRK

On the road with the Tracker ground crew. The Tracker monitor indicates the distance from the stolen vehicle being tracked, the direction of the transmitter; and a code that relates to a specific vehicle so the crew knows exactly what vehicle to look for.

safety– the risks involved in shutting down a moving vehicle; and liability issues – e.g. if another vehicle ploughs into a stolen car while the thief is locked inside.

Remote immobilisation alone is a

can of worms. You can (a) prevent an engine that has been switched off from restarting, (b) prevent a stationary vehicle from moving, or (c) shutdown a moving vehicle.

Sussex Police Chief Supt. Jim Hammond of the Association of Chief Police Officers (ACPO) ITS Working Group in the UK says that legislation surrounding the use of remote crank inhibition devices as in (a) above is relatively clear, but interpretation of the legislation for the other two categories is less clear, both at UK and EU level.

According to the ACPO and Home Office Guidance to Companies on Police Policy on Stolen Vehicle Tracking, an after-theft vehicle immobilisation system cannot immobilise a stationary vehicle unless the engine is switched off and the key is removed from the ignition, or unless the ignition is turned on but the vehicle has been stationary for more than five minutes. Either way, the system may not emit an external audible signal.

The Auto-txt system, the first to be Thatcham Cat 5-accredited, enables police to track the vehicle and prevent it restarting once the ignition is turned off.

i-mob's system enables vehicle owners to directly communicate with and control their vehicles. According to i-mob's managing director in the UK, Simon Allen, the system does not use the remote door lock feature, and it complies with UK law since it immobilises the vehicle after the ignition has been switched off, and it does not emit an audible alarm.



i-mob has installed systems in more than 40,000 vehicles in Europe, and the company's success in recovering stolen vehicles has endeared it to vehicle owners and insurers alike.

i-mob recently entered the American market in collaboration with Trillium Teamologies, offering the same remote immobilisation facility as the European version.

In Australia, CarTrak can locate a stolen vehicle and is allowed to remotely shut down the engine under police direction. In both America and Australia, police welcome the remote shutdown feature because it eliminates high-speed car chases.

Indian law appears to be less concerned about the vehicle thief's safety, since Micro Technologies markets the MicroVBB (Vehicle Black Box) as an anti-theft and communications system, which allows an authorised person (e.g. the vehicle owner) to remotely activate certain functions – including locking the vehicle's doors.

Under South African law, motor vehicles registered for the first time after July 1, 1990, which are fitted with an anti-theft device that is connected to or in any way interferes with the braking system, may not be operated on a public road. Advocate and motor law specialist Don Smart points out that this should have been worded to state that: "after 1/7/1990 no vehicle shall be fitted with such a device". As the law stands,

provided a vehicle was first registered before July 1, 1990, such a device can be installed.

The law also prohibits any tampering with the vehicle or parts thereof without reasonable cause or the consent of the owner, operator or person in lawful charge of the vehicle. According to Smart, this precludes fitting any device that could be remotely activated to stop a vehicle without the consent of all of the relevant parties. "This is probably mostly relevant in situations where the systems are factory fitted and a vehicle is immobilised against the wishes of the driver."

This doesn't seem to be an issue in America, where the OnTime® system can immobilise a financed vehicle if the payments are overdue.

Smart says that South African law allows a person acting in an emergency or self-defence to protect his (and others') property, life and safety. Thus a person would be entitled to remotely immobilise his vehicle, provided his actions didn't endanger other road users or innocent occupants of the hijacked vehicle, since cutting the engine only affects power-assisted brakes as opposed to disabling the entire braking system.

While there's a risk of immobilisation kicking in due to a malfunction or error, these devices don't normally bring the vehicle to a shuddering halt, but facilitate a gradual or intermittent immobili-

sation that allows the driver to steer clear of other traffic.

"SA law does not prohibit the installation of such a device," says Smart.

It's ironic that hijack-prone South Africans are legally allowed to remotely disable their vehicles, but none of the country's three major vehicle tracking companies offers this facility.

Netstar and Matrix discontinued the feature because interfering with the vehicle's electrical/electronics system invalidates the manufacturers' warranty.

Tracker South Africa (affiliated to LoJack) doesn't remotely disable stolen vehicles, nor does it plan to. "We're strictly an after-theft/hijacking recovery company," says communications manager, Gareth Crocker.

Matrix's high-end system offers a remote door-lock feature, but this can only be activated by the vehicle owner via cell-phone. Designed to enable forgetful owners to remotely lock their cars, there's nothing to stop an owner from activating the remote door lock feature if Matrix notified him that his car had been stolen, although he risks being chewed up and spat out by the authorities if the thief suffered any injuries as a result of his being trapped inside the car.

Netstar units fitted prior to April 2003 offered a remote-activated fuel restrictor, enabling the control centre to immobilise the vehicle, whether mobile or stationary, but only if it was within sight of the recovery helicopter or ground crew. This facility still exists in those older units, and can be activated if a vehicle is stolen, within the parameters of the law.

Netstar doesn't plan to reintroduce this option for new installations. Interestingly, operations & control centre manager Dave Shipton says that Netstar's stolen vehicle recovery rates didn't decline after the feature was discontinued. ■