

Dots that make a difference

Innovative dot technology could cut the heart out of hijacking and car theft

The police (SAPS), Business Against Crime (BAC) and vehicle fleet operators are pressing reluctant car makers to fit anticrime microdots on all new vehicles they produce in or import to SA.

Microdotting was pioneered in Australia and has proven highly effective in cutting down car theft. It involves spraying hard-to-reach parts of cars with thousands of minute, watermarked carbon dots carrying the vehicle identification number (VIN).

Because there are so many dots it is practically impossible for thieves to remove them all.

The pressure on car makers is mounting. Last month Nissan broke ranks with other manufacturers and became the first to start spraying the microscopic identity tags on all its new vehicles sold in SA, Namibia, Botswana, Swaziland and Lesotho.

Toyota microdots just one of its models — the Quantum minibus, a more spacious version of the Hi-Ace taxi. Since it started the process 18 months ago, not one of an estimated 9 800 Quantums sold has been stolen, while Hi-Aces continue to be among the most ripped-off vehicles on the road, says BAC organised crime project manager Fouché Burgers.

National police commissioner Jackie Selebi was so impressed by a BAC-sponsored microdot presentation in 2004 that he immediately instructed SAPS procurement officers to insist suppliers microdot all new police vehicles before delivery.

Other state departments have been slow to respond but it is believed the national transport department plans to include the stipulation on its vehicle tenders.

"This could be the most important tool we have to restrict the marketing of stolen vehicles," says the director of BAC's organised crime project, Lorinda Nel. "It gives us, for the first time, the ability to trace the identity of a vehicle from start to finish."

Car rental company Avis has been microdotting all its new vehicles for the past three years and has recorded a 52% drop in theft and an increase in recovery of stolen vehicles, up to 87% for some models. The deterrent effect is equally important, says Avis operations director Wayne Duvenage.

SAPS investigative support director Derrick van Wyk confirms this: "Criminals have told us that the receivers of stolen vehicles have told them: Don't bring us any Avis cars because they are 'contaminated'." Of the nearly 100 000 vehicles stolen and hijacked in SA each year, only about 40% are recovered, says BAC.

And of those recovered, thousands have had their VINs filed off or otherwise removed. Many of these orphans are crushed and compacted into metal blocks. But just as many are covertly resold and marketed.

Just over half of stolen vehicles are "reborn" with new or cloned identity numbers, about one-third are exported, and the rest are chopped up into anonymous parts.

It is this ongoing marketability of stolen vehicles and parts that enables vehicle crime to thrive unabated in SA, says BAC's Nel.

To be truly effective, microdotting needs two pillars — a high number of

tagged vehicles and a will on the part of the police to check for the telltale dots — both of which are lacking in SA at present. Just 1,2% of SA's 7,5m licensed vehicles carry microdots.

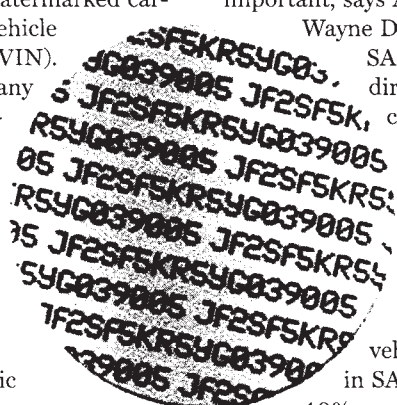
That's why Avis and other fleet owners are pressing car makers to include microdotting as standard features on all vehicle production lines.

"We have spoken to them and they are resisting," says Duvenage. "It's almost a fob-off and it's frustrating us."

The National Association of Automobile Manufacturers of SA (Naamsa) says it does support microdotting — but only as an after-market extra to be applied at the customer's request — at a cost currently of about R900/vehicle. The association says it will not try to prescribe to its members.

Naamsa's primary objections to production-line dotting lie mainly in the difficulty of spraying about 10 000 dots into all nooks and crannies of a vehicle as it passes through the multiphase pro-

WHAT IT MEANS
 ▶ Sticky microdots are telltale 'DNA for cars'
 ▶ SA car firms pressed to fit antitheft dots



"With crime so high in SA, I cannot understand why the motor industry hasn't embraced the issue of vehicle identification as a contribution to society"

— RAY CARROLL

FACT SHEET

duction process. Not only would this add to the overall vehicle cost, but it would slow production by adding cumbersome steps to the process, possibly harm the finish of fully imported vehicles and raise the possibility of administrative foul-ups, says the chairman of Naamsa's vehicle crime protection committee, Callie Calitz.

But Avis's Duvenage dismisses such objections. "They said the same sort of things 15-20 years ago about immobilisers and now every car has one," he points out.

What's more, if Nissan can do it, why not the others? The company applies the dots during quality control at its Rosslyn plant and at transport depots near the ports of Durban and Port Elizabeth, where imports are landed. It has instituted stringent processes and security measures to minimise the chance of erroneous marking, which would result in having to scrap and compact a wrongly marked vehicle, says Nissan project manager Mark Kensley.

Each dot is just 1 mm across and is laser-etched with the 17-digit VIN or, in the case of used cars, a matching 14-digit PIN code. The glue used to anchor the dots glows under ultra-violet light, enabling investigators to find the dots and match the numbers to existing VIN registers or a linked proprietary database.

Investigators can read the numbers on the dots with a torch-light magnifying scope. The scope and a UV-light form a kit produced by the dot manufacturer and issued to specialist police vehicle theft units.

So far nearly 3 500 police officers have been trained in microdot detection and 1 200 kits have been issued to vehicle theft units around the country and police stations in Gauteng, Mpumalanga and North West, says Derek Menday, director of microdotting company Datadot Technology SA.

Datadot SA is a proprietary operation

- **SA fleet owners report 52% fall in car thefts since microdotting**
- **Nissan broke ranks on October 3 to begin microdotting all new cars**
- **Only 92 000 of SA's 7,5m vehicles carry microdots**
- **Police, Business Against Crime pressing for microdots on all vehicles**
- **Car thieves, hijackers avoid "contaminated" vehicles with microdots**
- **Australian authorities say microdotting "absolutely essential"**
- **New Zealand plans mandatory microdotting of all new vehicles**

linked to the Australian company that pioneered vehicle microdotting in the early 2000s. The process was developed out of a rudimentary marking system invented in the US to tag gambling chips. Datadot began business in SA in late 2002 and has 92 000 vehicles on its database, most of them marked after sale at buyers' request, says Menday. Post-purchase spraying retails at R899 at selected fitment centres. But the cost is considerably less for bulk fleet orders, and would likely drop even further if microdotting became standard on all new vehicles.

Australia has been using microdotting for several years, along with other anti-theft and registration measures, and has halved its professional vehicle theft rate since 2001, says Ray Carroll, executive director of Australia's National Motor Vehicle Theft Reduction Centre, who visited SA as a guest of BAC last week.

"With crime so high in SA, I cannot understand why the motor industry hasn't embraced the whole issue of vehicle identification as something hugely positive to contribute to the country," says Carroll.

Australia's car theft rate peaked at 140 000 out of 13m cars on the road in 2001, says Carroll. The rate dropped to 76 000 in 2005/2006 due to a range of anti-theft measures — including registration reforms, improved vehicle identification techniques (including microdotting) and better co-ordination between state and territorial authorities.

"Microdotting is absolutely essential," says Carroll. "It's not the silver bullet but it is the foundation on which to build a lot of other strategies."

Currently about 10% of the 700 000 cars sold each year in Australia are microdotted. The process is still voluntary. New Zealand is about to become the first country to make microdotting mandatory on all new vehicles.

SA Insurance Association spokesman

Vivienne Pearson says it is still too early to gauge with certainty the value of microdotting. Insurance companies are watching trends before deciding whether to offer premium reductions or other incentives to policyholders who fit the dots to their vehicles.

"We do view it as an important security device," she says. "And we urge motor manufacturers to follow Nissan's lead and come to the party."

She says one insurance executive has suggested spraying the dots on wrecks and recovered vehicles and recording the data in a national register to undermine illicit registration and chop shops.

Meanwhile, BAC, the SAPS, the Ve-

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hicle Security Association of SA, manufacturers, insurance companies and other concerned groups are drawing up a national microdotting protocol.

Completing that, probably early next year, it would clear the way for wider use of the process, and perhaps even lead to mandatory application for all new vehicles in SA.

Peter Honey

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