

# KEYLESS CARS

## VULNERABLE TO THEFT



INSIGHT

**Although generally speaking there has been a downward trend in the theft of vehicles since 1995, in the year to March 2018, there was an increase of motor thefts, the highest annual total since 2009<sup>1</sup>.**

Due to the way vehicle crime is recorded, it's not possible to understand the exact nature of the vehicle thefts, but a recent report by *Which?*<sup>2</sup> revealed that four of the five best-selling car models in the UK are susceptible to 'keyless theft'.

### KEYLESS ENTRY

A vast number of cars are manufactured with keyless entry systems, which allows owners to open their vehicle as long as the key is nearby, for example, in a bag or pocket, offering convenience to drivers. But this can be exploited by criminals.

Keyless entry works with a remote that acts as a short-range radio transmitter, and once in range (usually around 15 metres), a push of a button unlocks the car.

Relay station attacks (RSA) use a signal transmitter and receiver. The signal from the car key is relayed to a receiver near the car, the car thinks the key is present and allows the car to be unlocked and started.

*Which?* analysed data on keyless, or 'relay' entry attacks and found all but three of the car models tested were susceptible, and although keyless theft has been around for many years, it means that a greater number of cars can now be targeted.

Thieves are thought to be using technology to bypass entry systems on keyless cars or trick cars into thinking the key is in the criminal's hand. As the same keyless remotes also start the car, once inside the same technology could be used to start the ignition and drive off with the car.

It is suggested that electronic compromise is a factor in as many as one in four vehicle thefts<sup>3</sup>.

1 <https://www.bbc.co.uk/news/business-47023003>  
2 [https://www.which.co.uk/news/2016/03/security-risk-in-keyless-cars-uncovered-437408/?source\\_code=911DBI&gclid=EAlaIqobChMlzoDMn5-T4AIVSrDtCh1qeg8yEAAAYASAAEgLdiPD\\_BwE&gclid=aw.ds](https://www.which.co.uk/news/2016/03/security-risk-in-keyless-cars-uncovered-437408/?source_code=911DBI&gclid=EAlaIqobChMlzoDMn5-T4AIVSrDtCh1qeg8yEAAAYASAAEgLdiPD_BwE&gclid=aw.ds)  
3 <http://www.mynewsdesk.com/uk/thatcham-research/pressreleases/thatcham-research-announces-2019-updates-to-mandatory-car-security-standards-2492357>



## INDUSTRY ACTION

In 2019, the New Vehicle Security Assessment (NVSA) programme will be updated to include criteria designed to shut down vulnerability associated with keyless entry, along with a review of the criteria relating to parts identification.

The NVSA is the standard against which all new cars are evaluated as part of the insurance group rating.

Alongside this, some vehicle manufacturers are already introducing keys with motion sensors that deactivate the keys when not in use<sup>4</sup>.

## VEHICLE SECURITY

**Thatcham have released some security tips for drivers with keyless entry systems, including:**

- contacting your dealer and talking about the digital features in your car. Have there been any software updates you can take advantage of?
- checking if your keyless entry fob can be turned off. If it can, and your dealer can also confirm this, then do so overnight.
- storing your keys away from household entry points. Keeping your keyless entry fob out of sight is not enough – thieves only need to gain proximity to the key to amplify its signal.

To view a complete list of Thatchams security tips, visit their [‘mynewsdesk’ webpage](#).

Other methods include keeping keys in metallised signal blocking devices, which are designed to protect electronic keys from relay attacks, and traditional anti-theft devices, such as steering-wheel locks, which are a visible deterrent to thieves.

With technology constantly evolving, and methods used by criminals continually changing, the industry is starting to recognise the importance of staying one step ahead where vehicle security is concerned.

To view the full Which? report [click here](#).



**IT IS SUGGESTED THAT ELECTRONIC COMPROMISE IS A FACTOR IN AS MANY AS ONE IN FOUR VEHICLE THEFTS<sup>5</sup>.**



**THE NVSA IS THE STANDARD AGAINST WHICH ALL NEW CARS ARE EVALUATED AS PART OF THE INSURANCE GROUP RATING**

<sup>4</sup> <https://www.motortrader.com/motor-trader-news/automotive-news/thatcham-planning-security-standards-upgrade-include-keyless-entry-25-04-2018>

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