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New camera technology to address noise regulations

New camera technology does not require the police to be in attendance but can beconfigured to provide real-time reports if required

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A new camera technology will be trialled by the government aims to measure the sound levels of passing vehicles to detect those that are breaking the law on noise limits, and could use automated number plate recognition to help enforce

the law.

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Research

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/atta chment_data/file/805940/roadside-vehicle-noise-measurement-phase-1-study-report-and-technology-recommendations.pdf) commissioned by the Department for Transport (DfT), found that a noise camera system could help tackle extremely noisy vehicles which breach legal noise limits.

The move comes after pressure from campaigners in rural communities who say some motorists illegally modify vehicles to amplify the sound.

Prototype noise camera

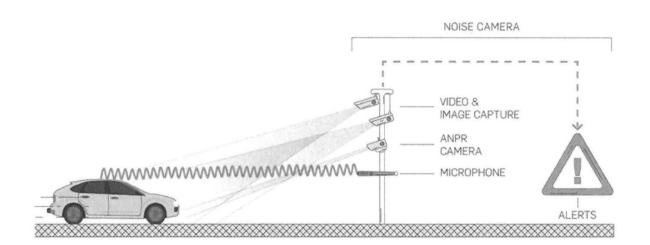
The government has commissioned a prototype noise camera to be tested at several locations over the next 7 months. If the trials are successful, recommendations will be made to further develop the camera technology across the <u>UK (United Kingdom)</u>.

Transport Secretary, Chris Grayling said: "Noise pollution makes the lives of people in communities across Britain an absolute misery and has very serious health impacts. This is why I am determined to crack down on the nuisance drivers who blight our streets.

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"New technology will help us lead the way in making our towns and cities quieter, and I look forward to seeing how these exciting new cameras could work." Much like the way a speed camera works, if a microphone in an acoustic camera detects a vehicle breaching legal noise limits, it triggers a camera to take pictures of the vehicle registration number and any other relevant images to allow a fine to be sent out to the vehicle owner.



Detecting excessive noise

The camera technology trial is not intended to target law-abiding drivers, but those who are flouting laws around noise. All vehicles must legally meet strict noise limits before they are allowed on the road. Once a vehicle is in service, exhausts and silencers must by law be maintained in good working order and not altered to increase noise.

<u>CEQ (chief executive officer)</u> of the Motorcycle Industry Association, Tony Campbell, said: "With growing pressure on the environment, including noise pollution, illegal exhausts fitted by some riders attract unwanted attention to the motorcycle community and do nothing to promote the many benefits motorcycles can offer.

"All manufacturers produce new motorcycles that follow strict regulations regarding noise and emissions and we welcome these trials as a potential way of detecting excessive noise in our community." There are around 8,700 Automatic Number Plate Recognition (ANPR) cameras operated by police and councils in the UK, with the cameras making 10 billion number plate scans a year, and issuing around fines worth £472 million over five years.

Currently, enforcement is mainly reactive and relies on subjective judgement. The trials of the new technology will determine whether the legal noise limit has been breached by taking into account the class and speed of the vehicle relative to the location of the noise camera.

Accepted noise levels

The noise levels accepted for vehicle type approval are set out in Regulation (EU) 540/2014 for motor vehicles and Regulation (EU) 168/2013 for motorcycles. Regulation (EU) 540/2014 which repeals European Directive 70/157/EEC, outlines limits on the sound levels from road vehicle and gives more representative procedures for measuring sound levels from exhaust systems and silencers. These limits have been tightened through several amendments.

Limit values for eight types of passenger and goods vehicles range from 72 dB(A) to 80 dB(A). These limits are expected to be again tightened over 10 years. By 2026 the limit for most new passenger cars is expected to be 68 dB(A).

The noise level deemed to be inappropriate is yet to be decided.

Adverse health effects

Studies have found that exposure to noise can have significant physical and mental health implications.

When individuals are exposed to high levels of noise in the workplace, they can suffer from various adverse health effects. These health effects can be caused by a single exposure to a very loud noise or by exposure to raised levels of noise over a prolonged period of time.

Physiological effects of exposure to noise include constriction of blood vessels, tightening of muscles, increased heart rate and blood pressure and changes in stomach and abdomen movement.