



PRESS RELEASE:

BNRA RESPONSE TO PROPOSED CHANGES IN BS AU 145E



DECEMBER 2025



BACKGROUND:

Background: Sarah Coombes (Labour MP) was hosted on Good Morning Britain in February 2025 expressing a concern about "Ghost" number plates, claiming that 1 in 15 drivers were using these plates on UK roads.:.



'GHOST' PLATES

PLATES MODIFIED TO AVOID POLICE CAMERAS

Good
Morn
Brita

Since then, additional politicians have joined the concern, and the All-Party Parliamentary Group for Transport Safety (APPGTS) has approved a report called "Ghosts on the road", calling for a governmental crackdown on "ghost plates" and "cloned plates".

GHOSTS ON THE ROAD: TACKLING THE RISE IN ILLEGAL REGISTRATION PLATES

This report has 10 key recommendations:

1. Standardise design of registration plates, with security features to bring the UK up to international standards. Ban the use of 3D and 4D plates.
2. Significantly restrict the number of licensed sellers via annual fees, regular audits and removal of non-compliant sellers.

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3. Introduce background screening of suppliers including criminal record checks.
4. Educate drivers about the risks of illegal plates and the rogue traders who sell them.
5. Mandate compliance checks as part of the MOT.
6. Increase the fine and give offenders points for use of an illegal plate and seize vehicles of repeat offenders.
7. Ensure police forces have the equipment and training to tackle non-compliance.
8. Clamp down on illegal sales and strengthen DVLA powers for prosecution of rogue suppliers.
9. Establish a national taskforce on number plate compliance and develop a national approach to tackling broader non-compliance.
10. Strengthen and enforce rules around 'registered keeper' information to be able to identify vehicle ownership.

BS AU 145e+A1 Specification for retroreflecting number plates

[Back to standard overview](#)

[Find within this standard](#)

[Find](#)

Table of contents



Draft BS AU 145e+A1:2018–amendment list
Foreword
4.2 Design
4.2.1 The entire retroreflecting background area of the number plate shall be a continuous and substantially flat surface (i.e. a single plane), except that an integral raised or depressed border, of width and height not exceeding 5 mm and 2 mm, respectively, is permitted around the number plate periphery. The raised characters of a pressed or embossed plate (Clause 4.2.2 refers) are excluded from this requirement.
4.2.2 For number plates where the characters are part of a construction pressed or embossed from a single piece of substrate material, the height of the registration characters

Draft BS AU 145e+A1:2018–amendment list

[Add/View comments \(29\)](#)

Foreword

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Replace the following paragraph in 'Product certification/inspection/testing':

Users of this British Standard are advised to consider the desirability of third-party certification/inspection/testing of product conformity with this British Standard. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

4.2 Design

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Replace clause 4.2

4.2.1 The entire retroreflecting background area of the number plate shall be a continuous and substantially flat surface (i.e. a single plane), except that an integral raised or depressed border, of width and height not exceeding 5 mm and 2 mm, respectively, is permitted around the number plate periphery. The raised characters of a pressed or embossed plate (Clause 4.2.2 refers) are excluded from this requirement.

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4.2.2 For number plates where the characters are part of a construction pressed or embossed from a single piece of substrate material, the height of the registration characters above the retroreflecting background area shall not exceed 2mm. No material of any kind shall be attached to the outward (raised) surface of the finished characters which increases their height beyond 2mm.

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4.2.3 For number plates of a laminated construction, the outside surface of the outermost clear layer on the visible face of the number plate (typically a transparent plastic sheet, protective film or coating) shall be substantially flat (i.e. a single plane). Further, this outermost layer shall be of a single homogeneous piece of material of uniform thickness with no indentations or intrusions. No material of any kind shall be attached to the outward (visible) flat surface of this outermost layer.

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4.2.4 For number plates of any alternative form of construction, the outermost (visible) surface of the plate shall be substantially flat (i.e. a single plane).

[Add/View comments \(1\)](#)

4.2.5 For any form of construction, the overall thickness of a number plate shall not exceed 4mm.

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4.2.6 No material of any kind (including stickers) shall be attached to the visible face of any number plate either during or subsequent to manufacture. In particular, nothing shall be applied which prevents the requirements of Clause 5 of this standard being met.

[Add/View comments \(1\)](#)

6 Testing

[Add/View comments \(0\)](#)

The British Standards Institution (BSI) have now produced a draft (BSAU145e+A1) in which the majority of changes are made to the section "4.2 Design".



4.2.1

The entire retroreflecting background area of the number plate shall be a continuous and substantially flat surface (i.e. a single plane), except that an integral raised or depressed border of width and height not exceeding 5mm and 2mm, respectively, is permitted around the number plate periphery. The raised characters of a pressed or embossed plate (Clause 4.2.2 refers) are excluded from this requirement.

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For number plates where the characters are part of a construction pressed or embossed from a single piece of substrate material, the height of the registration characters above the retroreflecting background area shall not exceed 2mm. No material of any kind shall be attached to the outward (raised) surface of the finished characters which increases their height beyond 2mm.

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For number plates of a laminated construction, the outside surface of the outermost layer on the visible face of the number plate (typically a transparent plastic sheet, protective film or coating) shall be substantially flat (i.e. a single plane). Further, this outermost layer shall be a single homogeneous piece of material of uniform thickness with no indentations or intrusions. No material of any kind shall be attached to the outward (visible) flat surface of this outermost layer.

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For any form of construction, the overall thickness of a number plate shall not exceed 4mm.

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No material of any kind (including stickers) shall be attached to the visible face of any number plate either during or subsequent to manufacture. In particular, nothing shall be applied which prevents the requirements of clause 5 of this standard being met.

The BSI have been asked to revise the standards to clamp down on "Ghost" plates.

The proposed amendments do nothing more than the original standards to ensure number plates are accurately read by ANPR cameras.

These changes simply outlaw the use of 3D and 4D plates. No evidence has been presented to prove that 3D and 4D plates are the biggest culprits when it comes to "Ghost" Plates.

We challenge the narrative that 1 in 15 number plates on the road are "Ghost" Plates. The statistic should be labelled as "1 in 15 plates on the road were not able to have been read on one occasion".

These "misreads" could be down to factors such as:

- Environmental Factors (Smoke/Mist/Fog/Rain/Snow/Glare)
- Dirty number plates
- Operator Issues (operators not being trained correctly on how best to use the equipment)
- Camera Fitment (A camera placed high up and to the side of the road must deal with a skewed image)
- Incorrect Infrared wavelengths being used by some ANPR systems (they should be 850nm or 940nm according to BSAU145e)
- Device Software issues
- Un-calibrated equipment
- ANPR Camera lens not being cleaned correctly
- Speed (the vehicle being read may be travelling faster than the parameters achievable by the equipment)
- Erratic Driving
- Cameras being confused by multiple number plates in one frame
- Cameras being confused by vehicle livery or number plate screws



THE RATIONALE BEHIND BANNING 3D AND 4D NUMBER PLATES MUST BE QUESTIONED.

Are all "Ghost" Plates 3D or 4D?
Can people "Ghost" 2D Flat Plates?

If the purpose of changing the standards is sincerely to prevent "Ghost" plates and to aid ANPR, the following information given by component manufacturers and retailers should be considered:



2D number plates are far easier to "Ghost" than any other type of number plate with simple flat transfer stickers



2D number plates are far cheaper and easier to clone.



2D number plates are more likely to give ANPR mis-reads when dirty.



2D number plates are usually fixed with less adhesive, and are simpler to steal from other cars.



2D number plates could be printed using thermal transfer rolls which allow infra-red light to pass through resulting in a "Ghost" plate. These would then be laminated as usual without raising suspicion.

2D number plates (especially those produced with Laser Printers) can fade over time.





2D number plates suffer more with misreads due to light glare

3D Gel plates are made using Black Vinyl which is not available as an infra-red passing version. Therefore it is **highly unlikely that 3D Gel plates are also implicated**. Furthermore, since the 3D gel plates are tapered/chamfered on the edges due to resin running thinner towards the edges, it is not possible to retrofit ANPR evading transfers over them without them being noticeable.

4D Plates can be made from black acrylic which can be infrared passing or non-infrared passing.

Choosing the correct material is easy for manufacturers. Any manufacturers actively selling this material as ANPR evading can easily be weeded out by simple google searches - **currently there are no sellers found on line who advertise their 4D number plates as ANPR evading**.

The passing of the infrared light is not 100%, and so people who are passing these off as "ANPR evading" are not able to guarantee that their customers will not be detected.

TERMINOLOGY CLARIFICATION: "4D GHOST PLATES" are named as such because of their 3mm outline around the digit - these plates are currently road legal, and are not named "Ghost" plates to claim ANPR evasion - the term "Ghost" plates when referring to ANPR evasion was coined years after the "4D Ghost" style was released in 2017 by one of our members which had a clear 3mm outline.



Bevelled Plates have injection moulded ABS digits (not available in Infrared passing and so ANPR friendly) and the digits are not flat, making it extremely difficult to coat them with stickers.

To prevent ANPR detection, the following methods are available, which can still be employed regardless of whether the number plates are 2D, 3D, 4D or bevelled:



Plate Flippers



Number Plate Shutters



Magnetic Leaf Plates



Number Plate Smart Glass



Dirty Plates



To summarise the above, **banning 3D and 4D plates does not prevent "Ghost" plates**, and having just 2D plates on the road will mean that it is easier to "Ghost" number plates. You can still evade ANPR with 2D plates, and you are no closer to solving the problem.

There are 34,000+ businesses which are registered with the DVLA to supply number plates, and a huge number of these cover their operating costs by increasing sales value when selling 3D and 4D number plates. Banning 3D and 4D plates will kill the legitimate demand of Vehicle Owners wanting to personalise their vehicles in a legal manner. The people who are behind the demand for banning 3D and 4D number plates may not like them due to their own taste. This is not a valid reason to push this ban through. Should an MP not understand why people would want a personalised registration on their vehicle, should they push for banning the sale of personalised registration marks by the DVLA?

Banning 3D and 4D number plates will most probably cause the following in the least:

- Closure of legitimate number plate selling businesses
- Closure of number plate component selling businesses
- Closure of number plate component manufacturing businesses
- Closure of raw material manufacturing businesses
- An increase in unemployment and the need for ex-workers to claim benefits
- A decrease in money paid to HMRC
- A decrease in imports from around the world
- A massive decline in an industry which has seen steady growth over the last 10 years

It seems that these amendments have been demanded by non-stake holders of this industry, **with little technical knowledge and a lot of hearsay**, with minimal consultation with the people who are actually in the business of making components and finished number plates.

Policy makers have not understood the root cause of the problem and will narrow down the options for innovation in the future as technologies advance, limiting styles available to prevent the tampering of digits. Can these changes to the standards prevent crime when 2D plates using design LCD technology are developed for criminal use? Will car manufacturers then be forced to emboss number plates into their tailgates, leading to an increase in tailgate theft?

In conclusion, ANPR evading number plates need to be stopped, but **a sticky plaster approach is not the answer** – a full overhaul of the standards is needed with stake holders and people who know what how to make the correct decisions.

Number Plates are visually checked during the MOT test. A simple test with a cheap infrared camera can confirm whether the owner has 2D / 3D or 4D "Stealth" plates.

By far, the easiest way to stop the use of "Stealth" number plates is to use ANPR camera technology which doesn't just rely on the infrared spectrum, but also uses visible light, such as the technology developed by Redsprint International.



The screenshot shows a software interface for processing vehicle cases. On the left, there's a sidebar with various menu items like 'Deal Review', 'Processing', 'Report Issues', etc. The main area displays a case for a Ford Transit van with the license plate 'GH05 TZZ'. It compares two images: one from 'Sentio Ghost Technology' which clearly shows the license plate, and another from 'Standard ANPR Technology' where the license plate is very faint and difficult to read. A 'Tools' panel on the right includes brightness, contrast, and deblurring sliders, with the license plate 'GH05 TZZ' shown in a clearer version below.

There are more practical ways to tackle the issue, but **banning 3D and 4D number plates** will not prevent "Stealth" or "Ghost" plates from being used on our UK Roads.

**TO BECOME A MEMBER OF THE BNRA AT NO COST.
PLEASE EMAIL YOUR COMPANY DETAILS TO
MEMBERS@BNRA.ORG.UK**

