

# Rerouting the **satnav**

Satnav systems are changing, and so is our testing – we pick three Best Buys and rate nine more models you'll find in the shops this Christmas

**T**echnology has moved on since Which? began testing satnavs in 2006. While early models could not warn you about traffic jams you were heading for – and the worst could lead you over a cliff edge – most modern models stream up-to-date information and guide you round congestion with ease.

Now that even the worst models are streets ahead, we have updated and improved our testing to pinpoint the very best satnavs for your money.

Our latest research methods tell us which are the most versatile and efficient units for coping with

modern roads, and which are the simplest to use and the best at getting you to your destination.

These reviews sit alongside our existing results for almost 100 models, which were tested using our previous criteria. All the ratings are still valid, although you cannot draw direct comparisons between them and the latest batch.

If you're thinking of buying a satnav as a Christmas present, visit [www.which.co.uk/satnav](http://www.which.co.uk/satnav) to view all these results.

As we went to press, we were testing the very latest satnav technology in the form of smart phones with satnav

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[www.which.co.uk/tyregauges](http://www.which.co.uk/tyregauges)



applications installed. We'll let you know whether they can keep up with the more established, standalone units. Results will appear first at [www.which.co.uk](http://www.which.co.uk).

Meanwhile, if you're holidaying in the UK this festive season, and have no plans to drive overseas in future, save money by choosing a satnav that doesn't include European mapping.

For example, the Garmin Nüvi 1310 costs £160 compared with the Garmin Nüvi 1490T at £290 – it has many similar functions and performance is almost as good, but the 1310 costs £130 less, as it does not have European maps.

**BEST FOR  
UK &  
EUROPE**





## Garmin Nüvi 1490T £290

which?  
**BEST BUY**

Which? test score **73%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** This uses the same software as the other Garmins on test. It's packed with features to help you reach your destination easily. It has a large screen, a good traffic avoidance feature and European maps.

**CONS** It is less portable than some and pricey if you don't need European maps.

Full review at: [www.which.co.uk/garminnuvi1490T](http://www.which.co.uk/garminnuvi1490T)

We found it cheapest Online Also available Argos, Halfords  
Screen size 127mm European maps Yes Speed camera data Yes Traffic information Yes



## Garmin Nüvi 1310 £160

which?  
**BEST BUY**

Which? test score **70%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** Like the 1490T, it has a motorway lane assistance feature and it speaks road names as you encounter them. Its mid-sized screen gives it clarity of graphics and portability.

**CONS** There's no traffic information and it has smaller graphics than others.

Full review at [www.which.co.uk/garminnuvi1310](http://www.which.co.uk/garminnuvi1310)

We found it cheapest Online Also available Argos, Halfords, Maplin, John Lewis Screen size 109mm  
European maps No Speed camera data Yes Traffic information No



## Garmin Nüvi 1210 £140

which?  
**BEST BUY**

Which? test score **68%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** The smallest Garmin in this test uses the same software as the others. It's good at finding the exact house number. It's also more portable when you leave the car.

**CONS** It has relatively poor sound quality and a small screen. There's no traffic avoidance feature.

Full review [www.which.co.uk/garminnuvi1210](http://www.which.co.uk/garminnuvi1210)

We found it cheapest Online Also available Argos, Maplin Screen size 89mm European maps No Speed camera data Yes Traffic information No

**GREAT  
FOR THE  
UK**

**ACCURATE  
CHEAP &  
PORTABLE**

## How we test

We test aftermarket 'plug-and-play' satnav systems, which should be ready to use straight from the box.

We use the satnavs on a variety of roads and journeys – a test driver and an observer record the outcome of each test.

Each satnav is fitted according to the maker's instructions. We record how quick it is to install and how simple it is to use – including programming routes, changing a route and following the audio and on-screen instructions.

We always check each model against the manufacturer's claims for features, and our new test considers features in more detail than before – highlighting those that improve ease of use and promote safer travelling, including touch-sensitive screens, voice recognition and the precise nature of directions.





## TomTom XL Live £200

Which? test score **66%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** Live services include traffic information, speed cameras, fuel prices and weather. Also has advanced lane guidance.

**CONS** Live services are £7.99 a month. Poor sound and small screen.

Full review at [www.which.co.uk/tomtomxl-live](http://www.which.co.uk/tomtomxl-live)

We found it cheapest Online Also available Argos, Currys, Halfords, Maplin, Comet, John Lewis Screen size 109mm European maps No Speed camera data Yes Traffic information No



## Binatone B350 £70

Which? test score **39%**

Performance ★★

Versatility ★★★

Ease of use ★★

**PROS** This satnav comes with a fully printed manual.

**CONS** It is difficult to use and has poor schematics and sound and cluttered maps. Poor at dealing with complicated intersections.

Full review at [www.which.co.uk/binatoneb350](http://www.which.co.uk/binatoneb350)

We found it cheapest Online Also available Maplin Screen size 89mm European maps No Speed camera data Yes Traffic information No



## Navigon 3300 max £100

Which? test score **63%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** Features include nearby car park alert and lane guidance assistance.

**CONS** Although schematic views are small, they can obscure the main image.

Full review at [www.which.co.uk/navigon3300max](http://www.which.co.uk/navigon3300max)

We found it cheapest at Halfords Also available Online Screen size 109mm European maps No Speed camera data Yes Traffic information Requires additional equipment plus subscription



## Navigon 1310 £110

Which? test score **59%**

Performance ★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** This model's lane guidance is very good at dealing with complicated intersections. It also has nearby car park alert and European maps.

**CONS** Has a very small screen.

Full review at [www.which.co.uk/navigon1310](http://www.which.co.uk/navigon1310)

We found it cheapest Online Also available Halfords, Comet Screen size 89mm European maps Yes Speed camera data Yes Traffic information No



## Navman Mio Spirit 500 £150

Which? test score **55%**

Performance ★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** Has a large screen, good traffic information and is good at finding house numbers.

**CONS** It is difficult to program and lane assistance isn't as good as others.

Full review at [www.which.co.uk/navmanmiospirit500](http://www.which.co.uk/navmanmiospirit500)

We found it cheapest Online Also available Argos, Comet, John Lewis Screen size 119mm European maps No Speed camera data Yes Traffic information Yes

### USING THE TABLE

The more stars the better.

**Price** We checked the in-store and online prices as we went to press.

### Performance

#### Accuracy of route mapping

We test accuracy of route mapping to several fixed destinations, and the speed of re-routing when we take a wrong turn.

#### Clarity of visual instructions

We rate how clearly the map graphics and supporting screen icons indicate the recommended route.

#### Quality of audio instructions

We assess how clearly the satnav 'voice' explains the instructions and we also listen for hiss and interference in the sound quality of the system.

### Versatility

**Features** We rate critical features, such as the display, connections, mounting brackets, charging accessories and whether it includes options like memory card, bluetooth and voice recognition.

MODEL	PRICE (£)	PERFORMANCE		
		ACCURACY OF ROUTE MAPPING	CLARITY OF VISUAL INSTRUCTIONS	QUALITY OF AUDIO INSTRUCTIONS
<b>GARMIN</b> Nüvi 1490T	290	★★★★★	★★★★	★★★★★
<b>GARMIN</b> Nüvi 1310	160	★★★★★	★★★★	★★★★★
<b>GARMIN</b> Nüvi 1210	140	★★★★★	★★★★	★★★★★
<b>TOMTOM</b> XL Live	200	★★★★★	★★★★	★★★★
<b>NAVIGON</b> 3300 max	100	★★★★★	★★★★	★★★★★
<b>NAVIGON</b> 1310	110	★★★★★	★★	★★★★★
<b>NAVMAN</b> Mio Spirit 500	150	★★★★★	★★	★★★★★
<b>NDRIVE</b> Touch	170	★★★★	★★★★	★★★★
<b>RAC</b> 1000	90	★★★★★	★★★★	★★★★
<b>NAVMAN</b> F35	80	★★★★★	★★★★	★★★★
<b>BINATONE</b> G350	80	★★	★★★★	★★
<b>BINATONE</b> B350	70	★★	★★★★	★★

**Routing** We assess the different methods available for selecting the destination, route calculation settings and whether the system allows the user to avoid particular types of roads, like toll roads, dirt tracks or tunnels, or roads with a specified speed or weight restriction.

**Display** Here we consider how versatile the satnav is in providing selectable views, how it displays time and distance, the quality of basic mapping and the 'schematic view' (graphical view of the next instruction). We also assess how well it deals with points of interest and if they are easily searchable.



## NDrive Touch £170

Which? test score **52%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** Has ambient light sensor and clear schematics.

**CONS** Roundabout image doesn't represent true layout and it has poor sound quality. Audio instructions aren't very clear.

Full review at [www.which.co.uk/ndrivetouch](http://www.which.co.uk/ndrivetouch)

We found it cheapest Online

Also available Halfords Screen size 89mm

European maps No Speed camera data Yes

Traffic information No



## RAC 1000 £90

Which? test score **52%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** This satnav targets the specific address immediately and we found it to be very good at route mapping.

**CONS** It is fairly difficult to use and offers a poor schematic view.

Full review at [www.which.co.uk/rac1000](http://www.which.co.uk/rac1000)

We found it cheapest Online

Also available Halfords Screen size 89mm

European maps No Speed camera data Yes

Traffic information No



## Navman F35 £80

Which? test score **51%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** This satnav is good at directing you to the exact house number.

**CONS** It is difficult to use, has poor schematic view and its maps are cluttered.

Full review at [www.which.co.uk/navmanF35](http://www.which.co.uk/navmanF35)

We found it cheapest Online Also available

Argos, Currys Screen size 89mm European

maps No Speed camera data Yes

Traffic information No



## Binatone G350 £80

Which? test score **40%**

Performance ★★★★★

Versatility ★★★★★

Ease of use ★★★★★

**PROS** This satnav comes with a carry case and a fully printed owners' manual.

**CONS** It is difficult to use and has a poor schematic view, cluttered maps and poor sound quality.

Full review at [www.which.co.uk/binatoneg350](http://www.which.co.uk/binatoneg350)

We found it cheapest Online

Also available Argos Screen size 89mm

European maps No Speed camera data Yes

Traffic information No

OVERALL PERFORMANCE	VERSATILITY				EASE OF USE					SCORE %
	FEATURES	ROUTING	DISPLAY	TOTAL VERSATILITY	EASE OF USING DEVICE	SEEING SCREEN	FOLLOWING AUDIO DIRECTIONS	FOLLOWING ON-SCREEN DIRECTIONS	OVERALL EASE OF USE	
★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	★★★★	★★★★★	73
★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	★★★★	★★★★★	70
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★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★	★★	★★	★★★★	★★	40
★★	★★★★	★★★★★	★★★★★	★★★★	★★★★	★★	★★	★★★★	★★	39

### Ease of use

This testing covers all aspects of use – from initial device installation to ease of route planning, usability while mobile, plus whether you can save 'favourite routes' (while stationary), visual and audio clarity (while mobile) and ease

of removing, storing when not in use, and then reinstalling.

### Score

This score ignores price and is based on:

Ease of use	50%
Performance	25%
Versatility	25%

## Contacts

**Binatone**  
www.binatoneonline.com  
0845 345 9677

**Garmin** www.garmin.co.uk  
0808 238 0000

**Navigon** www.navigon.com  
0871 288 0154

**Navman** www.navman.com

**NDrive** www.ndriveweb.com

**RAC** www.rac.co.uk  
0870 572 2722

**TomTom** www.tomtom.com  
0845 161 0009