



# Microwaves

## NEED TO KNOW

### COMBINATION

Combination microwave ovens use convection heating (fanned hot air) and have grills, too. So you can use microwaves, grilling and convection heating to both cook and brown food. This makes them perfect for cooking stews, roasting and grilling meats and baking cakes. A good combination microwave could even replace your main oven, though you won't be able to cook large items because it has a smaller capacity.

### BASIC

Basic, or solo, microwaves are great for simple tasks such as cooking jacket potatoes or heating ready meals. You can also use them to defrost food. But basic microwaves can't brown food so they are unable to compete with conventional ovens on everyday jobs such as grilling or roasting meat.

### AUTOMATIC BUTTONS

Lots of microwaves have automatic buttons or preset programs for cooking food such as curry or pizza. And some combination ovens have auto buttons which can complete a sequence of events, such as defrosting, cooking and grilling a chicken.

However, these features don't always produce good results, and sometimes it's best to ignore them and adjust the time and power settings instead, as with a conventional oven.



### BEST BUYS

All the microwaves we tested were easy to use. We had no problems opening and loading them, setting programs, using the controls or reading displays and instructions. But our Best Buys are much better at cooking than the others.

### COMBINATION

The **Hinari (1)**, available online only from Empire Direct and Grattan at £100, is the best combination microwave we tested. It roasts a chicken well and heats ready meals quickly and evenly, even when used continuously for more than 15 minutes. It doesn't have an auto-defrost button, but we used manual settings to defrost mince evenly.

Grilling is its one major drawback: the grill browns food unevenly. And its auto buttons are underwhelming: they struggle to heat up ready meals, undercook jacket potatoes, and leave pizzas doughy. So stick to programming the Hinari manually for these tasks.

The **Panasonic (2)**, £200 from Comet and John Lewis, cooks ready meals well. Defrosting food is also a doddle, thanks to its auto defrost button, which thaws a 500g pack of mince without signs of overcooking.

The grill is a letdown (it doesn't heat up evenly) and the curry reheat button overcooked a chicken tikka masala curry. And after continuous use, it struggles to heat up food as quickly as it did when used from cold.

But it's excellent at baking and roasting. The automatic button for roasting chicken produces a crispy, golden chicken within 30 minutes. And it cooked a jacket potato which was fluffy on the inside and crispy on the outside. The pizza button uses fanned hot air to cook a pizza evenly and then the grill to crisp the topping.

### BASIC

The **Panasonic (6)**, £100 from Comet, John Lewis and Powerhouse, is a good choice

if you need a microwave for basic tasks. It heats ready meals quickly and evenly and has an auto-defrost button, which thaws 500g of mince without cooking it.

Some of its other auto buttons are useful, too: the potato button produces a good jacket potato and the curry reheat button evenly heats up a chicken tikka masala within three and a half minutes. However, the ready meal button isn't nearly as effective as those two functions and the microwave's cooking power drops off after 15 minutes' constant use.

The **Prestige (7)**, £50 from Comet, also handles simple tasks well. It has an auto-defrost button which thaws mince evenly, and it is just as impressive when heating ready meals. It also continues to cook well when used repeatedly, so it's good if you need to cook a series of meals for the whole family.

But the pizza button isn't as good, leaving our pizza doughy and undercooked.

**BEST BUY**

**2 Panasonic COMBINATION**



The shelf on this Panasonic allows you to cook two different foods at the same time



**OVEN SHELF**

This Panasonic includes a removable shelf, useful for cooking two different foods at once. To test it, we cooked a pizza on the top shelf and some chips on a tray below. It impressed us, producing a crispy pizza and evenly-cooked chips. It's ideal for a quick and simple meal for the kids, but you'll struggle to use it for larger meals such as a roast dinner: the microwave is too small to fit a chicken on top and vegetables below.

Hinari offers a healthy way to cook vegetables



**VEGETABLE STEAMER**

In addition to microwaving, roasting, baking and grilling, this Hinari comes with a bowl for steaming vegetables. The bowl has four different compartments, each the right size for a small portion.

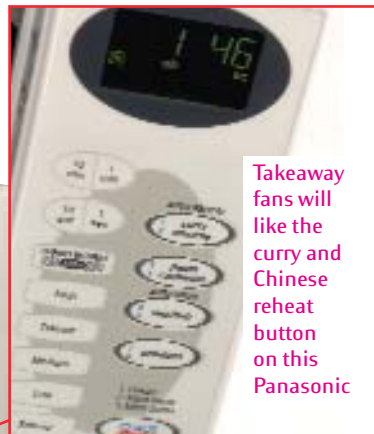
The steamer is easy to use, although it has no instructions. Initially, we slightly overcooked carrots and cauliflower, but, with a bit of practice, it's a fast and healthy way to cook vegetables.

**BEST ON TEST**

**6 Panasonic BASIC**



Takeaway fans will like the curry and Chinese reheat button on this Panasonic



**CURRY BUTTON**

If you need to warm up your curry when you get it home from the takeaway, the curry button on this Panasonic will come in handy. It's also useful for ready meals, heating up a supermarket chicken tikka masala evenly within three and a half minutes.

**BEST BUY**

**7 Prestige BASIC**



**DON'T BUY**

There are two combination microwaves which we'd advise against buying – the Sharp (4) and the Daewoo (5). They struggle with simple microwave tasks: they are unable to cook a ready meal without drying it out and they defrost unevenly. Nor do they have any worthwhile special features.

**DON'T BUY**

**4 Sharp COMBINATION**



**DON'T BUY**

**5 Daewoo COMBINATION**



## OUR TESTS

**Defrosting** Using the microwave for defrosting can save time but isn't much good if the food starts to cook or parts are left frozen. We tested how well each microwave defrosted frozen blocks of mince, either using auto-defrost buttons or manually, following the manufacturers' guidelines. A good defroster, such as the combination Hinari (1), thaws evenly without raising the temperature of the mince above 7°C. A poor defroster – such as the basic Hinari (13) – heats some parts of the mince to more than 25°C – enough to start cooking it.



The Hinari (13) defrosted mince unevenly, cooking the edges

**Roasting** Roasting a chicken in a microwave might sound like something out of *Gordon Ramsay's Kitchen Nightmares*, but all of the combination microwaves we tested do a good job. We roasted whole chickens using auto buttons or the

manufacturers' advice. The Panasonic (2) was best because it cooked a chicken evenly, leaving soft flesh, clear juices and crispy golden skin.

**Grilling** The grills in combination microwaves don't always heat as evenly as those in conventional ovens. To test them, we toasted bread on the microwaves' grilling rack. The one in the LG (3) toasted the bread evenly, unlike the one in the Hinari (1).

**Continuous use** To see whether a microwave's cooking power falls during continuous use, we used each microwave for 15 minutes with a dummy load of water



The LG (3) grilled bread evenly, above, unlike the Hinari (1), below

before repeating the ready-meal test. A poor result could mean an undercooked meal for the person unlucky enough to be served last.

## Containers

It's important to use the right cooking containers. Heatproof glass, Pyrex or plastics labelled as microwave safe are ideal. You can also use paper plates and paper towels. As long as they're not porous, pottery, ceramics and earthenware are suitable, too. But avoid containers from frozen or chilled food (such as margarine tubs) because their low melting temperatures may leave contaminants in the food.

With fast-food foil containers there's a danger of sparking if foil gets too close to the sides, and the food can heat unevenly because the foil shields it from the microwaves. So transfer last night's Chinese or curry into another container.



Use the correct container when reheating a takeaway meal

## Ready meals

To measure how quickly and evenly each microwave heats a ready meal, we use a synthetic substitute for lasagne. Both the Sharp (4) and the Daewoo (5) failed to heat the substitute to 70°C (high enough to kill off bacteria in food) without drying it out. We used the Sharp to repeat this test with a lasagne ready meal and it failed to cook it evenly, burning the lasagne around the edges.



The Sharp (4) burned a lasagne ready meal round the edges

## Microwaves

### COMBINATION

	Price (£)	Size hxxwxd (cm)	Power (W)
1 Hinari Ellipse EMX918	100	31x51x40	900
2 Panasonic Inverter NNA725M	200	31x51x49	1,000
3 LG Wavedom MC8044	140	32x53x42	900
4 Sharp R898	150	31x52x48	900
5 Daewoo KOC873TSL	70	32x50x38	850

### BASIC

	Price (£)	Size hxxwxd (cm)	Power (W)
6 Panasonic Inverter NNT553W	100	31x51x37	900
7 Prestige PR25E	50	31x51x38	850
8 LG Wavedom MS2344	60	28x51x42	850
9 De'Longhi Living Innovation M8021TP-B1	30	29x49x35	800
10 Panasonic NNE255W	50	26x45x31	800
11 Sanyo EM-S3575	65	31x50x42	900
12 Sharp R259	70	27x46x34	750
13 Hinari Lifestyle MX702	30	29x46x34	850
14 Sharp R249	60	28x46x35	750

### USING THE TABLE

We tested the latest combination and basic microwaves available from the leading manufacturers.

### Specification

**Price** For Best Buys we give the cheapest widely available high-street price as we went to press. Prices for other models are a guide to what you should expect to pay. Online prices are given in *italics*. **Size** External dimensions. **Power** All ovens have a stated

power output, which corresponds to the instructions found on packs of food. Higher outputs increase the possibility of overcooking.

**Power levels** Different power levels let you alter the speed at which food is cooked, making it easier to avoid overcooking. **Plate size** The largest diameter plate that will rotate inside the oven.

### Features

**Program in stages** You can program settings to run one after



The Panasonic (2) produced a crisp, golden chicken, left. But the Daewoo (5) slightly burnt the skin, right



		Features			Auto buttons				Performance						Score
Power levels	Plate size (cm)	Program in stages	Delay	Lock	Potato	Ready meal	Pizza	Curry	Ready meal	Hot oven	Defrost	Grill	Roast	Bake	(%)
10	32	✓		✓	●	●	●		☆	☆	★	●	☆	○	74
6	34	✓	✓	✓	★	○	☆	●	★	●	☆	●	★	★	72
5	34	✓		✓	★	●			○	○	●	★	★	☆	63
5	33	✓					●		●	●	●	●	☆	★	38
10	30			✓					●	●	●	☆	☆	●	34
6	34	✓	✓	✓	☆	●		★	★	●	☆				77
5	31		✓	✓	☆		●		☆	★	☆				75
5	32	✓		✓	☆	○		☆	☆	●	☆				67
5	29								○	●	☆				66
5	24	✓		✓	☆	●		●	○	●	☆				63
10	31	✓		✓	☆	●			☆	○	●				56
5	28				☆				○	○	●				54
6	27								☆	●	●				51
5	29	✓			☆				☆	●	●				51

another, such as defrosting, cooking and browning a chicken.

**Delay** This sets the microwave to start cooking later. **Lock** This prevents unsupervised use of the microwave by children or others.

#### Auto buttons

**Potato, Ready meal, Pizza, Curry** We tested automatic buttons, where present, to see how well the preset programs worked (they do not contribute to the overall score). We've included

pizza buttons that cook a pizza from chilled rather than those that cook only from frozen or reheat it.

#### Performance

**Ready meal** How well a microwave cooks a ready meal. ★ means the meal reaches a safe, even temperature without overcooking, when cooked in a cold oven. **Hot oven** How well a ready meal cooks in an oven that had been used for 15 minutes. ● means you'll get poorer results if you use the oven

continuously. **Defrost** How well the oven defrosts food. ● means food thaws unevenly and may start to cook in places. **Grill, Roast, Bake** Ratings for even grilling, ability to roast a chicken and bake a cake. ● means some parts may be under- or overcooked.

KEY				
★	☆	○	●	●
Best			Worst	
Best Buy			Don't Buy	

#### SCORE

Ignores price and is based on:

##### COMBINATION

Cooking/heating	40%
Ease of use	25%
Defrosting	20%
Grilling/roasting/baking	15%

##### BASIC

Cooking/heating	47%
Ease of use	29%
Defrosting	24%