MASHWORTH SERVICES
Professional - Reliable - Electrical

# Electric Cooker & Hob Installation Guide. Power Requirements, Wiring & What to Consider

## Introduction

Upgrading or installing a new electric cooker or hob isn't always as simple as swapping one appliance for another.

Modern appliances - particularly induction hobs and range cookers - can place significantly higher demands on your electrical system than older equipment.

In many cases, existing wiring will be suitable. In others, changes may be required to ensure the installation is safe, compliant, and performs as intended.

This guide gives a clear, practical overview of what to consider before installing a new cooker or hob - helping you make informed decisions and avoid unexpected issues during your project.

## Understanding Existing Cooker Supplies

Most properties already have a cooker supply installed - typically a 6mm cable on a dedicated circuit.

In many cases, this is capable of safely supplying a single appliance, such as:

- A standard electric oven (or 2)
- A freestanding cooker
- Most hobs (depending on rating)

However, this is not always the case, and the suitability of the existing supply must always be reviewed before any upgrade or change of appliance.

When considering a new cooker or hob, the key question is:

**Is the existing supply suitable for the new appliance?**

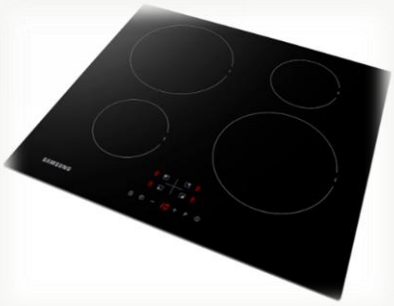
This is something that should always be assessed before installation - not assumed.

## Electric Hobs - What You Need to Know

Modern electric hobs vary significantly in power requirements.

### Induction Hobs

- Induction hobs are now one of the most popular options.
- Typically high-powered appliances
- Often rated between 3kW and 7kW+
- In many cases, they can be installed on an existing 6mm cooker circuit

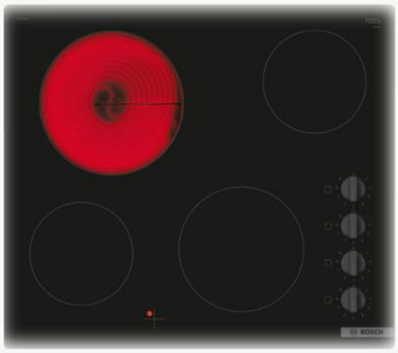


**However, this depends on:**

- The exact rating of the hob
- The condition of the existing circuit
- What else is connected to the supply

### Ceramic / Halogen Hobs

These operate differently to induction hobs but often have similar electrical demands.



- Use radiant heat rather than magnetic induction
- Typically slightly slower to heat
- Power requirements can still be significant

From an installation perspective, they are treated very similarly to induction hobs.

## Upgrading from Gas to Electric Hob

This is one of the most common upgrade scenarios - and one where issues often arise.

Where a property has a gas hob, and a separate oven supply (often a standard socket circuit) There may not be a suitable high-power electrical supply available for a new induction hob.

**In these cases:**

- The existing supply may not be sufficient
- A new circuit may be required

## Alternative Option – Plug-In (Low Power) Hobs

Some lower-powered hobs are available that can be connected to a standard socket.

**However**:

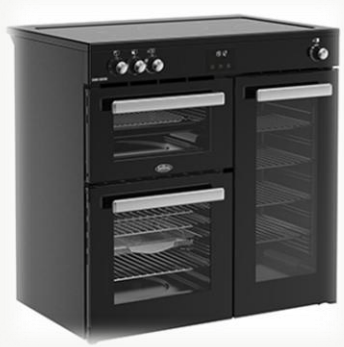
- These typically limit the total available power
- Zones may not operate at full output simultaneously
- Performance can be reduced compared to full-power models

These can be a practical solution - but it's important to understand the limitations.

## Freestanding Cookers & Range Cookers

Freestanding cookers (combined oven and hob units) are often assumed to be a simple replacement - but this is not always the case.

**Many of these appliances:**



- Have high total electrical load
- Can exceed what an existing 6mm cooker circuit can safely supply

**Range cookers in particular can be:**

- Significantly higher powered
- Sometimes require larger cable sizes or multiple supplies

This is where proper assessment becomes essential - not assumptions or guesswork.

## Why It's Not Always a Straight Swap

There are many different appliance types and installation scenarios.

While some upgrades are straightforward, **others may require**:

- Load assessment
- Circuit upgrades
- Installation of a new dedicated circuit

It's not possible to cover every scenario - but the key takeaway is:

**Not every appliance can be installed on an existing supply without review - and in many modern upgrades, some level of electrical adjustment is expected.**

## When a New Circuit May Be Required

If the existing supply is not suitable, a new circuit is often the correct solution to ensure the appliance performs safely and reliably.

**This can involve:**

- Running new cabling
- Installing a dedicated protective device
- Providing suitable isolation

In some cases, this may also lead to a wider review of the installation.

## What Needs to Be Considered

A proper assessment isn't about adding complexity - it's about making sure everything works together safely, efficiently, and without compromise.

To properly assess whether your existing installation is suitable - or what may be required - a number of factors need to be reviewed.

This isn't about making things complicated, but ensuring everything is safe, correctly specified, and performs as expected.

**This may include:**

- The proposed appliances and their maximum electrical load
- Whether appliances are designed to be plugged in or hardwired
- The existing cooker circuit - including cable size and protective device rating
- The condition and capacity of the consumer unit, including available ways
- Whether RCD protection and surge protection (SPD) are in place
- Possible cable routes for any new or upgraded supplies
- Positioning of isolation switches within the kitchen layout
- Coordination with kitchen design and other trades where required

Every installation is different, so a proper assessment is always required before confirming what will work best.

## How This Can Affect the Wider Installation

Where new circuits are installed, this typically forms part of a wider electrical review.

Electrical installations must comply with current regulations, meaning fundamental safety aspects need to be reviewed and, where necessary, brought up to standard.

**This can include**:

- Reviewing your consumer unit
- Ensuring appropriate surge protection (SPD) is installed where not already present
- Verifying adequate RCD protection is in place

In many cases, these measures will need to be installed or upgraded as part of the work where they are not already present.

These requirements are part of ensuring the installation complies with current regulations and is carried out safely and correctly.

**If you'd like to understand how these may affect your installation, you can read our guides on:**

- **Consumer Units**
- **Surge Protection Devices (SPDs)**
- **RCD Protection**

## Planning Ahead

If you're upgrading a kitchen or changing appliances, planning the electrical requirements early can avoid:

- Unexpected limitations
- Additional costs later
- Compromises on appliance choice

Even a quick discussion before purchasing appliances can make a big difference - helping ensure what you choose is suitable from the start.

In many cases, reviewing this before purchasing appliances can also help avoid selecting equipment that would require unnecessary electrical upgrades.

## Common Installation Mistake

One of the most common issues we see is appliances being purchased before the electrical requirements are checked - which can lead to limitations, additional work, or compromises during installation.

## In Summary

Electric cooker and hob installations are not always a simple like-for-like swap.

- Different appliances have different power requirements
- Existing wiring may or may not be suitable
- Some installations are straightforward - others require upgrades

**The important thing is:**

Understand what's possible before installation begins.

If you're planning a cooker or hob installation and want to understand what's required, we're happy to review your existing setup and advise on the most practical and cost-effective solution.

**Contact us.**