Introduction

Installing or upgrading an electric shower isn't always a simple like-for-like replacement.

Many existing installations were designed for lower-powered showers, and modern units often exceed what the existing wiring can safely support.

In some cases, a new shower can be installed on the existing supply. In others, the circuit will need to be reviewed or upgraded to ensure the installation is safe, compliant, and performs correctly.

This guide explains what to consider before installing or replacing an electric shower.

Understanding Existing Shower Supplies

Most properties with electric showers already have a dedicated circuit, typically installed using:

- 6mm^2 cable
- Protected by a 32A or 40A device

In many cases, this is suitable for:

- 7.0kW – 7.5kW showers

However, this is not always the case - and the key question is:

Is the existing supply suitable for the new shower?

This should always be assessed before installation - not assumed.

Shower Power Ratings – What You Need to Know:

Electric showers vary significantly in power:

- 7.0kW – 7.5kW → lower demand
- 8.5kW – 9.5kW → medium demand
- 9.5kW+ → high demand

Higher kW = better performance (especially in winter), but also higher electrical demand.

Typical Cable Capacity Guidance (Indicative Only)

As a general guide:

- **6mm² cable** → typically suitable up to ~7.5kW
- **10mm² cable** → typically suitable for ~7.5kW to 9.5kW
- **16mm² cable** → typically required for higher powered showers (9.5kW+)

⚠ **Important:** These are indicative ranges only. Actual suitability depends on:

- Cable installation method
- Cable length
- Insulation / grouping factors
- Protective device rating

A full assessment is always required before installation.

Why It's Not Always a Straight Swap

Replacing a shower with a higher-rated unit without checking the circuit can lead to serious issues.

Common problems include:

- Cable overheating
- Burnt-out pull switches or isolators
- Damaged terminals within the shower
- Nuisance tripping
- Overloaded circuits where incorrect breakers have been fitted

In some cases, the circuit may appear to "work" - but is operating outside safe limits.

When a Circuit Upgrade May Be Required

If the existing supply is not suitable, this typically involves:

- Upgrading the cable (e.g. 6mm² → 10mm² or 16mm²)
- Installing a correctly rated protective device
- Replacing isolator switches or connections

- Reviewing the consumer unit

This is not just about performance - it's about safe operation under load.

Consumer Unit & Safety Requirements

Where new circuits are installed - or existing ones are upgraded - the wider installation must meet current regulations.

This may include:

- Ensuring RCD or RCBO protection is in place
- Installing surge protection (SPD) where not already present
- Confirming earthing and bonding arrangements

These form part of ensuring the installation is safe, correctly protected, and compliant with current regulations - not just that the shower works.

You can read more about this in our guides on:

- **Consumer Unit Page**
- **RCD Protection Guide**
- **Surge Protection (SPD) Guide**

Electric Showers vs Mains-Fed Showers

Where possible, we generally recommend mains-fed showers (e.g. from a combi boiler or unvented system).

Compared to electric showers, they typically provide:

- Better flow rate
- More consistent temperature
- Improved overall performance

Electric showers are often best suited where:

- There is no suitable hot water supply
- As a secondary or backup shower

If you're planning a new bathroom, it's always worth considering whether a mains-fed option is possible before committing to an electric shower.

Where a suitable hot water system is available, this is often the preferred long-term solution for both performance and user experience.

In many cases, this also avoids the electrical limitations that can come with high-powered electric showers.

New Installations & Plumbing Requirements

If you are installing a shower where one does not currently exist:

- A new electrical circuit will usually be required
- Water supply and pipework will need to be installed or adapted

This will typically involve coordination with a plumber.

Planning both electrical and plumbing requirements together ensures the installation is practical, compliant, and avoids rework.

Where required, we can help coordinate these elements to ensure everything is planned and installed in the correct sequence.

Planning Ahead

If you're upgrading a bathroom or replacing a shower:

- Check the electrical capacity before purchasing
- Avoid selecting a unit that exceeds your current installation
- Consider long-term performance, not just initial cost

Even a quick discussion before purchasing can prevent:

- Additional costs
- Delays
- Compromises in performance

In Summary

Electric shower installations require careful assessment - not assumptions.

- Existing wiring may not be suitable for higher-powered units
- Cable size and protection must match the appliance
- Upgrades may be required for safety and compliance

The key is:

Understand what your installation can support before choosing the shower.

If you're planning a new shower or upgrading an existing one and want to understand what your installation can safely support, we're happy to review your setup and advise on the most practical and cost-effective solution.

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