

Accessible Electric Vehicle Charging

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About the Motability Foundation

- The Motability Foundation is a national charity set up with all party parliamentary support in 1977 to help disabled people access vehicles through the Motability Scheme.
- We fund, support, research and innovate so that all disabled people can make the journeys they choose.
- We oversee the Mobility Scheme and provide grants to help people use it, providing access to transport to hundreds of thousands of people a year.
- We award grants to other charities and organisations who provide different types of transport, or work towards making transport accessible.
- We also carry out ongoing research, in partnership with disabled people and key stakeholders in the industry, to inspire innovations that continue to champion accessible transport for all.



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Why does charging (particularly public charging) need to be accessible?

- **1 in 5 people** in the UK report a disability
- Motability Foundation's research with Ricardo estimates **2.7 million UK drivers** or passengers with a disability by 2035
- Accessibility benefits more than just disabled people...
 - Ageing population,
 - A temporarily injured person,
 - A pregnant mother,
 - A woman who wants a safe experience,
- It's the right thing to do!



40% of Motability Scheme EV lease terminations, were due to inaccessible charging.

It's estimated that **50%**
of disabled drivers will
be reliant on **only**
public charging
infrastructure.



What are the key public charging challenges?

Chargepoint:

- Height – of sockets, cables, screens and payment terminals,
- Confusing Interfaces,
- Heavy Cables,
- Lack of Cable Management Systems,
- Connectors - that require a lot of force to attach.



What are the key public charging challenges?

Built environment:

- Space - around the chargepoint and the vehicle,
- Positioning of Chargepoint - relative to kerb, bay or parked car,
- Bollards and Wheel-stops,
- Kerbs – too high, or lack of dropped kerb,
- Ground Surface – grass, gravel, uneven, puddles,
- Signage – lack of, or clear and inconsistent language,
- Uncovered – exposed to the elements,
- Unsafe - in dark faraway areas of carpark, no CCTV or lighting.



What did we do?

- In response to our research the Motability Foundation partnered with UK Government to co-sponsor the BSI PAS 1899 accessible public EV charging standard.
- PAS 1899 was developed by a steering group of experts convened by BSI Standards. Involved **extensive engagement process** and **user testing** to secure buy-in from key stakeholders, including disabled people, disability groups, industry bodies, manufacturers, charge point providers
- Published in October 2022, PAS 1899 defines exactly what accessible public charging is and how **minimum requirements** can be achieved. It provides industry with a clear specification of how to make chargepoints of different speeds and in different environments accessible. It has been designed to apply to **all chargepoints**.
- The standard provides a checklist of minimum requirements for accessible public checkpoints, as well as supplementary best practice guidance.



Terminology Confusion

- **PAS Compliant:**

An EV Chargepoint is PAS compliant if it meets the minimum specifications outlined in Clauses 4 – 8. (Checklist Table E.1 of PAS 1899). Relevant to ALL public Chargepoints.

- **Best Practise:**

Not binary, these can be included in site design to enhance the accessibility of Chargepoints. To be included if possible! (Annex A, Checklist Table E.2 of PAS 1899).

- **Designated Accessible EV Charging Bays:**

EV Chargepoints that are designated for blue badges. May or may not be reserved entirely for blue badge holders, at present this decision lies with the procurer. (Annexes B and C, Checklist Tables E.3 and E.4 of PAS 1899).

Guidance for Procurers

- Checklists (Table E.1) on pages 48-55 is very useful.
- Within tender and procurement document, we would prefer if PAS 1899 isn't a check box. You should be asking the supplier to explain:
 - Their understanding of PAS 1899,
 - Compliance of PAS 1899 for procured components and built environment.
- **Comply or Explain:** there may be instances where it is unsafe, not technically feasible, etc. to implement PAS 1899, this approach allows you to evidence the areas where it isn't compliant.
- Feedback: our Technical Working Group is reviewing the standard to ensure it is right for industry, landowners, local government and most importantly, disabled people.
Please feedback to us to ensure your voices are heard.
- **EST** are planning to revisit their procurement guidance for EV Charging Infrastructure to include more on accessibility.
- **Motability Foundation** are producing visual guidance to aid understanding of the standard.

Endorsing PAS 1899 assessment schemes

- Since the launch of PAS 1899 Motability Foundation found that providers, landowners, LGAs and manufacturers are keen to have a way of checking if their chargepoints conform with the standard
- In response to this the Motability Foundation offered its endorsement to the assessment schemes that could check whether a chargepoint, site, or network complies with PAS 1899 requirements.
- The first two assessment schemes to receive the endorsement will be operated by **AccessAble** and **BSI Assurance UK**.



Further resources

- The BSI PAS 1899 standard - <https://www.bsigroup.com/en-GB/insights-and-media/insights/brochures/pas-1899-electric-vehicles-accessible-charging-specification/>
- Motability Foundation video on accessible EV charging - <https://www.youtube.com/watch?v=0t9ilOCDS7Y>
- Designability design guidance for accessible EV charging - <https://accessibleevcharging.designability.org.uk/>
- Designability user engagement report on accessible EV charging - <https://www.motabilityfoundation.org.uk/media/bqybvc3e/user-engagement-report-accessible-ev-charging-motability.pdf>
- Ricardo research report on EV charging infrastructure for people living with disabilities - https://www.motabilityfoundation.org.uk/media/nghmmyu0/electric_vehicle_charging_infrastructure_for_people_living_with_disabilities_ricardo_energy_and_environment.pdf
- EST's report on 'Electric Vehicle Adoption for disabled consumers': https://energysavingtrust.org.uk/wp-content/uploads/2022/03/Electric-vehicle-adoption-for-disabled-consumers_Energy-Saving-Trust_final-version.pdf

Any Questions?

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