An Introduction to Ground Control

Here at Ground Control, we work directly with our clients to design, supply and install the optimum EV charging infrastructure for your site. Working with our preferred suppliers across the country, we can provide individual packages to suit all budgets and requirements.

Our installations are designed to be part of a comprehensive solution to include round-the-clock driver support, cloud-based software and maintenance services. Providing a first class service to the driver and the business supplying the charging infrastructure and creating an environment that encourages users to return again and again.

Why choose Ground Control?

- National coverage with multi-skilled teams for all required professions
- A fully managed installation service from point of sale
- Aesthetically minded, architectural landscaped approach to EV Charging installations
- A future proofed product and service that puts the station owner and user in the driving seat
- Multi award winning teams who put safety at the heart of everything they do
- Experienced in what we say and do. Ground Control has already begun the switch to a fully electric fleet. We combine our experience, knowledge and passion to best help our clients.
Workplace Installed Office/Business Charger Payment

- Monthly usage gathered by ChargePoint from each user App
- Business allows authorised user only to charge at offices/business locations
- Data of usage gathered through driver App and listed on Fleet Dashboard
- The business only pays for power consumed in the same way that energy provider bills currently paid

Workplace and Fleet Charging solutions

Fleet Manager Experience
- **Administer and pay**
  - Administration of energy expenses
  - Direct payment to ChargePoint
  - Report generation and Analytics

Driver Experience
- **Administer and pay** (private use)
  - App to manage the Home & Workplace
  - App locate and access to public charging
  - Split private and professional usages
Electric Vehicle Charger Hardware

CPF32 Family

Our CPF32 family of charging stations is designed for select return to base fleets applications and apartment blocks.

For fleets, CPF32 stations are ideally suited for depot charging. For apartment blocks, CPF32 stations are ideal for personal charging in assigned parking spots.

All CPF32 models are fast charging stations that can add up to 29 Miles RPH (miles of range per hour) and are capable of charging some EVs in less than four hours. The stations come with a standard Type 2 connector that can charge any EV on the road with a type 2 outlet.

The CPF32 charges efficiently and conserves power when not charging. On average, the CPF32 uses 40% less energy than a standard EV charger when in standby mode to help you save money on your utility bill.

Stations are available in wall and pedestal mount configurations with a 6m cable length. You can keep cables off the ground and avoid trip hazards with our self-retracting, maintenance-free cable management system.

CPF32 Family/Suite of products

<table>
<thead>
<tr>
<th>Product</th>
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<tbody>
<tr>
<td>Single Wall Mount</td>
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<td>Single Wall Mount Cable</td>
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<td>Single Pedestal Mount</td>
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Electric Vehicle Charger Hardware

CP4300 1 or 3-Phase Cable Attached AC Charging Station for Business

Built with the latest ChargePoint® technology, this new range of all-in-one cable attached charging solutions is designed for businesses, fleets and other organisations offering electric vehicle (EV) charging as a facility or service for employees and customers. ChargePoint cloud services make managing stations effortless with a graphical online dashboard that offers instant insights. Automatic “over-the-air” upgrades deliver the latest features that make charging simple for EV drivers.

- Attached cables make charging simple and seamless: drivers never have to find their own cable
- Innovative cable management system keeps cables off the ground and safely out of the way of drivers
- Driver-friendly user interface with full-motion colour display informs drivers and supports dynamic updates of customised, branded video content
- Stations are available in pedestal and wall mount configurations for easy installation anywhere
- Innovative design allows one product to serve multiple uses cases, and an installation wizard configures stations out of the box for 1 or 2 output ports at 22 kW, 11 kW, 7.4 kW or 3.7 kW
- Authentication and payment options include RFID, NFC, phone call, web, mobile app and tap to charge (Apple and Android devices)
- Intelligent power management allows two charging ports to share a single circuit, doubling the number of parking spaces served; existing single port stations can be upgraded to dual port stations without requiring additional electrical services
- Durable high-strength construction and hardened electronics withstand climate extremes and physical abuse
- Charges every EV and plug-in hybrid EV; tested with Mercedes C350e/GLC350e, Renault ZOE, Volvo XC90 T8, BMW i3, Nissan LEAF, Tesla Models 3, S and X, Kia Soul, Hyundai Ioniq, Volkswagen Passat/Golf GTE and many others

CP4300 Range of products

<table>
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<tr>
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<tbody>
<tr>
<td>CP4313 Single Cable Wall Mount</td>
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<td>CP4323 Dual Cable Wall Mount</td>
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<tr>
<td>CP4311 Single Cable Pedestal Mount</td>
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<td>CP4321 Dual Cable Pedestal Mount</td>
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CP4100 1 or 3-Phase Plug-In AC Charging Station for Business

Built with the latest ChargePoint® technology, this new range of all-in-one charging solutions is designed for businesses, fleets and other organisations offering electric vehicle (EV) charging as a facility or service for employees and customers.

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CP4100 Range of Products

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<tr>
<td>CP4113 Single Port Wall Mount</td>
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<td>CP4123 Dual Port Wall Mount</td>
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<tr>
<td>CP4111 Single Port Pedestal Mount</td>
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<td>CP4121 Dual Port Pedestal Mount</td>
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DC Charging Options From ChargePoint

For DC charging requirements, ChargePoint proposes the ChargePoint Express Solution. This platform consists of three key options:

- The **CP Express 250 Station**; for standalone DC rapid charging of a single vehicle at up to 62.5kW from a 400V 3 phase 100A supply.
- The **Paired CP Express 250 Configuration**; link two CP Express 250 stations together, allowing them to share conversion circuitry and enabling a maximum 125kW output from either station.
- The **CP Express Plus Platform**; a scalable modular High Speed DC system of interconnectivity and dynamic power sharing across multiple Express Plus Dispenser Stations, supported by an auxiliary Power Block, to achieve a maximum station power output of 500kW (dependent on configuration and supply). Perfectly suited to public charging for multiple vehicles.

Each stand-alone **CP Express 250 station** (CPE250) contains two internally mounted 31.25kW Power Modules and is able to output up to 62.5kW to a single vehicle at a time. A liquid cooling system is used to keep the Power Modules within their ideal operating temperature range and charging is offered via CHAdeMO and CCS2 output cables as standard. Various other connector standards can be supported, with up to three different cables appearing from one station.
An Introduction to EV Charging Software: Load Management

The principles of load management apply to sites where the desired charging capacity is higher than the spare electrical capacity available.

By evenly distributing the available power across the number of vehicles charging, this enables the maximum spare electrical capacity to be utilised at all times.

In this scenario, a bank of six chargers, all capable of delivering 22kW of charge, are installed on a site with a total spare electrical capacity of 45kW.

With one car charging (above), it will receive the maximum 22kW available from the charger.

With six cars charging (left), each will receive an even 7.5kW of charge.

With Load Management (right), the spare 45kW electrical capacity is shared across the three chargers in use, providing each car with 15kW of charge.

Without Load Management technology, 7.5kW chargers would need to be installed on site, so to not overload the electrical capacity. This would mean, despite the number of cars charging on site, each would only ever receive 7.5kW of charge, making inefficient use of the maximum spare electrical capacity available on site.
Waitlist Facility:
Maximise utilisation of your assets

1. Station owner puts the stations in Waitlist Mode.
2. All ports are occupied, so ▶️, ▶️, and ▶️ “line up” (via the App or tap at the station) to use the next available port.
3. When ▶️ is fully charged (or up to a time limit or energy limit specified), he gets a notification, instructing him to unplug and move his car.
4. When ▶️ unplugs, ▶️ gets a “You’re Up!” notification, which, if she Accepts, the station is held for her for the specified time while she goes and plugs in.
5. ▶️ plugs in and everyone moves forward in the line.

- The EV Driver is busy when they are notified, or stuck in traffic for example – They can SNOOZE their position in the Waitlist Queue.

1 - 3: Same scenario as before.

4. When ▶️ unplugs, ▶️ gets a “You’re Up!” notification.
5. If ▶️ is busy (e.g., an important customer meeting), she can “Snooze”, retaining her position in line, while letting ▶️ jump ahead of her.

All available via the ChargePoint App
An Introduction to EV Charging Software: Smart Technology & Cloud Management

Different hardware providers offer various different software packages. Software services can range from basic ‘plug & charge’ services, to integrated cloud based management services. Listed below are some of the key features you can expect to see within a ChargePoint software package.

**key features**

- The ability to set the price that drivers pay to use charging stations based on energy cost, duration, time of use, session length or driver group. Funds collected from drivers are electronically transferred to a designated bank account. (*Not available on CPF32 Range*)
- Advanced access controls that manage which drivers can access stations and when.
- Power/Load management software which reduces station installation costs, lowers ongoing electricity costs and lets you charge more vehicles.
- Up to 35 charts and analytics, available with a click, summarising important trends for planning and management reporting.
- Waitlists, making charging more convenient by notifying drivers when a charging spot becomes available for them and holding it until they can plug in their vehicle.
- Integration with fleet fuel cards, telematics and asset management systems, simplifying EV charging for fleets.
- A valet feature which automatically notifies parking staff when cars have finished charging so they can be moved.
- A graphical dashboard showing real-time status and a detailed map, making it easy to manage stations from your desk or mobile phone.

**Cloud Plan Service Inclusions**

**CPF32 Range:** This plan includes Secure Network Connection, On-going Station Software updates, Station Inventory plus 24x7 Driver Support, Host Support, Session Data and Analytics, Fleet Vehicle Management and Integration, Valet Dashboard.

**CP4000 Range:** This plan includes Secure Network Connection, On-going Station Software updates, Station Inventory, 24x7 Driver Support, Host Support, Session Data and Analytics, Fleet Vehicle Management and Integration, Fleet Access Control, Valet Dashboard, Power Management (Circuit, Panel, Site Sharing), Scheduled Charging, Driver Access Control, Pricing and Automatic Funds Collection, Waitlist, Videos (on supported hardware).
Warranty & Support: we’ve got you covered

Initial Activation and Configuration
ChargePoint’s solutions are versatile and can be customised to meet your charging goals. With the purchase of ChargePoint’s Activation and Configuration service, a specialist will consult you directly to guide you in the setup and activation of your stations.

Based on your needs, we’ll set up all your charging policies as well, including pricing, access control, administration rights, advertisements and more. In addition, we’ll provide you with the kind of expert advice on best practices that comes from establishing and operating the world’s largest EV charging network.

Ongoing Support
ChargePoint offers best-in-class hardware and industry leading support. The standard warranty is two years parts only when installed by a ChargePoint Certified Installer. However, your standard warranty can be upgraded to ChargePoint’s Assure maintenance and management plan for a comprehensive, turnkey, hassle-free station ownership experience.

ChargePoint Assure
Assure is the most comprehensive EV station maintenance and management programme in the industry. Assure enhances your standard parts warranty with dispatched labour at committed service levels to perform on-site repairs, as well as a long list of additional features. Should a charging station fail due to a manufacturing defect or accident, the ChargePoint Support team will rush to your site to repair or replace the station. You may purchase up to five years of ChargePoint Assure coverage.

Additional Assure features include:
• 24x7 proactive station health monitoring
• Proactive dispatch of repair technicians when required
• One business day on-site response after parts are on site
• Unlimited software configuration changes
• 98% annual uptime guarantee with financial penalty for non-performance
• Monthly reports and detailed quarterly reports of your station’s performance metrics
• Coverage of labour for repairs typically not covered under standard warranty such as vandalism, abuse and accidents

Assure is the most comprehensive parts and on-site labour warranty. Parts and On-Site Labour to repair or replace any manufacturing defect and includes station management, remote monitoring of station and proactive repair dispatch.
Driver Services

Charging Activity
Drivers are also able to see detailed information about their charging activity including both historical charge sessions and ongoing real time session data. By entering the make and model of EV they drive, users can then switch between kWh, price, or estimated range added views as well as see their historical trends.

Home Station Integration
ChargePoint Drivers that also own a CP Home Station are able to control both the home and public charging using the same mobile app. Control options include viewing current status, starting and stopping sessions, and managing an optimised charging schedule based on energy tariff.
Case Study: Workplace Charging

This company already had embedded a strong environmental culture and were actively involved in identifying energy and resource conservation measures to achieve, where possible, reductions on resources at all their locations. Additionally, their aim is to protect environmental quality and public welfare in their communities and to implement environmentally sound policies designed to prevent, mitigate and, where appropriate, remedy impacts on the environment of the community. By installing EV charging facilities, the business took one step closer in achievement of these aims and goals.

Project Milestones

- Client required plug-in units for older hybrid
- Initially was just for two chargers then upgraded to four
- Project included futureproofed infrastructure
- Internal power connections done out of hours to minimise disruption and loss of productivity
- All work completed well within projected timeframe
- Client since asked for additional work to be done

Project Information

Client: Manufacturer
Location: Rotherham
Date: January 2020

Client’s comments

“The only comment I can make regarding this project is PERFECT! The teams on site always worked safely and neatly and I have had no complaints since the chargers have been installed”
A new £5m investment fund dedicated to sustainability and environmental initiatives has been launched by Ground Control, the UK’s leading supplier of award-winning landscaping and maintenance services. Financed by five percent of Ground Control’s annual profits, the Evergreen Fund will specialise in providing seed and growth capital to early stage companies and social enterprises that are focused on delivering measurable, beneficial and sustainable environmental impact.

Over the next five years, the fund will:

- Invest £5m in early stage environmental ventures
- Become a perpetual investment facility with profits reinvested into new sustainable ventures
- Dedicate £100,000 annually to finance the planning of one million new native trees to create protected areas of biodiversity

“As a company, we’ve always felt strongly about the environment so the launch of the Evergreen Fund is a milestone moment for Ground Control.”

Ground Control co-founder Kim Morrish.

“From the very start, a passion for nature and commitment to sustainability has been central to what Ground Control does every day.”

Ground Control co-founder Simon Morrish.

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