

DEPOT CHARGING INFRASTRUCTURE CONSIDERATIONS

⚡ Do you own the site? If it is leased then the landlords will need to provide permission for you to install charging infrastructure.

⚡ Locating your fuse board is key. Long cables running from your fuse board to charging units which require groundworks can add significant expense to an installation.

⚡ Understanding the max supply capacity available on your incoming supply is critical to determining the level of charging infrastructure you can install without expensive distribution upgrades.

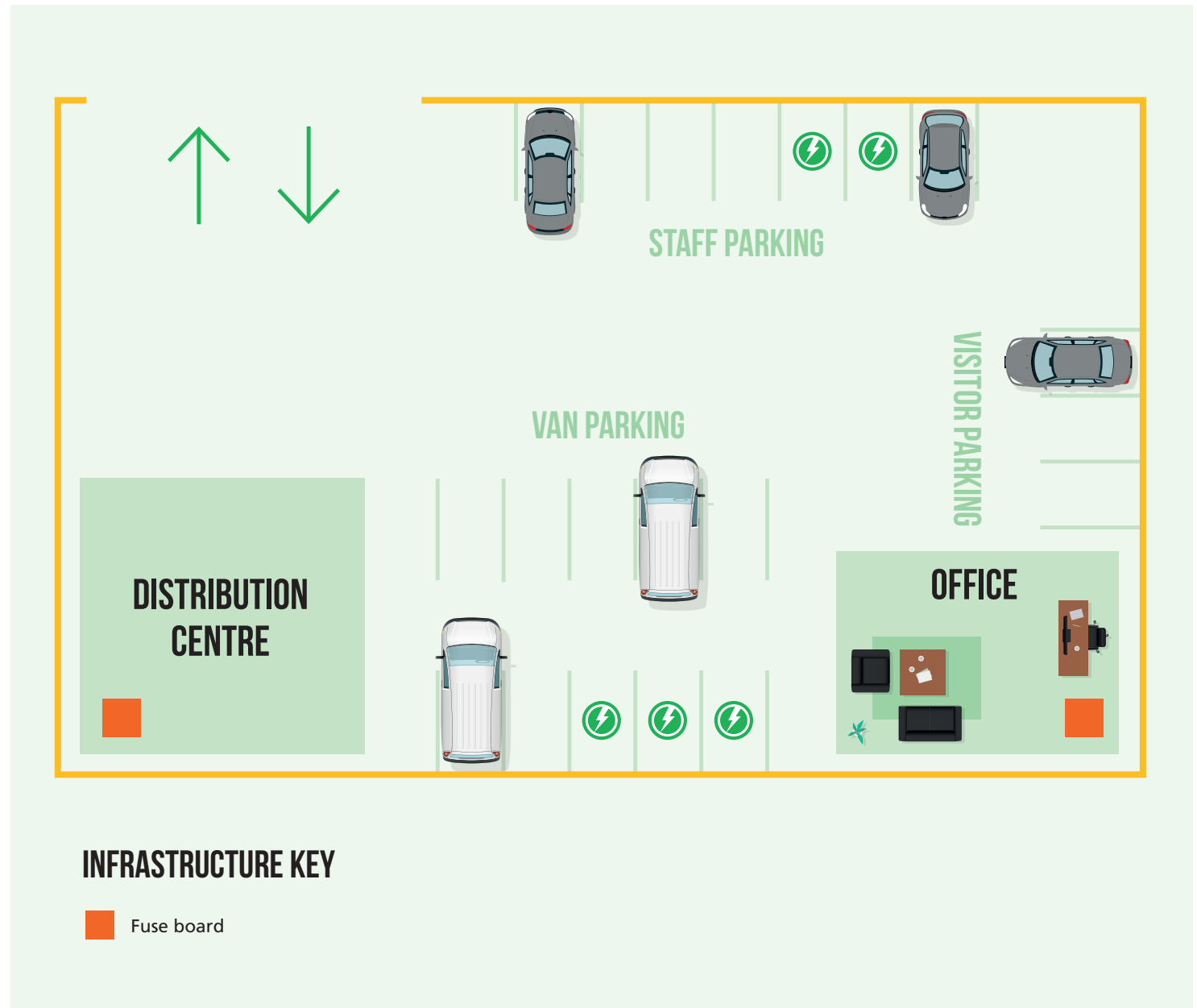
Your max supply capacity can be found on your energy bill. Should electricity supply need to be increased, the distribution network will need to be involved, increasing the time and the cost of a project.

⚡ Ensuring you have the right charging for the vehicles you choose also needs to be considered.

All vehicles can charge at 7kW with some now able to charge at 11kW or 22kW. The vehicle determines the charging speed, not the charger.

⚡ Whilst perhaps not an immediate consideration, if your drivers bring their own vehicles to work, they will require the ability to charge them at the depot for return journeys.

⚡ Are you going to make charging available to visitors at the depot? Will you want to charge for this?



CASE EXAMPLE 1 DEPOT OVERNIGHT PARKING

My drivers make their own way to the distribution centre to pick up their van for the day. Vehicles are left overnight at the depot.

Charging Requirements

I need the ability to charge my vehicles overnight with the vehicles being fully charged by the morning. They will be back intermittently during the day for short periods only. I have a fleet of 10 Peugeot e-Experts, all capable of charging at 22kW and DC fast charging.

Available Power Capacity

I have a max supply capacity of 124kW. Overnight I have very little usage. During the day my distribution centre generally uses 80kW so I will need an element of load balancing.

The Solution

Install 5 x 22kW dual chargers, max load of 110kW which falls within the max supply capacity.

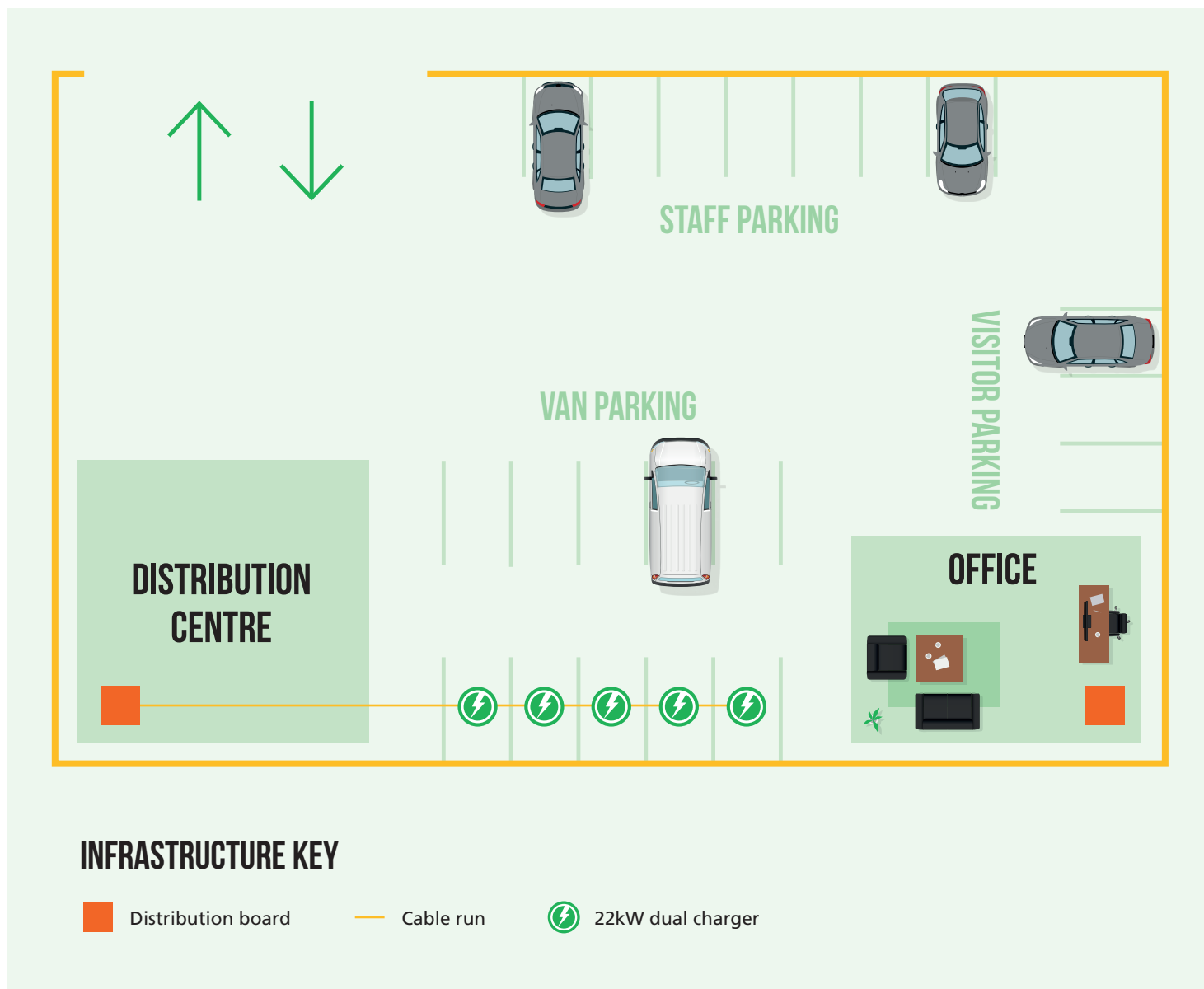
The e-Expert battery size is 75kW (11kW charging speed of 7 hours). Should the power supply allow, vehicles can be charged in the daytime at 22kW for short periods of time.

Estimated Costs*

- Hardware 5 x 22kW approximately £10,000
- Installation and ground works approximately £5,000
- Smart charging and load balancing software - approximately £50 per month
- There are software platforms available to provide consolidated billing for home, depot and public charging

(From 1st April 2022, the government will extend the Workplace Charging Scheme to SME's and charities, where they can claim a grant of up to £350 per charging unit).

*Costs are for indicative purposes only and can differ based on required groundworks, hardware selection and software packages.



CASE EXAMPLE 2 CHARGING AT THE DEPOT

My drivers take their vans home overnight but due to the distances travelled, require topping up during the day.

Charging Requirements

I need the ability for my vehicles to be charged up quickly when they are back in the depot. I don't want charging to slow down the business operation. I have a fleet of 10 Peugeot e-Experts that drop in and out of the branch each day. There are rarely more than 2 vehicles in the depot at any point.

Available Power Capacity

I have a max supply capacity of 100kW. My distribution centre uses very little power during the day, simply running the lighting and computer systems. I have an estimated available supply of 50kW at any one time.

The Solution

Install 1x 50kW DC charger. Max load of 50kW which falls within the available supply.

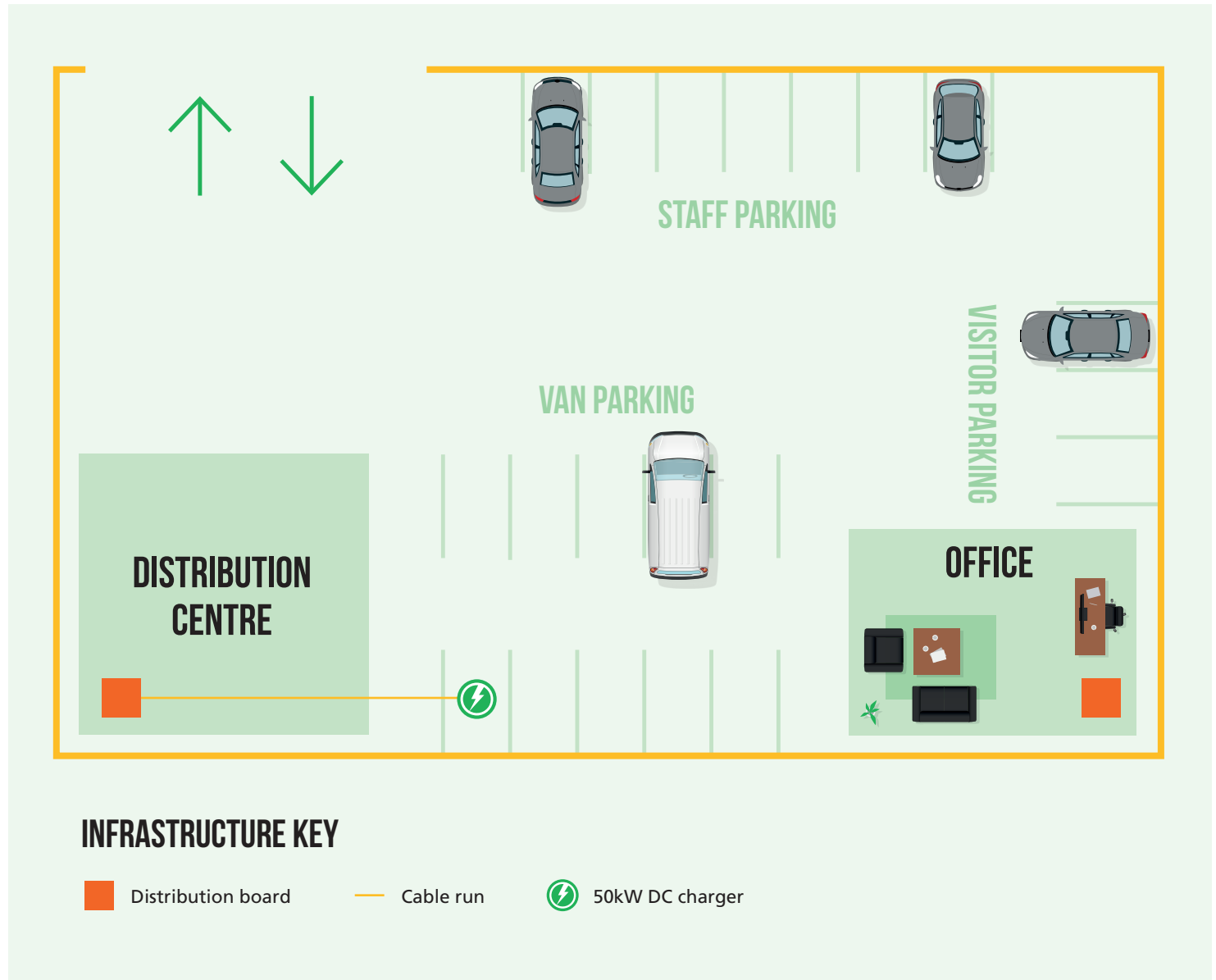
e-Expert battery size of 75kW (50kW charging speed 40 minutes 20-80% battery charge).

Estimated Costs*

- Hardware 1 x 50kW approximately £20,000
- Installation and ground works approximately £5,000
- Smart charging and load balancing software - approximately £50 per month
- There are software platforms available to provide consolidated billing for home, depot and public charging

(From 1st April 2022, the government will extend the Workplace Charging Scheme to SME's and charities, where they can claim a grant of up to £350 per charging unit).

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CASE EXAMPLE 3 HOME AND PUBLIC CHARGING

I have 40 engineers who maintain 5000 homes on a planned and reactive basis. All engineers take their vans home each night and travel to their planned/reactive site on a daily basis. I have carried out a survey and only 14 engineers have the capability to have a home charger installed.

Charging Requirements

I need the ability for my vehicles to be charged up at public charging networks or at home addresses where relevant. I have a mixed fleet of electric vehicles depending on the engineers' requirements.

The Solution

Install home charging units to the 14 engineers who are able to have charging installed.

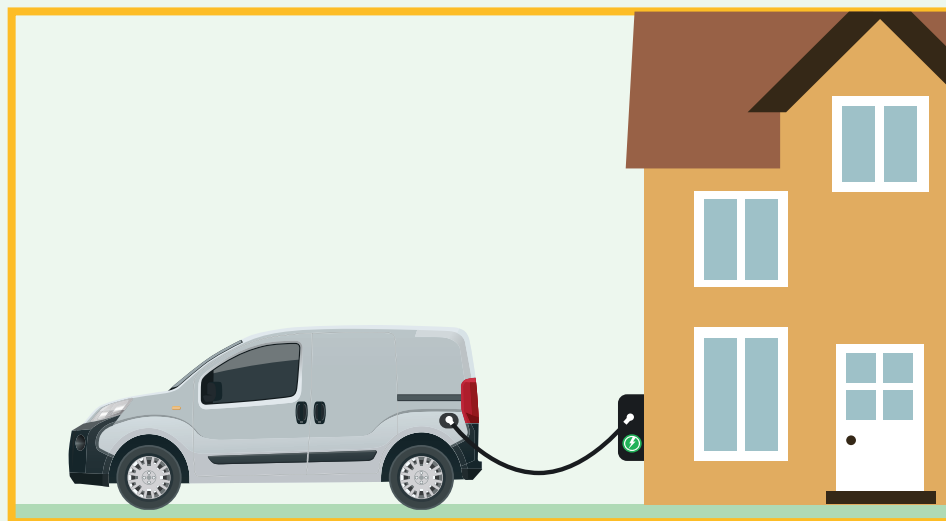
If your drivers are living in rented accommodation/social housing or an apartment block they may be eligible to claim a government grant of up to £350 per charging unit. (This will be available from 1st April 2022).

Issue an Allstar One Electric charge card to all drivers on the fleet. This provides access to 1,102 rapid chargers and over 2,966 fast chargers across the UK.


Estimated Costs*

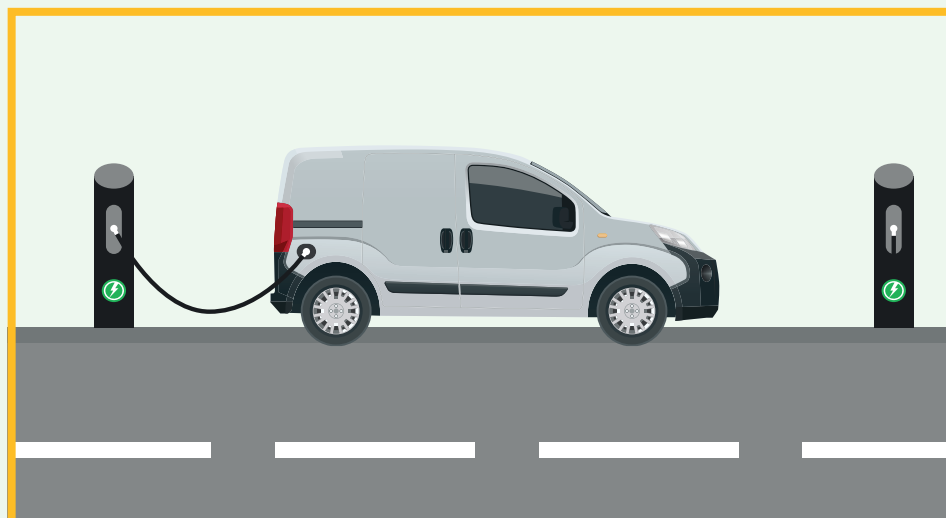
- Home charging installation approximately £1,000 per device
- Allstar One Electric charge card - £5.50 per month per card plus public charger rate (There are software platforms available to provide consolidated billing for home, depot and public charging)

*Costs are for indicative purposes only and can differ based on required groundworks, hardware selection and software packages.




INFRASTRUCTURE KEY

 Home Charger



INFRASTRUCTURE KEY

 Fast / Rapid Charger