

Charging the Renault Zoe

Introduction

All our EVs are Renault Zoes. They are all compatible with the Type 2 chargers, which is currently the most popular type of connection. The two newest Zoes, which are based in Machynlleth and Llanidloes can also connect to the faster CCS chargers.

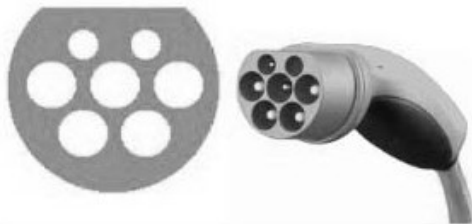
Charging the Zoes is straightforward. It takes a little more planning compared to refilling with petrol, particularly on longer journeys, but the charging network is growing all the time, so you are unlikely to be caught out if you plan ahead.

If you are only using the car locally, i.e., within Powys and the surrounding area, it is unlikely that you will struggle to find a charging point as Powys County Council have installed GeniePoint charging stations in many of their long-stay car parks.

Many Morrisons supermarkets also have GeniePoint charging stations. Tescos have Pod Point charging stations in their car parks. Most motorway service stations will have a charge station of some kind – but it's worth checking to see if these are compatible with the Zoes before you arrive there.

Compatibility

The key words are “Type 2” or Mennekes (the name of the company which created the original design). If a charge point is Type 2 compatible, then you can plug in any one of our Zoes.



Type 2 charger (for the older Zoes):
 Fast charger – 7-22kW AC
 Rapid charger – 43kW AC

The newer Zoes (Llanidloes and Machynlleth) are also compatible with CCS chargers which allow for 50kW or even 150kW charging.

If the charging station is tethered, then you must use one of the cables which is attached (tethered) to it. Some commercial charging stations do have an untethered socket as well, see next page.

The older Zoes are supplied with two types of charging cables, both for AC charging. The three-pin plug is for home charging and the other, a Type 2 connector allows you to connect to most untethered charge points including Tesla Destination Charging points, providing they are Type 2 compatible.



Newer Zoes can also use the CCS
 Rapid charger

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Tethered and Untethered charging cables

Tethered charging cables are like a petrol pump in that the cable is attached to the charging point, and you simply plug the other end into your car. You should note however that not all tethered stations use the Type 2 connector, e.g., Ionity will only accept CCS compatible cars, which in our case is just the new Zoes



Untethered (socket) for Type 2



Tethered (fixed) Type 2 connector

Charging speeds

Fast chargers are rated between 7kW and 22kW and use AC current relying on the car's converter to turn it into DC. Our older Zoes have a battery capacity of 41kWh. So it would take about 5 hours to charge from low to high with a 7kW charge and 1.5 hours for 22kW.

There are two kinds of Rapid chargers - **Rapid AC** chargers use more power (43kW) than Fast AC chargers, but the process is the same – AC is converted into DC by the electric car's own converter.

Rapid DC chargers supply DC current straight to the car at 50kW or the newer ones up to 350kW. Rapid DC chargers are more expensive to install but are becoming more common. Only our newer Zoes can charge with DC. There are two advantages of being able to use a DC charger:

- It will charge up to 99% whereas the Rapid AC will stop at between 90 and 95%
- Many Rapid chargers have two AC and one DC cable. One of the AC cables is not compatible with our Zoes, however only two cars can be connected at one time, one using an AC cable and the other the DC.

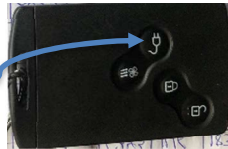
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Charging the car

Before you can connect the charging cable you need to open the flap on the front of the car. It has the Renault badge on it. In the older Zoes you can either press this button on the right hand side of the steering wheel



Or press this button on the



On the newer Zoes you have one option which is to press the far-right button on the bank of buttons situated to the right of the steering wheel



Charging at home

The older Zoes come with a 13amp charging lead (**Slow charger** also known as a Granny cable, because in France, it allows you to visit your granny in an EV as many grannies still live in the countryside away from any charging stations) so that you can charge the car from your home. However, the charging rate is at most 2.5 kW so it could take 15 hours to get from low to high or think of it as adding 6% capacity per hour of charge. Fine for overnight. You can connect the cable to a standard extension lead, but if the wiring in the house or out-building is not sound, the car will not charge, and you should try another socket elsewhere. Also, make sure that the extension cable and its socket are in a good condition and sheltered from the wet.

Using the GeniePoint chargers

GeniePoint chargers are easy to use, particularly with the supplied RFID (Radio-Frequency Identification) card in each Zoe. The smaller 22kWh chargers usually do not have a touch screen, this is certainly true for the units installed in Powys CC car parks. Using the RFID card means you do not have to download an app nor do you require a smart phone, you simply plug in the Zoe's cable in the socket hidden by the flap and tap the RFID card on the touchpad.



Once the cable is in properly you should hear a click, both ends of the cable will be locked in place until you press the unlock. The light on the charge point will change from green to blue and you should hear a sort of hissing sound indicating that the electricity is flowing into the car's batteries.

Occasionally the message on the cars' display is "Ongoing checks" and does not go away. This usually means that the RFID card hasn't been accepted, in this case you may need to swipe the card again and or re-attach the cable to a different charging socket. If you do need to switch to a different charging point please ring the number on the unit to report it as faulty, so it can get fixed.

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The larger (43kWh +) GeniePoint charge points which are commonly found in Morrisons car parks have a touchscreen. You will need to follow the instructions on the screen. NB. You will have to tap the RFID on the sensor to start and to end charging.



The length of time it takes to charge the Zoe is depends on three things:

- the size of the car's battery (called the traction battery),
- the amount of electrical current it can handle, and
- the speed of the charger.

The size and power of the traction battery is expressed in kilowatt hours (kWh) or units (1 unit is 1 kWh), the larger the number the bigger the battery, the longer it'll take to fully recharge it.

Occasionally a message shows on the cars' display as "Ongoing checks". This usually means that the RFID card hasn't been accepted, in this case you may need to swipe the card again or disconnect and reconnect the cable.

Finding a Charging point

There are several ways to locate the charging stations. The Renault Zoes have a search function incorporated into their sat-nav, but you will need to check that it is Type 2 compatible (or CCS for the newer Zoe if that is what you are driving).

There are also websites and phone apps such as GeniePoint, ZapMap, PodPoint, and BP Pulse. It's worth planning ahead and identifying specific locations before you set off. Our suggestion is that you should plan to charge while you still have at least 50 miles range left, just in case the location you planned to use is not working or someone else is using it.

Do **not** try to complete the journey knowing it will be tight, it is not worth the stress.

It is worth noting that you will still be obliged to pay any parking fees whilst you are charging the car. Make sure that if the charging time exceeds your free parking allowance (e.g., at a supermarket), or your original ticket fee, that you are covered for the entire time you are in the car park. You and not TripTo are liable for any parking fees and fines.

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How to pay

All the TripTo cars come with A GeniePoint RFID card which gives you access to any of the GeniePoint charging stations. The cost of charging is then automatically taken from the TripTo account.

As well as paying with the RFID card you can also pay via the GeniePoint website (using your own credit card), or by using the GeniePoint app (logging in as a guest) on your smartphone.

Many providers are beginning to phase out RFID cards in favour of either a smartphone app or by paying with an ordinary debit or credit card - the latter is slightly more expensive but doesn't require you to register your details.

If you should need to personally pay for any charging, please email admin@tripto.org.uk with the following details:

- your name
- amount paid and date of charge
- screen shot or scanned copy of the receipt if possible

Tescos

If you charge at Tescos using one of their free charge points, you will still need to log in with the Pod Point App otherwise the charge will be stopped after 15 minutes. You can use the TripTo account rather than creating your own account:

User name is: coordinator@tripto.org.uk

Password: Ch1rge£me

The password is case sensitive and only the first letter is upper case.

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