EO Mini Pro 2 User Manual.

Contents

Introduction

This document details the user instructions for the EO Mini Pro 2 solution. It details how to use both the charging station as well as the key features of the associated EO Smart Home app.

NOTE - It is assumed that:

+ The user has the EO Smart Home app installed on a smartphone.

+ The EO Mini Pro 2 has been joined to the user's Wi-Fi network as per the EO Mini Pro 2 Installation Manual. Check this with your installer.

There are four main screens associated with the EO Smart Home app

1. Main Screen
2. Charging Options
3. Session Details
4. Menu options

2.0 Charging a vehicle.

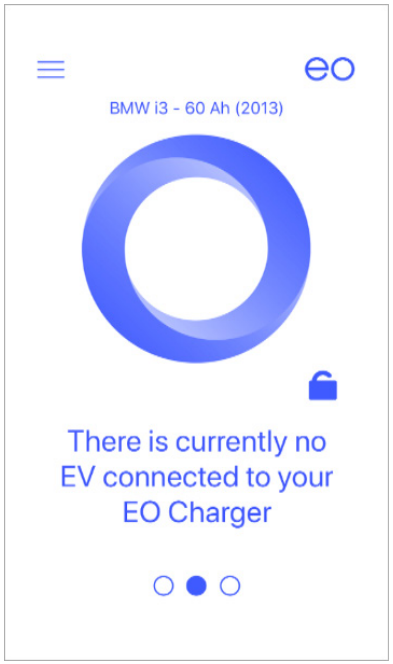
2.1
Starting the Charge.

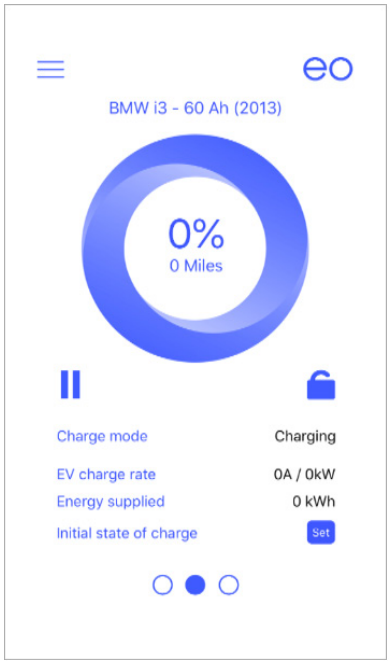
01
Ensure that the EO Mini Pro 2 is powered and that the Status LED is pulsing blue.

02
Insert the cable into the vehicle first.

03
Insert the other end of the cable into the EO Mini Pro 2.

04
The vehicle should start to charge immediately or will charge at the scheduled time.





2.2
Stopping the Charge.

01
Stop the charging session from the vehicle e.g. unlock the vehicle.

02
Remove the cable from the vehicle first.

03
Remove the cable from the EO Mini Pro 2.

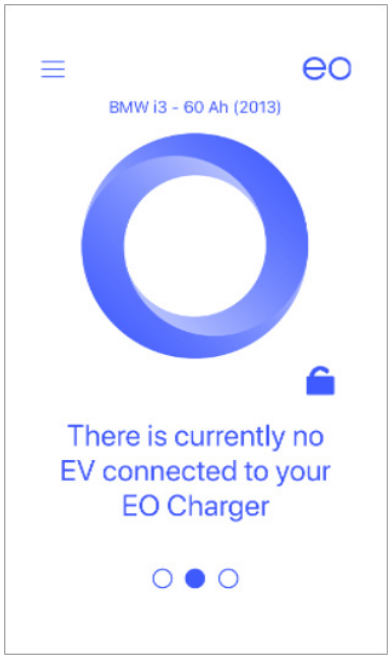
3.0 Main screen.

3.0 Main Screen.

This is the default screen of the EO Smart Home app. It presents a variety of information which changes when the vehicle is connected or not.

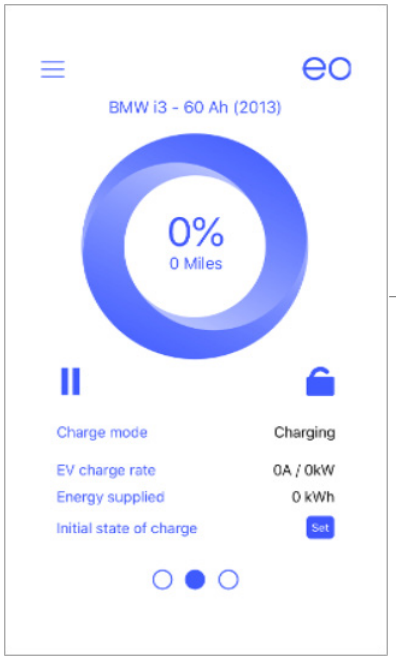
3.1 No Vehicle Connected.

The only option available is to disable the charging station – please refer to section 3.3.



3.2 Vehicle Connected.

When a vehicle is connected then more information is presented to the end user:



The information shown is:

+ Vehicle state – is the vehicle charging or not
+ Charging rate – how much power is the vehicle consuming
+ Energy Supplied – how much energy supplied in the current session in kWh
+ State of Charge – please refer to section 3.4

3.3
Disable Charger.

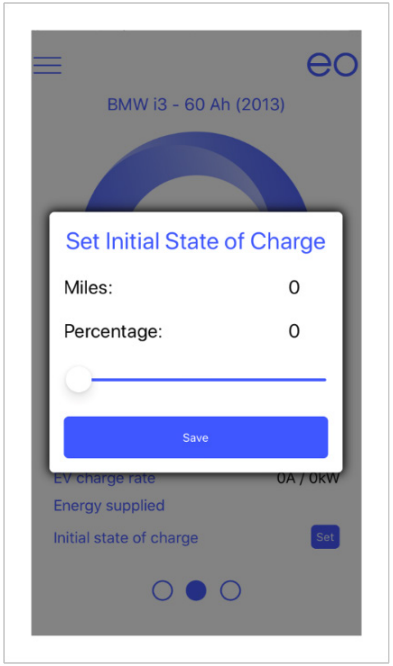
It is possible to disable the charger so that if a vehicle is connected, then it won't charge. This option is useful if the owner is going away on holiday and doesn't want a neighbour to charge whilst they are away.

In order to disable the charger, simply press the padlock on the main screen. When a vehicle is plugged in the it won't charge.

3.4
State of Charge.

When a vehicle is charging or plugged in, then it is possible to set the state of charge of the vehicle at each plugin. If no state of charge is entered, then the system assumes 0%. The state of charge can be entered by two mechanisms:

1. Tapping the % in the centre of the circle
2. Tapping on the "set" button

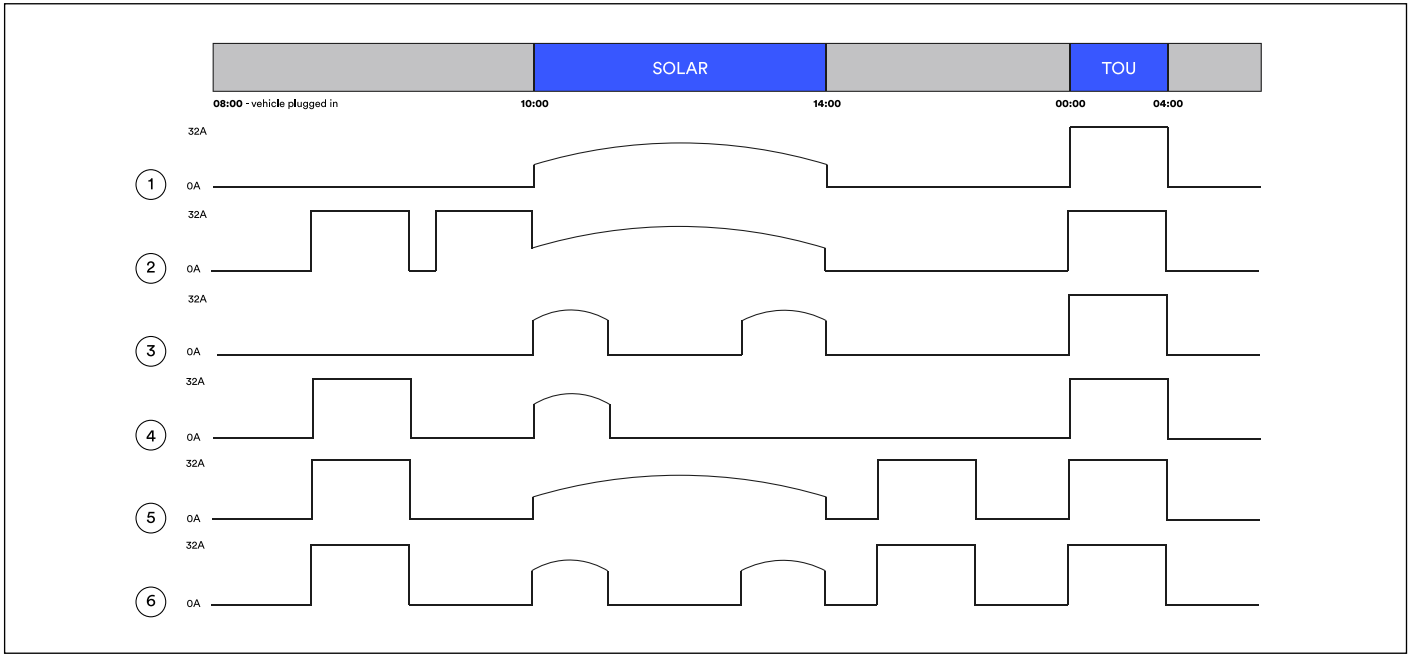


NOTE:
The EO Mini Pro 2 cannot automatically detect the state of charge for the vehicle. Therefore, this piece of information must be manually entered into the app by the end user. If not, then 0% is used.

3.5 Pause/Play.

When a vehicle is connected to the EO Mini Pro 2 then it is possible to pause and resume the charging session by pressing the pause and play buttons. The pause action or play action shall operate until the next schedule boundary. For example if a scheduled charging window is set from 16:00 to 17:00 and the play button is pressed at 15:45 then the vehicle will charge from 15:45 to 17:00. If the pause/play button is pressed inside a charging window, then the vehicle will stop charging and then resume charging at the previous rate (e.g. full rate or at solar rate).

The pause & play functionality is detailed opposite.



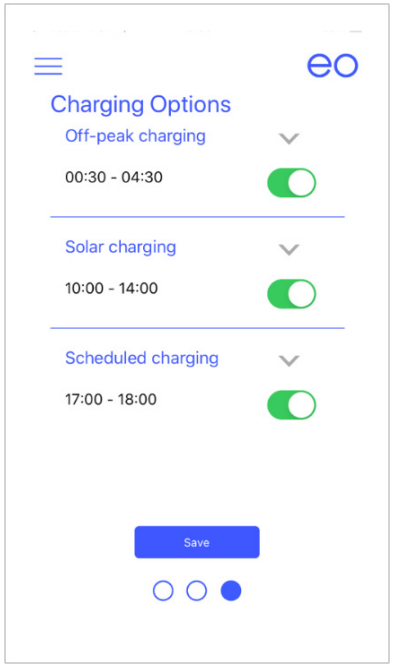
Solar Charging Window set to 10:00 – 14:00 and TOU from 00:00 to 04:00

1. Vehicle charges during Solar Charging Window (10:00 – 14:00) and TOU window (00:00 to 04:00)
2. Play" and "Pause" pressed before solar window. "Play" pressed before Solar Charging Window – vehicle charges at 32A until solar window, then drops to solar rate. Stops at end of Solar. Charges during TOU.
3. "Pause" & then "Play" pressed inside the Solar Charging Window –vehicle charges at solar rate until end of solar session. Then charges at TOU.
4. "Play" and "Pause" pressed before solar window. "Pause" pressed inside solar window. Vehicle starts to charge again in TOU window"Play" and "Pause" pressed before solar window. Car charges during solar window on solar rate. "Pause" and "Play" pressed inside solar window. "Play" and "Pause" pressed after solar window. Vehicle charges during TOU.
5. "Play" and "Pause" pressed before solar window. Car charges during solar window on solar rate. "Play" and "Pause" pressed after solar window. Vehicle charges during TOU.
6. "Play" and "Pause" pressed before solar window. Car charges during solar window on solar rate. "Pause" and "Play" pressed inside solar window. "Play" and "Pause" pressed after solar window. Vehicle charges during TOU.

4.0 Charging Options.

By swiping left from the main screen, the charging options are shown. This screen allows the user to define the charging windows when they want the vehicle to charge. There are three options:

1. **Off Peak**
2. **Solar**
3. **Scheduled**



These options would allow a user to configure a wide variety of charging schedules but one such scenario might be as follows:

+ Solar charging between 10:00 and 14:00 – charge using solar.
+ Off peak charging from 00:00 to 04:30 – charge at full rate when electricity is cheap.
+ Scheduled session from 17:00 to 18:00 – put a small amount of charge in when the EV driver comes back from work – this would ensure that the vehicle has some charge in case they need to pop to the shops to get some milk.

4.1
Off-Peak.

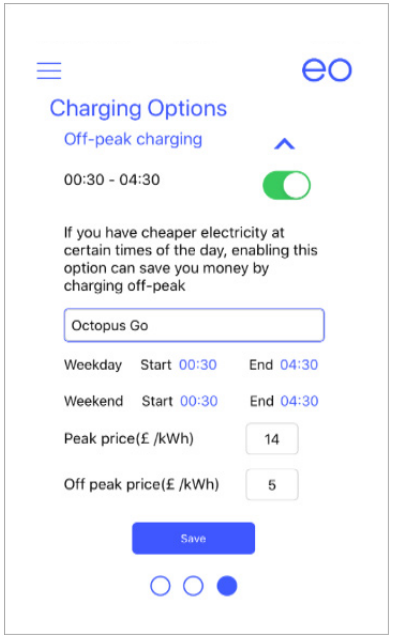
It is possible to define a charging window where the electricity is cheap e.g. 00:30 to 04:30. During this window, the vehicle will charge at full rate (e.g. 32A).

It is possible to select a user defined option where the end user can set an off peak window according to the details of their own energy supplier.

4.2
Selecting a specific Energy Tariff

EO Charging have integrated with two UK Energy suppliers to offer two EV biased electricity deals:

+ Octopus Go
+ GoElectric by EDF



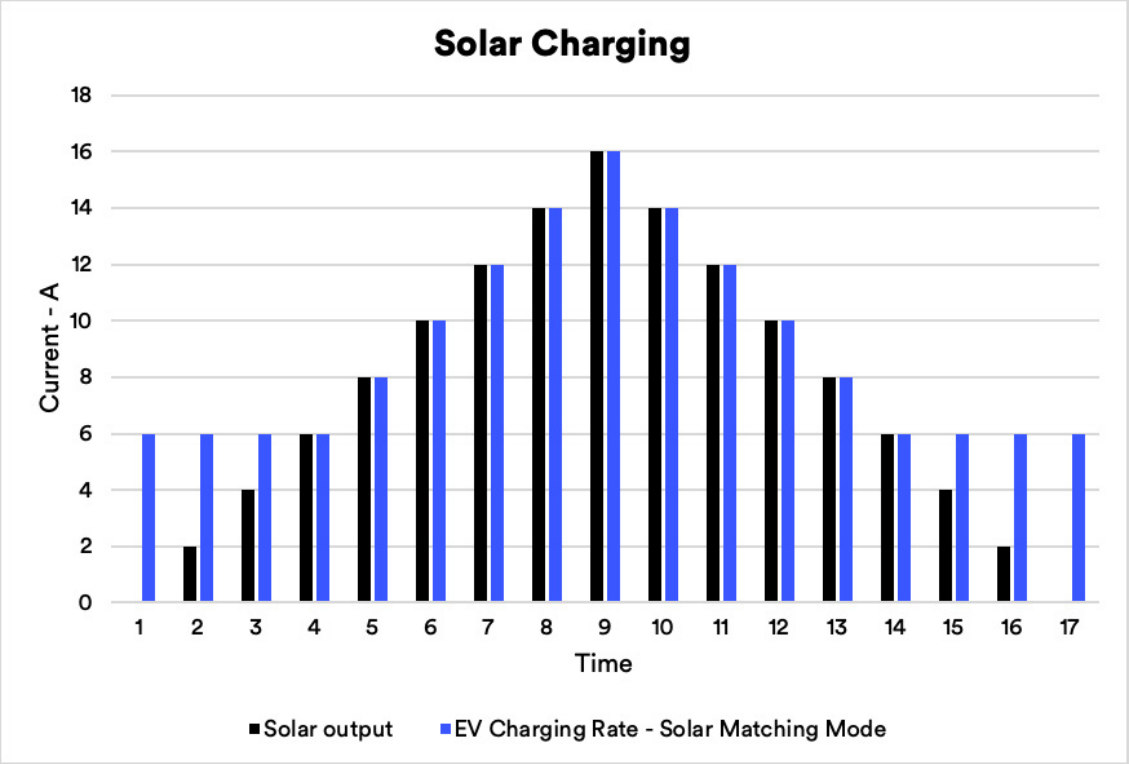
4.3
Solar Charging.

It is possible to define a time window during which the vehicle will charge according to the output of the solar array:

1. This will charge your vehicle at the same rate as the output of the solar array. Any house consumption shall be taken from the power grid.

2. If the solar output drops below the specified minimum rate (e.g. sun goes behind a cloud) then the vehicle will charge at the minimum rate. It is not advisable for a vehicle to repeatably stop and start charging and so the minimum rate will always guarantee the charging rate. The extra power shall be taken from the power grid.

3. The Recommended minimum rate is 6A.



4.4
Scheduled Charging.

It is possible to define a time window when the vehicle can charge at full rate. This could used in a variety of scenarios:

+ Define a small window when the EV driver returns from work at 17:00 to put a small amount of energy into the vehicle to cover potential emergency

+ Extend the off peak charging window because the off peak window won't charge the vehicle fully. Therefore the off peak might be from 00:00 to 04:30 and then the scheduled window could be from 04:30 to 08:00.

5.0 Session Details.

5.0
Session Details.

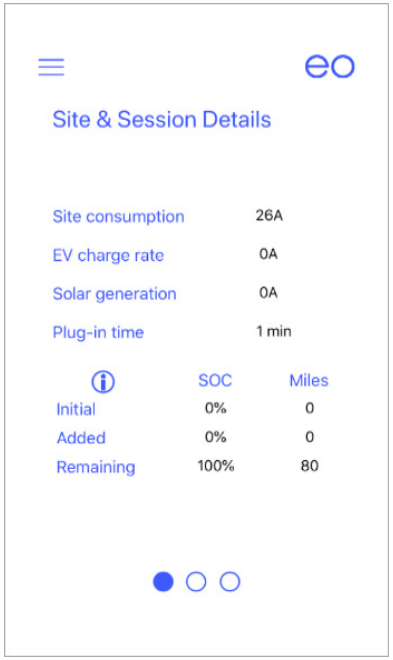
This screen is designed to present detailed information about the charging sessions to the end user. It is designed to help the end user make informed decisions about when to charge. For example, the end user could look at this screen, see that the solar is generating 10A and then decides to plug in the vehicle to charge on solar mode. The screen shows:

+ **At all times**

- The reported values from the CT Clamps for the house, vehicle and solar output

+ **When a vehicle is plugged in**

- The Initial state of charge entered by the owner
- Amount of energy already added to the vehicle - % & Mileage
- Remaining – amount of battery left to charge - % & Mileage



6.0 Menu Options.

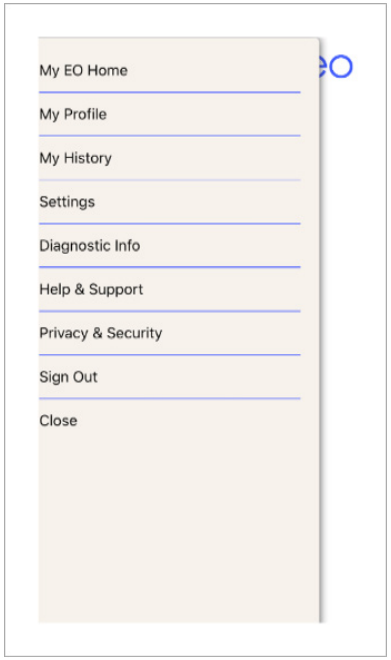
6.0
Menu Options

From the menu (three horizontal bars on the left of the app) it is possible to select other options including the charging session history and also diagnostic information to help with support issues.

6.1
Charging Session History.

It is possible to review the charging session history from the app.

1. Click on the settings options on the top right of the app and the options are displayed as shown below
2. Click on My History
3. In order to display more details then select one of the charging sessions



7.0 Troubleshooting Guide.

7.0
Troubleshooting Guide.

+ **What do the colours of the LED on the EO Mini Pro mean?**

  The LED is an indicator of the state of the EO Mini Pro.

  Pulsing Blue – Ready to Charge

  Solid Green – Charging

  Flashing Red – Fault - If this is seen then contact your installer or EO Support

+ **I get an error code on the app**

  If you receive an error code then please note it down and contact EO Support who would be happy to help

+ **My car didn't charge**

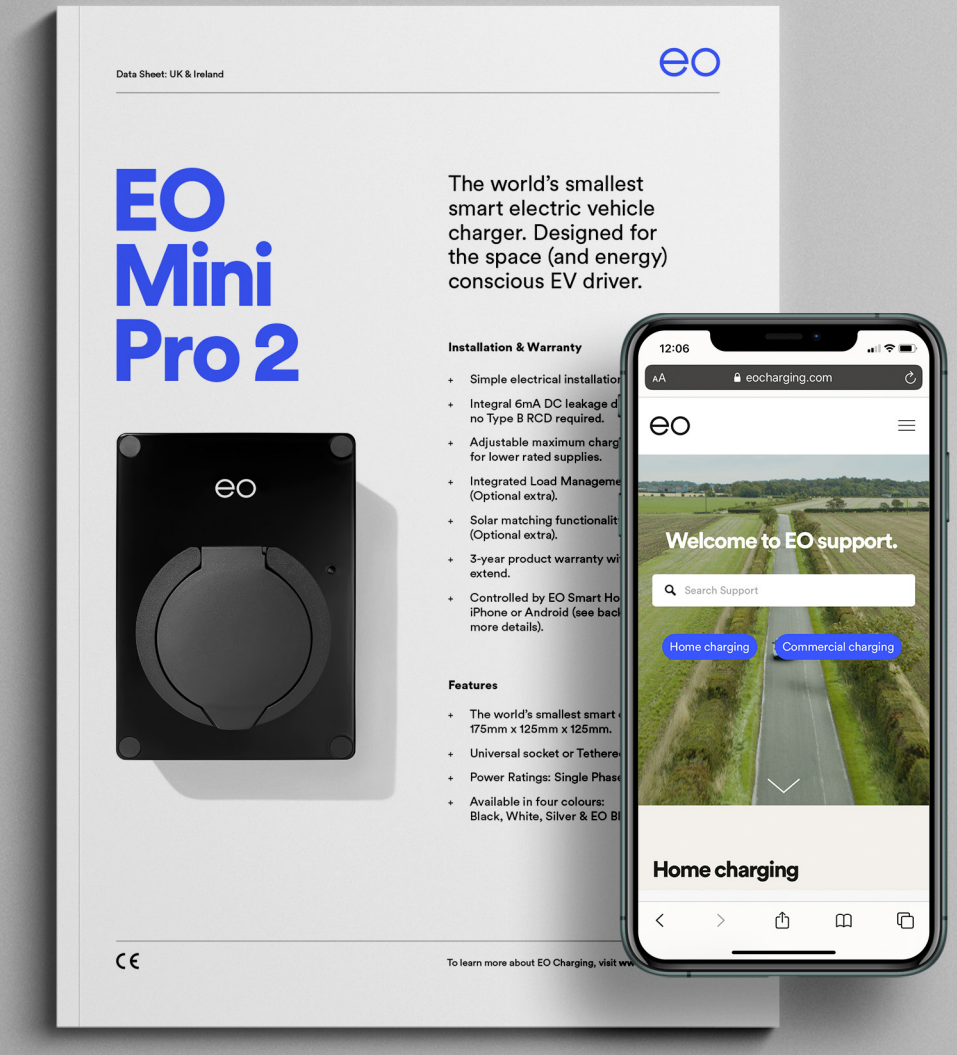
  Please check the scheduling options and confirm that the vehicle was supposed to charge in the appropriate time window

  If the problem persists then please note down the time of the charging session and contact EO Support for further help

+ **What do I do if I change my Wi-Fi router?**

  It is possible to change the Wi-Fi settings of the EO Mini Pro by using the "Update Wi-Fi Network" function on the EO Smart Home app.

8.0 Further Technical Support.



All EO Charging technical documentation is published in the EO Resource Centre, this is found at:
www.eocharging.com/resource-centre

The EO Support team can be reached at:
support@eocharging.com
+44 (0) 333 77 20383

Happy Charging!