

User Guide

TechnoVE PRO

240V charging station for electric vehicles



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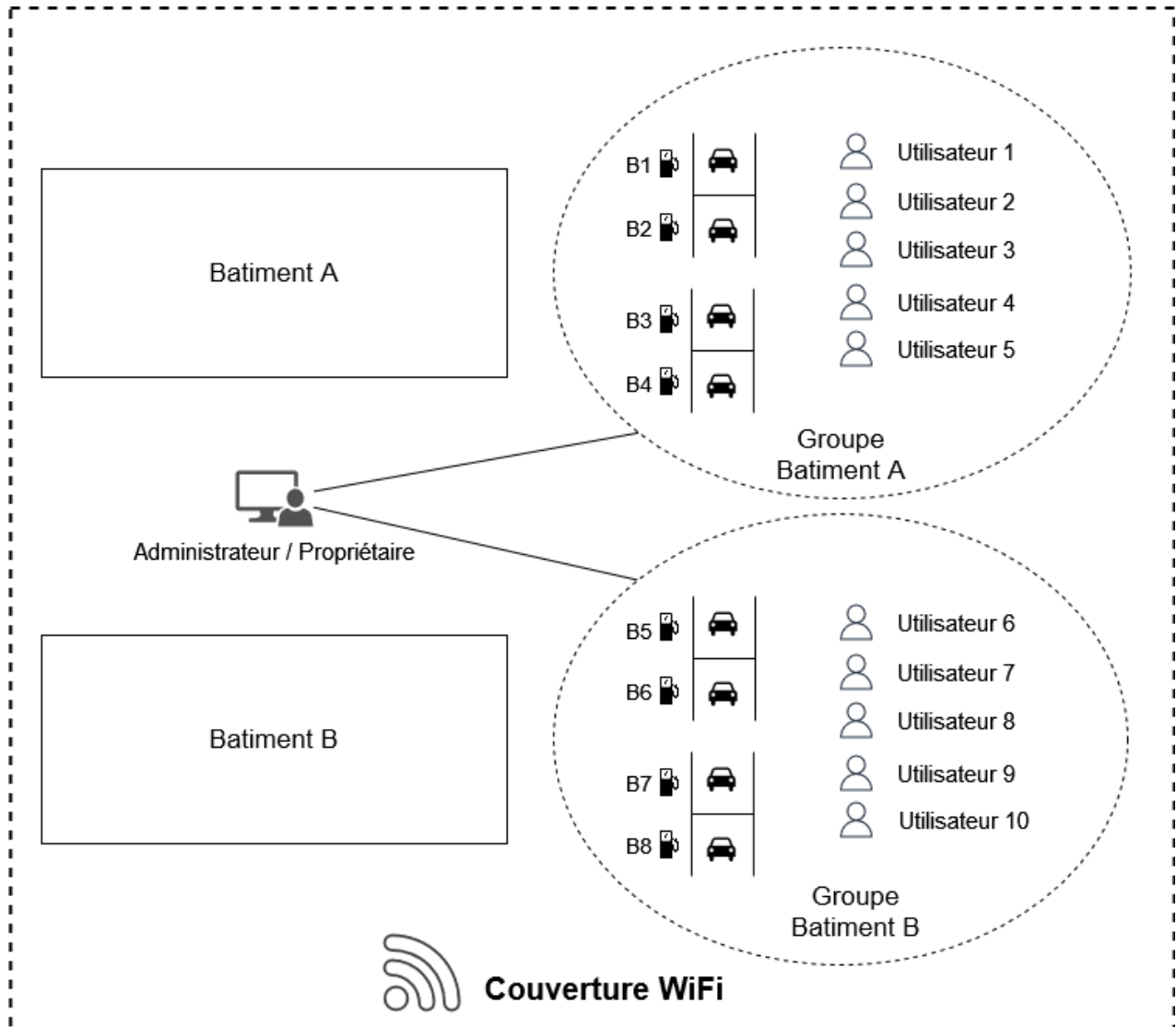
2 Modification's list

Date	Author	Description	#Revision
15 december 2021	J. Dalpé	Initial version	1.5 PRO

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3 Concept

The concept of TechnoVE Pro is to facilitate the management of several stations. The idea is to be able to bring together several kiosks in groups so that they share information.



As can be seen above, here we have 8 charging stations which are in 2 groups (Building Group A and Building Group B). An administrator / owner can control both groups, he defines users who are specific to each group. Users cannot change settings for groups or charging stations. Group A users do not have access to group B charging stations, and vice versa. The administrator can limit the daily consumption of each user, he can also generate consumption reports by group, for all users. This is interesting if a company wants to follow the cost of electricity for its fleet of charging stations.

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4 Prerequisites

- Have charging stations with TechnoVE Pro software
- The stations must be connected to Wi-Fi (necessary for group synchronization)
- In order to have a stable experience, the Wi-Fi coverage must be strong enough where the charging stations are located.

5 Objective

This guide provides all the information for the use and configuration of TechnoVE Pro charging stations.

6 Update list

6.1 1.5 PRO

Initial release of TechnoVE Pro version.

7 Starting guide

7.1 For users

1. Download TechnoVE Pro application for the Google play store or the Apple app store
2. Connect to the WiFi network where the charging stations are connected (ask your administrator if you do not know the network)
3. Enter the PIN you were given by your administrator in the user section. Your phone will scan the network to see if you have access to stations and add them to your phone

7.2 For owners

1. Download TechnoVE Pro application for the Google play store or the Apple app store
2. Contact TechnoVE customer service at 819-868-1907
3. Enter the license given by customer service to unlock owner mode

7.2.1 Initial configuration of a group of charging stations

1. Configure each of the group's charging stations on your WiFi network
 - a. From the main page, go to the "borne" section
 - b. Push the button « + »
 - c. Push the button « Automatique »
 - d. When your device detects the charging station, press it
 - e. Name the station
 - f. Choose your Wi-Fi network and enter password
 - g. At the end of the process, save the PIN number for future references (**important**)
2. From the main page, go to the « groupes » section

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3. Press the button « + » to add a group
4. Name the groupe and choose charging stations
5. The charging stations must be connected to your network and be registered in your device
6. Validate the creation of the group by pressing the check at the top right

7.2.2 Network or stand-alone mode

7.2.2.1 Network mode

In this configuration, the charging station will be connected to your residential or commercial network. It will be possible to communicate with the terminal when you are connected to your network. This is the recommended mode of use

Note 1: Your local network must be accessible where your charging station is located. Use your phone by placing it exactly where your terminal is located and check if you have network. If not, you can install a local network WIFI repeater (booster) inexpensively.

Note 2: Your network must not be in AP Isolation (or Client Isolation) mode. You must disable this option if your network has this configuration. This is normally used for guest networks.

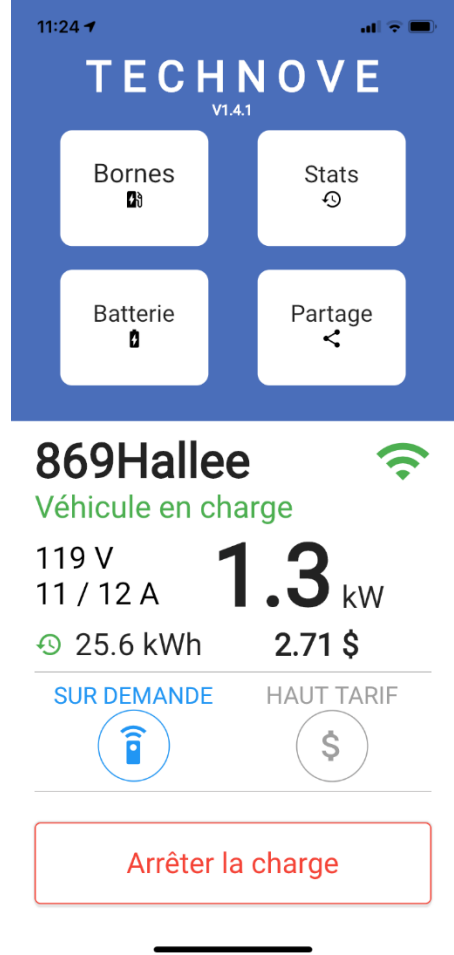
7.2.2.2 Stand-alone mode

In this configuration, the charging station is not connected to your network, and you can access it directly by connecting to the charging station network beforehand. This configuration is possible in places where no network is accessible. Once your network connection with the charging station is established, your device will automatically connect to the station when you approach it. The application is functional as soon as the connection is established.

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8 Features

8.1 Main page

	<p>Application: TechnoVE Pro</p> <p>Station name : 869Hallee</p> <p>Station status: Véhicule en charge (in charge)</p> <p>Voltage AC : 119V</p> <p>Charge current / target current : 11 / 12 A</p> <p>Power delivered: 1.3 kW</p> <p>Power consumption from last / current session: 25.6 kWh</p> <p>Last / current session cost : 2.71 \$ (configurable in « Stats »)</p> <p>Charging mode: SUR DEMANDE (on demand)</p> <p>High rate mode : deactivated</p> <p>Command button : Arrêter la charge (stop)</p> <p>Left / right swiping to change stations</p>
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8.2 Charging station modification

8.2.1 Maximum current

By selecting this value, you can specify the maximum charge current. Please note that the current cannot be greater than the capacity specified at installation. In addition, if the charging station is in load sharing, it is not possible to modify this value.

8.2.2 Wifi

Display of the configured network name. You can configure the Wifi network by selecting this value.

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8.2.3 Update

Displays if a charging station update is available

8.2.4 PIN

The identification number of the charging station is displayed. This value cannot be modified.

8.2.5 Date

Show date and time of station

8.2.6 Charging schedule

This feature allows you to define periods over a week which will have different effects on their functions (See activation schedule and high tariff).

8.2.6.1 For individual charging station

1. From the main page, go to the "bornes" section
2. Press the selected station
3. Press on "Horaire de charge"

8.2.6.2 For a group of charging stations

1. From the main page, choose a charging station that is part of the group
2. Press on the button « groupes »
3. Press on the group
4. Press on « Horaire de charge »

8.2.6.3 Activation schedule

This option allows you to have periods when charges are allowed. Ex: For my business I define periods from Monday to Friday from 9 a.m. to 5 p.m. My clients will only be able to charge during these periods.

8.2.6.4 High charge rate schedule

This option allows you to have periods when charges are not allowed. Ex: I want to reduce my electricity consumption during peak periods, I define high tariff periods from 5 p.m. to 8 p.m., the charge will stop during these periods and will resume immediately afterwards.

8.2.7 Factory reset

If you need to reset the terminal configuration, you have this option at the end of the list of terminal characteristics. Note: this does not reset the statistics information.

8.3 Horizontal swipe

If you have more than one terminal, you can access it from the main page, by swiping from left to right or vice versa. You can also make this selection from the "**bornes**" section

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8.4 Charging mode

You can specify the charge mode by clicking the round button on the bottom left in the main page. The "automatic" mode ensures that the charge starts as soon as you plug the gun into a vehicle. The "on demand" mode does not immediately start charging but waits for your action from the application by clicking the "start charging" button. On-demand mode is great for preventing an unknown vehicle from charging if you're not there.

8.5 Statistics

It is possible to observe the monthly / annual statistics of each user by clicking on it. It is also possible to observe the detailed statistics of the last 3 months as well as the annual statistics of all the last years.

8.5.1 For an individual charging station

1. From the main page, choose a station
2. Press on the button « Stats »

8.5.2 For a group of charging stations

1. From the main page, choose a station from the group
2. Press on the button « groupes »
3. Press on the group
4. Press on « Statistiques »

8.5.3 To change the price per kWh

1. From the statistics page, press on the « wheel » in upper right corner
2. Modify the « prix par kWh (¢ / kWh)»

8.5.4 To export a report

1. From the statistics page, press on the « wheel » in upper right corner
2. Press on the button « exporter rapport »
3. Choose year
4. Press on « exporter »

8.6 Dynamic power sharing

Dynamic power sharing allows you to control the maximum power of a set of TechnoVE charging stations.

Example: You have two charging stations installed and you do not want to overload your electrical installation at all times or during winter. Your maximum power is 32A in total and you have two vehicles that each consume 30A. If you permanently reduce the power of your stations to 16A, you will have almost doubled recharging time. With dynamic load sharing, you are always using maximum power and thus reducing recharging time.

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You can understand that the stations are shared when their LED is yellow when the terminal is not connected to a vehicle. There will also be a yellow share icon on the app.

8.6.1 Configure the power sharing

1. From the main page, go to the section « partage »
2. Press on the button « + » to add power sharing
3. Choose the stations and select the ratio (default: 50%)
4. Validate by pressing the button « check »

8.6.2 Modify the power sharing

1. From the main page, choose a station from the sharing
2. Press on the button « partage »
3. Press on the button « modifier »
4. Do the modifications
5. Validate by pressing the check

8.6.3 Delete the power sharing

1. From the main page, choose a station from the sharing
2. Press on the button « partage »
3. Press on the button « modifier »
4. Press on the button « supprimer »

8.6.4 Power sharing conflict

In the event of a sharing conflict, the charging station will no longer charge. Remove the sharing configuration and reconfigure everything.

8.7 Corrective current adjustment

If your current displayed by the charging station is not the same as that displayed by the car, you can change the current corrective ratio so that the two current measurements match

1. From the main page, choose a station by swiping left or right
2. Press on the button « Stats »
3. Press on the button « Settings »
4. Modify the parameter « Ratio correctif de courant »

8.8 Groups

When the stations are in a group, they share information on users, charging mode and charging times. The stations are synchronized between them using the most recent modifications. You can see the sync status from the group page.

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From this page you can make changes to the users, the charging mode as well as the charging schedule. If there is ever an error or if a charging station is no longer connected to the network when there is a change, it will resynchronize when it reconnects to the network.

8.8.1 Ajouter un groupe

1. From the main page, go in the section « groupes »
2. Press on the button « + »
3. Name the group and choose the stations
 - a. The stations need to be connected to your network and saved in your device
4. Validate the group by pressing the check in the upper right

8.8.2 Delete a group

1. From the main page, choose a station from the group
2. Go in the section « groupes »
3. Press on the group
4. Press on the button « edit » in upper right corner
5. Press on the button « supprimer »

8.8.3 Modify a group

1. From the main page, choose a station from the group
2. Go in the section « groupes »
3. Press on the group
4. Press on the button « edit » in the upper right corner
5. Do your modifications
6. Validate the modification by pressing the check in the upper right corner

8.9 Multi-user

8.9.1 For an individual charging station

1. From the main page, go in the section “borne”
2. Press on the selected station
3. Press on “multi-utilisateurs”

8.9.2 For a group of charging stations

1. From the main page, choose a station from the group
2. Press on the button “groupes”
3. Press on the group
4. Press on « multi-utilisateurs »

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8.9.3 Fonctions

Multi-user mode allows you to create administrators and users. Users can view basic information, start and stop charges. The administrators have all the rights and can modify the parameters of the station.

8.9.4 Activation

When multi-user mode is activated, the station automatically switches to on-demand mode to force multi-user.

8.9.5 User / administrator informations

Name : the user name

PIN: the user ID code

Administrator: If the user is an administrator

RFID card: To associate a RFID card (The user can unlock charge by presenting the RFID card)

Expiration: Lifetime of a user (default: permanent)

Conso. max. (daily) : The daily maximum consumption in kWh (Resets at midnight, default : unlimited)

Duration max. (daily) : The daily maximum charge duration (Resets at midnight, default : unlimited)

8.9.6 Add a user / administrator

1. Press on the button « + »
2. Enter the informations
3. Validate by pressing the check button in the upper right corner

8.9.7 Modify a user / administrator

1. Press on the user in question
2. Make the changes
4. Validate by pressing the check button in the upper right corner

8.9.8 Delete a user / administrator

1. Press on the user
2. Press on the button « supprimer »

9 Troubleshooting and error messages

9.1 Automatic configuration doesn't work

If the app is not able to detect the charging stations

- Approach the charging station and resume the process

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- Check if the « technove_stations » wifi is present, if so connect with the password « abcde12345 ». Then close the application and resume configuration with the application in manual mode.

9.2 The « technove_stations » wifi is present, but it is impossible to connect to it.

- Close the breaker of the station to reset it.
- Try again. If it doesn't work, call the TechnoVE support.

9.3 The connection shows red and sometimes yellow, so your network signal is not strong enough at the terminal

This sometimes happens when the terminal is outside. Simply add a WiFi signal repeater indoors as close as possible.