

POWERCHOICE 180X

User manual



Notice

This document contains information about one or more PACCAR/Heliox products and may include a description of or a reference to one or more standards that may be generally relevant to the products. The presence of any such description of a standard or reference to a standard is not a representation that all of the PACCAR products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular PACCAR product, the reader should consult the product specifications for that particular product.

PACCAR/Heliox may have one or more patents or pending patent applications protecting the intellectual property in the PACCAR products described in this document.

The information in this document is subject to change without notice and should not be construed as a commitment by PACCAR. PACCAR assumes no responsibility for any errors that may appear in this document. In no event shall PACCAR be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, nor shall PACCAR be liable for incidental or consequential damages arising from use of any software or hardware described in this document.

This document and parts thereof must not be reproduced or copied without written permission from PACCAR/Heliox and the contents thereof must not be imparted to a third party nor used for any unauthorized purpose.

Copyrights

All rights to copyrights, registered trademarks, and trademarks reside with their respective owners.

Copyright © 2022 PACCAR/Heliox

Contents

1	Preface	4
1.1	About the document	4
1.2	How to use this manual	4
1.3	Target groups	4
1.4	Notational convention	5
1.5	Contact information	5
2	Turn on/off the charger	6
2.1	Switch the charger on	6
2.2	Switch the charger off	6
3	Operation	7
3.1	Start the charge session	8
3.2	Stop the charge session	8
3.2.1	Charging session stops automatically	8
3.2.2	Charging session is stopped by the operator	8
3.3	Abnormal operation	8
3.3.1	During the charging session, the communication gets lost	8
3.4	Emergency stop	8
4	Troubleshooting	9
5	Charging indicators	9

1. Preface

This section gives the operational description of the PACCAR Electric Vehicle Supply Equipment (EVSE).

1.1 About the document

This document is part of the technical handbook which is an integral part of the Electric Vehicle Supply Equipment (EVSE), the PowerChoice 180X.

This document gives an operational description of the EVSE. Aim of the description is to give a better understanding of the EVSE operation to give a familiarization with the operation of the EVSE with respect to daily and abnormal operation.

1.2 How to use this manual

- Make sure that you understand the structure and content of the document.
- Respect the safety aspects before you operate, install or do maintenance on the charger.
- Perform the procedures fully and in the given sequence.

1.3 Target groups

This document is intended to be used by:

- Customers who have purchased the charger.
- Personnel who operate the charger.

1.4 Notational convention

Throughout the documentation, there are blocks of text printed in a different way than the surrounding text. These blocks of text require the attention of the reader to avoid dangerous situations or to get additional information for an easy understanding.

The blocks of text are shown as:

Symbol	Description
	Danger: Asks the attention for a possible hazard with a high risk that will result in death or serious physical injury to persons when not avoided.
	Warning: Asks the attention for a possible hazard with an average risk that can result in death or causes serious physical injury to persons when not avoided.
	Caution: Asks the attention for a possible hazard with a low risk that can result in minor to moderate physical injury to persons when not avoided.
	Note: Asks the attention for an additional, important message, but not hazard related, that can result in damage to equipment or its environment when ignored.

1.5 Contact information

Heliox Automotive B.V.

De Waal 24

5684 PH Best

The Netherlands

Telephone (24-hour service department): +31 (0)88 5016 333

E-mail: support@heliox-energy.com (support department)

E-mail: businessdevelopment@heliox-energy.com (business development department)

Office hours: 8.00 am - 6.00 pm (CET) Monday - Friday (excluding holidays)

2. Turn on/off the charger

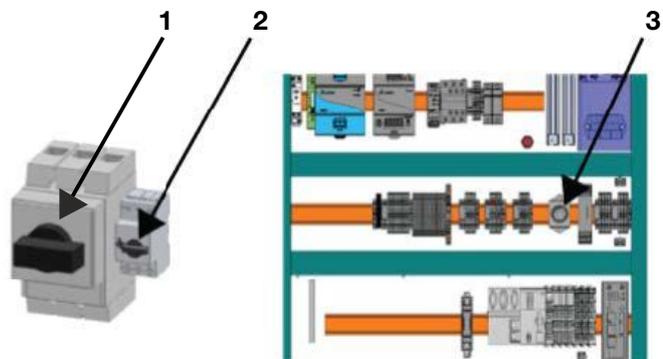
2.1 Switch the charger ON



Warning:

Make sure the charger is switched off and it is not in charging mode before opening the controller cabinet door.

1. Set the service switch (3) to OFF.
2. Make sure the main power switch (1) and the auxiliaries power switch (2) are set to OFF.
3. Set the main power switch (1) to ON.
4. Set the auxiliaries power switch (2) to ON. The charger will start up.
5. Close the cabinet door.
6. Do a check if the LED ring becomes green.
7. Hold and push the door handle to lock the cabinet door.
Make sure the door fits correctly in the framework.



2.2 Switch the charger OFF



Warning:

Wait at least 5 minutes after the charger is switched off to apply maintenance or other work to the charger. Residual voltages might not have reduced to safe levels.

1. Make sure the charger is not in charging mode (constant blue or flashing blue LED).
If so, stop the charging process (see paragraph 3.2 Stop the charge session).
2. Set the auxiliaries power switch (2) to the OFF position.
3. Wait until the charger stops. All lights/LEDs in the cabinet are OFF.
4. Set the main power switch (1) to OFF.
5. Close the cabinet door.
6. Hold and push the door handle to lock the cabinet door.
Make sure the door fits correctly in the framework.

3. Operation

This chapter gives a familiarization with the operation of the EVSE with respect to daily and abnormal operation.

The operation of the EVSE is always in relation with an EV. The EV acts as a client (asking party) and the EVSE acts as a host (supply party). The EV batteries only get charged when the communication is completed and uninterrupted during the charge session.



- 1. Emergency stop button
- 2. Stop charging button / status indicator

3.1 Start the charge session

Procedure

1. Stop the electrical vehicle at the correct position.
2. Activate the hand brake.
3. Make sure the power of the EVSE is switched on. The EVSE is in standby.
The status indicator shows green continuously.
4. Connect the EVSE to the EV by the means of EV coupler used.
Follow the charge instructions of the EV.
5. After the communication is established, the charge session will start automatically.
The status indicator shows blue continuously.



3.2 Stop the charge session

3.2.1 Charging session stops automatically

Procedure

1. When the charging session is completed, the status indicator goes to blue, blinking.
2. When ready for a safe disconnection, the status indicator goes to green continuously.
3. Disconnect the EVSE from the EV.



3.2.2 Charging session is stopped by the operator

Follow the instructions of the EV, then step 2 and 3 of 3.2.1

3.3 Abnormal operation

3.3.1 During the charging session, the communication gets lost.

When the communication gets lost during the charge session, the EVSE starts the stop sequence and initiates an emergency stop situation and the status indicator shows red continuously.



3.4 Emergency stop



Warning:

Only use the emergency button in an emergency situation.

When you push the emergency stop button, the charge session is immediately aborted. The EVSE starts the stop sequence and initiates an emergency stop situation and the status indicator shows red continuously.



Turn the emergency stop button clock wise to release (button will automatically return to the original position). Pulling is not necessary as the button does spring back automatically.

After releasing the emergency stop the EVSE gets a signal that the emergency situation is resolved, the reset sequence is started automatically. When completed satisfactorily, the status indicator shows green continuous.



4. Troubleshooting

If the charger is in an error state (red indicator), the user can try to do a soft reset:



1. Press the emergency button.

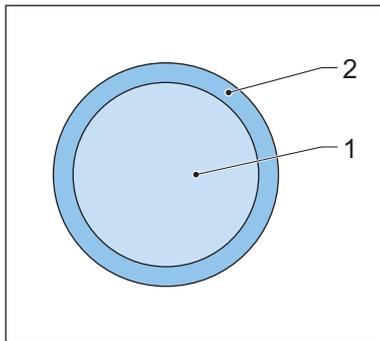
2. Release the emergency button.

The system will reinitialize and restart.

If the fault is resolved and not service critical, the system will become available again.

If the fault is not resolved, start the issue resolution process by contacting the first line of support. If necessary they will be directed to higher levels of support in accordance with the complexity of the issue.

5. Charging indicators (LED)



- 1. Stop button (functions only in chargers with CCS plugs)
- 2. LED ring

The stop button is equipped with an LED ring that indicates the status of the charging process.

Status	Duration	Description
No LED	10 seconds	The charger is in the initialization phase
Green LED flashes	60 seconds	The charger is in the startup phase
Green LED constant		The charger is in standby mode. You can connect the CCS plug now.
Blue LED flashes	20 seconds	The charger is starting or stopping a charge process.
Blue LED constant		A charge is in process. Push the button to stop the process.
Red LED constant		The charger has a fault.

DAF Trucks N.V.
Hugo van der Goeslaan 1
P.O. Box 90065
5600 PT Eindhoven
The Netherlands
daf.com



ISO14001
Environmental
Management System



IATF16949
Quality
Management System

*All rights to copyrights, registered trademarks, and trademarks reside with their respective owners.
Copyright © 2022 PACCAR/Heliox. All rights reserved.*

EN-1021