

ZAPTEC HOME

USER MANUAL



ZAPTEC

Congratulations on your ZAPTEC HOME purchase!

A unique Norwegian smart charging station for home charging.

ZAPTEC HOME allows you to charge your vehicle in a safe, simple and efficient manner. The charging station makes use of the available charging power across up to three charging stations in addition to the home.

You can use your charging station with the RFID tag/ charging card or via the ZAPTEC app to approve users in the installation. This provides you with an overview of your charging history via our cloud service ZAPTEC Portal, portal.zaptec.com

ZAPTEC HOME is a charging station that regularly receives software updates from our cloud service, ensuring that your charging station is up to date at all times.

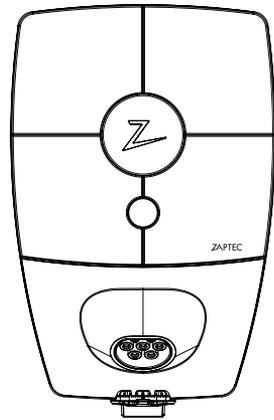


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WARNING!

It is important to read the following safety instructions before using or performing maintenance work on this product. Failure to comply with the instructions and procedures will render the warranties void and Zaptec Charger AS will be exempted from all claims for damages.

- ! Read these instructions thoroughly and examine the equipment to familiarise yourself with the product prior to use.
- ! This equipment must be installed, repaired and maintained by qualified personnel only (NEK400).
- ! Any applicable local, regional and national regulations must be respected during installation, repair and maintenance of this equipment.
- ! Do not use any damaged products. Please refer to the section on Support and Repairs for information.
- ! Do not use extension leads with the charging cable.
- ! Do not touch the connectors or insert foreign bodies into them.
- ! Measuring pins, wires or other items must not be inserted into the quick coupling on the back panel. Voltage testing must be performed directly against the coupling screws or using a female coupling.

ZAPTEC Home 4G

ZAPTEC Home is supplied with 4G connectivity from Telenor. This means that the charging station is always online. The eSIM is activated automatically and will be automatically deactivated if WiFi is activated.



Make sure that the charging station is not covered by anything. Test the coverage at the installation site using your own mobile. A mobile with a Telenor SIM must be used to ensure accurate measurement.

ZAPTEC Portal

Log in to the ZAPTEC Portal cloud solution to find more smart functions for your ZAPTEC HOME charging station, for example charging consumption reports, user registration, tags/charging cards.

Log in here: portal.zaptec.com

ZAPTEC App

You will have access to the ZAPTEC app for your charging station. Download the app from the App Store or Google Play and log in.

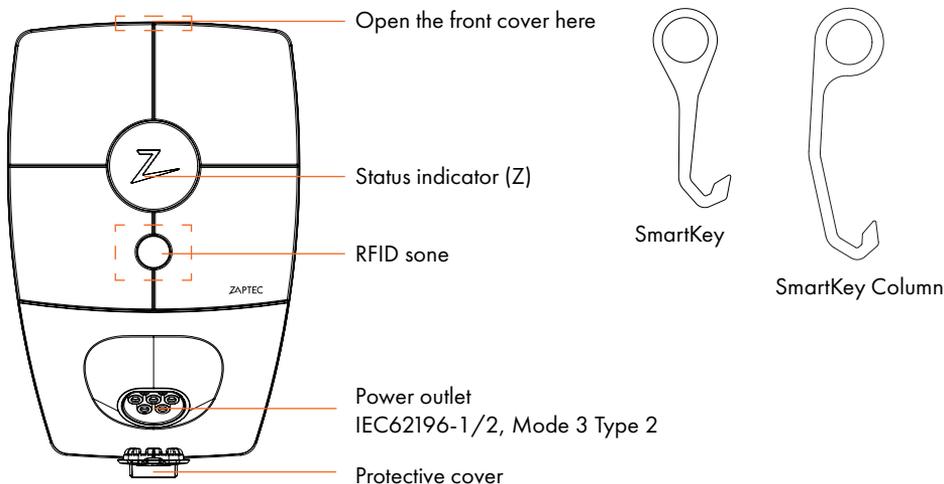
Cable type

The charging cable must be equipped with a Type 2 plug at one end to connect to the ZAPTEC HOME charging connector, the other connector should fit your vehicle specifications. Vehicle adapters may be used.



We recommend ensuring that the charging cable you use is in accordance with the vehicle charging capacity. This ensures that the maximum charging speed can be utilised.

ZAPTEC HOME



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Charging station status indicators

The charging station status is shown in the status indicator (Z), using the following different colours:

Colour	Continuous	Flashing
WHITE	Clear	
GREEN	Charging complete	Authentication OK (every 30 seconds indicates that the charging station is offline)
BLUE	Connected to vehicle and ready to charge	Charging
RED	Error (please refer to the section on Troubleshooting for further details)	Flashing twice = Authentication failed The light is off but flashes every 30 seconds = the charging station has not been activated in ZAPTEC Portal. Please refer to the section on Troubleshooting for further details.
YELLOW		System booting up Waiting for authentication Waiting for ZAPTEC Portal Vehicle added to queue
PURPLE		Firmware is updating

How to start charging

1. Check that the status indicator (Z) light is white.
2. Remove the protective cover to access the power outlet.
3. Insert the charging connector into the power outlet on the charging station.
4. Insert the charging connector in your vehicle.
5. The status indicator will flash blue when charging has started.



The charging current may vary depending on the capacity of the installation and the number of active charging stations.

How to start authenticated charging

Authenticated charging requires you to have a registered user in ZAPTEC Portal and your user to have been assigned access (in ZAPTEC Portal) for the charging station/installation by the installation owner. RFID tag/charging card linked to your user. Please see the section on Connecting a RFID tag/charging card to your user for set-up instructions. The recommended authentication method is RFID tag/charging card.

Start authenticated charging using RFID tag/charging card:

1. Follow steps 1-4 of How to start charging.
5. The status indicator (Z) will flash yellow to indicate that it is waiting for authentication.
6. Place your RFID tag/charging card against the RFID zone, see illustration in the ZAPTEC HOME section.
7. The status indicator will flash green when the authentication has been approved.
8. The status indicator will flash blue when charging has started.

Status indicator flashing red, please see section on Troubleshooting.

How to end charging

1. To cancel the charging process: Stop the charging as recommended in the vehicle user manual.
2. Disconnect the charging connector from the vehicle.
3. Disconnect the charging connector from the charging station.
4. Replace the protective cover on the charging plug to limit exposure to dust and rain.

Connecting a RFID tag/charging card to your user

The charging station supports the most common RFID tags/charging cards (Mifare Classic). If there is a visually readable code, this can be entered in ZAPTEC Portal, otherwise you scan the RFID tag/charging card using the charging station as described below.

1. Download the ZAPTEC app from the App Store/Google Play.
2. Register as a user and log in to the ZAPTEC app.
3. Go to My Account, My Charging Cards, Add New Charging Card. Follow the instructions in the app.

Watch YouTube video for instructions: zaptec.com/youtube

Adding users to the installation

The owner of the installation can add users by visiting "access". Here you can add, invite and remove users. The above functionality requires authentication (user control) to be activated for the installation.

Monitoring the charging station (ZAPTEC Portal)

You can log in to ZAPTEC Portal portal.zaptec.com to see all your charging stations as well as any charging stations you are registered to use. The owner of an installation can monitor all use and see a live overview of the charging station status.

Turning eco mode on/off

If you want to temporarily turn eco mode on or off for a charging station (e.g. you want charging to start as soon as possible) then you can do this via the dashboard in the app. When there is an active charging session in the charging station for which eco mode is available, an on/off button for eco mode will be available in the dashboard.

You have to log in to ZAPTEC Portal to change the default settings for eco mode.

Lock the charging cable to the charging station

The charging cable can be permanently locked to the charging station. This can be activated via ZAPTEC app.

1. Open the ZAPTEC app (available for download from App Store/Google Play).
2. Click on the "+" tab and click "configure ZAPTEC devices"
3. Select from list of available charging stations.
4. The setting to permanently lock the cable can be changed under "Lock cable".

Adjusting status indicator (Z) brightness

1. Open the ZAPTEC app.
2. Click on the "+" tab and click "configure ZAPTEC devices".
3. Select from list of available charging stations.
4. The brightness can be adjusted by sliding the button under "Status indicator brightness".

Reading error codes

1. Open the ZAPTEC app.
2. Click on the "+" tab. Configure ZAPTEC devices, followed by Configure via Bluetooth.
3. Select the charging station you want to read the error code from.
4. When the app has connected to the charging station, a red field will be displayed if there are any active error codes associated with the charger. Click on this field to display details about the active error codes.

Troubleshooting

Warnings/error messages with details are also shown in the ZAPTEC Portal/ZAPTEC app. Please refer to the section on Troubleshooting.

No light:

- The charging station is now receiving power from the installation.

White/blue light:

- Check that the charging cable has been fully inserted into the power outlet on the charging station.
- Check that the vehicle has been configured to start charging immediately.

Yellow flashing light:

- Charging station waiting for authentication - User profile with access has not authenticated with the charging station. Check that the correct RFID tag/charging card is being used with the charging station.
- Waiting for cloud service - the charging station is waiting for the cloud service. Please ensure that the charging cable is connected to the charging station and the vehicle, then authenticate the user with the charging station if the installation/charging station has been activated with authentication. Charging will start immediately when the charging station receives the start command from ZAPTEC Portal.

Vehicle added to queue - the charging station is waiting for charging power to be available from the installation. Connect the charging cable to the charging station and the electric vehicle, then

authenticate the user with the charging station if the installation/charging station has been activated with authentication. Charging will start automatically when charging power is available.

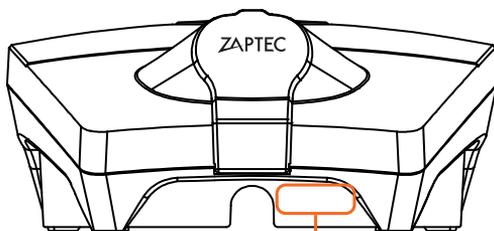
Red light:

- Disconnect the charging cable. Reconnect the charging cable if the status indicator light turns white. If charging does not start and the light turns red again, this could indicate a potential fault in the charging cable or vehicle.

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Red flashing light:

- Disconnect the charging cable. Reconnect the charging cable if the status indicator light turns white. If charging does not start and the light turns red again, this could indicate a potential fault in the charging cable or vehicle.
- Check that your user profile has been assigned access to this installation by the owner in ZAPTEC Portal.
- A flashing red light every 30 seconds means that it is not activated in ZAPTEC Portal. Contact your electrician/installer.
- If this does not work, make a note of the serial number of the charging station and contact your dealer/installer for assistance. The serial number location is shown in the illustration.



Serial number e.g.
ZCH123456



A yellow light will flash if the charging station has been disconnected from the electricity network and it will take 1-2 minutes before the charging station boots up again.

Storage and maintenance

The product must be stored in a dry room with stable temperatures. The protective cover should always be on if the product is not in use.

The following periodic maintenance is recommended:

- Wipe down the charging station using a damp cloth.
- Check that the charging connector is free of foreign bodies.

- Check that the charging station does not have any external physical damage.

For all publicly available installations, an annual periodic verification performed by qualified personnel is required in accordance with Norwegian legislation and regulations (Cf. NEK400).

Warranty

We guarantee that the device is free from material defects and that it complies with consumer protection legislation and regulations in the country where the product has been purchased. Further information about the rights granted by consumer protection legislation can be found at zaptec.com/privacy.

Support and repairs

In the event that a problem is detected, please refer to the section on Troubleshooting before contacting your dealer/installer. Contact your dealer if you need any accessories for your ZAPTEC HOME (cable hanger, charging cable, etc.).



Zaptec Charger AS collects data from the product via the network. More information about our privacy guidelines can be found at zaptec.com/privacy.

Technical specifications

ZAPTECH HOME is an alternating current charging station for wall or column installation in accordance with IEC 61851-1, EVSE mode 3.

Dimensions and weight

H: 392 mm, W: 258 mm, D: 112 mm Weight: approximately 5 kg (including back panel)

Installation network

TN, IT and TT

Installation circuit

Max. 40 A series connected fuse in the charging station installation circuit.

Max. 3 x ZAPTEC HOME connected in one installation.

Transition box/fuse box

The charging point must be protected against overvoltage in accordance with NEK-400

Junction box

Cable cross-section 2.5-10 mm²

Cable diameter 10-20 mm²

Installation network, Voltages

230VAC ±10% 400VAC ±10%

Max. power and charging output

7.36kW* at 32A/1-phase

22kW* at 32A/3-phase (applicable to TN networks only)

* output is controlled by how many devices are charging and may depend on the internal temperature of the charging station.

Charging connector



EC 62196-2 Type 2 Female, silver plated for durability

Earth fault protection

Built-in RCD type B

Calibration and self-testing are performed before the start of each charging cycle. The earth fault protection is automatically reset when the charging cable is disconnected.

Integrated power meter

Integrated in the charging station with an

accuracy of +/- 1% for power and voltage. This allows the user to monitor and verify the actual power consumption.

Theft protection

The front cover can only be opened using specialist tools. The charging cable can be permanently locked to the charging station.

Phase distribution

Depending on installation and vehicle type the charging station can switch between 1-phase and 3-phase charging station mode. If two or three charging stations are used, the phase usage will be coordinated in the optimal manner.

Avoid uneven load - When the charging station operates in 1-phase mode, it can dynamically select which of the three phases to use for charging. The charging station can also be programmed to use a specific phase if required.

Load distribution

The available power in the installation is automatically distributed between up to three charging stations and the home (APM).

Communication interface and cloud connectivity/network

4G LTE-M1 (subscription required)

Wi-Fi 2.4 GHz, IEEE 802.11 b/g/n (channels 1-11)

Identification and configuration via app and charging tag

Bluetooth Low Energy (BLE 4.1)

RFID/NFC reader

Standards and approvals

CE conformity in accordance with the Radio Equipment Directive 2014/53/EU and ROHS Directive 2011/65/EU. Conforms with IEC 61851-1 and IEC 61851-22

Temperature range

-30°C to +50°C

Degree of protection

IP54, indoor and outdoor use IK10 shock

Technical specifications

protection
UL94 5VB fire class
UV resistant

Electrical protection

Protection class II (4kV AC and 6kV impulse, isolation) Overvoltage category III (4kV)
The power inlet/main inlet/panel should be equipped with overvoltage protection in accordance with NEK

ZAPTEC Charger

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MADE IN NORWAY