# **USERMANUAL**

ΕN

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Paxster Hardtop – Generation 2.2



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## Foreword

Congratulations for your new Paxster!

On behalf of Paxster ASI would like to congratulate you as a driver of the completely unique Paxster.

Paxster is a unique electric vehicle, designed for maximum efficiency when making deliveries. With a high payload, long range, excellent road performance and optimal user ergonomics, we think that Paxster stands out as "the ultimate electric delivery vehicle".

It is very important to us at Paxster AS that you have a good and efficient workday as possible. Therefore, I hope that you will find Paxster to be a safe and reliable work tool, which will help you perform your tasks in the best way possible. I wish you good luck in your use of Paxster!

With kind regards,

Paxster AS

Lasse A. Hansen Managing Director

## About this manual

This user's manual explains how you can quickly make use of this vehicle and use it in a way that takes care of both your safety and the vehicle's technical condition.

In addition, it explains normal use and maintenance that can be performed by the individual operator. For major maintenance or problems, contact your local or national service provider. Contact details are printed on back of this manual.

Correct maintenance and use of this vehicle will help give you maximum pleasure and utility as a user, and it will also help reduce operating and maintenance costs. This will also increase the value upon the resale of the vehicle.

NOTE: Estimated time to read the manual: 30 minutes.

## Warranty

Warranty terms and conditions are presented in the purchase contract between Paxster AS and the Buyer. The warranty does not cover normal wear and tear parts, or consumables that will naturally need to be replaced during the vehicle's lifetime.

## Modifications and Type-approval

Paxster is a technically advanced vehicle. This vehicle is designed and type-approved so that it shall comply with national requirements in the respective country. Changes performed by the operator may result in changes that mean that the vehicle is no longer in accordance with the original approval. This entails that the operator him-/herself is responsible for the malfunction and/or reactions that may occur. Therefore, you should never make changes in components that can increase the motor's performance or the vehicle's speed.

## Keys

The vehicle is delivered with a unique set of keys. In each set of keys, there are also spare keys. We recommend that these are stored separately from the ones in daily use.

The following keys are delivered with the vehicle:

- Key to the ignition lock
- Key to the rear cargo hold
- · Key for the side cargo compartments
- Remote / KeyFob (optional equipment)

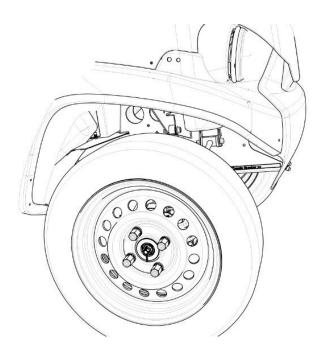
If you should lose the keys, you must read off the identification number of the vehicle and order a new key from the manufacturer. It is also possible to order "blank-keys" to make extra spare-keys. Separate prices will be charged in accordance with prices agreed between Buyer and the Manufacturer.

NOTE: Remember to oil the locks in the winter to keep them from freezing shut.

## Vehicle Identification

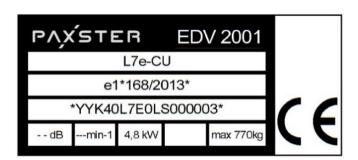
### Chassis number

The vehicle's chassis number (VIN) is engraved into the front chassis structure on the right side.



## The manufacturer's data plate

The manufacturer's data plate contains the vehicle's identification number (VIN), and type -approval. The data plate is located under the seat on the left side.



## Registration number

The vehicle's registration number is located below the cargo zone in the rear of the vehicle, just as on an ordinary car. Local or national regulations may apply.

NOTE: To get correct spare-parts for your vehicle, always use chassis number (VIN) as identification.

## Safety instructions

Paxster is electrically powered. This is a different technology than internal combustion engines and therefore requires a different attention. If you pay attention to the points described below, you will safeguard both yourself and the vehicle.

## Caution when handling charger and battery

All handling of the vehicle's charging-system shall be performed with great caution. Opening the battery compartment beneath the saddle seat should be exclusively performed by qualified service personnel.

## Hazardous voltage

During charging, there will be voltage in the battery charger that can cause personal hazard. Alterations to the battery charger must therefore only be performed by qualified service personnel.

### **Grounded contact**

The charge-cable shall only be plugged into a grounded wall socket with 10 A of current.

### Check of cables.

Regularly check that the charge-cable is undamaged.

WARNING: In the event of damage to a charge-cable or plugs, the cable shall not be used. Contact qualified service personnel or order new cable.

## Range and driving behavior.

The vehicle's range is determined by several factors. As the operator, you will have considerable effect on the vehicle's range through your driving behavior. By active use of the regenerative brake, you extend the vehicles range.

The theoretical range of Paxster is in the interval of 40-100 km or 4-10 hours of active driving. Higher speed means higher energy consumption.

Note: Actual range depends on factors such as topography, load, driving style, climatic conditions etc.

Three different traction-battery-packs are available:

- 100Ah 5,1kWh 40-60km 4-6 hours
- 180Ah 8,1kWh 50-85km 5-8 hours
- 180Ah 9,2kWh 60-100km 6-10 hours

Driving in snow or loose soil, will increase the energy consumption due to increased rolling friction. It is important that you economize energy as you drive in order to optimize the range. Regeneration, however, must be used with caution on slippery roads (see "choice of driving mode" on page 15). A transition from spinning wheels on a slippery surface, to good grip on the road, will cause unnecessary wear on the motor and transmission. This kind of damage is not covered by the warranty.

#### In general, we recommend the following driving pattern:

- Smooth Acceleration
- Mechanical brakes are used to support the regenerative brake (motor brake). Important for less wear on brake components and maximized autonomy is to use the regenerative brake actively.
- Adapt the speed and reduce the need for braking.
- Do not use high-energy-consuming equipment with the 12 Volt AUX-socket.
- Limit the use of heating wires in the front windscreen. This is ONLY meant for de-icing. A timer switch will de-activate heating wires after 15 minutes of use.
- Limit the use of heated grips (if such equipment is available on your vehicle).
- Make sure you have correct air pressure in all tires (1.8 to 2.1 bars), this to reduce rolling friction and maintain a good grip.
- The Automatic Parking Brake (APBU) will hold the vehicle until you twist the throttle. In a steep hill, applying manual/mechanical brakes will prevent you from rolling backwards until motor has gained enough torque to move vehicle forward.

## The batteries, the battery charger and the charging process

#### The traction-battery

The vehicle has a battery-pack that consists of several cells and a heating system. These components are controlled by an electronic battery management system (BMS). The BMS optimizes and maintain the traction-battery's performance and health. The battery-cells are of Lithium-type, designed for use in electric vehicles. The battery-cells have the designation LiFePO4, or so called LFP batteries.

#### Daily charge

It is recommended that you start the charging process immediately after the workday is over. A good routine on this also prevents unwanted problems the next day. As a general rule, you should charge the batteries as often as possible. A discharge is not necessary before you connect or reconnect the charge-cable. To extend daily range, connect the vehicle also during shorter stops, like lunch-brake.

#### Repeated deep discharge.

Avoid deep discharge of the traction-battery. This will have a negative impact on the traction-battery's capacity and lifetime. For long-time storage keep the battery at about 80%.

#### Protection mode

If the voltage in the traction-battery becomes too low, the BMS system ensures that the vehicle is set in "protection mode". As a result, you will not be able to continue driving at a normal speed. The vehicle must be returned to the charging-point for a complete charging cycle. Pay careful attention to the battery indicator, and abort delivery-route if necessary.

#### The traction-battery and winter use

To keep as short charge-cycle as possible, we recommend storing vehicles indoor in a nonfreezing environment. If stored in temperatures below zero, we recommend keeping the vehicles continuously connected to mains. Charging batteries in cold weather will increase charging time. Depending on size and temperature, the heater might need hours to warm the battery before normal charging process will start.

NOTE: The charge-cable must be plugged in to the vehicle for the battery heater to function. At temperatures above 55 degrees Celsius, the battery pack will automatically be shut off to avoid damage to the batteries and vehicle.

## Charge-cable



The battery-charger is integrated in the vehicle. A standard wall-socket 230Volt/10Amp is sufficient for charging the vehicle. The supplied charge-cable to be connected to the charge-socket under the driver-seat with a Type-1 plug. The Type-1 plug has a release-button on top. This must be pressed to disconnect vehicle from mains. Remember to close the protective lid over vehicles charge-socket.

## Charging time

The charging time is highly variable and depends on several factors. Under optimal conditions, the charging time for completely discharged batteries is about 5 - 10 hours, depending on size of battery pack. If the batteries are kept frozen, the charging time will be extended by up to 5 hours before normal charging starts. The charging time will be reduced if you charge at room temperature, and the batteries are not completely discharged.

We advise you to plug in the charge-cable in as soon as the vehicle has returned at the end of a workday so that the batteries can be charged for as long as possible. It is also recommended that the charge-cable is kept plugged in during the weekend so that the batteries will get a proper balancing at least once a week.

Note: If the vehicle is not in use for a long period of time, it is important that it remains connected to the charger, or the 30A main-fuse on steering-column fuse-box is removed. This prevents the batteries voltage to drop. Leaving drained batteries for a long time, will be detrimental to the batteries' lifetime.

## The functioning of the charger

With regard to reading off the charge status, we recommend that you pay attention to the light signals in the charge-symbol on the vehicle's instrument panel. The symbol has a green LED that flashes 1-4 times within a 2-second interval. The flash-pattern will tell you in what stage the charger operates, if there is an error, or if the charge-cycle is finished.

The vehicle is equipped with a traditional 12Volt battery as supply for lights, heated window, and other equipment. This battery also supplies the Battery Management System (BMS). The BMS's primary function is to monitor the condition and charge of the main battery. In addition, it also handles all signaling and safety-logic within the vehicle. The 12Volt battery acts as a buffer and is charged from the main-battery by a so-called DCDC-converter. This ensures a fully charged 12Volt battery as long as the main battery is well charged.

Note: If the 12Volt battery is drained due to low voltage on the main battery, you can use the "Jump-Start Switch", situated to the left of the seat (by the manufacturers data-plate). Hold the button pressed for 30+ seconds. This will force the DCDC converter to charge the 12Volt battery and start the charging-process of the main battery. Drained 12Volt battery is usually observed by dark display when ignition is on.

#### The charging signals should be interpreted in the following way:



**1 puls: «Pre-heat»** This means that the battery is too cold, and the battery heater has been activated. The BMS system waits until the battery has reached charge temperature. This stage could take as long as 5 hrs.



**2 pulses: «Pre-charge»** is something that happens if the battery is completely discharged. In that case, you need to charge with a low current until all of the cells have reached a certain voltage. This is monitored and controlled by the BMS system.



**3 pulses: «Main charge».** In this charging stage, full power is sent from the charger to the battery. This stage could take as long as 10hrs, depending on battery size and degree of drainage.



**4 pulses: «Balancing»** This phase of charging can take very little time, or it can take several hours, depending on the voltage in the different battery cells. The battery management system (BMS) ensures that all cells have the same voltage when they are fully charged. This to ensure the maximum capacity in the battery. If necessary, the charger can be disconnected before the balancing is done. We recommend that this process be run through at least once a week, e.g., during the weekend.

When the charging is completed, the battery symbol **flashes slowly.**If the charging process malfunctioned, the battery symbol will **flash rapidly.** Contact your service provider.

### How to charge the vehicle

- 1. Always plug the charge-cable to the wall-outlet first
- 2. Then connect the Type-1-plugg to the vehicle (located under the seat).

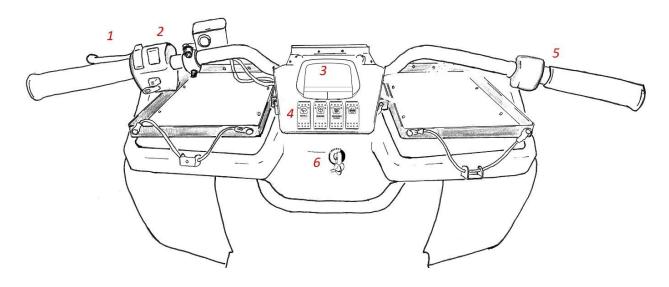
NOTE. Always disconnect the vehicle side before charge-cable is unplugged from the wall-outlet. The type-1 plug on the vehicle-side has a release-button on top. Remember to close the protective lid on the vehicle-charge-contact when charge-plug is disconnected from the vehicle. Repairs of faulty cables, where the defect is caused by careless handling, is not covered by the warranty.

## Instruments and switches

## Overview of the driver's immediate anterior environment

In the figure below, you will find an overview of the main components of the driver's environment.

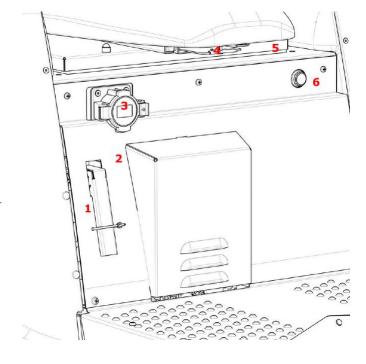
- 1. Brake-handle for mechanical brakes on front-axle
- 2. Hand control on the left side
- 3. Main instrument panel
- 4. Control panel
- 5. Throttle
- 6. Ignition lock



## Overview of the driver's immediate posterior environment

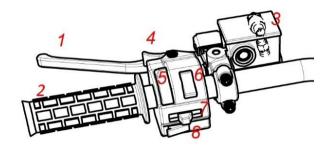
- Emergency-release-handle for Electromagnetic Parking Brake
- 2. Service-information sticker (next periodic preventive maintenance)
- 3. Charging connector with protective lid.
- 4. Adjusting of the seat position
- 5. Manufacturer's data-plate
- 6. Jump-Start Switch

NOTE: The seat is adjusted by pulling out the handle under the seat, while at the same time pushing the seat forward or backward.



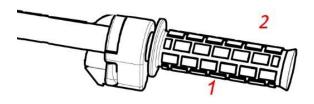
### Hand control on the left side

- 1. Brake-lever for brakes on front-axle (also activating regenerative brake on motor)
- 2. Hot grip (if installed)
- 3. Reservoir for brake fluid
- 4. Press yellow lever to engage reverse. The direction-shift is controlled by the vehicle in a safe manner.
- 5. Switch for High beam/Low beam
- 6. On / off switch for hazard light
- 7. Switch for direction indicators (press to disengage)
- 8. Horn



## Hand control on the right side

- 1. Throttle
- 2. Hot grip (if installed)



## Ignition Lock

The ignition-lock has 4 positions:



1-Right: Ignition on (display and lights on)

0 - Ignition off

1-Left (Push) Steering-lock engaged

2-Left Steering-lock and parking lights on.

(Hazzard/Warning-lights can be activated in Park-mode)

NOTE: Engagement of the Steering-lock requires handlebar to be turn to the extreme left.

## Main instrument panel



1	Drive-mode	Current vehicle operation. Park-Drive-Brake	
2	Motortemp.	Temperature in % before protective mode.	
3	Eco-meter	Flow of current from/to main battery	
4	Speed	km/h or Miles/h	
5	Battery	Remaining battery-capacity in %	
6	Multifunction*	Change function/data by button 7 or 8	
7	Reset	Left button	
8	Mode	Right button	
	*Clock – Trip – ODO – RunTime – TotalTime – MAX SPD – TempMotor – BAT (Volt) – TempController – BAT (Amps) – Throttle (Volts) (Trip and RunTime can be reset by holding «Reset" for 3 seconds)		

## Warning and information indicators



NOTE: If the warning lamp for malfunctions comes on, try to turn the ignition off and on. If the malfunction continues, see the FAQ section at the back of the user's manual, or contact your service provider. Fault-codes will be presented in the multifunction display (0xhhhh). You can find a Fault-code-list on page 21 in this User Manual.

### Setup of the main instrument panel

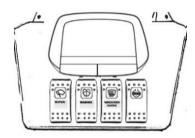
By pressing both Reset- and Mode-button for 3 seconds, you can change display from 12/24 hrs. clock, adjusting local time, and change between km/h and Miles/h.

On new installations, you can also set the ODO.

You move between menus by pressing the MODE-Button, and change value by the RESET-Button.

Hold MODE-Button for 3 seconds to exit setup (or turn ignition off).

### Control panel - Switches



- The WIPER switch has 3 steps: OFF/LOW/HIGH or INTERVALL/OFF/HIGH
- The WASHER/FLUSHER switch activates the wind shield washer. The tank for refilling fluid is in the right side compartment next to your seat.
- **DEFROST/HOTGRIP** is a de-icing function on glass-part of windshield (or heated Grips if installed). The heater will be de-activated after 15 minutes and must be manually re-activated.
- The DRIVE MODE switch has 3 positions:

Position	Distinctive Feature	Function
1. Up/Forward	Large Red Light	High Mode
2. Middle	No light	Eco Mode
3. Down/Back	Little Red-Light	Winter Mode



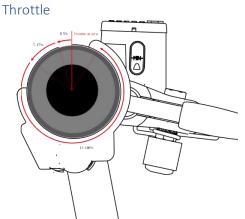
**High mode** should only be used in situations where you need extra torque, e.g., when starting or stopping on a steep hill. This position will cause the traction-battery to drain faster at low speed and should therefore only be used when needed. It will only give better performance under 6kmh (3,8mph), but will consume more power also at higher speeds.



**ECO Mode** is the default position and is intended to be used in most driving situations. It is optimized for the most energy efficient driving and give the longest range. It has a balanced regenerative brake/torque, with slightly less force than High Mode.



Winter Mode has the same characteristics as ECO Mode, but has a "smoother" ramp-up of the regenerative brake. This is to make vehicle more maneuverable in case of slippery road conditions. In slippery road conditions, you might experience that the rear wheels are blocked when releasing the throttle, but as soon as the wheels are blocked, the regenerative brake will release, and the wheels will roll again. This has the same effect as ABS in other vehicles. The reduced regenerative brake in Winter Mode will result in a shorter range.



Throttle Function
0 - 5 % Neutral – Braking
5 - 15 % Neutral
15 - 100% Accelerate

## Brake-system / Automatic Parking-Brake

The Paxster is equipped with a combined brake-systems for safety, regulating speed, and comfort.

#### Brake-pedal on floor:

The main brakes consist of hydraulic system, operated by a foot-pedal on floor. This operates on all four wheels by mechanically applying braking-force to brake-discs in front, and drums on rear-axle. This system operates independently of the vehicle electronics but is equipped with a pressure-sensor that activates rear brake-lights and motor-brake (regenerative braking). This is referred to as "SenseBrake".

#### Brake-lever on left-side of handlebar:

A traditional motorbike brake-pump is installed on the left side of the handlebar. This operates the hydraulic brakes on front-axle by applying force on brake-discs. SenseBrake will activate rear brake-lights and motor-brake. This brake-system is installed as a comfort-feature for vehicles in distribution-service, and as a safety-feature for drivers used to motorbikes.

## Regenerative brake

By regenerative braking (motor-brake), the electronics utilize the motor as a generator, converting kinetic energy to electric energy. This electric energy will be returned to the battery, extending the vehicles range. The motor-brake is programmed for a safe and secure experience for the driver. Several parameters will influence on how the motor-brake operates. «Drive Mode» (Winter/ECO/Power) is 3 pre-defined configurations in software, giving different user-experiences. These programs tell how much force that should be applied, and how fast it should ramp up this force. The throttle-position will also influence on braking force applied.

Regenerative braking will occur by:

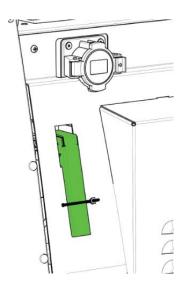
- Operating brake-pedal on floor
- Operating brake-lever on handlebar
- Driving downhill when vehicle reach its maximum allowed speed.
- By reducing the throttle or releasing it completely.

## Electromagnetic parking-brake:

Paxster is equipped with an electromagnetic, automatic parking brake (APB). This brake will be engaged when vehicle is at a standstill and throttle at 0%. As a safety-feature it will engage if vehicle travels at less than 5km/h and the seat-switch is released (driver dismount a moving vehicle)

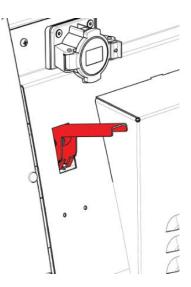
WARNING: Automatic Parking Brake will be engaged if ignition is turned off on a moving vehicle.

WARNING: Emergency-release of Automatic Parking Brake



As the APB need electric power to be disengaged, a manual emergency-release-handle can be found under the charging-socket. Totally drained battery or missing ignition-keys can be situations when you need to manually move the vehicle.

Lift the handle upwards to horizontal position, and make sure you can operate mechanical brakes at the same time to avoid a "runaway vehicle".



## **Driving instructions**

### Starting

- Make sure that the load is adequately distributed and secured.
- Find your correct driving position and check that your field of vision in the mirrors is correct.
- Activate the vehicle with the ignition key (right position clockwise)
- Check that the lights are functioning.
- Choose the correct driving mode.

## **Driving forward**

- Turn the throttle on the right side of the handlebar toward you in order to accelerate.
- Avoid rapid accelerations because this drains the batteries much faster.

#### Reverse

- Press and hold in the yellow reverse switch on the left-hand control.
- The reversing signal activates.
- Adjust the speed with the throttle.

## Braking and driving on the downhill

The motor functions as a generator and helps you maintain a constant speed.

As with all vehicles, excessive use of the ordinary brakes can cause the brakes to be overheated so that the braking power may disappear. If you are driving in Winter Mode, we recommend that you pump the brakes and do not use steady braking power. Take some time to become familiar with the vehicle's braking functions in a closed area.

## Active regenerative brake

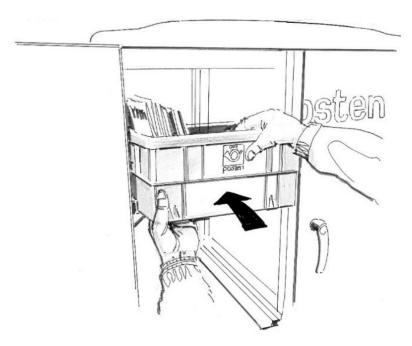
The braking system is equipped with an active regenerative brake that is engaged when the braking light switch is activated. This applies to both the front and rear brakes. We recommend that this is used as much as possible, both to reduce wear on brake pads as well as to extend range. In slippery conditions it is important to note that this effect may cause the rear wheels to slip. In such cases we recommend pumping the brakes.

## Tips for ergonomic and correct driving style

- Try to adjust the seat so that you are sitting with your back at an angle of nearly 90 degrees with the ground when you grip the handlebar.
- Adjustment of handlebar angle may ONLY be performed by competent service personnel. When the angle
  of handlebars has been adjusted, the handlebars' other components must be correspondingly adjusted.
   Always check that the brakes work as intended after adjustment.
- Try to set the wheels in motion before you start maneuvering the vehicle. This greatly reduces the power required for steering.
- If you are going to pass over a curb, maintain a speed of approx. 2-5 km/h and try to approach the curb at an angle of 45 degrees. This reduces the wear on the suspension.

## Cargo zones

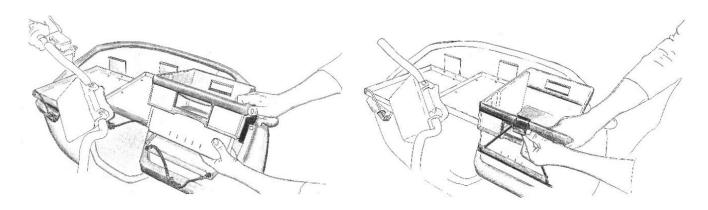
The vehicle has two loading zones, one in front of the handlebar in the driver's cab and one in the rear in the cargo hold. The design and use of these zones vary from user to user, but it is generally advisable to load weight as low as possible in the vehicle, i.e., that empty postal containers ought to be placed on top of the cargo hold and full containers at the bottom.



WARNING: Maximum payload in the rear cargo area is 190 kgs (418 lb.)

## Loading on anterior loading platform

If you use containers in the anterior-loading platform, place them in such a way that the flap on the back of the platform grips into the container's lifting handle. Then lower the container and stretch the elastic cord, if your vehicle is equipped with this, with the steel hook over the upper edge of the container. This ensures the placement of the container during driving and prevents displacement of the load during braking or a collision.



WARNING: Maximum payload in the front cargo area is 50 kgs (110 lb.)

## <u>Do it yourself – maintenance.</u>

NOTE: As part of the Warranty Terms, the vehicle must undergo the mandatory annual Periodic Preventive Maintenance program. It is the Buyers responsibility to book and plan such PPM with a technician authorized by Paxster AS

### Cleaning the vehicle

Keep the vehicle clean by washing it regularly with lukewarm water and car shampoo. If there is a lot of sand and dust, rinse it off first with water so as to avoid scratches. Then wash with a sponge and running water until the dirt has come off.

Keep in mind that the surface is composed of plastic so that the use of strong chemicals may make the surface less glossy. Regular waxing will help protect the surface and make it easier to keep clean. We particularly recommend waxing the vehicle before winter because road salt and dirt can wear down the surfaces.

NOTE: A high-pressure hose must not be used in the driver compartment, except on the floor, as there is a real risk that water may penetrate electronic circuit boards. Must also be used with caution around the motor and electrical components.

#### Filling air in the tires

We recommend using 1.8 to 2.1 bars of pressure in all tires. Make it a habit to check the tire pressure regularly. Too low pressure will reduce the vehicle's range considerably. Be aware that the air pressure can decrease in proportion to the outdoor air temperature.

NOTE: Less tire pressure means softer tires on uneven roads, but please mind the reduced range and harder steering.

WARNING: When replacing wheels, please note the MAX torque of 90Nm.

### Replacing fuses

Fusebox is located on the left side of the steering column. Open by unscrew the bolt on top of cover. Replace broken fuse only by same value.



F1: 30 Amp Main Fuse\*

F2: 20 Amp Wiper/Flusher

F3: 10 Amp Lights

F4: 10 Amp Ignition

F5: 20 Amp Defroster/Hot grip

F6: 10 Amp Aux (ignition)

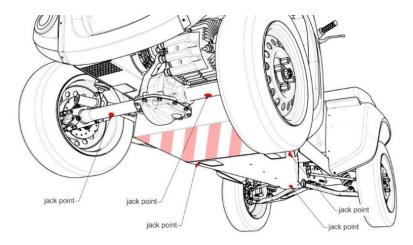
F7: 10 Amp Aux (continuous)

F8: N/A

NOTE: F1 to be removed when vehicle is left for longer periods without charge-cable connected. See separate storage-procedure for longtime storage.

### Jacking points / Rescue

Use the indicated jacking points when the vehicle is to be jacked up. For rescue, place rope or sling around rear axle or close to center of vehicle in front. Be careful not to damage or puncture the battery-pack.



WARNING: Transport of vehicle should always be done on a loading platform. Vehicle is equipped with a permanent magnet motor, and should never be towed for a longer distance, and never at high speed.

## Changing direction indicator light bulbs

- Unscrew the small screw that sits on the rear edge of the light housing.
- Remove the lens.
- To remove the old light bulb: Press the bulb in and turn to the side.
- Remove the old bulb.
- Reverse the process to replace the light bulb.





NOTE: Front direction indicator lights are susceptible to shock. Any damage to these is not covered by warranty.

### Changing headlight bulbs

- Turn the handlebars for easier access to the underside of the front wing.
- Pull back the rubber collar covering the rear of the light bulb.
- Tilt the clip to the side.
- Pull the light bulb out.
- Reverse the process to replace the light bulb.

## WARNING: Only use headlight bulbs of the type HS1 (Max 35 Watt)

NOTE: Your vehicle is equipped with LED rear lights and may be equipped with LED headlights. These do not have replaceable bulbs.

## **FAQ**

In this section, information is provided about known events that have been reported to the manufacturer. Here you will find description of symptoms, and explanation of possible causes. This will make you better equipped to report any events that may occur to your servicing partner and to deal with challenges on your own.

## Overheating of the drive train

**Symptom:** The malfunction lamp on the main instrument panel comes on and it turns off after a short while. The vehicle has reduced performance. In the event of serious overheating, the vehicle may come to a sudden stop. A fault-code can be read in the display.

**Solution**: Turn the ignition off and wait 5 minutes so that the vehicle can cool down.

#### **Known causes:**

- The vehicle is exposed to heavy loads, e.g., fully loaded cargo zones and a lot of hilly terrain.
- Demanding starts on hills with a heavy load.
- One or more wheels have low tire pressure.
- Other motor malfunctions

**The malfunction does not stop:** If the malfunction does not stop, contact your servicing partner for further diagnosis and repair.

## Throttle fault

**Symptom:** I have turned on the ignition and twisted the throttle, but the vehicle does not respond, and warning light comes on (Fault-code in display).

**Solution:** Revert throttle to zero position.

Cause: The vehicle is equipped with a safety function that deactivates the

motor if the throttle is not in the 0-position when the ignition is activated. This is to ensure that the vehicle does not accelerate unintentionally. The same function goes into effect if you twist the throttle immediately after activating the ignition.

**The malfunction does not stop:** If the malfunction does not stop, contact your servicing partner for further diagnosis and repair.

#### Seat switch

**Symptom:** I have turned on the ignition, turned the throttle, but the vehicle fails to move. Fault indicator come on, and fault-code in display.

**Solution:** Make sure you are sitting down on the saddle seat, and that there are no foreign object hindering the activation of the seat-switch.

**Cause:** The vehicle is equipped with a safety function that deactivates the motor if the seat is empty. This to prevent the vehicle from being operated without a driver on the seat. This is to prevent the vehicle from accelerating unintentionally.

The fault persists: If the fault persists, contact your service partner for further diagnosis and repair.

## Low main battery

**Symptom:** Before the vehicle runs completely out of power, its performance diminishes. When the vehicle is completely out of power, you will find that it comes to a complete stop before allowing you to drive a few more meters. Thereafter the vehicle will repeatedly come to a stop before you again can drive a few meters. This cycle is repeated until the vehicle is completely drained of power.

**Solution:** Call for assistance to bring the vehicle back to its charging station. Always pay close attention to the battery discharge indicator to avoid completely drained traction-battery.

#### **Known causes:**

- The vehicle had not been charged before driving commenced.
- The vehicle had heavier work than normal and consumed more energy
- Other malfunctions with the charger (e.g., defective charger cable).
- Check that the charger is plugged into 230 V AC.
- Tip: always check that the charger starts normally after completed driving.
- Tip: Ensure that the charging cycle is completed before driving.

## The malfunction does not stop:

If the malfunction does not stop, contact your servicing partner for further diagnosis and repair.

## Fault codes

Fault-codes will appear in the multifunction-display at the same time as the red fault-indicator lights up. These fault-codes will in many cases tell you if you need to call for service or can solve the problem yours elf. Fault-codes are displayed as 6 letters/figures starting with "0x"

Code	Fault	Description and possible solution	
0x4602	Device too hot	Motor controller hot. Let vehicle cool down	
0x4603	Motortoo hot	Motor high temp. Let vehicle cool down	
0x46C3	Fault ride through	Temporary. Could result in stop. Ignition off/on.	
0x4881	Seat Fault	Activate seat-switch by sitting down before throttle.	
0x4882	Two-direction fault	Low 12Volt battery. Try Jump-Start-Switch.	
0x4981	Throttle fault	Throttle not at 0% when ignition turned on.	
0x52C1	Encoderfault	Ignition off/on. Alt. call for service.	

When other fault-codes appear, please contact your service-partner. Please state license-plate/registration or VIN, together with the fault code displayed.

## Recommendation to driver's safety:

According to Norwegian regulations concerning the use of personal protective equipment while driving a motor vehicle, the use of a seat belt or other safety equipment is mandatory where such equipment is available.

However, there are exceptions from this requirement for the use of seat belts or other safety equipment. The following exception could be considered appropriate for users of Paxster EDV.

"During low-speed driving where the person concerned frequently has to leave his vehicle, such as during the delivery of mail or newspapers, or in connection with renovation work or similar."

NOTE: This rule applies in Norway at the time of writing. Paxster accepts no liability for changes in regulations. Changes to regulations may not be up to date in this document. Paxster also holds no liability for the translation and quotes from Norwegian to English wording of the Regulation.

Other countries may have other national or local regulations applicable. The individual driver is responsible for using safety equipment in accordance with laws and regulations applicable to their area.

WARNING: Seatbelt is a Safety-feature and should be tested regularly. A quick pull of the belt should make the belt-roller lock. Make sure the belt buckle locks properly. If faulty, park the vehicle and call for service.

## **Technical specification**

Length: 2290-2365 mm

Width: 1180 mm
Height: 1860 mm
Loading capacity: 240 kg

Range: See table on page 7

Top Speed: 45 km/h - 60km/t

Category: Moped, L6e-BU - Motorbike L7e-CU

Motor: 6 kW Batteries: LiFePO4

Charger: 230 VAC / 1250 Watt.

Summertires: 145/70 R13 Wintertires: 155/70 R13

Air pressure: 1,8 – 2,1 BAR (depending on normal load)

Wheel nut torque: 90Nm Rim indentation: 30mm Bolt circle: 4x100

## Daily check of the vehicle

Part	Check
Appearance	Vehicle is clean and well presented
Damage	No visible damage to the vehicle, including scratches, cracks, or any impact damage.
Charge level	Vehicle is fully charged – check charge symbol in display flashing green continuously <b>slow</b> .
Headlights	Main lights, high beam, low beam and driving lights work
Indicators & Hazard Lights	Front left & right, rear left & right indicator lamps work
Throttle	Throttle operates smoothly and snaps closed
Brake-handle	Front brake works
Brake-pedal	Brakes on all four wheels.
Tire Pressure	Visual check
Tire tread and condition	Tire tread more than 1,5mm, sidewalls are in good condition and no sign of possible puncture- causing objects
Windscreen	Windscreen is clean and no sign of cracks & chips
Window wiper	Check condition
Window Washer	Check fluid level in right side-compartment.
Seatbelt	Web and retractor clean and in good condition, buckle locking

## Weekly check of the vehicle

Part	Check
Handbrake	Handbrake works and is on before starting checks
Charge-Cable & Mains Power Socket	Charge-Cable and plugs and wall mains plug are undamaged and work.
Rear Lighting	Taillights, brake lights work
Horn	Works
Brakes	Brake fluid is at correct level
Tire Pressure	All tires are inflated between 1.8-2.1 BAR
Tire tread and condition	Tire tread more than 1,5mm, sidewalls are in good condition and no sign of possible puncture- causing objects
Windscreen	Windscreen is clean and no sign of cracks & chips
Servicing	Servicing due sticker visible and current
National Compliance	Documents stored in left-hand side compartment.
Lock oil	Apply lock oil to ignition key lock and side fender lid locks. Cargo box locks if applicable.

## Periodic Preventive Maintenance.

All vehicles shall undergo a predefined Periodic Preventive Maintenance program. These programs are adapted to the application your vehicle is working under and is essential to vehicle-warranty. Except for the first 6-month-inspection and oil-change, all Paxsters are on a 12-month PPM schedule.

More information available in the "Paxster Service & Maintenance Guide"

## Optional Equipment List

Optional equipment already installed in your vehicle, or available as retrofit.

- Front-Canvas Protection for cargo on anterior loading platform.
- Wind-deflectors
- Remote-key (Key Fob) on ignition and/or rear Cargo-hold
- Heated Grips
- LED Headlights
- LED Interior light
- Work-light-spot on left or right wind-deflector
- High central LED brake-light on rear/top of rear cargo-hold
- Reverse/Rear-view camera
- Ergonomic brake-handle For drivers with small hands
- Interior LED light inside Cargo-hold
- Seat-cover in wool
- Paxster Connect Remote diagnostics with optional push-warnings to driver and/or fleet-management.

More information can be found at www.paxster.no



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