

L U N A Z

Owner Manual

1954 Jaguar XK140 OTS Roadster

Your Lunaz vehicle is unique, and as such, so is this owner's manual.

Everything highlighted is tailored to your vehicle, and this manual contains all of the information that you will need to safely and capably operate your bespoke vehicle to its full capability.



The Lunaz Process

Our fine-tuned process has been carefully engineered to ensure that each timeless classic is designed, built and prepared to last a lifetime.

We strip each and every vehicle that comes into our workshop down to its bare metal body, where we assess and treat any damage or corrosion before performing a full nut and bolt, body and chassis restoration of each vehicle.



Each powertrain undergoes full electrification. We remove the engine, gearbox and transmission, and install our specially designed battery units and motor.

We retune the suspension, upgrade the brake system with hydraulically boosted brake discs, and an electronic handbrake.

All upholstery is handcrafted and designed for your interior, with air conditioning, an infotainment system, and updated controls, all built to comfortably accompany you on each and every journey.



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Your Vehicle

Exterior Rundown



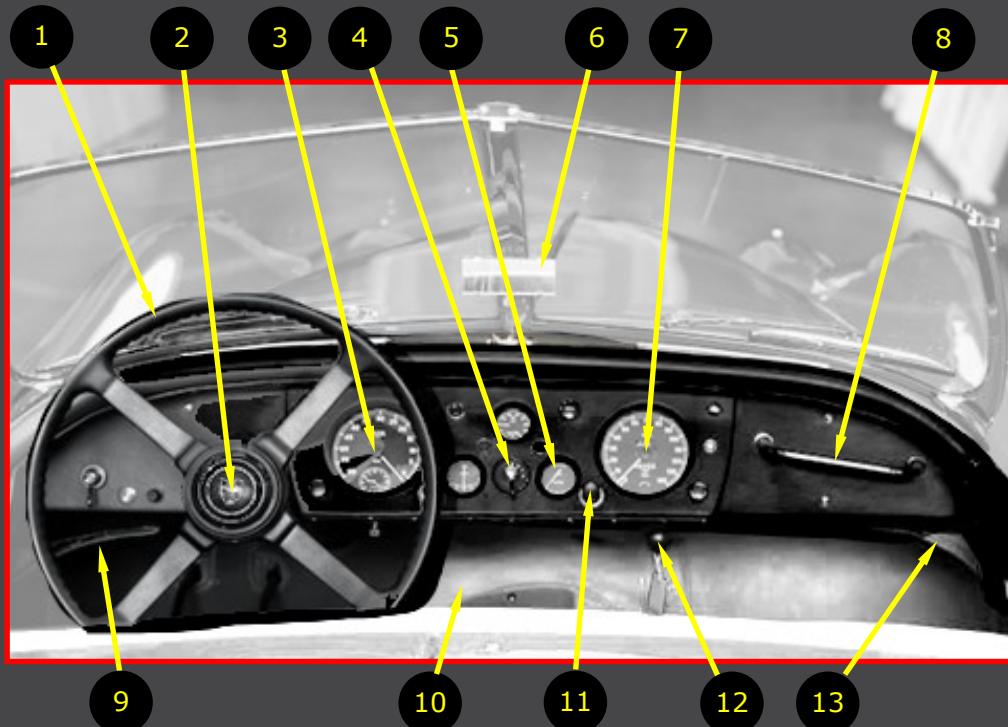
1 - Bonnet
2 - Windscreen Wipers
3 - Windscreen
4 - Door Handles
5 - Boot
6 - Charger Port

7 - Exterior Lights
8 - Chrome Bumper
9 - Wheels and Tyres
10 - Wing Mirror
11 - Door



Your Vehicle

Interior Rundown



1 - Steering Wheel

2 - Horn

3 - Power Gauge

4 - Light Control Switch

5 - State of Charge Display (SOC) - Explained further in [Interior Controls](#)

6 - Rear View Mirror

7 - Speedometer

8 - Passenger Comfort Rail

9 - Indicator Stalk

10 - Handbrake

11 - Audio Controls - Explained further in [Interior Controls](#)

12 - Gear Lever

13 - Bonnet Release Lever



Your Vehicle

Key Fob

- 1 - Activate/Deactivate Vehicle Electronics
- 2 - Charging Activate/Deactivate Button
- 3 - Lock/Unlock Doors with Physical Key



Locking and Unlocking

How to use your Key Fob

As pictured previously, your key fob has two physical buttons down the front side, along with your traditional key attachment. Separate to this you will have a Boot Key which will be described in [Doors, Boot, Bonnet and Storage](#).

The use of each button is described below:

Activating/Deactivating your Vehicle

Two single presses of the button (1) will Activate your cars electrical system to ready it for driving. Once no longer driving, another single press of the button (1) will Deactivate your cars electrical system putting it into sleep mode.

Activate/Deactivate Charge Mode

A single press of the button (2) will ready your car for charging. Further information on Charging can be found on the following pages.

Locking/Unlocking your Vehicle

Your key fob is equipped with a physical key attachment which is used to Lock and Unlock the vehicle doors.

Key Fob

The batteries in the Key Fob should last between one and two years, depending on usage. It takes two CR2032 disc batteries. To replace the batteries, remove the back plate from the key fob. Remove both batteries from the slot, and replace with two new ones, with the + side facing upwards. Replace the back plate onto the fob. This avoids the batteries falling out, or damage being done to the fob.

If the Key Fob batteries die whilst you are out and unable to replace them, or the Key Fob is not working, the attached physical key can be used to lock or unlock your vehicle.

Simply insert the key into the barrel located below the door handle button, and turn (L/R) to (Lock/Unlock).

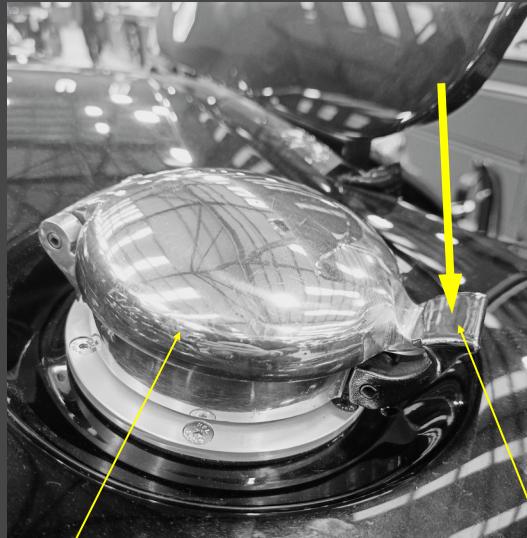


Charging

How to access and use the Charging Port

To access the Charging Port, apply downward pressure to the Charging Port Latch and lift the Charger Port Lid, as pictured below.

To close the Charging Port, apply downward pressure to the latch followed by downward pressure to the Charging Port Lid. Ensure the latch is fully engaged with the lid.



Charge Port Lid

Charge Port Latch



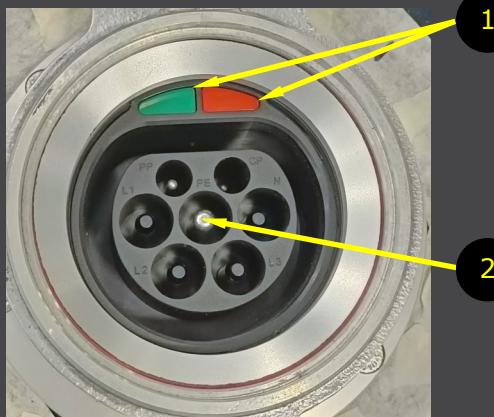
Charging

Charger Port Lights

Once the Charger Port is open and the Charger Plug is engaged this will also illuminate the Charger LEDs beside the charge port, which will be indicated by one of the following:

- Charging - Solid Green
- No/Low Current Through Charger - Flashing Green (See below)
- Fully Charged - No Lights On
- Charger Error - Solid Red (See below)

1 - Charge Status LED Indicators (Green, Red)
2 - Type 2 AC Charger Connector



Solid Red charger LED - Charger Error

If the charger LED is solid red, it is indicating that an error of some kind has occurred with the charging system. In the event of this happening, disengage the charger by fully depressing the brake pedal and begin the charging process again. If this does not solve the issue, and your vehicle still does not charge, halt the charging process. You may try again with a different charger as the issue may be the communication between your vehicle and the charger. If the problem persists, contact Lunaz and inform us of what has happened. We recommend contacting Lunaz following any charging error, even if it appears to have been corrected.

Flashing Green charger LED - Charger Error

If the charger LED is flashing green, please check the Battery Capacity. If the capacity is more than 95%, the battery is deemed as fully charged and will not charge until the capacity drops below 95%. If the LED is flashing green but Battery Capacity is lower than 95% then there is no/low current through the charger. In the event of this happening, disengage the charger by fully depressing the brake pedal and begin the charging process again. If this does not solve the issue, and your vehicle still does not charge, halt the charging process. You may try again with a different charger as the issue may be the communication between your vehicle and the charger. If the problem persists, contact Lunaz and inform us of what has happened. We recommend contacting Lunaz following any charging error, even if it appears to have been corrected.

Charging

How to Charge your Vehicle

The car can be locked or unlocked for this, however the Charging Button on the Key Fob (2) must be pressed to activate Charging Mode.

Once charging mode is activated, simply plug your vehicle into the correct charger, and charging will begin automatically. The solid Green Charge Port Light should be illuminated throughout the charging process until fully charged.

Your vehicle can be charged using a Type 2 AC Charger.

This means that there is a large selection of chargers available for use, including:

- AC 3-pin UK wall plug chargers
- Type 2 AC Wall Charger (can be fitted to your garage/home)
- Any Type 2 AC public connector at a charging station



These two Dials are activated with the Charging Button on the Key Fob (2).

The Lower Dial will give you the reading of the battery State of Charge (SOC).



The Upper Dial will show Yellow when charging.



The Upper Dial will show Green when fully charged.



Charging

How to Deactivate Charging Mode

To manually deactivate 'Charging' mode in order to unlock and remove the plug, fully depress the brake pedal. This will disengage the plug, meaning it is safe to remove it.

Once your vehicle is fully charged as indicated by the Dial mentioned previously, the Charge Port Lights will switch off. Once you have unplugged your vehicle, manually close the charger flap and press button (2) to deactivate Charging Mode.



WARNING: Once you have charged your vehicle is it important to deactivate the Charging Mode by pressing button (2) on the Key Fob. Failure to do so may cause the battery to run flat over time.

Charging and Range

The battery holds 64kWh of useable energy.

As standard, your vehicle is capable of a 145 mile range on average. This can vary depending on driving style and conditions, along with other external factors (such as battery age, air temperature). See Range.

Charging time will vary depending on the charger type used and the current delivered. A greater current will charge the battery faster. Charging times are likely to vary, depending on external factors such as temperature.

Your vehicle's battery charging speed is rated up to 22kW.

Home chargers are compatible with your Lunaz vehicle (7-22kW).

Note: In the interest of Battery Life longevity, it is recommended that your vehicle is not kept and stored at full battery capacity for long periods of time. Over time it can effect the physical properties of the battery and lower the life expectancy. If you plan to store the car for a long period of time, it is advised to keep your car between 20%-80% Battery capacity.

Trickle charger located in boot



Before you Drive

Starting your Vehicle

1. Walk up to your Vehicle and press (1) on the Key Fob and after a few seconds press (1) once more to awaken the car.
2. Put the key into Key Switch Barrel and turn key one notch clockwise to 'accessory state' and wait a few seconds. You will hear the systems coming online.
3. Turn the key once more to the second notch 'ignition state' and hold until the 'ready to drive' symbol can be seen and let go.
4. Depress the footbrake and release the Handbrake. See Fly-off Handbrake below.
5. Put the vehicle into 'Drive' by pulling back on the Gear Selector or push the Gear Selector into Reverse.
6. Start up is complete and you may now pull away.



The red REV. reverse light will illuminate when the Reverse gear is selected. If the drive lights are disabled when driving an error has been encountered. [See Troubleshooting](#).

The green FWD. forward light will illuminate when the Drive gear is selected. If the drive lights are disabled when driving an error has been encountered. [See Troubleshooting](#).

Selecting and Changing Gear

Please note: When in motion the gears can be changed from Drive or Reverse to Neutral, and also back again. However, do not attempt this whilst driving, as doing so reduces control of the vehicle. If accidentally knocked, return the lever to the selected gear as quickly as possible.

Your car should always be started in Park. If not in Park, turning the key will not start the vehicle. The parking brake will be active so long as the Handbrake is raised, and will be deactivated when you lower the handbrake to change gear out of Park.

Changing to Park - Fly-off Handbrake



Your vehicle is equipped with a Fly-off Handbrake. Whether engaged in Park or not the Handbrake Lever will be in the down position. To activate Park, pull the Handbrake up until you hear a ratchet sound then lower the Handbrake to the floor. If you let go it will fall to the down position.

To release Park, lift the Handbrake up and depress the Handbrake button and once again lower the handbrake to the floor. If you let go it will fall to the down position.

To change from any gear into Park, the vehicle must be stationary.

When stationary, to go from any gear to Park, depress the brake pedal and raise Handbrake to the top position. The parking brake will then be activated. **Note:** If handbrake is deactivated, depress the brake pedal to prevent the car from rolling.



Before you Drive

Selecting and Changing Gear Contd.

Changing to Neutral (button operated)

N

To change into Neutral, press the Neutral Button located in front and at the base of the Gear Selector Lever. In order to move from any other gear into Neutral the Brake Pedal must be depressed. When stationary, in Neutral, it is recommended that the Brake Pedal is kept depressed, as the parking brake will not be active, to prevent the car from rolling.

Changing to Drive

D

To change from any gear into Drive, the vehicle must be stationary, and the footbrake must be fully depressed.

To change from Park or Neutral to Drive, once these conditions are met, simply move the gear lever position to select Drive. It is only possible to change directly from Reverse to Drive when stationary.

Changing to Reverse

R

To change from any gear into Reverse, the vehicle must be stationary, and the footbrake must be fully depressed.

To change from Park or Neutral to Reverse, once these conditions are met, simply move the gear lever to the Reverse position to select Reverse.

It is only possible to change directly from Drive to Reverse when stationary.

Stopping and Turning Off Your Vehicle

When the vehicle is stopped and the handbrake is applied, it is safe to remove your foot from the brake pedal.

To turn off the vehicle, simply turn the key anticlockwise back to its original vertical position, and remove the key.



Before you Drive

Mirrors

It is important when driving to ensure you have maximum visibility through your mirrors to minimise the risk of a collision or accident with an object that may be obscured from your vision.

When adjusting your internal overhead mirror, ensure that you can see clearly behind you, and objects in the rear are not obstructing the view.

When adjusting the external wing mirrors, ensure you can clearly see behind the vehicle, with a minimal blind spot. About $\frac{1}{4}$ of the mirror should be taken up by the side of the car, and you should just be able to see the rear wheel arches.

It is extremely important to check your blind spots as well as your mirrors when manoeuvring, as objects, other vehicles or pedestrians may be obscured from your mirrors, and may not have seen you and gotten out of the way.

It is the responsibility of the driver to ensure that all surroundings can be clearly seen through the mirrors when driving, and to drive with care, leaving room for other vehicles on the road.

Lights and Pre-Drive Checks

Before operating your vehicle, it is advised to carry out some pre drive checks to ensure that everything is working properly.

Lunaz recommends that you test all indicators, via the hazard lights switch, to check that all bulbs are working as they should. It may be worth using the indicator stalks too, to make sure that the vehicle controls are communicating properly.

If driving at night, it is also advised to check that all headlamps are working, including the rear lights, to ensure that both the driver can see where they are going, and other vehicles can see your vehicle.

It is also necessary to check and adjust all mirrors as necessary to ensure you have clear vision surrounding the car, and to adjust the driving position as explained in Adjusting Seats, for a comfortable and safe journey.



Before you Drive

Cold Weather Precautions

If your vehicle is exposed to snow, ice and very low temperatures, it is possible that certain elements on the car may freeze. However, cold weather should not damage the battery or powertrain.

It is recommended that your vehicle is not left plugged into a charger outside/uncovered (overnight) in very cold conditions, as it is possible that the charger can freeze to the car, and may become difficult to remove. If you find that your charger is frozen to the port, do not try and forcefully remove it. **Do not** attempt to defrost the port using warm water, warm damp cloths, or anything containing moisture. If moisture gets into the charging port, it can cause serious damage to the battery, and the port can become a potential electrical hazard risk if touched. Instead, gently warm the connector at the seam with some form of heater or hair dryer, for example, until all the surrounding snow and ice have melted away. Before disconnecting, it is necessary to ensure that the area is completely dry in order to prevent any moisture getting through into the high voltage system.

Always remove all snow from the vehicle before driving, as this can be a serious safety risk to others on the road, as snow can fly off of the car at speed when in motion and collide with other vehicles, risking damage or serious accidents.

Snow on the bonnet, boot, and any windows can also impair vision, causing a hazard when driving as obstructions or other vehicles may be obscured from the driver's vision. Always fully defrost the car before driving away, to ensure that components such as windscreen wipers or windows are not frozen in place.

Cold weather can increase the energy consumption of the vehicle while driving, due to the increased power used in heating the interior of the car and the batteries. There are steps that can be taken to reduce the energy used by the car in these circumstances, as follows:

Drive more slowly and smoothly to decrease battery consumption; do not regularly unnecessarily rapidly accelerate, for example, and use engine braking into corners for a smoother ride and to decrease the power needed to regain speed again afterwards.

Use heated seats rather than climate control, as they use less energy than heating the whole cabin.

The cold weather can also have a negative effect on regenerative braking, when the battery is not up to temperature.

Snow tyres and snow chains can be fitted to the vehicle in snowy or icy conditions to increase the levels of grip available to the driver. Exercise caution when driving in cold conditions or on icy roads.



Driving

Regenerative Braking

Your Lunaz vehicle contains a regenerative braking system.

At high speeds, when you lift from the accelerator, the motor will apply a regenerative torque to assist physical braking. This also re-supplies some of the energy to the batteries. Regenerative braking is not active at slow speeds as it impacts the comfort of the ride and is less efficient at such speeds.

Regenerative braking is also used in 'one foot driving'. When cruising, if your foot is completely lifted from the accelerator pedal, even if the footbrake is not applied, the vehicle will engage regenerative braking automatically. This applies a gentle braking force to the car, which will gently and gradually slow the vehicle, eventually to a stand still if the accelerator is not pressed again. Using 'one foot braking' preserves the brake pads of the vehicle.

The Power dial on the instrument panel goes from -50 to +100. This is representative of the percentage of total power delivery that the motor is supplying. Regenerative braking will cause the dial to decrease down into the negative numbers, indicating the percentage of the maximum positive output that the motor is generating from regenerative braking as the vehicle slows, and the motor is instead applying a regenerative torque. When the dial reads -50, it is indicating that the motor is generating 50% of the maximum positive power that the motor can produce, or the maximum regenerative force. A harder braking force will result in the dial reading closer to -50.

The vehicle is also equipped with a 'panic mode' built into the braking system. If the accelerator is pressed down, and the brake pedal is simultaneously engaged with force, the motor will disengage and will no longer supply torque. The brakes will still work as normal.



Driving

Creep Mode

TBC

Range

The battery is designed to supply sufficient energy to produce a range of 145 miles on average. This can vary as a result of driving conditions and driving style, and the load that the car is transporting.

It is recommended to plan routes around public charging stations for longer trips.

There are several ways of maximising the range of your vehicle, and combining methods can improve the estimated range as a result.

Drive Slower	Slower driving will always use less energy than faster driving. As the motor creates less torque, less energy is required to propel the vehicle, therefore saving power.
Driver Smoother	Smoother driving, with less harsh braking and hard accelerating, will equate to large quantities of energy saved over time. Harsher braking means that you will then need to accelerate more to reach speed, which uses more energy, and accelerating is the heaviest use of energy on the vehicle, so accelerating harder and faster as a result will take a toll on energy stores. Look ahead when driving, to plan for smoother, longer braking (which preserves brake pads and increases regenerative braking), and avoid unnecessarily accelerating. Make good use of one footed driving to maximise how much the battery can be charged when driving, and preserve the lifespan of brake pads.
Plan Journeys Around Energy Efficient Routes	Motorways may be quicker, however travelling faster at greater speeds will use up more energy than taking slower, smoother back roads. Taking a route with few sharp corners, longer open roads and very little traffic (to reduce stopping and starting, which use a significant quantity of energy) will save energy and preserve the battery life of your vehicle, getting you further.
Maximise Regenerative Braking	Regenerative braking is used to charge the battery as you slow your vehicle down. The more you use it, the more your battery will charge, and the more energy you'll simultaneously save and regenerate.



Driving

Don't Leave Your Vehicle Plugged in for too Long	Once fully charged, your battery will start to slowly dissipate energy, even if left plugged in. This can start to harm the battery's lifespan and maximum capacity. It is a sensible idea to try and time when you charge your vehicle, so that it is fully charged right before you need to drive.
Travel Lighter	Reducing the load on the vehicle will reduce the amount of torque required to drive it. The vehicles are already extremely heavy, so saving excess weight will assist in improving the range of the car, as less energy is used.
Lessen Climate Control and A/C Usage, and interior functions	Heating and cooling using high temperatures and the air compressor are very intense on energy consumption. Use them less often and intensely where possible, and for shorter periods of time. Using heated seats at the same time as climate control will be extremely battery intensive. Heated seats use far less energy than climate control, and warm your body directly. Using them on their own will save large quantities of energy. Opening windows to cool off uses no energy at all, and has a minimal effect on drag.
Don't Leave Lights and Interior Controls Running	Leaving electric components in the cabin running for long periods of time, whilst the car is running or stationary ('accessory'), will drain the battery and reduce the range of the car. Deactivating unnecessary interior controls when not needed/in use will reduce the energy consumption of the car, and increase range.
Look After Tyres	Improperly inflated tyres will affect the range of the car and lifespan of the tyres. If there is not enough air in the tyre, the car will use more energy driving as there will be extra friction to overcome, causing the car to use more energy. If the tyres are overinflated, the tread will wear faster, and can be a puncture risk. Damaged or old, worn tyres will affect the range of the vehicle, as well as being a safety hazard - it is necessary to replace tyres when their tread is sufficiently worn (see tyre specifications for the correct time to replace tyres).
Maintain your Vehicle	If your vehicle is kept in a good working condition, the lifespan of the vehicle, battery and motor will increase, vehicle efficiency will increase, and the maximum possible range and battery life will be preserved for longer



Doors, Boot, Bonnet and Storage

Accessing your Car

Doors

Both of the Driver and Passenger doors are opened by locating the latch on the inside of each door. Once the vehicle is unlocked with the Physical Key on the Key Fob (3) locate the latch and slide it into the open position in order to open the doors.



Boot

The boot must be opened using the Boot Key, which is a separate from the Key Fob. Insert the key into the Boot Key and push down to engage then turn clockwise. You can now use the Boot handle to lift the boot and access the storage area. The Key will remain in the lock until you reverse the process above by closing the boot and turning the key counter clockwise.



Bonnet

In order to open the bonnet, it is necessary to locate the Bonnet release lever which is located within the vehicle on the passenger side. There is a circular knob which, once pulled will release the bonnet latch and allow you access. In order to close the bonnet you must manually apply some pressure to the bonnet.



Doors, Boot, Bonnet and Storage

Interior Storage

Compartments

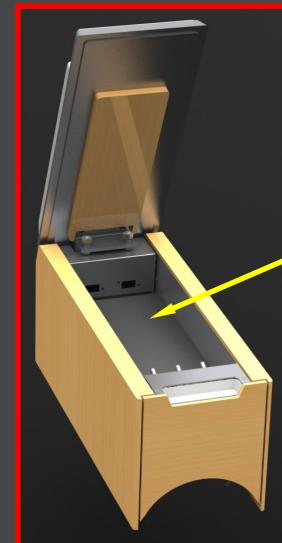
There are storage sleeves located on both Driver **and Passenger** side doors.

Opening the centre armrest console will reveal a space that can be used for extra storage.

Door Sleeve Storage



Armrest Storage



Interior Controls

Horn

The horn for your vehicle can be found in the centre of the steering wheel, and will sound for the duration that it is pressed.

Gear Selector Lever

The gear selector lever is located to the right-hand side of the driver. The Gear Selector will Move forwards (Reverse) and Backwards (Drive) and will then reset itself in the middle. For more information please refer to [Selecting and Changing Gear](#).

Dials

The drivers dash, behind the steering wheel, has five main gauges.

On the right-hand side is the speedometer, in Miles per Hour.

The speedometer has a digital display screen located below the needle cap, which can be toggled by pressing the indicator stalk inwards, to display the odometer, trip and range.

There are lights on either side of the digital display that correspond to the left and right indicators respectively. Both will illuminate with the hazard warning lights.



On the left-hand side is the power meter, which goes from -50 to 100, measured in % of total power delivery.

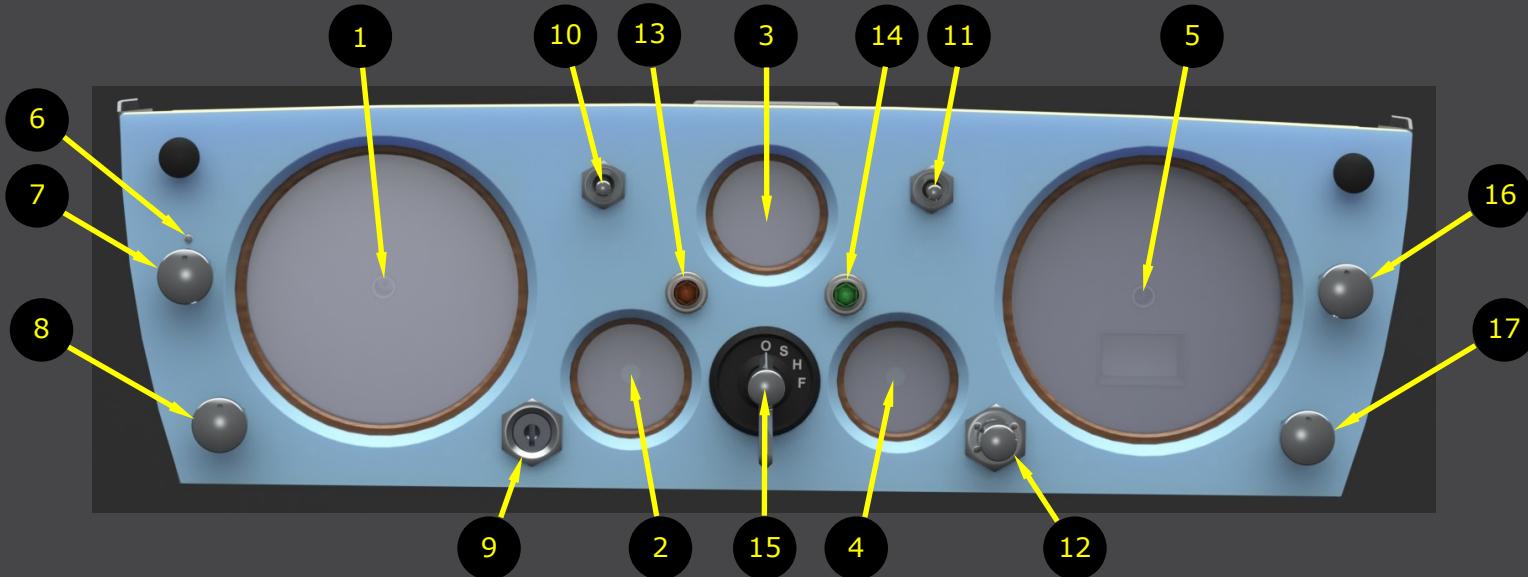
At 0, it is showing that the motor is not delivering any power and is not driving the vehicle - i.e. the vehicle is stationary unless propelled by an external force.

As the dial increases to 100, the power delivery is increasing to its maximum output - like the EV equivalent of a rev counter. As the dial decreases into the negative percentages, highlighted on the dial in yellow, it is indicating the percentage of the maximum positive output that the motor is generating from regenerative braking as the vehicle slows, and the motor is instead applying a regenerative torque. Therefore, when the dial reads -50, this is indicating that the motor is generating 50% of the maximum positive power that the motor can produce, or the maximum regenerative force.



Interior Controls

Driver Information Overview



The centre cluster has five gauges followed by 12 other switch/dials/LEDs. These are:

- 1 - Power Gauge
- 2 - Temperature
- 3 - Multiple Display (TFT screen)
- 4 - State of Charge Display
- 5 - Speedometer
- 6 - Cruise LED - Currently Non-functional
- 7 - Cruise Dial - Currently Non-functional
- 8 - Wipers Dial - (Off, Slow, Fast, Push to wash)
- 9 - Key Switch

- 10 - Hazard Light Switch
- 11 - Pedal Mode
- 12 - Audio Controls
- 13 - Reverse LED
- 14 - Drive LED
- 15 - Lights (Off, Side, Main Headlights, Fog or Aux)
- 16 - Temperature Dial
- 17 - Fan Speed and Vent Dial



Interior Controls

Driver Information Signals



Critical Warning - Do NOT Drive



Motor Fault Amber Warning



Motor Fault Red Warning



EV Drive Fault



Motor Fault Amber Warning



Motor Fault Red Warning



Coolant Temperature Amber Warning



Coolant Temperature Red Warning



Ready to Drive



Charge Low



Battery Fully Charged



Battery Charging



Reduced Power



Dipped Main Headlights



Fog lights



High Beam



Indication Right



Indication Left



Hazard Lights Active



Interior Controls

Exterior Lights

The exterior light toggle is located in the centre of the instrument panel, In its uppermost position, all external lights are off, and they are illuminated by turning the dial clockwise to one of three other settings.

(S)ide

Sidelights and Tail Lights are illuminated.



(H)eadlights

Main (Dipped), Sidelights and Tail Lights are illuminated.



(F)og

Fog lights, Sidelights and Tail Lights are illuminated.



Interior Controls

Indicator stalk

Signalling

On the left-hand side of the steering arm is the indicator stalk. Slightly press the stalk upwards to flash the Right indicator three times, and lift the stalk until it clicks to 'lock' the indicator to signal Right.

Slightly press the indicator stalk downwards to flash the Left indicator three times, and lower the stalk until it clicks to 'lock' the indicator to signal Left. The indicators have a self-cancelling mechanism, but they can also be returned to the centre position manually to cancel a signal.



Full Beam

The Full Beam headlights are toggled on and off by pulling the Indicator Stalk towards you until it clicks into place, where they'll remain on until pushing the stalk back again to deactivate them.

Speedo LCD Control

Pushing the Indicator Stalk inwards will allow you to scroll through the Speedo LCD options to monitor Trip and Mileage, Range.



Interior Controls



Climate Control

The climate control dial can be found on the right of the mid-switch panel.

Fan Speed and Vent Dial

The Fan dial is used to alter the speed at which the air is blown. With the Dial notch in the 12 o'clock position, the Fan is Off which means no air is being blown, and the dial can be turned clockwise to select the desired Fan rate. The levels are: Off/Low/Mid/High



Interior Controls

Centre Console

Arm rest

Your Arm Rest, situated between the Driver and Passenger seat, is equipped with a storage compartment, two USB Ports and Driver and Passenger Heated Seat Controls.

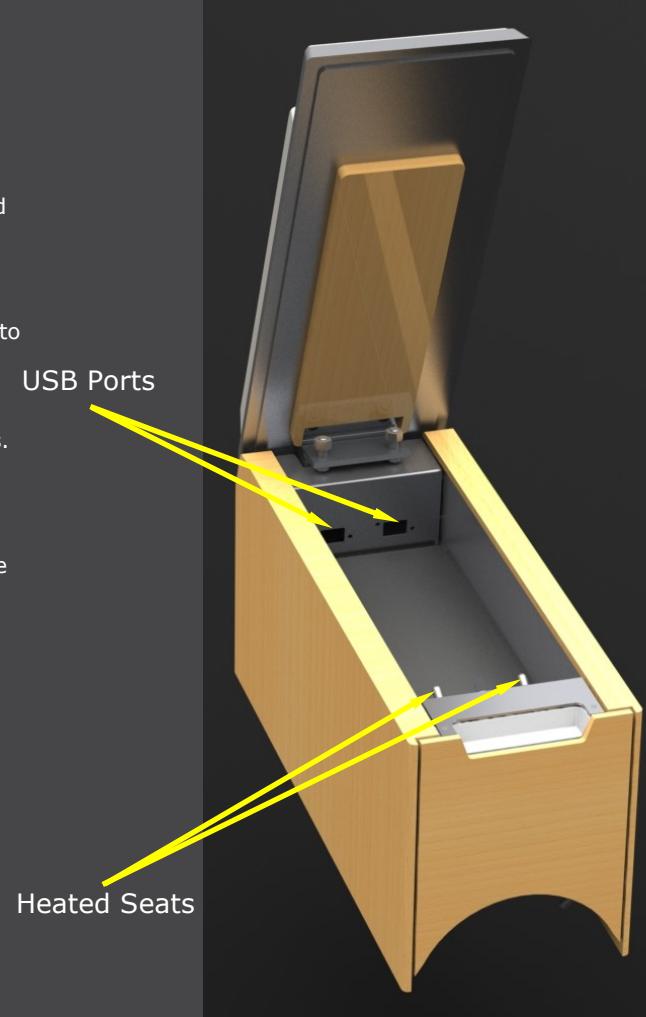
Heated Seats

The Drivers and Passengers heated seats are activated using momentary switches, which run on ten-minute timers. The Left Hand switch corresponds to the Driver's seat, and the Right Hand switch corresponds to the Passenger's seat. An LED light above the switch will indicate whether or not the seats are being heated.

The heaters have one setting. Flick the switch up to activate the heated seats.

Once the switch is flicked, it will return to its centre position, however the seats will begin to warm up when the LED next to the switch is illuminated. The heaters will turn off automatically after ten minutes, however they can be manually deactivated earlier by flicking the switches back up again, as if they were being turned on.

To keep them on, the switch must be flicked again every ten minutes.

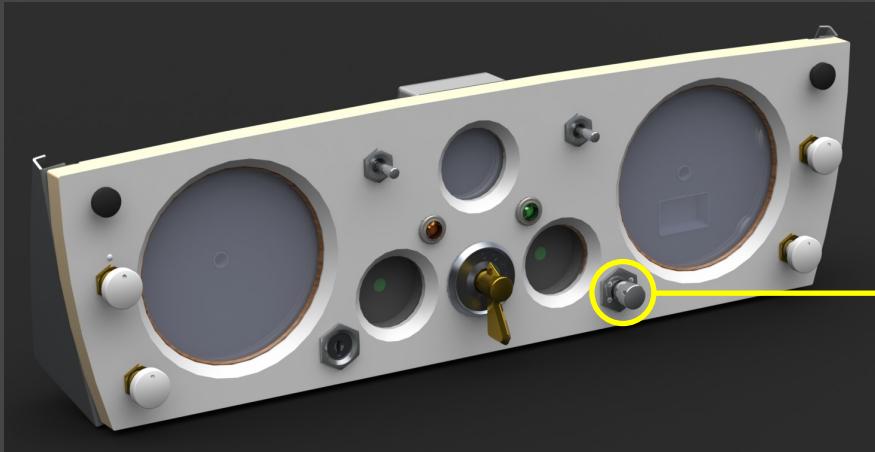


Infotainment

Stereo System

Your Lunaz vehicle is equipped with an NVX XUBT3 Universal Bluetooth Audio Receiver.

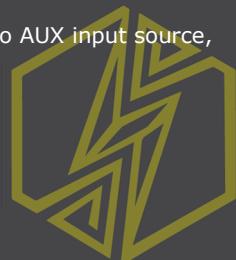
A link to the manual for this specific system can be found [here](#).



- Turn On and Off: Press and hold
- Play music: Tap knob once
- Pause music: Tap knob once to pause, tap again to resume playing
- Skip one track forward: Turn the knob clockwise
- Skip one track back: Turn the knob counter-clockwise
- Adjust volume up: Turn and hold the knob clockwise
- Adjust volume down: Turn and hold the knob counter-clockwise

- Switch between Bluetooth and auxiliary input: Double tap control knob rapidly to switch between Bluetooth source and AUX input source

Note: When XUBT3 is switched to AUX input source, The yellow LED stays on.



Infotainment

Pairing your Bluetooth Device



- 1 - Go to settings on your device. Turn on Bluetooth and search for XUBT3.
- 2 - Select XUBT3 to pair your device
- 3 - Once a device is paired to the XUBT3 it will automatically reconnect to your device.
- 4 - If there is no device for the XUBT3 to connect to, it will automatically go into pairing mode to connect with another device.

Audio Troubleshooting

- Make sure volume is up on Bluetooth sources.
- Confirm Pairing if no sound.
- Ensure power, remote and ground connectors are secure.
- Check inline fuse.



Seating and Seat Belts & Adjustments

Correct Driving Position

When driving, it is important to be seated both comfortably and safely.

When seated in your vehicle, ensure that your seatbelt is correctly fastened, and is covering your body in the correct positions (see Seatbelts).

Your positioning in your seat should be as follows:

Seated upright in your seat, with a slightly reclined backrest allowing you to sit up straight. You should be able to comfortably see above the steering wheel and through the windscreens.

Holding the steering wheel at a 'ten to two' position, there should be a comfortable bend in your elbow, with your arms not quite straight.

Fully depress your foot brake - your leg should be almost straight, but you should not be straining to reach it. Adjust the seat forwards or backwards as necessary so that this is comfortable and correct.

Adjusting Seats - new picture required

The driver and front passenger handle will release the seat, allowing it to be moved backwards and forwards by being pulled or pushed.

Adjusting Steering Wheel Position - new picture required

Using the feature indicated in the image below you can adjust the steering wheel to bring it closer or further to suit your own comfort.



Seating and Seat Belts & Adjustments

Seatbelts - new picture required

Seatbelts must be worn by law at any time the vehicle is in motion. It is vital, for your own safety, that these are worn properly. Failure to do so can result in serious injury or even death, in the event of an accident.

It is the responsibility of the driver to ensure that they themselves, and every passenger present, are wearing their seatbelt correctly, as follows:

The lap belt should sit low and snugly across your upper thighs/hips. It should not be placed over the stomach.



Seat belts should not be too loose; they should fit snugly over the body, keeping you firmly in your seat, but they should not be tight enough to cause discomfort/pain.

Seat belts are one of the most effective aspects of vehicle safety in a crash, and they can be the difference between life and death in some circumstances. It is therefore fundamental that they are worn correctly by each individual.

To fasten the seat belt, pull it across you into position. Place the metal buckle into the seatbelt fastener on the top end (the end that is not connected to the belt strap), and push it in until it clicks in place.

To release the seatbelt, lift up the metal release flap on the top side of the buckle, from the side furthest from the connecting buckle.

The vehicle does not contain airbags, and was not manufactured with them, therefore it is vital that seatbelts are securely fastened over everybody in the vehicle when driving.



Seating and Seat Belts & Adjustments

Child Seats

Lunaz can also manufacture child safety seats for your vehicle. This section will explain how to properly fit it in your vehicle.

Place the booster seat on the back bench of your vehicle on either the left or right hand side. Take the seatbelt, and pull it across the booster seat. On the near seatbelt side, with the child sitting in the seat, place the lap belt under the arm rest of the seat. Pull the belt across the child, so that they are seated in position with the belt correctly over them. On the fastener side, place both straps of the belt under the seat's arm rest, and clip the belt into position.

Heating

All seats in your vehicle are heated.

To use the heated seats, follow the heated seats instructions in the [Interior Controls Section](#).

To avoid discomfort, or potential burns from repeated use, it is not recommended to constantly re-activate the heated seats throughout your journey.

We recommend giving the seats ten to fifteen minutes to cool slightly between uses, as whilst they will not continue to be heated when off, the seats will retain warmth for a period of time after deactivating.

To save energy in the vehicle, heated seats are recommended in preference to the cabin climate control. Using both simultaneously will use significant energy, however the seats alone will use less energy than using the climate control system on its own.



Vehicle Maintenance

Cleaning your Vehicle

Regularly clean your vehicle to ensure it remains in a good working condition. This is especially important in cold, wet and wintery conditions - moisture, dirt and road salt, for example, can cause the vehicle structure to corrode if left on the vehicle untreated.

Exterior

Ensure that the charging port is closed and latched before washing the vehicle, and, if available, a socket cover is placed over the port itself to prevent moisture from entering the High Voltage System, as this can cause severe damage.

Wash your vehicle with a suitable car soap, and a soft sponge or cloth. Rinse off all soap with warm water, and dry the vehicle sufficiently to prevent moisture from being left in some areas, which can eventually cause damage.

Do not clean the charging port yourself - only have this cleaned by certified professionals, to avoid electrocution from the High Voltage System, or damage.

Interior

Carefully and regularly clean the interior of your vehicle, to preserve the lifespan and quality of the leather and upholstery.

Regularly vacuum any dirt, dust or rubbish from the seats. Gently clean the seats with a suitable interior cleaner, and a sponge or cloth.

Regularly vacuum any dirt, dust or rubbish from the footwells, floors and sides of the interior. Gently clean any stains or tougher patches with a suitable interior cleaner, and a sponge or cloth.

Leather Care

How to maintain the seats



Vehicle Maintenance

Caring for your Vehicle

Regularly and carefully cleaning and caring for your vehicle will preserve it and help it retain its quality, which will allow the craftsmanship and engineering of your vehicle to survive for years to come.

Regular care and cleaning will result in a longer lasting vehicle that retains its value and quality without degrading, whilst additionally contributing to driving performance and safety through careful maintenance.

Paintwork can be damaged by a number of external and environmental influences. These include standard weathering, natural contaminants and pollutants and chemicals in the air, some of which will accelerate wear. Regular cleaning of the exterior will preserve the life of the vehicle, and prevent severe corrosion of the internals and structure of the vehicle. Some substances, such as oil, coolant, bird droppings or other aggressive, harmful substances, must be removed and the area should be cleaned immediately, to prevent greatly accelerated wear and damage.

After cleaning the vehicle, or driving through water (or potentially very heavy rain), it is recommended to drive for a short distance with the brake pedal lightly depressed, just enough to cause contact of the brakes, in order to dry them out: Wet brakes are not as effective, and can be a hazard due to the increased stopping distance and decreased responsiveness.

If moisture is left inside the brakes, corrosion of the brake pads can occur, which also causes damage and decreases the effectiveness of the brakes.

Do not use this vehicle for towing purposes. This vehicle is not equipped or engineered for towing any trailers, caravans, or any other external attachment to the vehicle. Do not fit a towbar to your vehicle, as it is not manufactured with one, nor is it designed to have any aftermarket attachments. Doing so can damage the motor, as it is put under excessive strain, and can significantly reduce the range or usability of the vehicle.



Vehicle Maintenance

Weather Cover

Your Vehicle is equipped with a Cover which can be accessed behind the seats. We suggest to keep your car within a garage to maintain the longevity of the paintwork and materials. In instances where this is not viable, it is recommended to cover the vehicle from the elements.

Fluid Levels

Window Wiper fluid access TBC

Leather Care

How to maintain the seats



Technical Specifications

Vehicle Specifications

Component	Measurements	Measurements
Body Type	2-Seater	Roadster
Doors	2	
Component	Measurements	Measurements
Wheelbase	2591mm	102 Inches
Track/Tread (Front)	1308mm	51.5 Inches
Track/Tread (Rear)	1308mm	51.5 Inches
Length	4470mm	176 Inches
Width	1645mm	64.8 Inches
Height	1334mm	52.5 Inches
Battery Capacity	64 kWh	~ 145 miles
Nominal Battery Voltage	325V (Total across both batteries)	
Chargers	Type 2 7kW to 22kW range	3 pin home charger (Mains) Type 2 Wall Charger
Weight	1475 KG	W/o Driver/Passengers/load



Technical Specifications

Tyre Specification

	Front	Rear
Rim size	16"	16"
Tyres	Avon Turbosteel	Avon Turbosteel
Tyre size	185 R16 - V	185 R16 - V
Load Index	93	93

Tyre Pressure

Vehicle State	Component	Measurements (Left)	Measurements (Right)	Units
Static Load (Floor)	Tyre Pressure Front	2.1/30.5	2.1/30.5	BAR/PSI
	Tyre Pressure Rear	2.1/30.5	2.1/30.5	BAR/PSI



Flat Tyres & Wheel Changing

Flat Tyres

In the event of a Flat Tyre your car is equipped with an Emergency Puncture Repair Kit which will be located in the boot. Pull over safely and determine which tyre needs inflation:

- If possible remove the object causing the puncture and move the vehicle so that the puncture is at the bottom of the wheel then deflate the tyre completely.
- Shake can vigorously before use. In cold conditions, warm the can in your hands or in the warm air from your car heater vent.
- Clean tyre valve thread and screw connection tube firmly onto the tyre valve.
- Hold can upright and press the button to release the latex foam into the tyre until the tyre is firm
- IMMEDIATELY DRIVE AT LEAST 3 - 6 MILES (5 - 10 KM) to allow the latex to spread in the tyre and mend the puncture. DO NOT EXCEED 30 MPH (50 KPH) DURING THIS TIME
- At the earliest opportunity stop and adjust the tyre pressure in accordance with the manufacturers handbook. THIS IS A TEMPORARY REPAIR. THE TYRE MUST BE PERMANENTLY REPAIRED OR REPLACED AS SOON AS POSSIBLE.

Jacking Points

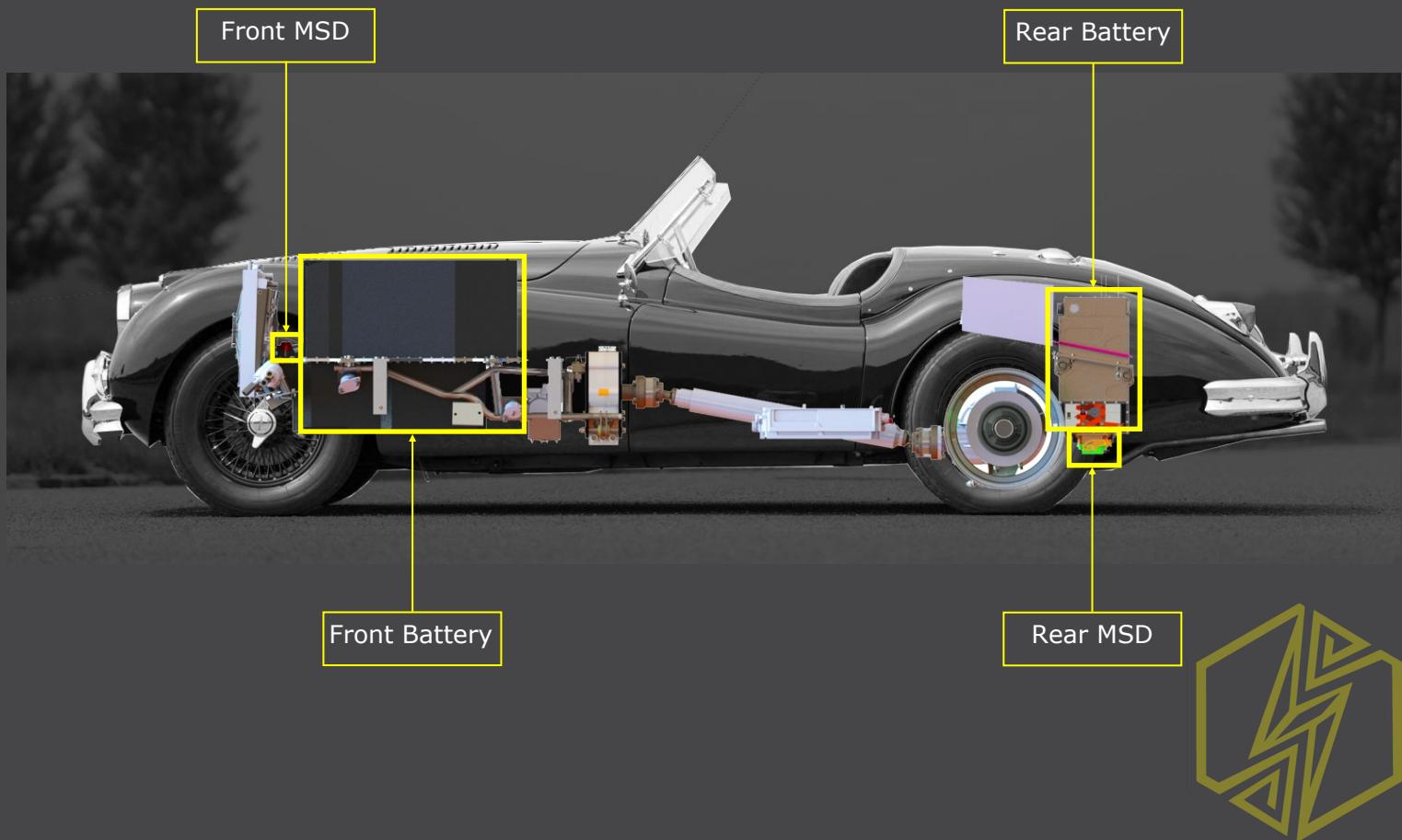
In order to jack the car up, use the middle of the chassis as the point of lift.

Wheel Change

To remove the Wheel, as indicated on each wheel, the unique wheel nuts must be rotated always towards the front of the vehicle. Once the wheel nut has been removed and stored safely you may remove the wheel by carefully striking the inside of the wheel with a wooden mallet until the wheel is loose enough to remove.



Electrical Vehicle Components Layout



High Voltage Safety

Your Lunaz vehicle is equipped with a High Voltage System that makes the car function. The batteries have a combined maximum voltage of about 360V.

Components connected to the High Voltage System are indicated with and connected by orange-coloured cables.

Do not touch or tamper with the cables, or the components that they are connected to. Doing so can compromise the HV safety structure of the vehicle, and create a risk of electric shock, which can be fatal at such high voltages, and additionally any altered components can become fire hazards.

The High Voltage System is not serviceable by the user, or uncertified professionals, and should not be altered in any way by anybody other than Lunaz professionals.

Do not replace components, remove components, open the battery housing or battery itself, or alter the system in any way. Doing so can create a risk of electric shock, which can be fatal at such high voltages, and additionally any altered components can become fire hazards.

Do not damage the battery or battery housing. The battery contains chemicals that can be corrosive, harmful, and can additionally produce toxic fumes. In the event that the battery or its housing are damaged in any way, for example in any kind of collision, contact Lunaz immediately. Do not attempt to service the vehicle, and do not start or use the vehicle under any circumstances.

Please adhere to all safety advice and instructions both within this document and on your vehicle, as they are there for your safety and benefit.

In the event of a fire, immediately call 999 and ask for the fire department.

You must inform them that your vehicle is an EV, and is equipped with Lithium-Ion batteries and a High Voltage System.

If instructed by the emergency services, turn the MSD switches to lower the safety risks of contact with the vehicle

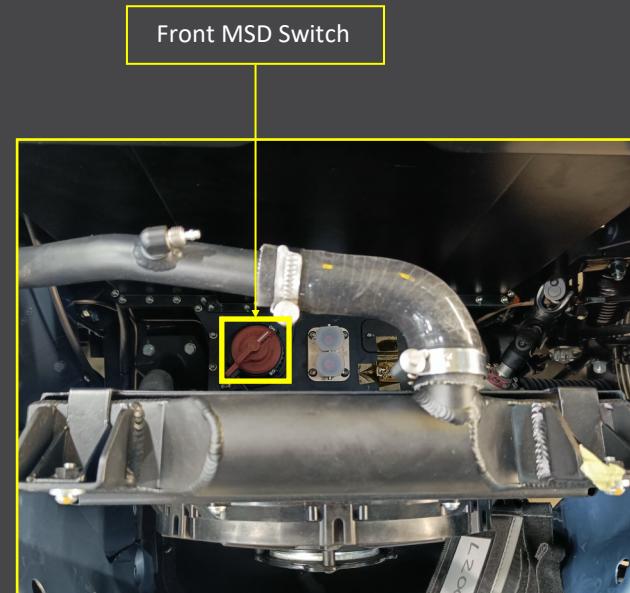


High Voltage Safety

Manual Service Disconnect (MSD) - Front

For safety, each vehicle is equipped with a Manual Service Disconnect (MSD) switch for each battery pack fitted to the vehicle. On this model, for the front battery pack, the MSD is located at the far end of the battery pack from the cabin; when opening the bonnet by pulling the bonnet release from within the car as covered in [Doors, Boot and Bonnet and Storage](#), a red turn switch can be seen as pictured below, behind the front radiator.

The MSD is used to manually split the voltage across the battery. It should only be used in the event of an accident or crash, when the switches can be safely reached, or when instructed to do so by emergency services, or Lunaz.

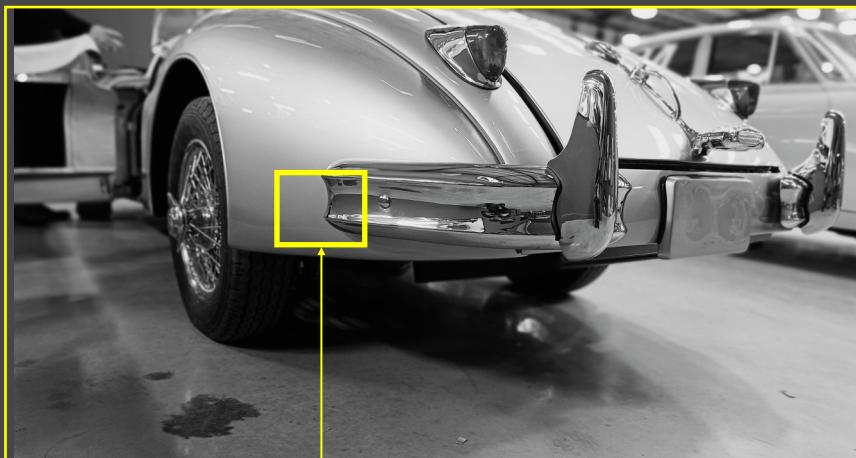


High Voltage Safety

Manual Service Disconnect (MSD) - Rear

The Rear MSD is located inside the boot of the vehicle. On centre of the boot floor, there is a panel that can be opened, giving access to the MSD housing. Remove the panel, and open the housing catch. Inside the housing you will find a similar red turn switch with a yellow mounting.

The MSD is used to manually split the voltage across the battery. It should only be used in the event of an accident or crash, when the switches can be safely reached, or when instructed to do so by emergency services, or Lunaz.



Rear MSD Location



Rear MSD



Safety Disclaimer

Driving can be dangerous.

It is the responsibility of the driver to obey all traffic laws, and to abide by the highway code when operating this vehicle.

Some of the necessary precautions for safety are highlighted in this document, such as seatbelts and checking lights, but it is up to the driver to drive with common sense and safety as a priority.

Lunaz cannot be held accountable for reckless driving, or any accidents or injuries that occur as a result of ignoring the safety precautions of your vehicle explained in this document, or as a result of disobeying the necessary traffic laws.

The vehicle is equipped with a High Voltage system. Do not attempt to touch or service the system unless you are a trained and certified professional, you are wearing all of the proper PPE, and are taking all necessary precautions throughout the operation.

Lunaz cannot be held accountable for any accidents, injuries or damage that occurs as a result of an individual interacting with the High Voltage system. All actions are carried out at the individual or professional's own risk and discretion.

Do not attempt to modify this vehicle in any way. Improperly made modifications or unprofessional work carried out on the vehicle can damage the High Voltage system or other systems on the vehicle, as well as impact vehicle structure and compromise the safety of the occupants, and others on the road, in the event of an accident or collision. Additionally, it can compromise the High Voltage Safety of the vehicle, making the car a hazard and putting users at risk of potentially fatal electric shocks.



What to do in the event of an accident

Instructions

In the event of an accident, if possible, change gear to Park as normal and turn off the vehicle, removing the key afterwards, and/or exit the vehicle cautiously. If necessary, contact the appropriate emergency services as required.

Damaging the battery in a collision can cause it to become a safety hazard and a potential fire risk. It is possible that the battery may combust in a collision.

In the event of a fire, or if smoke is coming from the vehicle, call 999 and ask for the Fire Department. You must inform them that your vehicle is an EV, and is equipped with Lithium-Ion batteries and a High Voltage System.

The Lithium in the battery packs is highly volatile and flammable.

Some elements within the battery can produce toxic fumes that can harm humans and pose a threat. Some chemicals within the battery are corrosive, and can damage skin, infrastructure and can cause chemical burns. It is necessary to avoid contact with anything leaking from the battery or vehicle structure.

For this reason, in the event of a collision, stand clear of the vehicle and do not return to it to retrieve any belongings, as the vehicle is a safety hazard to those around it in such circumstances. Do not return to the vehicle unless informed that it is safe to do so by the appropriate present emergency services, or Lunaz. Do not touch any components of the High Voltage System, such as the orange cables, or anything in contact with components of the High Voltage System, as these can be a safety risk and can cause a fatal electric shock, especially if damaged in a collision.

In the event of any damage being done to the vehicle, in a collision or otherwise, no matter how significant or insignificant, contact Lunaz and inform us of what has happened. We will take your vehicle and assess its condition, carrying out any repairs as necessary.

Emergency First Aid

EVAQ8 Advanced Car Safety Kit with Extinguisher and Torch UK Standard Parts located in the boot within your Emergency Equipment Bag.



What to do in the event of an accident

Transport Instructions

In the event of a breakdown, collision, or otherwise, if your vehicle is not drivable and must be removed from the scene, **do not** tow the vehicle away, under any circumstances. This is due to how the wheels are attached to the motor, and cannot freely rotate without damaging the drivetrain. Doing so can also cause the vehicle to overheat, and can potentially cause components to ignite.

The vehicle must be transported flat, such as on the bed of a suitable truck or large trailer/transporter.

The vehicle may be slowly pulled forwards enough to load it onto the transporter safely, without causing damage to the drivetrain. Ensure that the vehicle is in Neutral.

Move the vehicle on to the bed or trailer, and securely fasten the wheels to ensure that they will not rotate. If possible, put the vehicle into Park.

See [Technical Specifications](#) for information on vehicle weight and dimensions.



Troubleshooting

If a fault occurs with your Lunaz vehicle, the first thing to do is safely pull over (if driving) and stop the vehicle. Fully turn the car off and remove the key from the ignition. Leave the car off for two to five minutes, before restarting the vehicle as normal.

If the fault is still occurring, contact Lunaz for assistance.

If roadside assistance is required, call as normal and inform them that your vehicle is electric, and is equipped with a High Voltage system onboard. If your vehicle needs to be taken away, do not under any circumstances tow it away. It must be transported flat on the back of a low loader, trailer, lorry etc. Inform your roadside assistance provider of this before they arrive.

Instructions for correctly transporting the vehicle are listed in the above section, What to do in the Event of an Accident.

Charging

If an error occurs whilst your vehicle is charging, it will be indicated by the red LED above the charge socket illuminating Solid red. If you see this light, fully depress the footbrake to deactivate charge mode, remove the charger and turn the vehicle all the way off. Wait for five minutes, then re-engage charge mode as normal and try plugging in the charger again. More information on [Charging](#).

If the problem persists, please contact Lunaz and don't re-attempt to charge your vehicle again, as it your vehicle or High Voltage system may need servicing.

Gears

If an error occurs with selecting and using the gears of your vehicle, neither the REV. or FWD. will illuminate. If this happens, depress the footbrake and raise the handbrake to 'Park', turn the vehicle fully off, and wait for five minutes. Turn the vehicle on again as normal, and try selecting a gear.

If the problem persists, please contact Lunaz, as your vehicle may need servicing or your gear system may be damaged.

