



**OWNER'S MANUAL** 





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## Welcome to your Grenadier

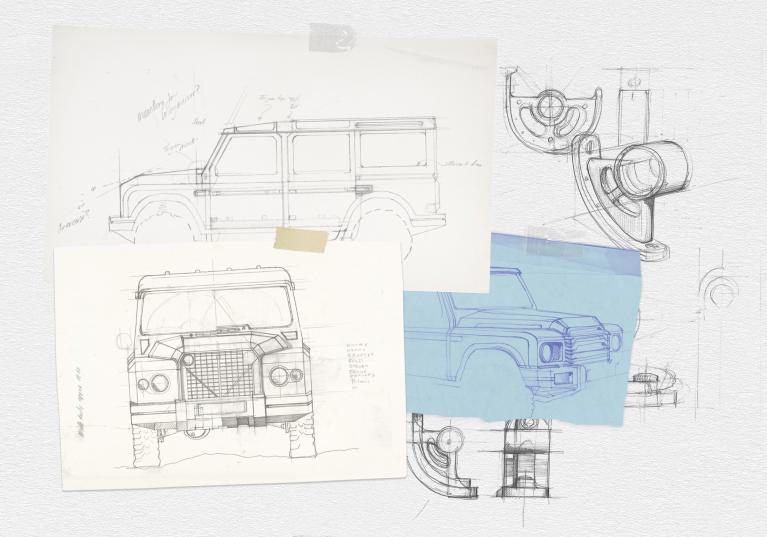
You're now not only the owner of a 4x4 with a story like no other. You're one of a group of like-minded individuals playing your part in the Grenadier's journey. What began in 2016 as foundes Jim Ratcliffe's vision to create a truly robust, reliable and ready-to-work

to create a truly rosust, retaile that idea and building that idea and building the vehicle you're driving today has been a huge team effort, with our people, our partners and now drivess like yourself rising to every challenge.

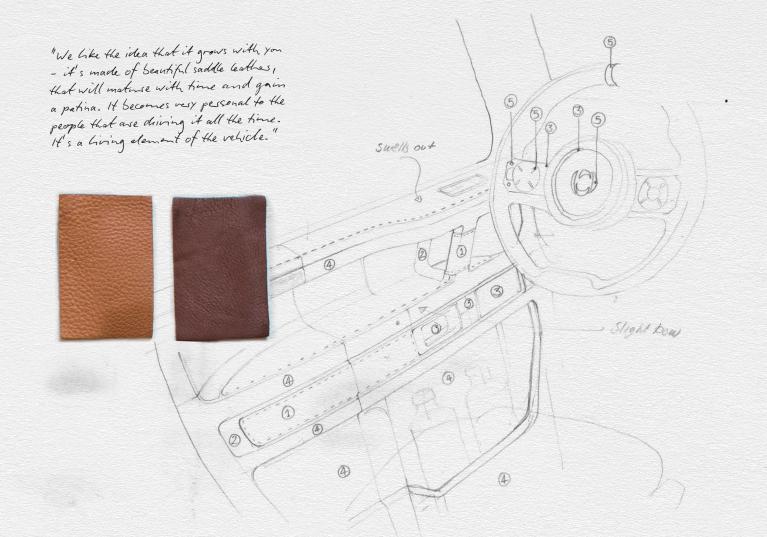
This guide is intended to help you familiarise yourself with, and get the most from, your Grenacher. But these's nothing as instructive as getting out these and driving it. That's where your Grenacher's build quality and off-road capabilities will speak for themselves.

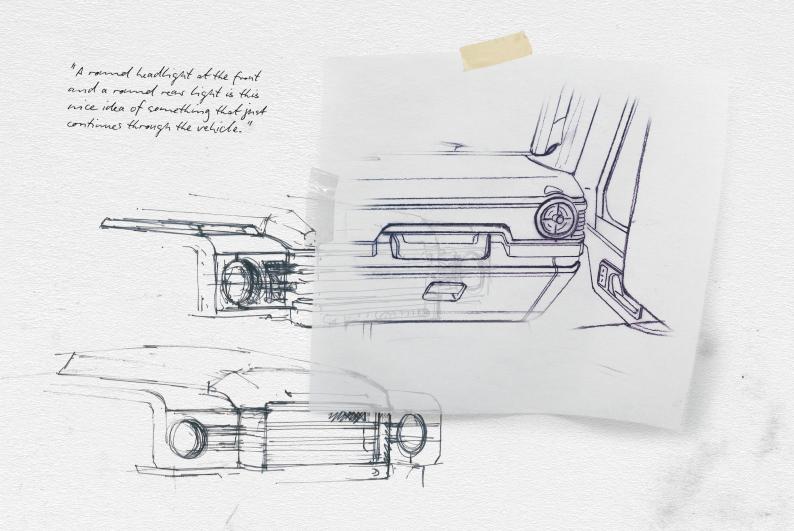
In short, shing and new as it is, these's no need to treat your Grenachier delicately. It was conceived, designed and built on purpose. It's time to put it to yours.

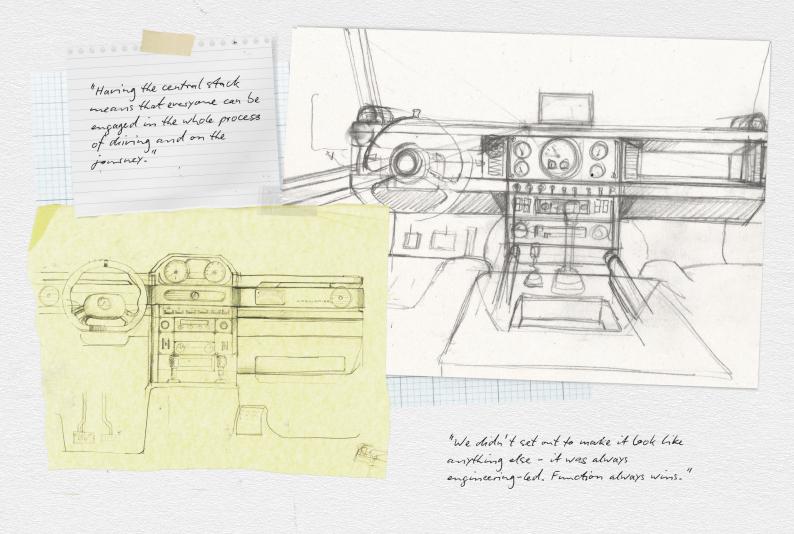




569599 100000000 "It's not a vesy complicated result of a wheel in each cornes, a laddes frame, then an engine of a certain size, which needs a certain number of radiators and cooling and space for crashing."







### Copyright

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For the latest information, please refer to the online Owner's Manual.

Any software instructions printed inside the book were correct and up to date at the time of printing. However, software can be updated over time with continued improvements over the lifetime of the vehicle. Contact your INEOS representative for further information.

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## **INEOS WARRANTY**

VIN	Authorised INEOS Partner Stamp
Model	
Registration Date	
Partner Name	
Partner Code	
Engine Number	
Registration Number	
Additional Information	



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## INTRODUCTION

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### INTRODUCTION

#### **ABOUT THIS MANUAL**

Thank you for choosing your INEOS Grenadier.

This Owner's Manual has been designed to explain the vehicle's operation and to make the control of its systems easy to understand and operate. The more familiar you are with your vehicle, the better control you will have on and off the road. We therefore strongly suggest reading the Owner's Manual before driving.

The Owner's Manual has been printed with information to help keep the vehicle well maintained, reliable and safe, which will contribute to maintaining the value of your INEOS Grenadier.

The information in this manual is created for all variants of the vehicle. Thus, it is possible that some of the information will not be applicable for your vehicle variant.

You must always comply with the specific laws and regulations of the country that you are in. These laws may differ from the information in this Owner's Manual. This Owner's Manual forms part of the essential vehicle equipment for homologation purposes and must stay with the vehicle at all times.

The advice given in this Owner's Manual is for guidance only and is not intended to be an exhaustive list of appropriate actions in all circumstances. If in doubt, owners should consult an INEOS approved Partner.

#### **Warnings, Cautions and Notes**

The following symbols are used within this Owner's Manual to call your attention to specific types of information. The safety

warnings are to ensure care is taken to follow instructions to avoid injury, or serious damage to the vehicle.



WARNING: Warnings provide awareness of procedures that need to be followed precisely. Failure to follow "WARNING" instructions may result in equipment damage, property damage, and/or personal injury.



CAUTION: Cautions provide awareness of possible damage to the equipment and/or vehicle. Failure to follow "CAUTION" instructions may result in equipment damage and/or property damage.



NOTE: Notes are provided to show procedures which will help avoid difficulties in the operation of your equipment and/or vehicle

#### **Component Location**

Component location and positioning will be described as viewed from the centre of the vehicle looking forward.

#### DATA RECORDING

There are various electronic modules and components in this vehicle with the ability to record detailed data temporarily and permanently. The information and data recorded, can be conditions of the vehicle, such as, faults or the condition of some

### INTRODUCTION

mechanical parts or safety systems. Other examples of recorded data includes but may not be limited to the following:

- Operating conditions of the system.
- Components such as fill levels for fluids.
- The use of restraint systems or the conditions of the airbag system.
- Information about the performance of various systems and modules.
- Environmental conditions such as carbon emissions and temperature.
- Information relating to the operation of the vehicle at the time of a near collision, or in the event of a crash, such as, the vehicle speed or brake application.
- NOTE: Information may be stored during regular road and off-road use.

The information stored temporarily or permanently, by the vehicle systems can be read and used by authorities, such as, law enforcement or government agencies (if required), with special equipment and access to the vehicle. This may occur if the vehicle has been involved in any event, such as, a near miss collision or a crash. Service and repair facilities may require the use of the data stored within the vehicle systems to understand where and why, there may have been a malfunction or error. This is critical in providing precise and effective diagnostics to the vehicle, to

ensure the occupants are safe when the vehicle is in use, both on road and off-road.



NOTE: The data and information stored in the vehicle, might also be required by others who may assert a right or obtain your consent to know such information.

TELL_TALE LAMDS			
TELL-TALE LAWIPS	***************************************	***************************************	

#### **TELL-TALE LAMPS**

The Tell-tale Cluster is located on a screen behind the steering wheel. The lamps will illuminate when triggered depending on the feature or function they represent. This shows the appearance of the Tell-tale Cluster when you turn your Grenadier's ignition on. Familiarise yourself with these signals and their meanings as described in the table below. These are for your information, and you must understand their meaning.

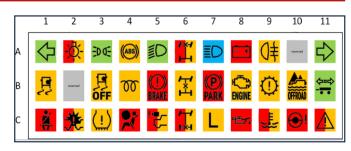
The lamp colours give you information about different conditions after the initial Ignition On check and illumination.

LAMP COLOR	MEANING
Green or Blue	The function is activated.
Yellow	There is a condition of which you should be aware.
Red	There is a condition that requires your immediate attention.

The following gives more specific information. You should consult the relevant sections and subsections of this manual for more information.



NOTE: ADAS may not be equipped in your region.



LOCATION	MEANING
A1	Left turn signal on
A11	Right turn signal on
A2	Exterior bulb failure. If you must drive, be aware of this and drive sparingly and accordingly. Consult an INEOS Approved Partner as soon as you can.
А3	Side lamps on
A4	Anti-locking brake fault. If you must drive, be aware that this feature is lacking and drive sparingly and accordingly. Consult an INEOS Approved Partner as soon as you can. Will also illuminate if the rear and/or front differentials are locked.
A5	Low beams on

LOCATION	MEANING
A7	High beams on
A6	Front differential lock engaged
A8	Electrical charge
A9	Rear fog lamps
В3	Electronic Stability Control (ESC) off
B4	Diesel Preheat
B1	ESC fault. If you must drive, be aware that this feature is lacking and drive sparingly and accordingly, particularly on slick roads. Consult an INEOS Approved Partner as soon as you can. Will also blink when actively supporting driver.
B5	Brake system fault. If this is illuminated, do not drive your Grenadier. Have it towed to an INEOS Approved Partner.
В7	Parking brake on. Note that this means only that the brake is on enough to trigger the switch. The parking brake lever may not be pulled enough to keep your Grenadier stationary, particularly on slopes and under heavy loads.

LOCATION	MEANING
B8	Check the engine. If this is illuminated, limit your driving and consult an INEOS dealer as soon as you can. If the lamp is red, stop driving immediately. Park your Grenadier in a safe place and contact an INEOS Approved Partner to have your Grenadier towed there.
В9	Transmission failure - If there is a fault, do not drive your Grenadier and consult with an INEOS Approved Partner.
B11	Trailer turn signal
C1	Seat Belt Warning. Seated front seat passenger and/or driver is unbuckled or rear seat passenger/passengers unbuckled during driving. Please make sure that all passengers are buckled.
C3	Low tyre pressure warning. Pull over. Inspect your tyres for damage. Adjust your tyre pressure to the recommended level.
C4	Air bag fault. If you must drive, be aware that this feature is lacking and drive sparingly and accordingly. Consult an INEOS Approved Partner as soon as you can.
B10	Off-road Mode/Wading Mode engaged

LOCATION	MEANING
В6	Centre differential engaged
C6	Rear differential lock engaged
C7	Low gear indication
C8	Engine oil low
C9	Coolant temperature
C10	Steering system failure. If the lamp is illuminated, stop driving immediately. Park your Grenadier in a safe place and contact an INEOS Approved Partner to have your Grenadier towed there.
C11	Overall warning. If the lamp is red, stop driving immediately. Park your Grenadier in a safe place and contact an INEOS Approved Partner to have your Grenadier towed there.
C2	Forward Collision Warning. If this is illuminated, there is an error in the system or AEB (Automatic Emergency Braking) has been deactivated by the driver. If the lamp is red, the AEB (Automatic Emergency Braking) system detects possible danger.

LOCATION	MEANING
C5	Front Camera View warning. If this is illuminated, the camera is obstructed and ADAS systems will not be available.

## **BEFORE DRIVING**

ALCOHOL INTERLOCK (OPTIONAL)	 	2

### **BEFORE DRIVING**

### **ALCOHOL INTERLOCK (OPTIONAL)**

The INEOS Grenadier can be equipped with an Alcohol Interlock (Al) as an optional extra. The function implementation is based on EN50436-4(2022) (European standard for ignition interlock devices).

The Alcohol Interlock (AI) is part of the immobiliser system. Therefore, a sample of breath will need to be taken before the driver can start the vehicle.

For further information regarding the Alcohol Interlock (AI), please scan the following QR Code:



Alternatively, visit the INEOS Grenadier website for more information:

https://ineosgrenadier.com/

## **VEHICLE OPERATION**

SAFARI WINDOWS (OPTIONAL)		2

### **VEHICLE OPERATION**

### **SAFARI WINDOWS (OPTIONAL)**

The safari windows are located in the roof of the vehicle. The safari windows can be partially opened to let air flow in and out of the vehicle in hot climates or when drying the interior after washing. The safari windows can be completely removed and stored in the vehicle.



WARNING: Do not operate the safari windows while driving.



WARNING: Make sure the mechanism is fully locked into place when the safari window is opened but not removed.



WARNING: Do not drop the safari windows on to hard surfaces. Always handle with care.



WARNING: Always firmly grip the safari windows and slowly guide the windows through the sunroof opening. Dropping or pulling the window through the opening quickly can result in damage to the vehicle or serious injury to the occupants.



CAUTION: It is important to close the safari windows in bad weather conditions to avoid water damage to the interior of the vehicle.



CAUTION: Never leave the safari windows partially open or fully removed when away from the vehicle.

To partially open the safari windows:

- Push the latch mechanism towards the front of the vehicle.
- Push the latch mechanism upwards, until the latch mechanism is firmly pushed and locked into place.

To completely remove the safari windows, follow this procedure:

- 1. Partially open the safari windows.
- Push the lower section of the locking mechanism upwards. Do this until the safari window and the lower section of the locking mechanism detach.
- Push the safari window upwards until it is possible to direct the safari windows away from the front of the vehicle, freeing the brackets from the latch support.
- 4. The safari window should be held with a firm grip using two hands to guide it in through the opening.



NOTE: Do not balance the window on the vehicle roof, in the process of detaching.

#### Safari Window Storage



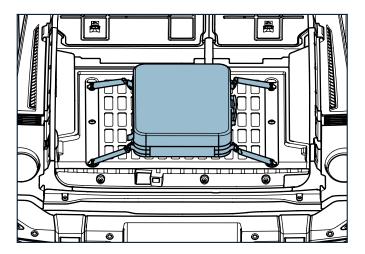
WARNING: The storage bag must be secured adequately in the vehicle. Failure to do so may result in the bag moving around causing injury to occupants or damaging the vehicle.

### **VEHICLE OPERATION**



CAUTION: Use the storage bag when moving or transporting the safari windows. Failure to do so may result in damage to the vehicle and to the safari windows.

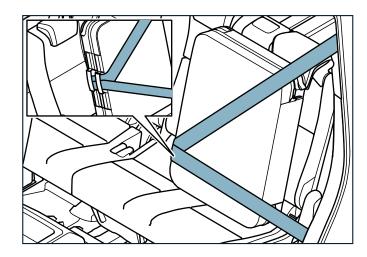
There is a dedicated storage bag to safely store the safari windows in once they have been removed from the vehicle. The Bag must be secured to the tie down rings on the loadspace floor. Please see the following image:





NOTE: In the Station / Utility Wagon, the bag must be placed in the rear of the vehicle, strapped in using the lashing eyes to keep it secure and in place.

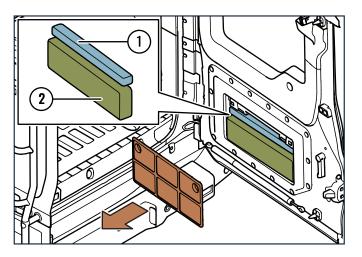
In the Quartermaster, the bag must be placed on either of the two outboard seats of the rear bench in a portrait orientation with handles facing inward. The respective seatbelt must be fed through both storage bag handles and locked into place.



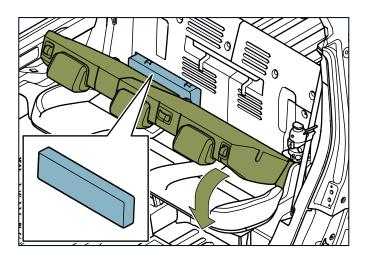
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#### FIRST AID KIT

The Station / Utility Wagon may come with a First Aid Kit (2). The kit (if applicable) is located in the rear door of the vehicle.



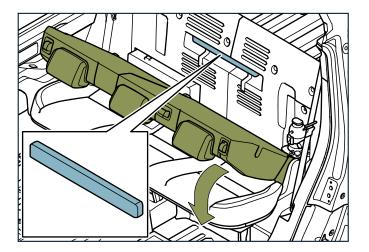
For the Quartermaster, the First Aid Kit (if applicable) is located behind the Rear Bench Seat.



### **WARNING TRIANGLE (OPTIONAL)**

The Station / Utility Wagon may come with a Warning Triangle (if applicable), the Warning Triangle is located in the rear door of the vehicle (1). The Warning Triangle is used to warn other drivers of your presence on the roadside. Use the Warning Triangle, to give other drivers time to safely adjust their speed and driving position.

For the Quartermaster, a Warning Triangle may come with the vehicle. The Warning Triangle (if applicable) is located behind the Rear Bench Seat.



### FIRE EXTINGUISHER (OPTIONAL)

The fire extinguisher comes as part of the 'Roadside Emergency Kit Plus' option. If applicable, the fire extinguisher is located in front of the front passenger seat. The fire extinguisher is used for

emergencies, please refer to the manufacturer's instruction label on the extinguisher.

#### WARNING VEST

The vehicle may come with a hi-vis warning vest. If applicable, the vest is located in the rear door of the Station / Utility Wagons and behind the rear bench seat for the Quartermaster. Always keep the hi-vis warning vests with the vehicle and wear in the case of an emergency or breakdown.

#### **VEHICLE TOOL KIT**

There is a tool kit in the vehicle for use in an emergency, such as, changing a wheel at the roadside. The tool kit is located under the driver seat. To remove the tool kit, open the driver-side door, undo the retaining strap, and slide the tool kit out from underneath the seat when it is safe to do so.

#### **BOTTLE JACK**



WARNING: Make sure heavy luggage and/or passengers are out of the vehicle, and any connected trailer is unhitched, before raising the vehicle with the Bottle Jack.



WARNING: Make sure the vehicle is on stable and level ground, before lifting the vehicle using the Bottle Jack.



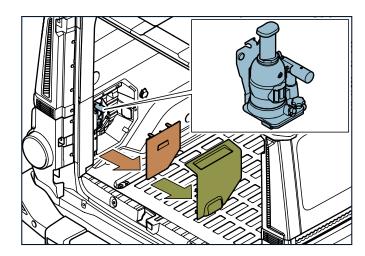
WARNING: No persons should be under the vehicle for any reason when the vehicle is lifted on the Bottle Jack.



CAUTION: The top threaded extension of the Bottle Jack MUST be unscrewed to its upper stop position prior to use.

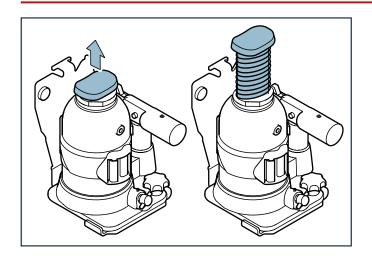
There is a Bottle Jack in the Station / Utility Wagon for use in an emergency, such as, changing a wheel at the roadside. The Bottle Jack is located in the rear loading area, behind the service panels.

Once the outer service panel is removed, there is a secondary inner panel that needs to be removed to reveal the Bottle Jack.

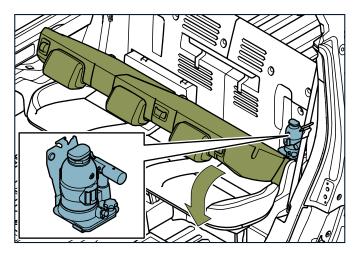




NOTE: When securing the Bottle Jack back into place inside the vehicle, it is recommended that the top threaded section of the Bottle Jack is extended upwards. This is to help secure the Bottle Jack into position and eliminates any movement or rattling.



For the Quartermaster, the Bottle Jack is located behind the Rear Bench Seat.



NOTE: Before using the bottle jack make sure there are no signs of damage or wear to the bottle jack. If there is damage or an issue with the bottle jack, consult immediately with your INEOS approved partner.

#### **Vehicle Jacking**



WARNING: Only use the Bottle Jack to raise the vehicle on firm and level ground. This will ensure stability of both the Bottle Jack and the vehicle.



WARNING: The Bottle Jack itself must be located on firm and solid ground. lear stones or other debris from under the base of the Bottle Jack before use.



WARNING: Do not use the Bottle Jack if you are unsure of the jacking point locations on the vehicle. Seek advice and support from an INEOS approved partner.



WARNING: Always check there are no objects or persons under the vehicle when using the Bottle Jack at any time. Failure to do this may result in serious injury or death.

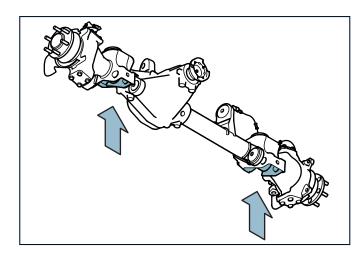


WARNING: Do not jack up the vehicle with occupants or heavy luggage inside. If towing, always secure and disconnect the trailer before proceeding to use the Bottle Jack. Failure to do so may result in the Bottle Jack failing as the vehicle may be too heavy. This may lead to serious injury or death.

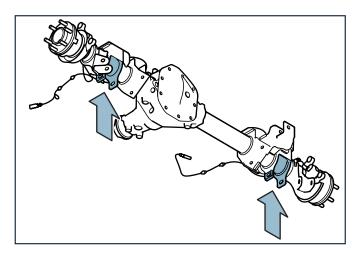


NOTE: It is recommended when jacking the vehicle up, that the wheels are chocked and the vehicle is in park P, to help ensure there is no unexpected vehicle movement.

There are designated jacking points on the underside of the vehicle, front jacking points are located on the front axle:



The designated rear jacking points are located on the rear axle:





CAUTION: The top threaded extension of the Bottle Jack MUST be unscrewed to its upper stop position before jacking up the vehicle. This will help prevent the Bottle Jack from touching other parts of the vehicle when in operation. Only when the top threaded section of the Bottle Jack is extended, should the Bottle Jack be used to lift the vehicle.

To raise the vehicle using the Bottle Jack:

- Make sure to close the release valve by turning it fully clockwise.
- Position the Bottle Jack between the two shock absorber mounting brackets on the axle.
- 3. Extend the top threaded section of the Bottle Jack, until it can't extend any further.
- 4. Pump the lever up and down to raise the jack.



NOTE: Parts under the vehicle may be hot, be careful when under the vehicle. For example, the exhaust can be extremely hot if the vehicle is not allowed time to cool first.

#### To lower the jack:

- Remove all tools and objects from beneath the vehicle, check to make sure there are no people or parts of the body underneath the vehicle.
- Remove the lever from the bottle jack and slot on to the release valve.
- Slowly rotate the release valve, anti-clockwise, to slowly lower the vehicle back to the ground, do this carefully to avoid sudden movements of the bottle jack and vehicle.
- 4. Remove the Bottle Jack when safe to do so.

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### ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS) (If Applicable)



WARNING: The Advanced Driver Assistance System is to be used for driver support only. The driver is responsible for the control of the vehicle in all situations. Failure to remain in control of the vehicle may result in damage to the vehicle and injury or death.



WARNING: Weather conditions can affect the accuracy of the system. Always remain in control of the vehicle and do not rely on the system to operate the vehicle for you.



WARNING: Do not block the Front Camera and ensure there is always a clear field of view. Make sure the window screen in front of the camera is clear of dirt and/or obstructions. This includes sun/glare strips and/or window screen films and stickers.



WARNING: If the center differential lock is activated, all ADAS functions are automatically deactivated.



WARNING: Window screen damage such as, cracks and stone ships can affect the functionality of the system if they are in the camera field of view. Consult with an INEOS approved partner if you have damage to the window screen and/or the system is not working correctly.



WARNING: Objects on the bonnet and big dimension objects on the roof can interfere with the Front Facing

Camera's performance. It is the driver's responsibility to keep a clear line of sight for the Front Facing Camera.



WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

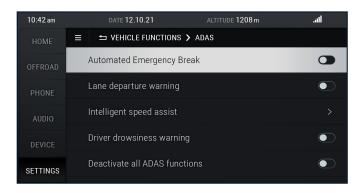
The Advanced Driver Assistance System includes: Intelligent Speed Assist, Lane Departure Warning, Automatic Emergency Braking and Driver Drowsiness Detection.

#### **ADAS Settings and Tell-Tale Lamps**

The ADAS settings can be configured within the infotainment system. Using the infotainment screen, press 'SETTINGS', followed by 'Vehicle Functions' and then 'ADAS'.

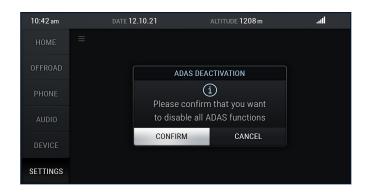
The 'ADAS' menu consists of the following:

- Automated Emergency Brake.
- Lane Departure Warning.
- > Intelligent Speed Assist.
- Driver Drowsiness Warning.
- Deactivate all ADAS Functions.



All ADAS functions can be deactivated by pressing the 'Deactivate all ADAS functions' toggle once.

When pressed, there will be a pop up message asking to confirm the option selected.





NOTE: The option to 'Deactivate all ADAS functions' will be greyed out, if the vehicle is travelling at speeds higher than 6mph (10km/h).

#### **Front Camera**



WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

There is a Front Camera positioned in the front windscreen of the vehicle to enhance safety and assistance functions, such as

Autonomous Emergency Braking (AEB), Intelligent Speed Assist (ISA) and Lane Departure Warning (LDW).

If the camera view is obstructed for a short period of time, the following warning 'Front Camera View Limited', will be visible on the infotainment screen.



If the camera is obstructed for a longer period of time or there is an error with the camera, then the following warning 'ADAS malfunction', will be visible on the infotainment screen.





NOTE: ADAS systems will not be available, if there is an ADAS malfunction and the ADAS malfunction warning is visible.

### AUTOMATIC EMERGENCY BRAKING (AEB) (If Applicable)



WARNING: Automatic Emergency Braking is to be used for driver support only. The driver is responsible for the

control of the vehicle in all situations. Failure to remain in control of the vehicle may result in damage to the vehicle and/or injury and/or death.

Automatic Emergency Braking (AEB) is a safety system within the vehicle that monitors the traffic and road conditions to warn the driver of an upcoming danger.

AEB systems use camera sensors to help prevent accidents. The vehicle will use the system and other information such as, travel speed and trajectory to determine whether or not there is an upcoming danger.

The AEB system will automatically apply the brakes of the vehicle, if the driver does not respond within due time. The AEB system is in place to decrease the speed of the vehicle to a life saving degree, if not avoiding the danger entirely.

### Forward Collision Warning (FCW)



WARNING: The Forward Collision Warning system is designed to react to cars, vans, trucks and some motorbikes. The system will not react to scooters, cyclists, pedestrians and animals. Take care and be vigilant when driving the vehicle.

When the AEB system detects a possible danger, the vehicle sends out a Forward Collision Warning (FCW) to the driver. The FCW consists of an audible warning and a visual warning. The visual

warning consists of a red illuminated tell-tale lamp  $oldsymbol{\mathfrak{X}}$  and a



warning symbol on the infotainment screen. When the visual warnings are displayed the driver will hear a warning sound at the same time.



The FCW will stay active, until the AEB operation has finished. FCW and AEB is aborted if the driver hard steers, accelerates or presses and releases the brake pedal.

### Forward Autonomous Collision Mitigation (FCW/AEB)

FCW and AEB will operate in the following conditions:

- Speed range of 6-80 mph (10-130 Km/h).
- Electronic Stability Control (ESC) is fully active.

- Off-road Mode / Wading Mode deactivated.
- Differential lock is not engaged.

There are limitations to the system as listed below:

- > Cold or severe weather (Snow, Ice, Rain, Spray and Fog).
- Limitations in hazard detection due to low or direct sunlight, low light and unconventional vehicle types.
- System does not react to Scooters, cyclists, pedestrians, and animals
- System will not operate under hard steering or acceleration.

There are two sub functions, as seen below:

- > Forward Collision Warning.
- Autonomous Emergency Braking.

#### **AEB And FCW - Activation and Deactivation**

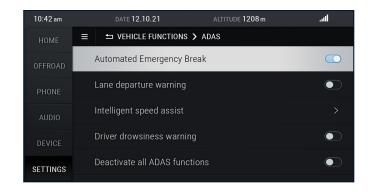


WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

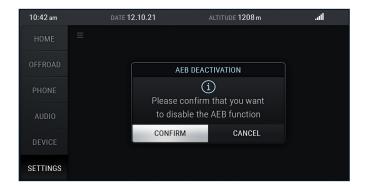
The system is automatically switched on when the vehicle is started.

The driver can deactivate or reactivate the FCW and AEB features manually, by navigating to the 'ADAS' menu on the infotainment screen. Deactivation and activation can only be done by the driver

manually, when the vehicle is traveling at less than 6 mph (10  $\,$  km/h).



The Driver will be asked to confirm deactivation of AEB, if pressed. This is a fail safe, to ensure there is no accidental deactivation of the system.



If the FCW and the AEB functions are deactivated by the driver or there is an error with the system, then there will be a visible warning on the infotainment screen and the following illuminated tell-tale lamp  $\maltese$  .



## DRIVER DROWSINESS DETECTION (DDD) AND WARNING (If Applicable)



WARNING: Driver Drowsiness Detection is to be used for driver support only. The driver is responsible for the control of the vehicle in all situations. Failure to remain in control of the vehicle may result in damage to the vehicle and/or injury and/or death.

Driver Drowsiness Detection (DDD) assesses the driver's alertness through vehicle systems analysis, warning the driver if needed.

The driver will be alerted by a visual warning on the infotainment screen and an acoustical warning to indicate to the driver, that they should take a break at the next available safe opportunity.



#### **DDD** - Activation

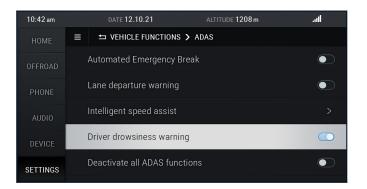
The DDD system is automatically active, when the engine is ON.

The system will optimally monitor the sleepiness of the driver. If the vehicle is being driven within a City or off-road then the system accuracy may be reduced. Driving at speeds above 80 mph (130 km/h) may also result in reduced accuracy of the system. The

driver is responsible to evaluate their own driving fitness and proceed to take regular breaks on long journeys.

#### DDD - Deactivation

The Driver Drowsiness Warning can be deactivated manually using the infotainment screen. Navigate to the 'ADAS' menu and press the 'Driver Drowsiness Warning' toggle once.



The driver will be asked to confirm that they want to switch OFF, the Driver Drowsiness Warning feature.

There are other circumstances where DDD may automatically be deactivated, for example, when the vehicle is put into Off-Road Mode. When the DDD feature has been deactivated, the driver will

see the following tell-tale symbol illuminated in orange  $igar{\Lambda}$  .

The system will be fully activated again, as soon as, the conditions that led to its automatic deactivation are no longer present.

#### DDD - Error



WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

When the vehicle is started, the system will check all the conditions necessary to ensure that the system is working correctly. If there is an error or malfunction with the system, then the driver will be notified that there is an issue.

Once the error has been detected, a visual warning will be displayed on the infotainment screen, the extstyle ex

illuminated orange and the Driver Drowsiness Warning toggle in the ADAS menu screen will be greyed out.



### LANE DEPARTURE WARNING (LDW) (If Applicable)



WARNING: Lane Departure Warning is to be used for driver support only. The driver is responsible for the control of the vehicle in all situations. Failure to remain in control of the vehicle may result in damage to the vehicle and/or injury and/or death.

Lane Departure Warning (LDW), is a system designed to warn the driver when the vehicle begins to depart from the lane it is travelling inside. The vehicle's Forward Facing Camera recognises lane markers, such as, paint stripes on the road. When the vehicle is too close to the left or right side lane markings with no turn signal activated, then the driver will be warned to manoeuvre the vehicle's direction of travel.

#### LDW Activation

The LDW system is automatically set to ON by default in each ignition cycle.

LDW will actively warn the driver with both an acoustic warning and a visual warning, when the vehicle is traveling above 40 mph (65 km/h) and the system is detecting that the vehicle is too close to the lines of the lane. The visual warning can be seen on the inforainment screen.

The infotainment screen will display the LDW information for the driver to see. In the following image the driver can see dashed

green lines, this indicating that the painted lines on the road have been detected successfully.



The following image shows dashed grey lines.



The dashed grey lines are visible due to one or more of the following reasons:

- Speedometer speed is less than 37mph (60km/h).
- Accelerator pedal is fully released.
- > Turn indicator activated by the driver.
- Hazard lamps activated by the driver.
- Curvature is above the threshold.
- Lane width is too small or too large.

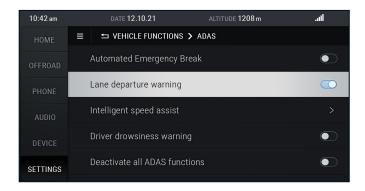
- Electronic Stability Control (ESC) intervention.
- Lateral Velocity above the threshold.

The following image shows the orange line indicating that the vehicle is too close to the left side of the lane.

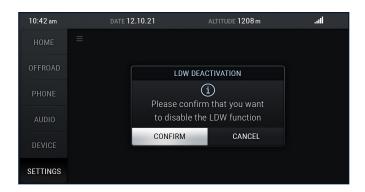


#### **LDW Deactivation**

LDW can be deactivated by the driver, using the infotainment screen. Navigate to the 'ADAS' menu and use the 'Lane Departure Warning' toggle, to switch the feature OFF.



A pop up screen will ask the driver to confirm deactivation of the LDW.



The system will automatically deactivate in some circumstances, such as, activating Off-Road Mode, Wading Mode and/or the differential lock is activated. The system shall be automatically reactivated, as soon as the conditions that led to its automatic deactivation are no longer present.

If the system is manually deactivated, then the grey lines representing the road markings on the infotainment screen will no

longer be visible. The following tell-tale will be illuminated in orange to confirm the deactivation of the LDW.

#### LDW Error



WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

Once the vehicle has been started, the system will check that all the functions of the system are working correctly.

If there is a malfunction or an error of any kind with the LDW system, then the driver will be notified by a visual warning on the infotainment screen and the following orange illuminated tell-tale

lamp !┺.



If there is a malfunction or an error with the system, then the Lane Departure Warning option will be greyed out.

### **INTELLIGENT SPEED ASSIST (ISA) (If Applicable)**



WARNING: Intelligent Speed Assist is to be used for driver support only. The driver is responsible for the control of the vehicle in all situations. Failure to remain in control of the vehicle may result in damage to the vehicle and/or injury and/or death.

Intelligent Speed Assist (ISA) detects road signs on both the right and left side of the road, including overhead signs, to aid the driver with useful information.

If the speedometer speed is above the detected speed limit on the road signs, then the ISA system will alert the driver with both an acoustic and visual warning.

In addition, the system uses a local map database (NDS map) to enhance system performance where speed limit signs are not visible.

#### ISA Activation

The system will be activated at the start of each ignition cycle by default.

When a road sign is detected, the system will display the sign to the driver on the infotainment screen as seen in the example images.





If the speed limit is not available, then a sign or speed limit will not be displayed.

#### **ISA Limited**

The driver will be notified with a warning on the infotainment screen, when the system is set to limited operation.



The system will be limited if any of the following occur:

- Unknown road from NDS map or there is a map data error.
- > Vehicle is driven on a private road.
- > Vehicle is driven off-road.
- > Camera is dirty or the field of view is obstructed.

- > Country code is not supported.
- NOTE: The system is able to automatically detect the country-code and set it without user confirmation.

### **ISA Overspeed Warning**

If the speedometer speed is higher than the perceived speed limit, then the image of the speed sign on the infotainment screen will flash. If the vehicle speed surpasses the perceived speed limit, then the vehicle will alert the driver with an acoustic warning. The warning will be triggered depending on variables, such as, the percentage of speed the vehicle is travelling above the speed limit and/or the amount of time the vehicle has been travelling above the perceived speed limit.

The flashing visual warning, will be provided when the speedometer speed exceeds the perceived speed limit. This will continue until the speedometer speed is less than or equal to the perceived speed limit. If the driver is slowing the vehicle intentionally, then the system will detect this and stop the visual warning.

If the driver does not slow the vehicle and continues to travel at speeds exceeding the perceived speed limit, then the acoustic warning will stop and the visual warning will continue.

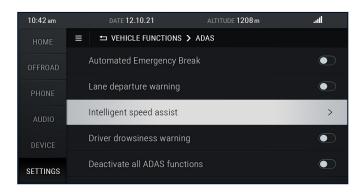
## **ISA Speed Change Notification**

When the system detects a new road sign indicating a change in the speed limit, the system will alert the driver with an audible sound.

The speed change notification settings can be switched ON or OFF in the settings. However, the system will store the last chosen option until the setting is changed again. As the Speed Change Notification is set to OFF by default, the driver will need to navigate the infotainment screen to the setting to activate this option. There is no default ON or OFF at the start of each ignition cycle for this option, the car will store the last chosen preference.

#### ISA Deactivation

The driver can toggle the ISA options by navigating to the 'ADAS' Menu, followed by a single press on the 'Intelligent Speed Assist' option.



The following options will be revealed and the driver can toggle them ON or OFF.

- Speed limit info.
- Overspeed Warning.
- Speed change warning.



The driver will be asked to confirm deactivation of ISA functions as a fail safe.



The system will automatically deactivate in some circumstances, such as, activating the Off-Road Mode. The system will automatically reactivate, as soon as the conditions that led to its automatic deactivation are no longer present.

If the system is deactivated, then the driver will be informed by the following orange illuminated tell-tale lamp and no speed sign will be shown.

#### **ISA Error**



WARNING: Immediately consult with your nearest INEOS approved partner, if you suspect a system fault.

After every vehicle start-up, the system checks all the conditions necessary to ensure everything is working correctly. If the system detects any malfunctions or errors, then a visual warning will be presented to the driver on the infotainment screen. The

Infotainment screen error will display a short text description and a yellow road sign image with no speed present.



If there is a malfunction or an error of any kind with the ISA system, then the driver will be notified by a visual warning on the infotainment screen and the following orange illuminated tell-tale

If there is a malfunction or an error with the system, then the Intelligent Speed Assist Warning option will be greyed out.

## ISA - Update Maps

To update the infotainment system with the latest maps information, navigate using the infotainment system to the 'GENERAL' menu, found inside the 'SETTINGS' tab. In this menu select 'Update NDS map', to reveal the NDS map version and a QR code.



Alternatively, the following link can be used instead:

### https://grenadier.mapupdate.info/

To use the download link:

- 1. Download the ZIP file using the link provided.
- Using a USB drive formatted as FAT32, extract the files from the downloaded ZIP file and copy the dbupdate directory to the USB drive.
- NOTE: There should be one dbupdate folder on the USB drive at one time.
- Using the Infotainment Screen, navigate to "ISA Maps Update".
- Insert the USB device into the USB connector within the vehicle.
- Follow the instructions on the infotainment screen.
- NOTE: For support updating the maps on your vehicle, please consult with your INEOS approved partner.

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### **CAPACITIES AND TECHNICAL INFORMATION**

## **Mass and Load**



WARNING: Do not load the vehicle beyond its intended capacities, loading equipment on the roof may change the vehicle's handling characteristics.

MASS & LOAD	UTILITY 2-SEATER		UTILITY 5-SEATER		STATION	WAGON
IVIASS & LOAD	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL
Gross vehicle weight [kg]	3500	3500	3500	3500	3500	3500
Unladen weight (without driver) [kg]	2 629	2 704	2 665	2 740	2741 <sup>T</sup> - 2678 <sup>F</sup>	2816 <sup>T</sup> - 2753 <sup>F</sup>
Maximum payload (without driver) [kg]	871	796	835	760	759 <sup>T</sup> - 822 <sup>F</sup>	684 <sup>T</sup> - 747 <sup>F</sup>
Dynamic roof load (with roof rack) <sup>R</sup> [kg]	150	150	150	150	150	150
Static roof load (with roof rack) <sup>R</sup> [kg]	420	420	420	420	420	420
Maximum unbraked trailer mass (on-road) [kg]	750	750	750	750	750	750

MASS & LOAD	UTILITY 2-SEATER		UTILITY 5-	UTILITY 5-SEATER		STATION WAGON	
IVIASS & LOAD	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	
Maximum braked trailer mass (on- road) [kg]	3500	3500	3500	3500	3500	3500	
Maximum Trailer Nose Weight [kg]	350*	350*	350*	350*	350*	350*	
Gross train weight [kg]	7000	7000	7000	7000	7000	7000	

 $<sup>^{\</sup>rm R}$  With Full Length Roof Rack (Roof Rack weight not included).

MASS & LOAD	QUARTERMASTER		
IVIASS & LOAD	PETROL	DIESEL	
Gross vehicle weight [kg]	3500	3500	
Unladen weight (without driver) [kg]	2665	2740	
Maximum payload (without driver) [kg]	835	760	
Dynamic roof load (with roof rack) <sup>R</sup> [kg]	120	120	

MASS & LOAD	QUARTERMASTER		
WIA33 & LOAD	PETROL	DIESEL	
Static roof load (with roof rack) <sup>R</sup> [kg]	375	375	
Maximum unbraked trailer mass (on-road) [kg]	750	750	
Maximum braked trailer mass (on-road) [kg]	3500	3500	
Maximum Trailer Nose Weight [kg]	350*	350*	

MASS & LOAD	QUARTERMASTER		
WIASS & LOAD	PETROL	DIESEL	
Gross train weight [kg]	7000	7000	

<sup>&</sup>lt;sup>R</sup> With Quartermaster Roof Rack (Roof Rack weight not included).

## **Volumes and Loadspace**

VOLUME & LOADSPACE	UTILITY 2-SEATER		R UTILITY 5-SEATER		STATION	WAGON
VOLUME & LOADSPACE	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL
Maximum volume behind 1st row seat [Litre]	2088	2088			2035	2035
Maximum volume behind 2nd row seat [Litre]			1255	1255	1152	1152
Maximum luggage length behind 1st row seat [mm]		1512			1645	1645
Maximum luggage length behind 2nd row seat [mm]			890	890	799	799
Floor length behind 1st row seat [mm]	1687	1687			1795	1795

 $<sup>^{\</sup>mathsf{T}}$  Includes Trialmaster Edition specific options.

<sup>&</sup>lt;sup>F</sup> Includes Fieldmaster Edition specific options.

 $<sup>\</sup>mbox{\ensuremath{^{\star}}}$  Please refer to the plating on the vehicle for the maximum nose weight.

VOLUME & LOADSPACE	UTILITY 2	-SEATER	UTILITY 5-SEATER		STATION WAGON	
VOLUME & LOADSPACE	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL
Floor length behind 2nd row seat [mm]			1062	1062	983	983
Loadspace width (floor between wheel-arches) [mm]	1064	1064	1064	1064	1064	1064
Maximum loadspace width [mm]	1268	1268	1268	1268	1268	1268
Lift in height [mm]	899	899	899	899	899	899
Loadspace height [mm]	1047	1047	1047	1047	1047	1047

VOLUME & LOADSPACE	QUARTERMASTER		
VOLOWIE & LOADSFACE	PETROL	DIESEL	
Maximum volume behind 1st row seat [Litre]			
Maximum volume behind 2nd row seat [Litre]			
Maximum luggage length behind 1st row seat [mm]			

VOLUME & LOADSPACE	QUARTERMASTER		
VOLUME & LOADSI ACE	PETROL	DIESEL	
Maximum luggage length behind 2nd row seat [mm]			
Floor length behind 1st row seat [mm]			
Floor length behind 2nd row seat [mm]			

VOLUME & LOADSPACE	QUARTERMASTER		
VOLONIE & LOADSPACE	PETROL	DIESEL	
Pick Up Box Floor length [mm]	1564	1564	
Loadspace width (floor between wheel-arches) [mm]	1137	1137	
Maximum loadspace width [mm]	1619	1619	

VOLUME & LOADSPACE	QUARTERMASTER		
VOLUME & LOADSPACE	PETROL	DIESEL	
Lift in height [mm]	906	906	
Loadspace height [mm]			
Pick Up Box height [mm]	485	485	

## **Vehicle Dimensions**

DIMENSIONS	UTILITY 2-	SEATER	UTILITY 5	5-SEATER	STATION	WAGON
DIMENSIONS	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL
Length (without spare wheel) [mm]	4683	4683	4683	4683	4683	4683
Length (including spare wheel) [mm]	4895	4895	4895	4895	4895	4895
Width with mirrors [mm]	2146	2146	2146	2146	2146	2146
Width with mirrors folded [mm]	1930	1930	1930	1930	1930	1930
Height (kerb weight) [mm]	2050	2050	2050	2050	2050	2050

DIMENSIONS	UTILITY 2-SEATER		UTILITY 5-SEATER		STATION WAGON	
DIMENSIONS	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL
Track Width [mm]	1645	1645	1645	1645	1645	1645
Front Overhang [mm]	887	887	887	887	887	887
Rear Overhang [mm]	874	874	874	874	874	874
Wheelbase [mm]	2922	2922	2922	2922	2922	2922
Approach Angle (kerb weight) [°]	35.5	35.5	35.5	35.5	35.5	35.5
Ramp Breakover Angle (kerb weight) [°]	28.2	28.2	28.2	28.2	28.2	28.2
Departure Angle (kerb weight) [°]	36.1	36.1	36.1	36.1	36.1	36.1
Ground Clearance (kerb weight) [mm]	264	264	264	264	264	264
Wading Depth [mm]	800	800	800	800	800	800
Wading Entrance Angle [°]	16	16	16	16	16	16
Wading Departure Angle [°]	16	16	16	16	16	16

QUARTERMASTER			
DIMENSIONS	PETROL	DIESEL	
Length (without spare wheel) [mm]	5440	5440	
Length (including spare wheel) [mm]	5440	5440	
Width with mirrors [mm]	2146	2146	
Width with mirrors folded [mm]	1943	1943	
Height (kerb weight) [mm]	2019	2019	
Track Width [mm]	1645	1645	
Front Overhang [mm]	887	887	
Rear Overhang [mm]	1328	1328	
Wheelbase [mm]	3227	3227	
Approach Angle (kerb weight) [°]	35.5	35.5	
Ramp Breakover Angle (kerb weight) [°]	26.2	26.2	
Departure Angle (kerb weight) [°]	22.6	22.6	

QUARTERMASTER			
DIMENSIONS	PETROL	DIESEL	
Ground Clearance (kerb weight) [mm]	264	264	
Wading Depth [mm]	800	800	
Wading Entrance Angle [°]	16	16	
Wading Departure Angle [°]	16	16	

## **Quartermaster Tailgate**



CAUTION: The Quartermaster tailgate maximum static load is 225 kg (496 lbs).

### **ELECTRICAL SYSTEMS**

### **Battery**

Vehicle Battery: 12v105Ah EFB H9

The vehicle battery is maintenance free and should only require checking by your INEOS approved partner during regular vehicle service intervals.

### **Battery Information**



WARNING: Always wear protective clothing, such as, gloves and arm coverings when handling batteries. Failure to do so can result in injury.



WARNING: Keep batteries out of reach of children.



WARNING: Batteries contain sulphuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, get medical help immediately.



WARNING: When lifting a plastic cased battery, excessive pressure on the end walls could cause acid to flow through the vent caps, resulting in personal injury, damage to the vehicle or battery. Lift the battery with a battery carrier or with your hands on opposite corners.



WARNING: Never place metal objects on the battery or allow the positive terminal of the battery to contact parts of the vehicle body. This can create a spark or a short circuit which can ignite gases created when the battery is charged.



WARNING: Electrostatic charge can cause sparks, which may ignite the highly flammable gas mixture within the battery.



WARNING: Keep the battery away from flames, sparks, or lighted substances. Batteries normally produce explosive gases when charging or when jump started. Always have sufficient ventilation.



WARNING: Be sure to wear gloves when handling battery posts, terminals and related accessories as they contain lead compounds. Even after wearing gloves make sure you wash your hands after handling.



CAUTION: The engine must never be run with the vehicle battery disconnected. This can cause damage to vehicle electrical modules.



CAUTION: Apart from vehicle recovery, this vehicle must not be driven if the vehicle battery is incapable of starting the engine. In this case the vehicle battery must be replaced. Contact your INEOS approved partner.



CAUTION: INEOS does not recommend replacing the Lead-Acid starter battery with an LFP (LiFePO<sub>4</sub>) battery.

### **Changing the Battery**



CAUTION: INEOS does not recommend replacing the Lead-Acid starter battery with an LFP (LiFePO<sub>4</sub>) battery.



NOTE: INEOS recommends that you have the 12v battery replaced by an INEOS approved partner. If you want to change the battery yourself, then you must observe the following notes first:

- Only replace the battery with one that is exactly the same specifications, meeting the correct requirements.
- Carry over detachable parts, such as vent hoses, elbow fittings or terminal covers from the battery being replaced.
- Make sure the vent hose is always connected to the original opening on the battery.
- > Install any existing or supplied cell caps.
- Make sure that detachable parts are reconnected in the same way before they were removed.

### **Battery Level Protection**



CAUTION: If the battery is not capable of starting the engine, replace the battery as soon as possible.

The vehicle is fitted with an Intelligent Battery Sensor (IBS), this monitors battery voltage and current, along with the battery acid temperature. If the battery capacity is critically low, the sensor informs the ECU resulting in a warning message being displayed on the infotainment screen to notify the occupants. If a low battery warning message shows, start the engine and allow to idle so that the battery can recharge, or connect a suitable battery charger or conditioner. Alternatively drive the vehicle for at least thirty minutes to replenish the battery charge levels. It is recommended, that if the battery capacity reaches a critical point, you contact an INEOS approved partner for a battery health check.

### **Battery Disposal**



WARNING: Improper disposal of batteries could cause serious injury.



WARNING: Do not dispose of a battery in fire or water.



NOTE: Environmental damage is caused by improper disposal of batteries.



NOTE: Do not dispose of batteries with your household rubbish as this is illegal.

Batteries contain pollutants and can be hazardous to your health and the environment. Most batteries contain materials that, when disposed of incorrectly, may leak into the environment. This can contribute to soil and water pollution and endanger wildlife.

Dispose of batteries in an environmentally responsible manner and follow your local authorised standards for disposal. Call your local authorised recycling center to find out more about recycling automotive batteries.



NOTE: If you have to disconnect the 12v battery, INEOS recommends you contact an INEOS approved partner for support.

## **Auxiliary Battery (OPTIONAL)**



WARNING: If water enters the battery and fuse compartments, do not attempt to touch the components and seek further advice from your INEOS approved partner. Failure to do so may result in serious injury or death.

The Auxiliary Battery is connected to the vehicle's electrical system but isolated from the starter circuit. The Auxiliary Battery is used as a safety back-up to support the main battery when required or to provide voltage for specific vehicle systems.

The Auxiliary Battery protects the vehicle as it prevents a voltage drop when cranking the engine.



WARNING: If the replacement of the batteries is not carried out in the correct sequence, then there is a risk of a short circuit and/or damage to the batteries and electrical parts and/or components. Please follow these instructions closely to avoid damage to the vehicle and the risk of injury.

- Disconnect the ground connection to the Battery Combiner.
- Remove the Negative (-) terminal on both the Start and Auxiliary Battery. Never allow contact between the Battery Cables and conductive metal parts, for example, the vehicle body.
- Perform Service Work.
- 4. Re-assemble in the opposite order.
- Check that there is no fault indication on the Battery Combiner LEDs.
- 6. Never operate the vehicle with only one of the batteries connected, as this can lead to contact with unprotected conductive metal parts. If there is an emergency situation requiring the vehicle to be used with one battery only, then ensure the connector cables are insulated and secured away from conductive metal parts.

## **400W Power Inverter (Optional)**



WARNING: Do not expose the 400W Power Inverter to water or moisture. Failure to do so can result in damage to the vehicle and/or serious injury.



WARNING: Do not expose to water when hosing down the vehicle. Take care not to splash or direct water at the 400W Power inverter or the outlet sockets.



WARNING: Do not operate the 400W Power Inverter if you, the 400W Power Inverter, the device being operated, or any other surfaces that may come in contact with any power source are wet.



WARNING: Ensure the area around the 400W Power Inverter is well ventilated and clean of debris. Failure to do this can result in the build up of flammable gases and/or the 400W Power Inverter reaching high temperatures.



WARNING: Do not touch any water or moisture near the power outlets or the 400W inverter. Water and many other liquids can conduct electricity which may lead to serious injury or death.



WARNING: 230V of electricity can be lethal. Improper use of a power inverter, will result in property damage, personal injury, or loss of life.



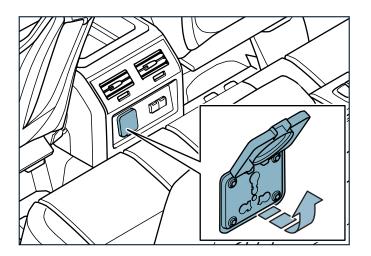
CAUTION: Do not plug devices into the outlet sockets if they require more than 400W. This can result in damage to the vehicle.

The 400W Power Inverter is a device that converts the DC power from your vehicle to AC power and is an essential step required to power any domestic devices using the outlets. The 400W Power Inverter is rated to output 400 Watts at its peak rate.

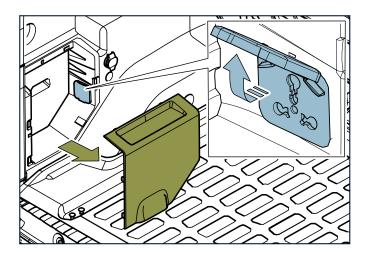
The benefit of the power inverter is having domestic outlets located in the passenger compartment and the Loadspace of the vehicle. This means you can charge and/or power devices that require up to the maximum 400W rating e.g. a personal laptop device without a nearby mains outlet. This being particularly useful when taking the vehicle off-road and/or camping off-grid.

The 400W outlet sockets can be located in the following locations:

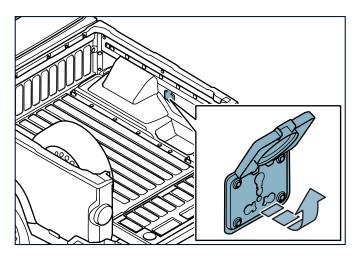
## Back of the Centre Console:



## Loadspace:



For the Quartermaster, the Loadspace power outlet is located in the Load-bay, as seen in the following image:



- NOTE: Power could be limited during extreme hot or cold temperatures to optimise system performance.
- NOTE: When spraying water in and around the Load-bay, only spray from the front of the cover. The cover may be forced open by water pressure, if sprayed from other angles.

### **Auxiliary Switch Panel and Electrical Preparation**



WARNING: Do not attempt to modify the wiring harness. If components are damaged and/or need replacing please seek further advice from your INEOS approved partner. Failure to do so may result in serious injury or death.



WARNING: Do not splash any electrical wires or connectors. If any electrical wires or connectors are exposed to moisture, they might corrode and break or result in a system failure.



WARNING: Take care when using or working around electrical equipment, 10 amps can result in serious injury and/or even death. Wear protective clothing, such as, rubber insulating gloves to protect you from being shocked.



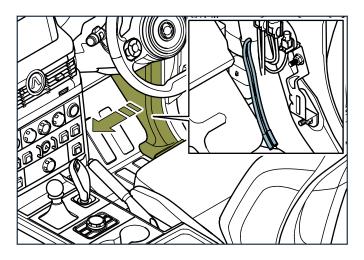
WARNING: Ensure the vehicle power is switched off and that the battery is removed for safety. Failure to do so may result in serious injury, death and/or damage to the vehicle.

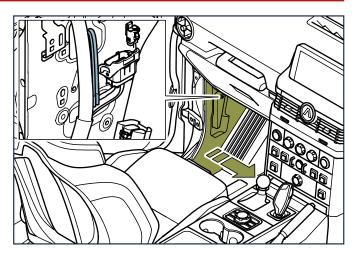


CAUTION: Always check the electrical accessories power requirements and consult the accessory manual before connecting to the vehicle's power supply.

The vehicle comes with three pre-wired 10amp electrical provisions, one in both the driver and front passenger foot-well, and one located under the bonnet.

The interior 1 and 2 provisions (Switch 'INT 1' and 'INT 2' on the Overhead Control Panel), both terminate in the front left and front right foot-wells. They can be found behind the foot-well side trim piece and are wiring preparations consisting of a heat shrunk cable end, from which 3rd party outlets can be attached, to then power devices.





Exterior 1 (Switch 'Ext 1' on the Overhead Control Panel) is located under the bonnet, near to the brake fluid reservoir. This is wiring preparations consisting of a heat shrunk cable ends, from which 3rd party outlets can be attached, to then power devices.

### High Load Auxiliary Switch Panel and Electrical Preparation (OPTIONAL)



WARNING: The rear high amp outlet (NATO outlet) is intended for use with the Removable Rear Winch (Accessory) only. Do not connect any other equipment to

the rear high amp outlet (NATO outlet). Connecting equipment other than the Removable Rear Winch (Accessory) available through INEOS Automotive will be categorised as misuse and can result in serious injury and/or death.



WARNING: INEOS Automotive will not be held responsible for any damages, injuries and/or deaths that occur from or relating to the operation of the rear high amp outlet (NATO outlet) outside of the intended purpose.



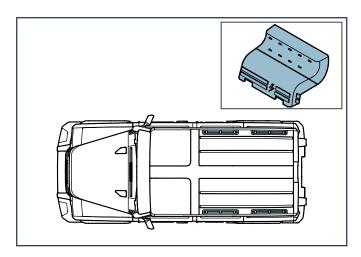
WARNING: Do not remove any debris and/or mud from the rear high amp outlet (NATO outlet) until the power isolator has been switched off. Failure to do so can result in serious injury and/or death.



CAUTION: When connecting electrical accessories to the auxiliary outlets, ensure the connection is free of dirt, debris and moisture. Failure to do so, will result in poor conductivity.

The High Load Auxiliary Switch Panel & Electrical Preparation includes an additional 25A provision under the bonnet, 500A provision (for the front winch if specified), 350A NATO outlet at the rear of the vehicle (for the accessory winch if specified) and four 25A roof outlets in the roof-rail recesses.

Roof Rail Power Outlets locations:



### **Premium Sound System (OPTIONAL)**

The Premium Sound System provides a sub-woofer under the Rear Bench Seat (flat floor in 2-seat vehicles).

### **Technical Specifications:**

Power	100Wrms (200W maximum)
Crossover Frequency	50Hz – 150Hz
Crossover Slope	12dB/octave
Bass Boost	0dB to +12dB at 50Hz

### **Other Technical Specifications:**

- > Frequency Response 30Hz 150Hz.
- > Fuse: 15A.
- > Maximum Current Draw <600mA
- Input Sensitivity: 0.1V 4.0V Low-Level Input; 0.25 10V High-Level Input.
- > Dimensions (L x W + H): 10-1/4" x 7-11/16" x 2-15/16" (260.0mm x 195.0mm x 74.6mm).
- > Weight: 7.78 lbs (3.53kg).

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