**TERRAIN**°

**T21** 

USER MANUAL





CORVUS INNOVA, Sociedad Limitada.

CORVUS OFF-ROAD VEHICLES" We reserve all commercial rights and/or the right to exploit the brand. As CORVUS is constantly seeking new ways to improve the specifications, design and quality of its utility vehicles, ongoing modifications may take place. That is why the information in this catalogue may have changed since the time of printing. CORVUS reserves the right to modify models, colours, and/or technical specifications without notice and without incurring any obligation.

Drivers of CORVUS vehicles must comply with all requirements demanded by current legislation in relation to driving licenses and security measures required for the proper use of such vehicles. NEVER perform acrobatics and avoid excessive speeds and abrupt turns. Never drive under the influence of alcohol or drugs.

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# **GENERAL INFORMATION**



### INTRODUCTION

We are delighted to be able to congratulate you on the purchase of your **CORVUS** vehicle and we would like to thank you for the confidence you have placed in us.

You are now the owner of a modern multi-purpose work vehicle that you will enjoy a lot if you care for it and maintain it adequately. Before you start it up for the first time, please read the instructions of use carefully to become familiar with the handling and the characteristics of your vehicle. Only in this way will you be able to understand how to best adapt your vehicle to your requirements and how to avoid accidents. For your safety we recommend that you use only spare parts and accessories authorized by **CORVUS**.

If you use any other products, **CORVUS** declines all liability for any damages that may arise from so doing. We recommend you follow the instructions on the driving-in period and maintenance intervals in order to prolong the life of your vehicle. For maintenance work, you should always consult an official **CORVUS** distributor or dealer.

Driving in the countryside is fascinating and we hope you will enjoy it to the full. Although CORVUS vehicles are environmentally friendly, environmental problems and conflict with other people may ensue in the countryside. Handling the vehicle in a responsible way ensures that these problems and conflicts do not arise. Be sure to use the vehicle within the bounds of the law, show that you are environmentally aware and respect the rights of others.

#ExploringYourWorld

# **LEGAL NOTICES**

In the interest of technical development, CORVUS INNOVA S.L. reserves the right to modify the construction, equipment and accessories of its vehicles without notice. Size, weight and power data should be understood with the respective tolerances. Depending on the volume of your CORVUS' equipment and accessories, and on the versions that are approved in compliance with the different laws of each State, there may be variations with regard to descriptions and illustrations. The photographs in this manual may not therefore correspond to the model you have purchased. For this reason, no liability can be derived from any error, printing error or omission.

In the event of any discrepancy or question about the content of this manual, we recommend that you contact our After-sales Service.

# **CAUTIONS AND WARNINGS**

YOU SHOULD READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE YOU ENJOY USING IT FOR THE FIRST TIME. IT CONTAINS INFORMATION AND SUGGESTIONS THAT WILL FACILITATE THE USE AND HANDLING OF THE VEHICLE. PAY PARTICULAR ATTENTION TO THE FOLLOWING WARNINGS THAT CAN BE FOUND IN THE MANUAL:



WARNING. A warning concerning a hazard that can cause damage to the vehicle.



DANGER. A warning concerning a hazard that can lead to personal and/or serious injury and even death.



## PRELIMINARY WARNINGS



### **WARNING**

Take proper precautions while driving, especially in turning manoeuvres; driving on slopes or in areas with obstacles can cause a collision or make the vehicle overturn.

Only people who have a driving license should drive this vehicle. It is advisable that the driver and their companion should use a helmet and goggles when using the vehicle. Do not cause the vehicle to jump or flip, be aware of changes in the terrain on which you are going to drive.

Check the possible obstacles that you want to clear, do not attempt to clear major obstacles, such as fallen trees, rocks, slopes, muddy areas, etc.

Take care in slippery areas, drive at low speed, watch out for any possible loss of grip, do not tackle steep slopes.



### DANGER

You should not use the vehicle in a way that is not in line with the criteria and instructions contained in this manual or in a way that may cause damage to persons or things.

These are some examples of unsafe use and misuse:

- Driving with more than two people in the vehicle.
- $\bullet$  Not keeping the entire body inside the cabin.
- Transporting people in the cargo box.
- Not complying with the instructions for use and maintenance set forth in this manual.
- Exceeding the cargo and towing limits.
- Driving on unstable or not consolidated ground.
- Driving on terrain with an inclination of more than 15%.
- Driving in flooded areas (maximum temporary fording depth is 40 cm).
- Using accessories, parts or equipment that are not authorised by CORVUS.

Adapt the speed of the vehicle to the terrain. When driving downhill, use the short LOW gear and keep the speed as low as possible, gently applying the brakes without locking the wheels. Under no circumstances should you perform manoeuvres with a slope / elevation or lowering greater than 15%. If you need to tow your vehicle, make sure the towing vehicle has sufficient drag and braking capacity, use a tow bar or a sufficiently long cable and do not go any faster than 10 km/hr.

All technical and mechanical repairs must be carried out by an authorised **CORVUS** garage.

Do not use the vehicle nor leave the engine running in enclosed premises if they are not sufficiently ventilated, a concentration of exhaust gas can cause death.



### DANGER

The exhaust pipe and other elements reach high temperatures during use and take time to cool down after you turn off the engine. Avoid handling or touching anything during this period.



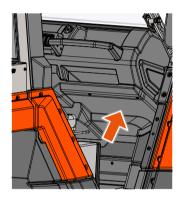
### DANGER

Avoid using loose clothing that could get caught up with parts of the vehicle or the environment. Although total security is impossible, the use of adequate equipment reduces the likelihood and/or severity of injuries.



# **VEHICLE IDENTIFICATION (CHASSIS - ENGINE)**

Your **CORVUS TERRAIN** has an **engine identification plate** which details: manufacturer, type approval, VIN, mass of the vehicle, maximum mass per axle (A1-A2) and towable mass (depending on type of braking and towing).

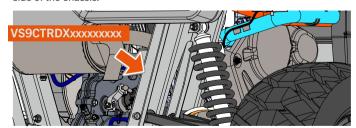


CORVUS INNOVA, S.L. T1x\* e13\*167/2013\*00205\*02 VS9CTRDXxxxxxxxx\* 1.400 kg A-1: 650 kg A-2: 950 kg

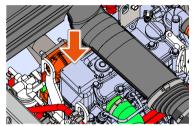
	T-1	T-2	T-3
B-1	450 kg	450 kg	450 kg
B-2	907 kg	907 kg	907 kg
B-3	-	-	ı
B-4	-	_	-

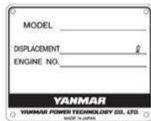
<sup>\*</sup> Variable depending on version and model.

The **vehicle identification number** is also stamped on the rear right-hand side of the chassis:



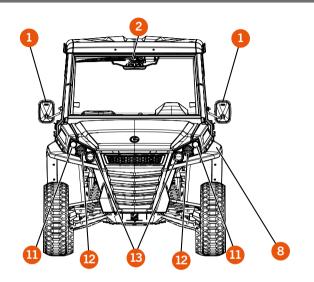
Your **CORVUS TERRAIN** has an **engine identification plate** which details: manufacturer, model, displacement and serial number.

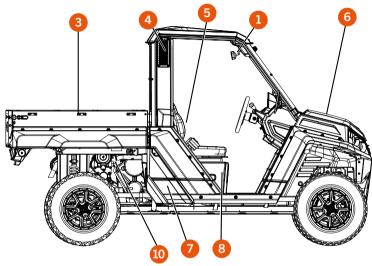






# **EXTERIOR COMPONENTS**



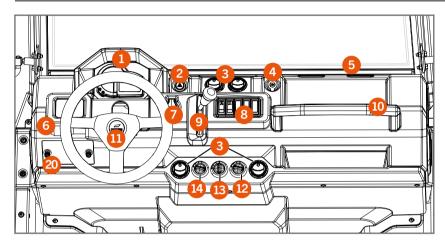


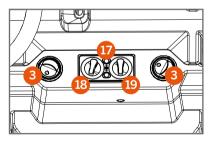
- 1. Rear-view mirrors
- 2. Windshield wiper \*
- 3. Cargo box
- 4. Snorkel engine air ingress / CVT
- 5. Driving seat
- 6. Front hood
- 7. Spray suppression device / Side storage compartments

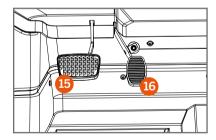
- 8. Inner storage compartments \*
- 9. Fuel filler cap
- 10. Location of powertrain
- 11. Steering indicators
- 12. High beam
- 13. Low beam (short)



# **DRIVING SEAT**







- 1. Instrument panel.
- 2. Emergency signal button.
- 3. Adjustable and sealable central air vents\*.
- 4. 12V accessories socket.
- 5. Top air diffuser for windshield demisting\*.
- 6. Lights control, steering indicators and horn.
- 7. Key start-up.
- 8. Instrument panel button panel.
- 9. Gear lever.
- 10. Co-pilot grip handle.
- 11. Steering wheel.
- 12. Air temperature selection control\*.
- 13. Blower intensity control\*.
- 14. Cold air selection control\*.
- 15. Brake pedal.
- 16. Accelerator pedal.
- 17. A/C selection button\*.
- 18. Temperature selection control\*.
- 19. Air intensity selection control\*.
- 20. Fuse box



### **IGNITION KEY (1)**

The lock is located to the right of the steering wheel, has three positions:

- Off
- Contact
- Start-up

### **FUEL CAP KEY (2)**

The fuel cap is located on the centre of the rear left-hand side of the vehicle.

### STORAGE COMPARTMENT KEY (3)\*

The storage compartments are located under the seats.











### LIGHT SWITCH

Located to the left of the steering wheel, with the following functions:

- Activation of the horn (1): Move the lever toward the centre of the vehicle.
- Flash function (2): Pull the lever toward the inside.
- Long beam or road lights (2): Pull the lever toward the outside.
- Turn signal lamps (3): Move the lever upward (to turn right) and down (to turn left).

The side, dipped-beam or side lamps will turn on automatically when you connect the engine.

# WINDSHIELD WIPER / WASHER BUTTON\*

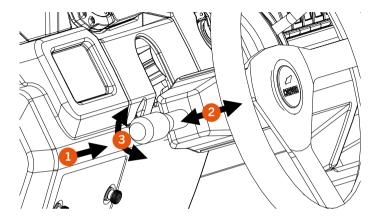
Located above the driving seat.

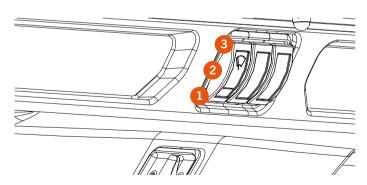
### WINDSHIELD WIPER

OFF Position (1) - Lower position. ON Position (2) - Central position.

#### - WINDSCREEN WIPER

ON Position (3) - Upper position.







### **INSTRUMENT PANEL**

On the vehicle's instrument panel you can find:

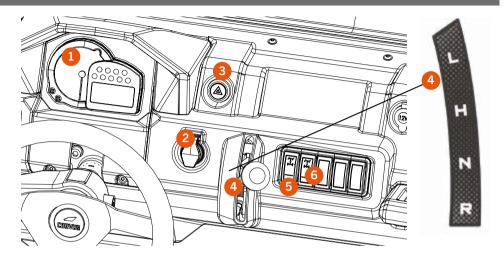
- 1. Instruments.
- 2. Key start-up.
- 3. Emergency "Warning" flasher control.
- 4. Gearshift lever.
- 5. 4WD driveline switch.
- 6. Rear differential lock switch.

### **GEARSHIFT LEVER**

The gearshift lever (4) is located in the centre the instrument panel.

It has 4 positions:

- (L) LOW: "Short-gear" forward.
- (H) HIGH: "Long-gear" forward.
- (N) NEUTRAL: Neutral.
- (R) REVERSE: Reverse gear.



Do not put the vehicle in reverse gear if it is not completely stationary, as this can lead to accelerated deterioration or even breakage of the gearbox.

Do not force the gear change: if a gear does not engage, accelerate gently and try to change gear again.



### 2WD / 4WD DRIVELINE SWITCH

Located in the centre of the instrument panel.

It has 2 positions:

**2WD:** 2-wheel drive transmission -rear wheel drive- (1). **4WD:** 4-wheel drive transmission -rear wheel drive- (2).

#### REAR DIFFERENTIAL LOCK SWITCH

Located in the centre of the instrument panel.

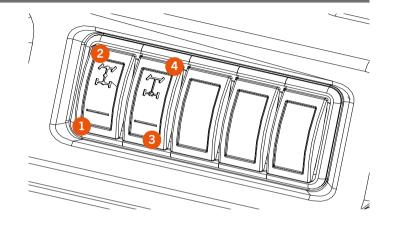
It has 2 positions:

**OFF:** Rear differential unlocked (3). **LOCK:** Rear differential locked (4).



THE 4WD AND THE DIFFERENTIAL LOCK MUST BE DEACTIVATED WHEN NOT REQUIRED.

EXCEEDING 20 KM/H WITH THE DIFFERENTIAL OR 4WD ENGAGED MAY CAUSE THE VEHICLE'S GEARBOX OR DIFFERENTIAL TO BREAK.



To minimise component wear, we recommend that you engage the 4WD and lock when the vehicle is at a complete standstill. NEVER engage the 4WD and lock when the steering is turned. Do not use the 4WD and lock on paved roads.

Remember to service the 4WD actuator and gearbox as indicated in the Service Chart (p. 44/45) to avoid premature deterioration.



#### CLIMATE CONTROL SYSTEM

#### CLIMATE DIFFUSERS

The air distribution cannot be changed at the climate control system's diffusers; the only way to increase the flow of air at the front window (B) is by closing the outlets (A).

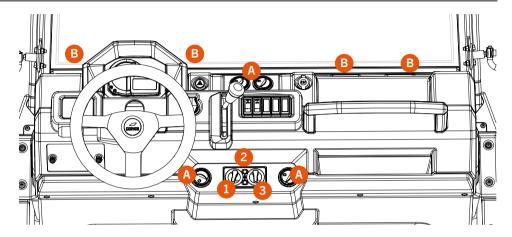


The climate control system improves visibility and helps to prevent the front window from fogging up. It is therefore important that you are familiar with the correct operation of the climate control system.

The climate control console is located in the lower centre of the instrument panel.

You can control the air temperature and the blower speed and you can switch on the air conditioning by means of the console.

- (1) Air outlet temperature control.
- (2) Air conditioning ON/OFF.
- (3) Blower speed control, for air outlets (A and B).



### Running without the air conditioning.

When the air conditioning button is switched off, it is not possible to obtain air at a lower temperature than the ambient temperature. The selector knob (1) will change the temperature from cool air to warm air.

### Running with the air conditioning.

The air will come out cooler than the ambient temperature; the minimum temperature will be factory set. Use the temperature selector (1) to set this temperature. Turn it to the left to set the minimum temperature and to the right to set the maximum temperature.



Do not handle the refrigerant gas contained in the circuit.

If the air conditioning unit does not work properly, please contact Corvus service.

The air conditioning only works when the engine is running.



#### **HEATING SYSTEM**

#### CLIMATE DIFFUSERS

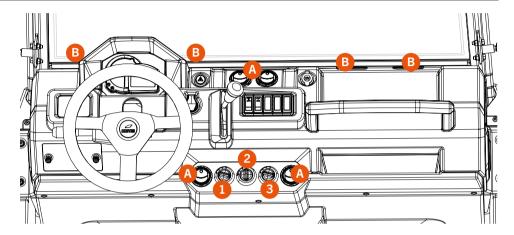
Use the selector switch (1) to change the air distribution at the diffusers of the heating system. By turning the selector switch clockwise, an electrically controlled valve will open to allow more air flow to the diffusers (B) at the front window.



The heating system improves visibility and helps to prevent the front window from fogging up. It is therefore important that you are familiar with the correct operation of the heating system.

The heating selector switches are located in the lower centre of the instrument panel. Their functions are as follows:

- Selector (1) of the output air flow in the diffusers of the front windscreen (B).
- Selector (2) of the output air flow.
- Selector (3) of the output air flow temperature.



The temperature selector (3) does not allow you to obtain a temperature lower than the ambient temperature. To obtain more calorific power, the engine must be at operating temperature.



If the heating unit does not work properly, please contact Corvus service. The heater can only work when the engine is running.



### **PARKING BRAKE**

The parking brake is engaged by means of a lever located on the left-hand side of the driver seat.

It has 2 positions:

**ON:** Engage the parking brake by pulling the lever up firmly.

OFF: Lift the lever up slightly, push on the lock button and pull it down.

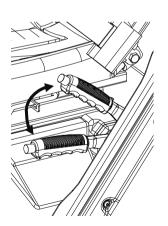


DO NOT apply the handbrake from outside the vehicle, as the lever may bend and damage bodywork components.

NEVER apply the handbrake when the vehicle is in motion, as this could lead to an accident.

The **audible warning device** will activate in the following situations:

- If the vehicle does not detect anyone in the driver's seat and the handbrake is not on.
- If any gear other than neutral (N) is engaged and the handbrake is on.
- If the vehicle is running on reserve fuel.
- If there is no oil pressure in the engine.
- If the engine coolant temperature is high.
- If the battery is not charging properly.



### FUEL TANK CAP

The fuel tank filler cap is located on the left-hand side of the vehicle.

You must use the specific key to open it (4, page 11).

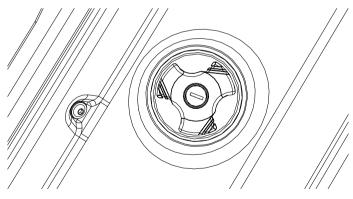
- 1 Insert the key into the lock.
- 2 Turn the cap counterclockwise 1/4 turn.
- 3 Remove the cap.



Continuous movement of the vehicle can produce gas in the tank. Open the cap slowly.



Use diesel B7/B10, NEVER use any other fuel.





### **REAR-VIEW MIRRORS**

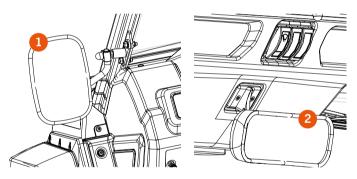
The vehicle is equipped with two rear-view mirrors (1), one on each side, and a third one on the inside in the centre\* (2).



Adjust the rear-view mirrors before driving to ensure maximum visibility.



Do not adjust the rear-view mirrors while driving.



### **SAFETY BELTS**

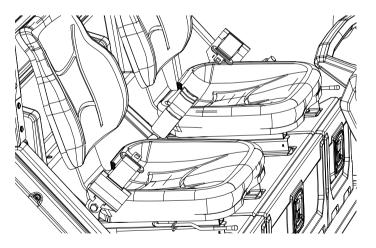
The safety belts are two-point belts and have a cam to release them.



Adjust the safety belts before driving to ensure maximum safety in the event of an accident.



Always drive with the safety belts correctly fastened. Do not adjust the belts while driving.





### **SEATS**

You can adjust the position of the seats to find your most suitable seating position:

### Lengthwise Adjustment

Adjust the position by pulling the lever (1) and moving the seat forward or backward.

In the case of the driver seat, adjust the position so that you can press the pedals with your legs slightly bent.

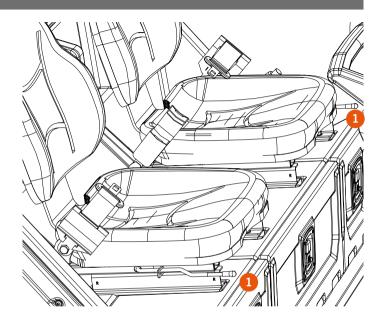
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Adjust the driver seat when the vehicle is stationary.
Adjust the seats so that your feet rest completely flat on the floor and you can reach the pedals comfortably.

Do not tamper with the seat buzzer wiring, as this could break the electrical system.



Do not insert your hand into the seat adjustment mechanism, as it could get caught.





### LUGGAGE COMPARTMENT HOOD

To open the hood of the vehicle, you need to do the following:

- 1 Press the button located on the hood (1).
- 2 The hood will rise a few cm.
- 3 Tilt the hood backward as far as it can go.

### To close the hood of the vehicle:

- 1 Lower the hood (2) slowly, without closing it.
- 2 Press with both hands on the area around the logo to anchor it.



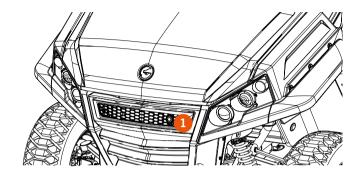
When closing the hood, do not let it drop. This could cause injury to vou or others.

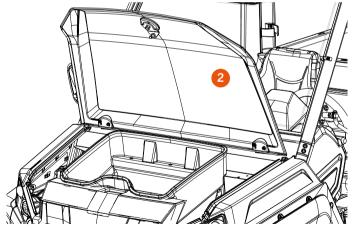
Before driving off, make sure it is completely closed.



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Do not store flammable materials in any of the compartments. Do not drive the vehicle with the hood open.







### **CARGO BOX**

The cargo box has a rear door (1) for easier loading and unloading of materials.

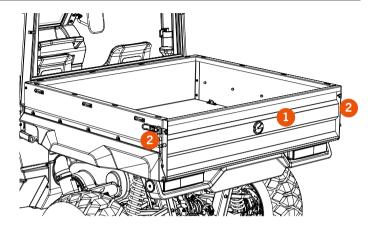
### Opening the rear door:

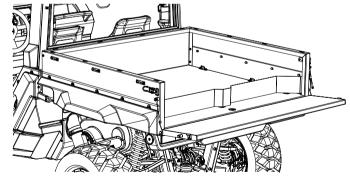
- The door has two side bayonet levers (2).
- Grasp the door by the centre and open the two bayonet levers, one after the other.



Avoid opening both bayonets at the same time to avoid damaging the Avoid opening pour payoners at the cargo box.

Sitting on or leaning against the tailgate is prohibited. This element is not designed for this purpose.







### Tilting the cargo box

To tilt the cargo box, proceed as follows:

- 1 Turn the lever (1) clockwise.
- 2 The box will be unhooked.
- 3 Tilt the box up.

The box has two shock absorbers (2) that make it easy to tilt it and prevent recoil.

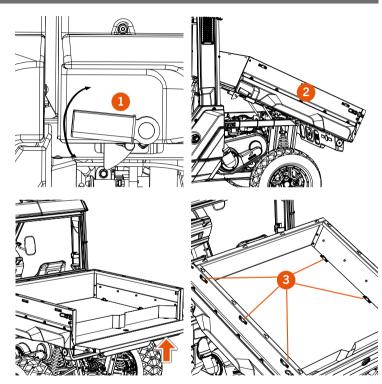


- An overload (max. 450 kg) can make the vehicle unstable and may lead to an accident.
- Place the load as far forward as possible.
- Place a mesh or a tarpaulin over light or volatile loads.
- Use straps to secure the load to prevent it moving in the box.
- The box has interior hooks (3) for fastening purposes.
- If driving on uneven or unstable terrain, reduce speed to avoid movements that may make you lose control.
- Make sure that the load does not protrude from the sides of the transport box.
- Remember that the heavier the load, the longer it will take to brake the vehicle.
- Keep any fluid tanks under control and make sure they do not move around inside the box.



NEVER carry a passenger in or on the cargo box.

Do not lift the cargo box when it is loaded. Doing so could pose a risk to the operator or even cause the vehicle to overturn. First unload the heavy load through the rear door.





### Unloading the box

Please follow the procedure below to unload the cargo box safely:

- 1. Park the vehicle on a straight and level surface and apply the handbrake.
- 2. Open the rear door and unload all or most of the load. Only lift the cargo box if you are absolutely sure you can lift it. Do not lift it with a load.
- 3. Once you have unloaded it, lower the cargo box and put it in place.



NEVER LIFT THE CARGO BOX FULLY LOADED, DOING SO COULD CAUSE THE BOX TO RISE UP UNEXPECTEDLY OR AGGRESSIVELY, WHICH WOULD BREAK THE SPRINGS AND COULD CAUSE SERIOUS INJURY TO THE OPERATOR.

ALWAYS UNLOAD THE VEHICLE ON A LEVEL SURFACE TO PREVENT THE VEHICLE FROM OVERTURNING.

NEVER DRIVE THE VEHICLE WITH THE CARGO BOX RAISED UP OR THE REAR DOOR OPEN.

PLACE A MESH OR A TARPAULIN OVER LIGHT OR VOLATILE LOADS.

USE STRAPS TO SECURE THE LOAD TO PREVENT IT MOVING IN THE BOX.

MAKE SURE THAT THE LOAD DOES NOT PROTRUDE FROM THE SIDES OF THE TRANSPORT BOX.

REMEMBER THAT THE HEAVIER THE LOAD. THE LONGER IT WILL TAKE TO BRAKE THE VEHICLE.

KEEP ANY FLUID TANKS UNDER CONTROL AND MAKE SURE THEY DO NOT MOVE AROUND INSIDE THE BOX.

NEVER DRIVE WITH A PASSENGER IN OR ON THE CARGO BOX. THIS COULD CAUSE SERIOUS INJURY OR EVEN DEATH TO THE PASSENGER. PASSENGERS MAY ONLY RIDE IN THE PASSENGER SEAT.

DO NOT PLACE HEAVY LOADS ON THE REAR DOOR, THIS COULD MAKE IT COLLAPSE.



#### TRAILER

The vehicle is fitted with a towbar at the rear of the vehicle. It is important that you are aware of the load limitations of the towbar; for this purpose, there is a type approval plate with the following information.

MODEL: CORVUS TERRAIN MY2I	
MAX towing capacity on trailer WITH inertia brake	907 kg
MAX towing capacity on trailer WITHOUT inertia brake	450 kg
Max. vertical towbar load (1)	240 kg

The vehicle can only tow more than 450 kg if the trailer used is fitted with an inertia brake. Without exceeding the maximum load borne by the vehicle.

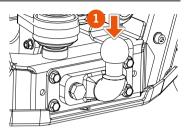
Do not pull or tow objects from any point on the vehicle other than the pulling winch (if fitted) or from the tow points provided (one at the rear with a towbar and one at the front).

Never carry passengers on the trailer.

When driving the vehicle, avoid sharp turns or aggressive driving. Accelerate gradually and bear in mind that the braking distance will be affected by the load on the trailer.

Do not exceed 16 km/h when towing a load and drive the vehicle with the low gear (L) engaged.

Do not drive on steep or dangerous terrain when towing a load. If you have to drive on difficult terrain, reduce your speed considerably and pay attention at all times to elements that pose a potential hazard to your safety.



When parking a vehicle with a trailer it is important to park on a horizontal surface. Do not park on a slope or leave the vehicle parked with a gear engaged, as this will not prevent the vehicle from rolling downhill. Always apply the hand brake. To improve vehicle stability and reduce the effects of towing the load to a minimum, it is advisable to distribute the weight of the load between the box and the trailer, if possible.

Secure the load on the trailer properly and ensure that the area between the trailer and the vehicle is free of anything that might damage the trailer or affect your driving.

On the top of the towbar there is a pineapple-like 7 pin electrical trailer connector with a maximum power rating of 150W. Exceeding this can cause serious damage to the electrical system and should not be exceeded under any circumstances. This maximum power will be even lower if anything is connected to any of the vehicle's auxiliary sockets.



### INSIDE STORAGE COMPARTMENTS

You will find three storage compartments under the seats: You must use the specific key to open them (5, page 11).

- 1 Insert the key into the lock.
- 2 Lift the handle.
- 3 Turn the knob to the left or right.
- 4 Slowly lower the cover.

To close it, carry out the same steps in reverse.

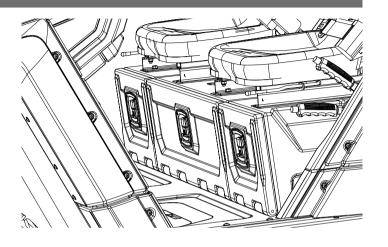


NEVER drive the vehicle with the storage compartments open. Do not drive the vehicle while the storage compartments are being handled.

Do not store flammable material inside the storage compartments.



Although the storage compartments are water resistant, they are not completely waterproof: do not store any objects in them that you do not want to be affected by humidity.





# **SPECIFICATIONS**

ENGINE	
Cycle	Four-stroke
No. of cylinders	3 cylinders in line
Cooling	Liquid
Displacement	993 cc
Diameter / stroke	74x77 mm
Compression relay	23.54:1
Layout	OHV - 6 Valves
Start-up system	Electric (12V-1.2 KW)
Generator	12V - 55A
Battery	12V / 55Ah
Maximum torque (ISO Nm)	52.1 Nm at 2400 rpm
Maximum power	17.8 kw (23.87 hp) 3600 rpm
Maximum speed	T1a: H-40 km/h / L-22 km/h

# LIQUIDS

Fuel	Diesel B7 / B10
Coolant	50% ESPC. G12 Quantity: 7 L
Brake fluid <sup>1</sup>	DOT-4
Engine oil	SAE 15W40 - API CD, CF, CF-4 and
	CI-4. Quantity: 1.7 L
Transmission oil	SAE 80W-90 GL5 EP Quantity: 1.7 L
Differential oil *	SAE 80W-90 GL5 EP Quantity: 0.5 L.
4WD actuator oil *	SAE 80W Quantity: 0.05 L

T1b: H-60 km/h / L-33 km/h

# DRIVELINE

Gearbox	CVT automati	С
Gearshift ratio	T1a	T1b
High	3.50	2.29
Low	6.13	4
Reverse	7.09	4.63
Gear ratio	3.33	2.99 - 0.61
Transmission*	4WD / 2WD. V	Vith rear differential lock

## CABIN

### Windshield

· · · · · · · · · · · · · · · · · · ·			
	Front *	Fixed laminate	
	Rear *	Fixed tempered	
Seats		2, separated	
Windshield	wiper *	Upper centre part	
Safety belt		2-point	
Windshield		2, separated Upper centre part	

## **APPROVAL**

Туре	EU T1a/T1b
Emission of gases	EC STAGE V (<19 kW)
	EPA FINAL TIER 4 (<19 kW)

1.- Cold weather countries should adjust the antifreeze to suit the temperature.



# **SPECIFICATIONS**

DIMENSIONS	
Total height	1,973 mm
Total length	3,414 mm
Total width	1,656 mm
Distance between axles	2,238 mm
Ground clearance	309 mm
Track width	
Front	1,396 mm
Rear	1,370 mm
Cargo box	
Length	1,202 mm
Width	1,340 mm
Height	300 mm
Volume	0.48 m3
Total curb weight	764 kg
Weight with liquids	785 kg (10 L of fuel)
DX4 weight	799 kg
PRO weight	838 kg
CAB weight	892 kg
DX2 weight	757 kg
Useful load displacement	630 kg
Fuel tank displacement.	40 L
Load displacement rear box	450 kg
Towing displacement	907 kg

Steel chassis in the shape of a spine.
Independent with Anti-Dive system with overlapping trapeziums. Gas shock absorbers with adjustable settings.
287 mm
Independent with overlapping trapeziums. Gas shock absorbers with adjustable settings.
287 mm
Parallel double circuit per independent axle.
256 mm. with 2-piston callipers
220 mm. with 1-piston callipers
Mechanical callipers on the rear discs.
Electric assisted rack with 2 turns between ends.



# **MULTIFUNCTION PANEL**





The multifunction device is water resistant but not waterproof. Do not wash it with water under pressure.

Do not leave the device in direct sunlight when the vehicle is not in use.

Avoid contact with fuel, degreasers or other chemical cleaners as they may damage the device. Remember to always pay attention to the road while driving.



### WARNING INDICATORS



#### Oil pressure

Warning indicator to show the correct oil pressure in the engine. The warning indicator will illuminate for a few seconds when you switch on the vehicle using the ignition key. Once the vehicle has started up, it will turn off. More information in the maintenance section of this manual. If the warning indicator lights up when the engine is running or while driving and the buzzer starts to sound, you must switch off the engine and contact the nearest CORVUS service centre.



### Parking brake and brake fluid level malfunction

Warning indicator to indicate that:

- the parking brake is activated.
- the driver is not seated in the seat.
- Or there is a malfunction in the braking system or a lack of brake fluid. If that is the case, park the vehicle and contact your nearest CORVUS technical service. The warning indicator will illuminate for a few seconds when you switch on the vehicle using the ignition key. More information in the maintenance section of this manual.



### Engine coolant temperature

Warning indicator to indicate the correct temperature of the coolant in the radiator. The warning indicator will illuminate for a few seconds when you switch on the vehicle using the ignition key. More information in the maintenance section of this manual. If the warning indicator lights up when the engine is running or while driving and the buzzer starts to sound, you must switch off the engine and contact the nearest CORVUS service centre.

### **Battery level**

Warning indicator to indicate the battery is charging correctly.



The warning indicator will illuminate for a few seconds when you switch on the vehicle using the ignition key. More information in the maintenance section of this manual. If the warning indicator lights up when the engine is running or while driving and the buzzer starts to sound, you must switch off the engine and contact the nearest CORVUS service centre.



### Steering indicators

Warning indicator will illuminate when you use the lever or the emergency button to indicate a change of direction.



#### Diesel heaters

Warning indicator to indicate that the combustion chamber is warming up to make it easier to start the engine. Start the engine when the warning indicator has turned off. The warning indicator will illuminate for a few seconds when you switch on the vehicle using the ignition key. If the warning indicator illuminates when the engine has started or when you are driving, you must turn off the engine and contact your nearest CORVUS garage.



### Long-range lights

Warning indicator to indicate that the long-range lights are switched on to enable greater visibility. Change to low beam when vehicles or people are in front of you.



### Fuel level

Fuel tank capacity of 40 L. of diesel fuel, type B7B10. The warning indicator will illuminate and the buzzer will sound for 2 seconds when there are 5 litres of fuel left.



### **FUNCTIONALITIES**

### Speedometer

- The dial of the speedometer has a linear scale of 0 to 80 km/h.
- The minimum speed displayed will be 3 km/h.

### Odometer

- When the odometer is shown, it will display the ODO symbol.
- We can access TRIP-1 from the odometer by pressing MODE (<2 s).
- We can access the running hours from the odometer by pressing TRIP (>2 s).
- We can use the odometer to change the time by pressing MODE (>2 s).

### Hours of operation

- The indicator has 6 digits, including a decimal point indicating the number of 10-minute fractions that have elapsed. It also shows the letter "h" for the hours of operation.
- The counter only increases in value when the engine is started using the ignition key.
- We can access the odometer from the hour meter by pressing TRIP (>2 s).
- We can access TRIP-1 from the odometer by pressing the ''MODE'' button (<2 s).
- We can change the time from the hour meter by pressing MODE (>2 s).

### Trip-1 (partial counter 1)

- The indicator has 4 digits (with a decimal point) + the KM symbol.
- When the partial counter reaches 999.9 km, the counter returns to 0.
- Pressing on the TRIP button (for >2 s) resets the counter to 0.
- When the partial counter is shown, the TRIP 1 symbol is shown.
- We can access TRIP-2 from TRIP-1 by pressing MODE (<2 s).

### Trip-2 (Partial counter 2)

- The indicator has 4 digits (with a decimal point) + the KM symbol.
- When the partial counter reaches 999.9 km, the counter returns to 0.
- Pressing on the TRIP button (for >2 s) resets the counter to 0.
- When the partial counter is shown, the TRIP 2 symbol is shown.
- We can access the ODOMETER from TRIP-2 by pressing MODE (<2 s).



#### Maintenance service

The first running-in service interval will be after 500 km, 1 year or 50 operating hours.

- Maintenance intervals have been established for every 2500 km, each year "1 YEAR" or every 200 hours of operation.

### 200 HOURS

- The hours will start at 200 and decrease until they reach 0h.
- The hours remaining before maintenance is due will appear for 5 seconds when we turn on the ignition.
- During these 5 seconds, pressing the button TRIP for less than two seconds will display the days remaining before the "1 Year" service is due, with a symbol.
- During these 5 seconds, pressing the MODE button for less than two seconds will display the km that remain before a service is due or the km that have been exceeded.
- When the hours are equal to 200 hours, the service icon will remain on.

#### 2500 KM

- When you have travelled 2300 km, the service symbol will flash on the screen.
- When you reach 2500 km, the service symbol will remain on.
- When the kilometres are displayed, if they have not already been exceeded, their number will come preceded by a "-" sign.
- If you have exceeded the kilometres by when the next inspection is due, when you turn the vehicle on the excess kilometres will be displayed on screen preceded by the letter E.

#### 1 YFAR

If 1 year goes by before you have travelled the kilometres at which maintenance is due, the service symbol will activate with the text "1 Year".

When there is one month left before the service is due, the service sign will flash with the "1 Year" symbol.

When the days of use are 365 or more, both icons will remain turned on.

To activate the icon for the 1 Year Service, you must turn off the vehicle and when you turn it on again, the icon will appear.

The counter associated with maintenance-by-time will not activate until the vehicle has covered a distance of at least 10 km.



#### MAINTENANCE INTERVAL RESET

Resetting the service will establish the next revision at 200 hours, 2,500 km or 1 year without considering the values at the time the reset is performed. To reset the service interval, press "MODE" for 10 seconds (the service icon will flash), then press "TRIP" for 5 seconds. We have 10 seconds within which to press the TRIP button once the service icon flashes, before it times out.

You cannot be moving at any speed when performing the reset.

### 24 h clock

The clock is displayed in the 24H format (HH:MM + a Clock symbol). To reset the clock, follow the procedure below:

- Press the MODE button for more than 2 seconds (until the two hour digits flash).
- Repeatedly press the TRIP button to increase the digits of the hours.
- Keep pressing the TRIP button to increase the hours.
- Press the MODE button to accept the hours and change the field to the minute units.
- Repeatedly press the TRIP button to increase the minutes.
- Keep pressing TRIP to increase the minutes.
- Press the MODE button to accept the minutes and exit the clock setting function.
- If you do nothing for more than 10 seconds, and if you have not pressed any button, the clock setting function is exited automatically.
- If you have changed the hour or minutes, but you do not save them, the time-out will be 20 seconds.
- You can only change the time if the vehicle is completely stopped, without any speed pulses being received.

#### Gear

The gear will be indicated on the screen by an alphanumeric digit that can display:

- N to indicate that you are in NEUTRAL.
- R to indicate that you are in REVERSE GEAR.
- L to indicate that you are in SHORT GEAR.
- H to indicate that you are in LONG GEAR.

### **Revolution counter**

The instrument displays the engine revolutions via a bar indicator.

It has a total of 10 bars that will serve to indicate the range of 0 to 5000 rpm (one bar is equivalent to 500 rpm).



# **MULTIFUNCTION PANEL**

### **MODE - TRIP BUTTONS**

INDICATORS	PUSH-BUTTONS				NEXT CONDITION
	SHORT MODE	SHORT TRIP	LONG MODE	LONG TRIP	
ODO	X				TRIP 1
				X	Operating hours.
			X		Add time
HOURS OF OPERATION	X				TRIP 1
				X	ODO
TRIP 1	X				TRIP 2
				X	Reset TRIP 1
TRIP 2	X				ODO
				X	Reset TRIP 2
ADD TIME		X			Add time
	X				Increase minutes
ADD MINUTES		X			Increase minute
	X				Save time
SERVICE		X			"1 YEAR" service
	Х				"Km" service



# **USAGE INFORMATION**



## **DRIVING-IN STAGE**

It is IMPORTANT to respect the driving-in stage which will ensure your engine's duration and correct functioning in the long term.

The following intervals should be respected:

- During the first 100 km, it is advised that you do not drive at maximum power.
- From 0 to 200 km: Drive at between 50% and 75% engine load (throttle position), alternately, avoiding continuous use of 75% engine load.
- From 200 to 300 km; Drive in the same way but occasionally, albeit not for more than 5-10 seconds, at 100% of engine load.
- From 300 to 400 km: Drive at 75% to 100% of engine load, alternatively. without maintaining peak engine load.
- From 400 km on, increase gradually the demand during between 60 to 80 km. until vou reach peak performance.



Reckless acceleration can cause problems in the engine. Take care that you use the skills and techniques needed to drive the vehicle.

## DAILY INSPECTION BEFORE DRIVING



These controls can actually be performed very quickly, it is a question of habit, the user knows to what use the vehicle has been subjected the last time it was used and where to intensify this control. Respecting this set of controls implies greater security for the user and, undoubtedly, better and more economical maintenance of your vehicle.





Before driving, put the vehicle in horizontal position and perform the following controls:

### Do you have enough fuel?

Check the current fuel level on your multifunction panel /1): try to fill the tank before each use.

### Is the engine oil level correct?

Use the cap/dipstick (2) to check that the level is adequate and, if necessary, add oil.



## DAILY INSPECTION BEFORE DRIVING

#### Is the coolant level correct?

You will find the coolant reservoir (1) beneath the hood.

The liquid must not exceed the MAX line; if necessary, add coolant.



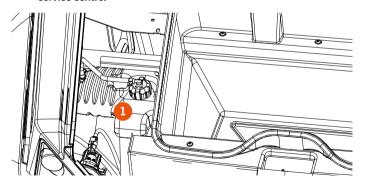
Do not open the cap when the engine is warm, you run the risk of suffering severe burns.

Recommended fluid: 50% long time (-35 °C).

Do not allow coolant to spill onto your skin or any surface. It may cause burns or corrosion. If coolant does come into contact with your skin, clean it off with plenty of water.



If the coolant level is correct and the vehicle continues to heat up. even if it has only been running for a few minutes, this may be the result of bubbles in the circuit and it will need to be purged. If the high temperature persists, contact your nearest CORVUS service centre.



### Is the brake fluid level correct?

It is located beneath the hood, under the luggage compartment hood if there is one.

The container is translucent (2).

Its level must be between MIN/MAX: if necessary, add brake fluid.



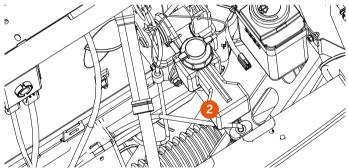
If the brake fluid level is outside the limits shown on the tank, check the thickness of the brake pads and make sure they have not reached their usage limit.

If the thickness is correct, fill up the brake fluid and make sure there are no leaks: if in doubt, go immediately to your CORVUS dealer. they know what to do in each case.

This can affect your safety.

NEVER drive the vehicle if the brake fluid level is low.

Check the level regularly and carry out maintenance as indicated in the Service Chart (p. 44/45).





## DAILY INSPECTION BEFORE DRIVING

### Do the brake discs look okay?

Any important scratches, cracks, excessive wear, etc. can be easily spotted.



Check that the discs are at least 3.5 mm thick on the front and rear wheels.

Go immediately to your CORVUS dealer if you don't know what to do in each case. This can affect your safety.

You should not drive the vehicle.

### Are the front and rear brake pads in good condition?

Check the thickness of the remaining lining, ensuring that the thickness of the lining is not less than 1.5 mm. If it is, contact your CORVUS dealer to replace them.

Check that the brake pads do not rub against the discs when the hydraulic brake pedal or parking brake lever is deactivated.



NEVER drive a vehicle with worn brake pads. Brake pads in this condition lose their effectiveness and could pose a serious risk to vour safety.

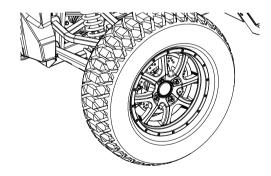
Visit a CORVUS service centre to have the brake pads replaced immediately.



Clean the area around the wheel spindle and the brakes regularly to prevent the build-up of mud and other foreign matter. Allowing these to build up could lead to loss of brake effectiveness and rapid deterioration of components.

### Do the commands feel okay to the touch?

The brake pedal, accelerator pedal, gearshift lever, differential lock lever. 2WD/4WD driveline level, hand brake lever, light panel, start-up system. horn and indicators. All these commands and control elements have their own characteristic functioning and touch, any change indicates an abnormality or damage. Nobody knows your vehicle better than you do, if you appreciate any changes, go immediately to your CORVUS dealer.





## DAILY INSPECTION BEFORE DRIVING

#### Are the tires in good condition?

If in doubt, ALWAYS check the pressure level. If the problem persists, or is repeated, there may be a leak: see your CORVUS dealer.

Recommended front/rear pressure:

- 1.0 bar (empty vehicle).
- 1.5 bar (vehicle at full load).

Tire tread wear limit: 3.5 mm deep.

#### Is there the risk of any element falling off?

Fenders, side covers, tank, mud flaps, etc. If there is any such risk, you should try to attach it or remove it so that it does not fall off, for the sake of your safety. Visit your CORVUS dealer to have it repaired.

## Are there any leaks?

Visually check for leaks, assessing them on the basis of their location, amount and the product that is leaking (be aware of the danger of fire). Always go as quickly as possible to your official CORVUS distributor or dealer.

#### Do the safety belts work properly?

The safety belt will not function properly if the buckle or the strap of the belt are dirty or damaged. For this reason, always keep the buckle and the strap of the safety belts clean, because otherwise, the tongue of the belt will not click into place correctly.

Regularly check the safety belts to ensure that:

- They are not damaged.
- They are not in contact with sharp edges.
- They are not entangled.

In case of doubt or anomaly, go to your CORVUS dealer.

#### Does the lighting and signalling system light up properly?

Regularly check all the bulbs of the lighting and signalling system are working properly. If you detect that any of them have burned out, replace them immediately.



Regularly review the tightening torque of the bolts of the vehicle, paying special attention to the suspension, bushings, wheel spindles, driveline, steering and brakes.

NEVER drive without a bolt or a nut.

The lighting and signalling system are important safety measures: you should never drive the vehicle without either of them.

Daily checks can prevent breakdowns and accidents.



# START-UP PROCEDURE

Follow these steps to start up your CORVUS:

- 1. Place the gearstick (1) in the N position (neutral).
- 2. Step on the brake pedal without stepping on the accelerator.
- 3. Turn the key (2) to the pre-heating position and wait a few seconds in that position until the "diesel heaters" signal (3) turns off.
- 4. Then turn the key (2) to the start-up position until the engine starts turning over.
- 5. Once you have started up the engine. let go of the ignition key.

#### NOTE:

Make sure that the engine maintains a minimum idling speed of 1.250 rpm.



The gearshift lever must be operated with the vehicle completely stopped and the engine running at the minimum possible level. without accelerating.

Failure to comply with this instruction can cause severe damage to the driveline.

Do not drive with the hand brake on.

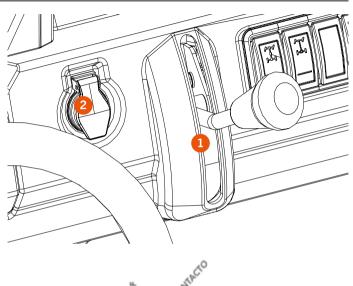
Do not operate the hand brake to stop the vehicle. doing so can cause serious damage to the braking system of the vehicle and can be dangerous.

When moving into gear, accelerate gently, avoiding abrupt accelerations.



Before starting the engine, make sure the gearshift lever is in neutral. DO NOT ACCELERATE.

Failure to comply with this instruction can cause severe damage to the transmission.



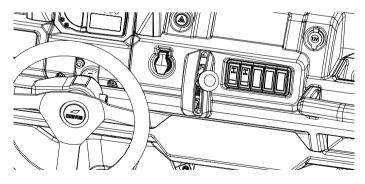




## START-UP PROCEDURE

To begin driving with your CORVUS, follow these steps:

- 1. Step on the brake pedal, without stepping on the accelerator.
- 2. Put the gear lever in L. H or R.
- 3. Release the parking brake. Make sure that is completely disconnected.
- 4. Accelerate gently in the selected gear. When accelerating the vehicle, it is possible that on occasions it may not move and it may make a small metallic noise. This is due to the fact that the gear has not been fully engaged; in this case, stop accelerating and wait for the engine to return to idling speed, push the shift lever in the direction you want to go and accelerate gently at the same time, you will notice a "click" on the shift lever which confirms that the gear has been fully engaged. You can now release the gearshift lever and start moving.



## USF OF THE REAR DIFFERENTIAL LOCK AND UNLOCK\*



To minimise component wear, we recommend that you engage the lock when the vehicle is at a complete standstill.

It must NEVER be used on the road or on asphalt. The lock may only be used up to 20 km/h.

Failure to comply with this instruction can cause severe damage to the transmission system and the driveline.

To **LOCK** the rear differential, perform the following steps:

- 1. Step on the brake pedal, without stepping on the accelerator.
- 2. Disconnect the hand brake. Make sure that is completely disconnected.
- 3. Put the gearshift lever into NEUTRAL (N) central position.

To **UNLOCK** the rear differential, perform the following steps:

- 1. With the vehicle completely stopped, step on the brake pedal, without applying the accelerator.
- 2. Put the gearshift lever into NEUTRAL (N) central position.



# USE OF THE 2WD / 4WD DRIVELINE \*



To minimise component wear, we recommend that you engage the 4WD when the vehicle is at a complete standstill.

It must NEVER be used on the road or on asphalt. The 4WD may only be used up to 20 km/h.

Failure to comply with this instruction can cause severe damage to the transmission system and the driveline.

To **ENABLE 4WD driveline** perform the following steps:

- 1. Step on the brake pedal, without stepping on the accelerator.
- 2. Put the gearshift lever into NEUTRAL (N) central position.

To **DISABLE 4WD driveline** perform the following steps:

- 1. With the vehicle completely stopped, step on the brake pedal, without applying the accelerator.
- 2. Put the gearshift lever into NEUTRAL (N) central position.

# DRIVING TIPS

#### **GENERAL INFORMATION**

- Keep your body completely inside the vehicle at all times while driving.
- Keep both hands on the steering wheel while driving.
- The front passenger seat can be occupied by a passenger while the vehicle is in use.
- Make sure the passenger is properly seated and wearing a safety belt.
- Be aware of potential hazards that may get into the vehicle.
- Abrupt or aggressive driving manoeuvres, even in open areas and on flat surfaces, can result in loss of control and may even cause the vehicle to overturn.

#### TURNING PRECAUTIONS

- Turning the steering wheel sharply and at considerable speed could cause the vehicle to overturn.
- Avoid driving with the vehicle tilted sideways and if you must turn, do so gradually.
- Brake before turning and avoid braking sharply while turning.
- If you need to turn when the car is at a standstill or at low speeds. accelerate gradually.

#### **DRIVING ON SLOPES OR HILLS**

- Try not to cross over hills, but if it is unavoidable, drive slowly and go down the hill immediately if you feel the vehicle may overturn.
- Steep slopes could cause the vehicle to overturn.
- Drive slowly, at a steady speed, and if the vehicle stops moving forward. gradually apply the brakes until it comes to a complete stop. Put the vehicle in reverse gear and let it move slowly down the hill or slope, applying the brakes so as not to lose control.
- NEVER accelerate down a hill or slope, step lightly on the brake so as not to lose control.



## **DRIVING TIPS**

- If you cannot stop the vehicle from overturning, keep your body completely inside the vehicle, press firmly on the floor and hold on tightly to the steering wheel or passenger hand grip.
- Do not attempt to stop the vehicle from rolling over with any part of your body.

#### PAVED SURFACES

- As far as possible, try not to drive on paved surfaces.
- If you do need to drive on a paved road, turn gradually and drive cautiously.
- Do not engage the 4WD or the differential on paved roads.

#### **DRIVING THROUGH WATER**

- Avoid driving through water if it is not necessary.
- NEVER drive through fast flowing water as this could cause you to lose control, be carried away by the current and even overturn.
- Before entering the water, choose where to cross, avoiding rocks or sudden drops. Always choose gradual descents.
- Take special care and attention when performing these operations
- Do not enter the water if it is deeper than 37 cm because water could enter the front differential and the 4WD actuator.
- Do not drive through water at high speed, even shallow water.

#### **REVERSE GEAR**

- NEVER shift into reverse gear if the vehicle is not completely stationary as this causes rapid deterioration of the gearbox and could damage it.
- If you need to manoeuvre in a confined space, make sure you bring the vehicle to a complete stop before shifting between forward and reverse gears and vice versa.
- NEVER force the reverse gear, if it does not engage, gently press the accelerator and try again.

#### **UNFAMILIAR TERRAIN**

- If you are not familiar with the terrain you are driving over, check to see if there are any hidden obstacles or anything that could be hazardous to your work.
- Drive carefully and always use existing roads.
- Drive with extra caution if visibility is poor.

#### **DRIVING WITH A LOAD**

- When driving with a loaded box or a trailer:
  - Reduce speed and drive in LOW (L) gear.
  - Avoid hills or slopes.
  - Load the box correctly and drive with extra care.
  - A load greater than 450 kg could pose a serious risk to the occupants of the vehicle, NEVER exceed this load in the box.

#### • When towing a load:

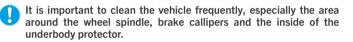
- Use a low gear and do not exceed 16 km/h when towing a heavy load.
- Do not drive aggressively when towing a load.
- Bear in mind that the braking distance and stability of the vehicle will be affected by the towed weight.
- Never park on a slope when carrying a load.
- Avoid driving over unfamiliar or difficult terrain; if you must do so, reduce your speed considerably and be alert to any potentially dangerous elements you may encounter.
- Spreading the weight between the load box and the trailer, where possible, can help to improve the stability of the vehicle.



## CI FANING THE VEHICLE

To clean your CORVUS, perform the following steps:

- 1. Plug the exhaust system to prevent water from getting in.
- 2. Remove the underbody protector
- 3. Remove mud and dirt with a jet of water at low pressure.
- 4. Clean any especially dirty areas with a special cleaner or soap product. DO NOT USE CORROSIVE PRODUCTS OR ACIDS.
- 5. Rinse with a jet of water at low pressure.
- 6. Let the vehicle drip dry naturally.
- 7. Release the exhaust pipe, replace the underbody protection and drive around in the vehicle for a short distance until the engine reaches operating temperature, and then apply the brakes. This will let the water evaporate completely in the areas that are difficult to access.



NEVER use high-pressure equipment to clean the vehicle. Avoid aiming the jet of water directly at the multifunction panel, bearings, air cleaner, switches, controls or any other electrical element.

It is very detrimental to briefly start up the engine when the vehicle is stationary, because the engine is not hot enough and the air vapour created during combustion condenses and causes the oxidation of the exhaust valves.

## VFHICLE STORAGE

When you have to store the vehicle for a long period of time you should:

- Clean the vehicle thoroughly and allow it to dry.
- Treat all bright or zinc-coated parts with wax-based corrosion inhibitors, except for the brake discs, which are made of stainless steel and do not need protection.
- Start the engine for about 5 minutes to warm up the engine oil and then drain it (see maintenance).
- Change the filters and add new engine oil.
- Check the condition and the level of the antifreeze.
- Drain the fuel from the tank (if left for a long time, the fuel deteriorates).
- Check the tire pressure and inflate them to their maximum pressure of 2 bars.
- Disconnect the battery.
- Cover the vehicle to protect it from dust and dirt.
- Store the vehicle in a dry place that is not subjected to important temperature changes.



To turn on the vehicle again, after storage:

- Connect the battery (having charged it previously).
- Replace the fuel filter.
- Fill the fuel tank.
- . Check the points in the section "Daily inspection before driving".
- · Perform a brief test drive.



# **MAINTENANCE**



## SAFFTY AND MAINTENANCE STANDARDS



- Were it to be necessary to keep the engine running to carry out an intervention on the vehicle, make sure that the work environment is well ventilated and, if necessary, use adequate air extractors: never run an engine in closed premises. The exhaust gases that are produced are toxic.
  - The battery electrolyte contains sulphuric acid. Protect your eves, clothing and skin, Sulphuric acid is highly corrosive; in case of contact with eyes or skin, wash with plenty of water and go to a doctor immediately.
  - Batteries produce hydrogen, a gas that can be highly explosive. Do not smoke and avoid open flames or sparks near the battery. especially when you are charging it.
  - Fuel is extremely flammable and can explode under certain conditions. Do not smoke and do not allow any open flames or sparks in the work area.
  - Clean the brake pads in a ventilated place, directing the jet of compressed air in such a way that you do not breathe in the dust produced by the wear and tear of the friction material. Although such dust does not contain asbestos, inhalation is nevertheless harmful.



- Use original CORVUS spare parts and lubricants recommended by CORVUS. Non-original or non-compliant spare parts can damage the vehicle.
  - Only use tools designed specifically for this vehicle.
  - Always use new gaskets, sealing rings and pins during assembly.
  - After disassembly, clean the components with non-flammable solvent or one with a low flammability point. Lubricate all working surfaces before assembly, excluding the conical couplings.
  - After assembly, check that all components have been installed correctly and that they work perfectly.
  - For disassembly, inspection and assembly operations, only use tools with metric measurements. Metric screws, nuts and bolts are not interchangeable with connecting parts with English measurements. The use of unsuitable tools and connecting parts may damage your vehicle.



# **SERVICE CHART**

The maintenance requirements set out in this chart are simple and necessary for a good maintenance of your vehicle.

#### A: ADJUST / C: CHECK / L: LUBRICATE / R: REPLACE

ELEMENT		Daily	Interval							
		Daily	50 h	200 h	500 h	1000 h	1500 h	2000 h		
Cooling	Check and refill coolant	С								
	Check and clean radiator fins			С						
	Check and adjust cooling belt		C (3)	C (4)						
	Drain, clean and refill system with new coolant					R (5)				
Cylinder Head	Adjust intake/exhaust valve settings					Α				
	Secure intake/exhaust valves (if necessary)							Α		
Electrical equip	Check indicators	С								
	Check battery		С							
Engine oil	Check engine oil level	С								
	Replace engine oil		R (3)	R (4)						
	Replace engine oil filter		R (3)	R (4)						
Emission control	Inspect, clean and check fuel injectors (if necessary)						Α			
	Inspect the crankcase breather system						Α			
Fuel	Check and fill the fuel tank	С								
	Drain the fuel tank			С						
	Drain fuel filter water separator		С							
	Check fuel filter water separator	С								
	Clean fuel filter water separator (2)				С					
	Replace fuel filter				R					
Sleeves	Replace fuel system and cooling sleeves							R (6)		
Intake and exhaust	Clean or replace air filter element (1) (2)			С	R					

<sup>(1)</sup> Perform more often if the vehicle is used intensively, in areas with a lot of dust, sand, snow, wet or muddy conditions. (2): Replace if necessary. (3): The first time. (4): 2nd time and from then on. (5): Or 1 year, whichever comes first. (6): Or 2 years, whichever comes first.



# **SERVICE CHART**

The maintenance requirements set out in this chart are simple and necessary for a good maintenance of your vehicle.

#### A: ADJUST / C: CHECK / L: LUBRICATE / R: REPLACE

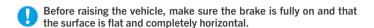
ELEMENT		Daily	Interval						
			50 h	200 h	500 h	1000 h	1500 h	2000 h	
Engine (complete)	General visual engine check	С							
CVT	CVT transmission belt (1) (2)		C (3)	C (4)					
	Sliding elements (1) (2)				С				
	CVT air inlet and outlet			С					
Transmission, differentials and transmissions	Check gearshift and front/rear differential oil level			С					
	Replace gearbox and front differential / 4WD actuator oil		R (3)	R (4)					
	Check transmission joint boots	С							
	Cardan gaskets	L							
Wheels and shock absorbers	Wheel bearings		С						
	Nuts and studs of the wheel bolts		С						
	Suspension ball joints and mounting points		С						
	Tire pressure and wear	С							
General check	Absence of leaks and state of seals (1)	С						R (6)	
	Check brake fluid level	С							
	Replace brake fluid							R (6)	
	Lubricate the wheel spindles, cardan gaskets and ball joints		L						
	Check and clean underbody protection.	С							
	Check condition of discs and pads.	С							

<sup>(1)</sup> Perform more often if the vehicle is used intensively, in areas with a lot of dust, sand, snow, wet or muddy conditions. (2): Replace if necessary. (3): The first time. (4): 2nd time and from then on. (5): Or 1 year, whichever comes first. (6): Or 2 years, whichever comes first.



# RAISING THE VEHICLE

The vehicle is equipped with an area at the front (1) and another at the rear (2) to facilitate its elevation.

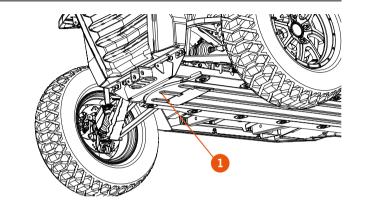


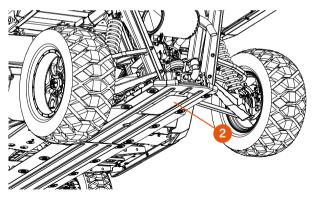


Do not perform any operation or service while the vehicle is being lifted.

Do not touch the vehicle or get into it until it is fully raised and secured, as this could destabilise the vehicle and cause it to overturn.

- 1. Place the base of the jack in the area indicated in the vehicle.
- 2. Raise the vehicle slowly, checking that it is stable.







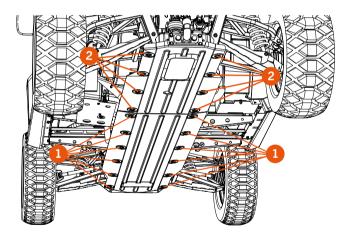
# **UNDERBODY PROTECTOR**

#### Disassembly:

- 1. Remove the 12 screws (1) from the front underbody protector.
- 2. Uncouple the protector.
- 3. Remove the 8 screws (2) from the rear underbody protector.
- 4. Uncouple the protector.



Do not drive without the underbody protector, as this could jeopardise the integrity of important components such as the transmission.





The underbody protector must be kept clean, both internally and externally. In order to be able to detect fluid leaks from the vehicle, to avoid rust due to trapped water, etc.

# WHEELS

#### Disassembly:

- 1. Put the vehicle in a horizontal position.
- 2. Engage the parking brake.
- 3. Raise the area of the vehicle (front or rear) where the wheel you are removing is located (see page 47).
- 4. Remove the four screws (3) holding the wheel rim.
- 5. Remove the wheel.

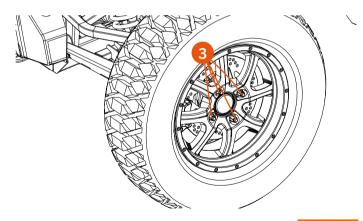
Perform the above procedure in reverse for the **installation**.



NEVER drive without one of the wheel bolts, as this poses a great risk to your safety.



**TECHNICAL INFORMATION.** Wheel nut tightening torque: 70 Nm.





# AIR CLEANER (CLEANING THE AIR CLEANER)

When cleaning the air cleaner, take care to make sure it does not become obstructed and that no dirt gets into the engine, especially when using the vehicle in dusty areas.

Without fail, inspect the air cleaner before and after each use, as indicated in the Service Chart (see page 44/45).

#### Procedure:

- 1. Release the latches (1) that hold the air cleaner cover.
- 2. Remove the air cleaner cartridge (2).
- 3. Clean with compressed air, from the inside toward the outside.
- 4. Clean the inside of the air cleaner housing with a damp cloth.
- 5. Replace the air cleaner cartridge if it is very dirty, wet or deteriorated.

#### Recommendation:

Do not apply air at an excessive pressure, to avoid tearing the air cleaner paper which could result in severe engine damage. Recommended air pressure between 42 - 71 PSI / 0.29 - 0.49 MPA / 3 - 5 KGF/cm<sup>2</sup>



These operations must be carried out with the appropriate precaution, using a mask and goggles.



A clogged air cleaner allows dirt into the engine, causing excessive wear and damaging it.

A clogged or damaged air cleaner can cause severe engine damage.

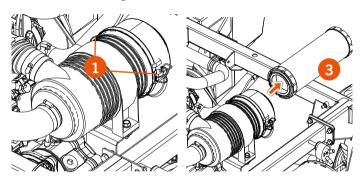
Regulations oblige garages to collect and store, without mixing, hazardous or toxic waste, contaminated waste and inert non-hazardous waste. Such waste may not be dumped and must rather be processed by accredited managers.

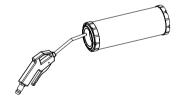


#### TECHNICAL INFORMATION

Recommended air pressure between 42 -71 PSI / 0.29 -0.49 MPA / 3 -5 KGF/cm<sup>2</sup>

Air cleaner cartridge: 02012260000







# **ENGINE OIL (LEVEL CHECK)**

The smooth operation and durability of the transmission and the engine essentially depend on the oil being kept at the optimum level and being changed periodically, as indicated in the Service Chart (see page 44/45).

#### Procedure:

- 1. Put the vehicle in a horizontal position.
- 2. Run the engine so that once the oil is warm it can make any sediment rise up. Then turn it off after a few minutes.
- 3. Check the oil level using the cap/dipstick (1).
- 3.1. Remove the cap/dipstick (1) and clean the dipstick with a clean cloth.
- 3.2. Put it in again to smear it in oil.
- 3.3. Remove the cap/dipstick (1) and observe the impregnated oil level.
- 3.4. Put the cap/dipstick in again (1).
- 4. The oil level should be between the maximum and minimum marks (2) of the cap/dipstick.

#### 5. If the oil level is too high:

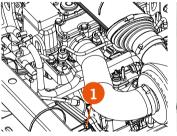
- 5.1. Place a container under the engine to collect the used oil and avoid any spillage.
- 5.2. Remove the excess using the drain cap/screw (4).
- 5.3. Tighten the cap/screw (4) replacing its washer.

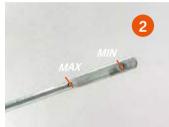
#### 6. If the oil level is too low:

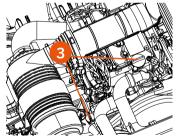
- 6.1. Fill it up with the required amount of oil, removing either of the two filler caps (3).
- 6.2. Make sure to tighten these plugs afterwards (3), maintaining their O-ring.
- 7. Run the engine for a few minutes.
- 8. Stop the engine and after about 5 minutes, check the oil level again.

- When filling the tank by adding new oil, you must use the same type of oil already in the engine.

  Perform several checks during refilling, avoiding exceeding the maximum level.
- TECHNICAL INFORMATION: Recommended oil: SAE 15W40 API CD, CF, CF-4 and CI-4 / ACEA E-5. Capacity: 1.7 L. Tighten the drain plug/screw to 58 Nm.









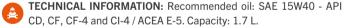


# ENGINE OIL (OIL AND FILTER CHANGE)

You should keep the oil at the optimum level and change it periodically, as indicated in the Service Chart (see page 44/45).

#### Procedure:

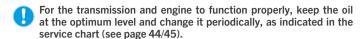
- 1. Put the vehicle in a horizontal position.
- 2. Run the engine so that once the oil is warm it can make any sediment rise up. Then turn it off after a few minutes.
- 3. Place a container under the engine to collect the used oil and avoid any spillage.
- 4. Remove the cap/dipstick level (1) and the two filler caps (2), to make it easier to drain the oil.
- 5. Remove the drain cap/screw (3) and wait until all the content has emptied out.
- 6. Remove the filter (4) and discard.
- 7. Put the new filter in place, lubricate the O-ring seal and tighten manually, without using any tools.
- 8. Tighten the cap/screw (3) replacing its washer.
- 9. Fill with new oil.
- 10. Ensure the tightness of the cap/dipstick level (1) and the filler caps (2), with their O-ring.
- 11. Run the engine for a few minutes.
- 12. Stop the engine and after about 5 minutes, check the oil level again, according to the indications of the oil level check.



Tighten the drain plug/screw to 58 Nm.

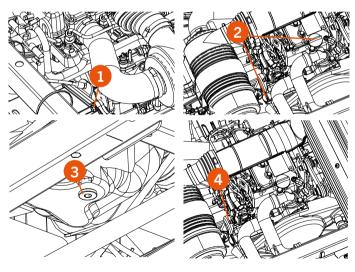
Air cleaner cartridge: 02990000052.

Washer 16: 02990000217.



Insufficient, degraded or contaminated oil can accelerate the wear and tear of a vehicle and cause serious engine damage.

Regulations oblige garages to collect and store, without mixing, hazardous or toxic waste, contaminated waste and inert non-hazardous waste. Such waste may not be dumped and must rather be processed by accredited managers.





# WATER PRE-FILTER

The water pre-filter (1) is located under the cargo box which means that you have to lift up the cargo box to access it.

Check the pre-filter regularly; if it is worn or has lost efficiency, or if the hours of use indicated in the service chart have been exceeded, replace the pre-filter with a new one at your CORVUS service centre.

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A worn water pre-filter can accelerate engine wear and eventually break the engine.

NEVER start the engine without the pre-filter.

# **FUEL FILTER**

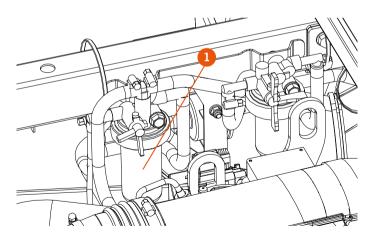
The fuel filter (2) is located under the cargo box which means that you have to lift up the cargo box to access it.

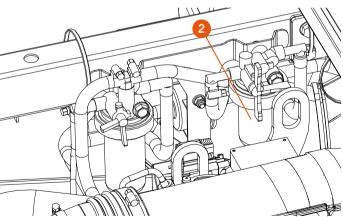
Check the filter regularly; if it is worn or has lost efficiency, or if the hours of use indicated in the service chart have been exceeded, replace the filter with a new one at your CORVUS service centre.



A worn fuel filter can accelerate engine wear and eventually break the engine.

NEVER start the engine without the fuel filter.







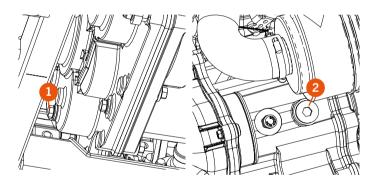


# TRANSMISSION OIL (LEVEL CHECK)

The smooth operation and durability of the transmission and the engine essentially depend on the oil being kept at the optimum level and being changed periodically, as indicated in the Service Chart (see page xx/xx).

#### Checking procedure:

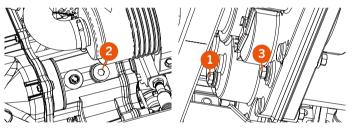
- 1. Put the vehicle in a horizontal position.
- 2. Remove the level screw (1).
- 3. If a slight amount of oil oozes from the hole, the level will be correct. If, on the contrary, no liquid oozes from the hole, you should continue to add more oil.
- 4. If you need to add more oil, you must do so through the filler cap (2).



# TRANSMISSION OIL (OIL CHANGE)

#### Change procedure:

- 1. Put the vehicle in horizontal position and lift the load box.
- 2. Remove the rear protector (see page 47).
- 3. Place a container under the transmission to collect the used oil and avoid any spillage.
- 4. Remove the filler plug (2), to facilitate a better drainage of the transmission oil.
- 5. Remove the transmission oil drain screw (3).
- 6. Once all the oil has drained from the transmission, replace the washer and make sure the drain screw is tightened to 24 Nm.
- 7. Fill the transmission with new oil.
- 8. Replace the O-ring and fit the filler plug (1).



TECHNICAL INFORMATION:

Recommended oil: SAE 80W-90, API GL5. Capacity: 1.7 L.

NEVER drive the vehicle with no or low oil in the gearbox. It is important that you are familiar with the maintenance intervals for the components shown in the service chart.



# FRONT DIFFERENTIAL OIL (CHECK AND CHANGE)

#### CHECK:

To check the front differential oil level, you have to drain the oil into a calibrated container and measure the amount that has been extracted. The correct volume is 0.5 L.

#### **CHANGE:**

The oil must be changed periodically, to ensure the life of the differential, as indicated in the Service Chart (see page xx/xx).

- 1. Park the vehicle in a totally horizontal position.
- 2. Remove the front underbody protection before starting the operation (page X) and the inside of the hood if there is one.
- 3. Place a container under the differential to collect the used oil and avoid any spillage.
- 5. Remove the filler plug/screw (1), to facilitate better drainage of the oil.
- 6. Remove the drain cap/screw (2) and wait until all the content has emptied out.
- 7. Screw on the drain plug/screw (2) and tighten the drain plug, replacing the washer, securing it at 24 Nm.
- 8. Fill the front differential with the new oil.
- 9. Screw on and make sure the corresponding filler plug/screw (1) is tight, replacing its washer, securing it at 24 Nm.
- 10. Check that there are no leaks and that the seals are in good condition.

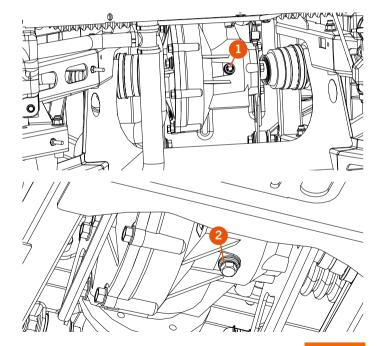


Recommended oil: SAE 80W-90, API GL5. Capacity: 0.5 L.



NEVER drive the vehicle with no or low oil in the front differential.

It is important that you are familiar with the maintenance intervals for the components shown in the service chart.





# **4WD LOCKING SYSTEM OIL (CHECK AND CHANGE)**

#### CHECK:

To check the 4WD locking system oil level, you have to drain the oil into a calibrated container and measure the amount that has been extracted. The correct volume is 0.05 L.

#### **CHANGE:**

It is convenient to frequently check that there are no leaks and the maintenance of the oil level, for correct operation.

Changing the locking system oil.

- 1. Put the vehicle in the horizontal position and remove the front underbody protector (see page 47).
- 2. Place a container under the 4WD locking system to collect the used oil and avoid any spillage.
- 3. Remove the filler plug (1), to facilitate a better drainage of the 4WD oil.
- 4. Remove the drain screw (2) the 4WD locking system oil.
- 5. Once all the oil has drained out of the system, replace the washer and make sure the drain screw is tightened at 24 Nm.
- 6. Fill with 0.05 L of new oil.
- 7. Replace the plug washer and tighten the oil filler plug (1) to 24 Nm.



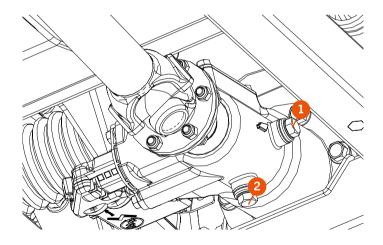
#### **TECHNICAL INFORMATION:**

Recommended oil: SAE 80W-90, API GL5. Capacity: 0.05 L. Tighten the filler plug/screw to 24 Nm. Tighten the drain plug/screw to 24 Nm.



NEVER drive the vehicle with no or low oil in the 4WD actuator.

It is important that you are familiar with the maintenance intervals for the components shown in the service chart.





# **GREASE NIPPLES**

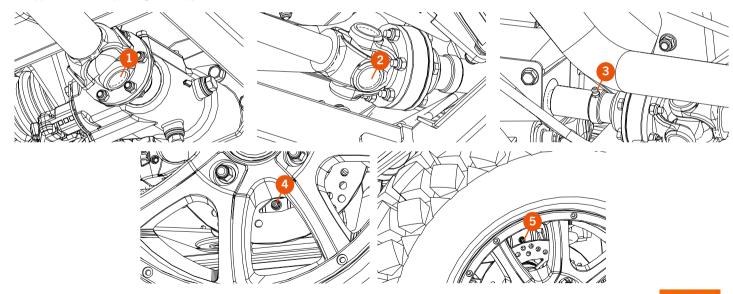
Your vehicle is equipped with grease nipples to facilitate the lubrication of certain parts (2 in each rear wheel spindle, 2 in each cardan joint and 1 in the transmission cardan/output coupling joint.

- 1- Cardan-driveline hub grease nipple.
- 2- Cardan-driveline hub grease nipple.
- 3- Driveline coupling grease nipple.
- 4- Lower rear wheel spindle grease nipple.
- 5- Upper rear wheel spindle grease nipple.



The indicated points should be lubricated according to the service chart to prevent rapid wear of the components.

Check regularly to make sure that the grease nipple is still in position. If it falls out, lubrication may be lost and dust or foreign matter can get in, which will accelerate the wear of the components.





# LUGGAGE COMPARTMENT HOOD

#### DISASSEMBLY:

To gain access to the differential and the components located under the hood, it will be necessary to remove the luggage compartment if there is one.

Previously, you need to remove the front hood.

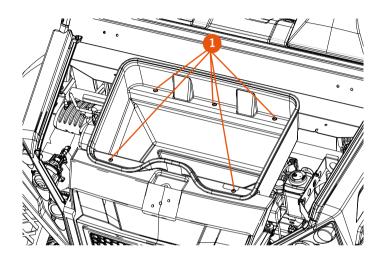
- 1. Loosen the 5 screws (1) that hold the luggage compartment hood in place.
- 2. Remove the luggage compartment hood.



#### **TECHNICAL INFORMATION**

Lock screws tightening torque: 12 Nm.

NEVER drive the vehicle with the luggage compartment hood removed.



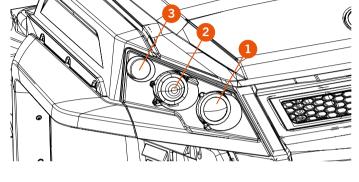


# LIGHTING

#### **PILOT LIGHTS**

The headlamps and the turn signal lamps are located on the **front** of the vehicle:

- 1. The front low beam headlamps (short) have a screw so you can adjust their height.
- 2. The front long beam headlamps have screws so you can adjust their height.
- 3. Front turn signal lamps.



The brake lights/sidelights, the turn signal lamps and the reflectors are located on the **rear** of the vehicle:

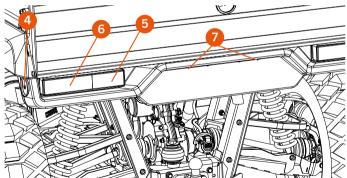
- 4. Reflectors
- 5. Rear brake and sidelights.
- 6. Rear turn signal lamps.
- 7. Your vehicle also has a number plate light.



The surface of the lamps may be very hot.

**NEVER** drive the vehicle without lights or turn signal lamps.

They are an important safety feature.





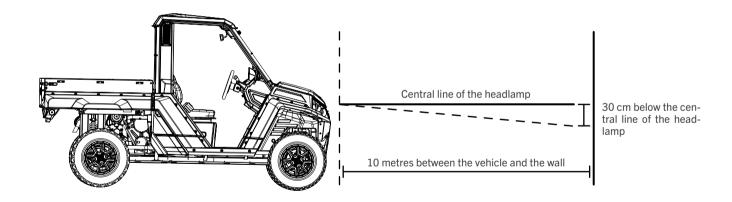
# LIGHTING

#### **ADJUSTING THE HEIGHT**

- 1. Position the vehicle 10 meters from a wall and use the parking brake to immobilize it.
- 2. Use the screws to adjust the headlamps (1).
- 3. The light beam must be 30 cm below the horizontal line projected onto the wall from the centre of the headlamp.



The bulbs and headlamps may be very hot.





# FRONT LAMPS (LOW AND HIGH BEAM AND TURN SIGNAL LAMPS)



The bulbs and headlamps may be very hot.

#### Procedure:

- 1. Switch the vehicle off.
- 2. Open the front hood.

#### Replacing the turn signal lamps:

- 1. Unplug the electrical connector (1) of the lamp you are replacing.
- 2. Turn the bulb counterclockwise to remove it from its housing.

#### Replacing the long-range lights:

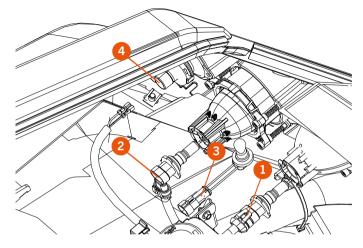
- 1. Unplug the electrical connector (2) of the lamp you are replacing.
- 2. Turn the bulb counterclockwise to remove it from its housing.

#### Replacing the sidelights:

- 1. Unplug the electrical connector (3) of the lamp you are replacing.
- 2. Insert your hand beneath the lamp until you touch the light.
- 3. Turn the bulb counterclockwise to remove it from its housing.

### Replacing the indicator lamps:

- 1. To replace the turn signal lamps, turn the bushing (4) counterclockwise to disconnect it from its housing.
- 2. Turn the lamp and separate it from the bushing.



# **TECHNICAL INFORMATION**

Dipped beam lamp: HB3A 12V 60W // Ref. 09180040003 Long-range lamp: HB3 12V 60W // Ref. 08011460000 Sidelights: W5W 12V 5W // Ref: 08011360000 Turn signal lamp 12V 21W //Ref. 08000960000

Do not drive the vehicle without brake, turn signal or sidelights as these are important safety features.



# REAR LAMPS (TURN SIGNALS, BRAKE AND SIDELIGHTS)



The bulbs and the pilot light cover may be very hot.

#### Replacement procedure:

- 1. To access the rear lamps, you will have to remove the light cover that is anchored with the two screws indicated in the image (1).
- 2. You will then be able to see the 2 lamps:
- Indicator (2)
- Brake and sidelight (3)

Do not drive the vehicle without brake, turn signal or sidelights as these are important safety features.

#### NUMBER PLATE HOLDER BULB

To access the number plate holder bulbs, it is necessary to follow these steps:

- 1. Remove the screws shown (4).
- 2. Then remove the outer plastic of the lamp (5).
- 3. Carefully remove the bulb (6).

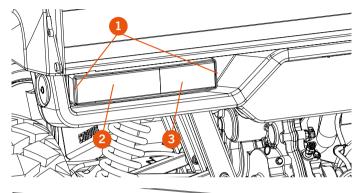


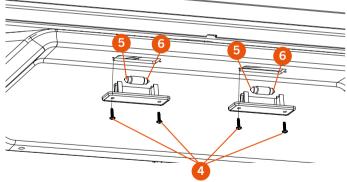
### **TECHNICAL INFORMATION**

Indicator lamp: 12V 21W // Ref. 09180040001

Brake and sidelight lamp: 12V 21W/5W // Ref. 09180040002

Number plate light bulb: Ref. 08001660000







## COOL ANT

The coolant absorbs excess heat from the engine and transfers it to the air through the radiator. If the fluid level decreases, the engine overheats and can be severely damaged.

Check the fluid level every day before driving your CORVUS. At the same time, check for foreign matter, any unusual or strange colouring or other contaminating fluids such as oil. To protect the aluminium parts within the cooling system (the engine and the radiator) from oxidation and corrosion, use chemical inhibitors in the coolant essence. If an anti-corrosive liquid is not used, the radiator will begin to rust after a while. This would obstruct the cooling pipes.

**NOTE:** Initially, the factory uses permanent-type antifreeze. It contains 50% ethylene glycol and has a freezing point of -35 °C.



Liquid chemicals are harmful to the human body. Follow the manufacturer's instructions.

The use of incorrect liquid solutions may cause damage to the engine and the cooling system. Use coolant with a specific corrosion inhibitor for aluminium engines and radiators in accordance with the manufacturer's instructions. If the coolant level is correct and the vehicle continues to heat up, even if it has only been running for a few minutes, this may be the result of bubbles in the circuit and it will need to be purged. If the high temperature persists, contact your nearest CORVUS service centre.



To avoid burns do not remove the radiator cap or try to change the fluid when the engine is still hot. Wait until it cools down.

#### Coolant level:

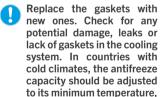
- 1. Place the vehicle in a completely horizontal position.
- 2. Unscrew the cap from the reservoir (1) in an anticlockwise direction and wait a few seconds until the vapours disperse.
- 3. Check the coolant level. The liquid must not exceed the line marked (MAX).
- $4.\ \mbox{lf}$  the fluid level is low, add the required amount through the filling aperture.

Recommended fluid: 50% Long time. (-35 °C).



If liquid falls onto the tires, it makes them more slippery and can cause an accident. Immediately clean any liquid that may fall on the chassis, engine or wheels.

Inspect any old liquid. If you notice white patches in the liquid, it means that the aluminium parts of the cooling system are corroded. If the liquid is brown it means that the steel or iron parts of the system are oxidised. In both cases, clean the system.



i. e. within a range of -5 °C.





# RADIATOR HOSE

#### Hosepipes:

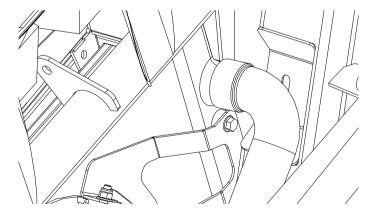
Check that the radiator hosepipes do not have cuts or are damaged and that the connections do not have leaks.

#### Radiator:

Check that the radiator fins are not obstructed (insects or mud). Clean any such obstructions with a jet of water at low pressure.

Using high pressure water can damage the radiator fins and diminish the effectiveness. Do not obstruct or divert the air inlet to the radiator by installing any unauthorized accessories. Interfering with the radiator may cause it to overheat and damage the engine.

Replace the radiator if it is damaged or has lost effectiveness.



# **ADJUST HANDBRAKE**

To adjust the parking brake, follow the procedure below:

Loosen the nut (1) and separate the pads by loosening the axle (2).

Adjust the cable stud so that the distance between the nut and the end of the stud is 10 mm.

Adjust the cam to the specified dimension (60-61 mm) when the parking brake is off.

Slowly move the pads towards the disc, tightening the axle (2), until they touch.

Loosen the axle by 90°, moving the pads away from the disc.

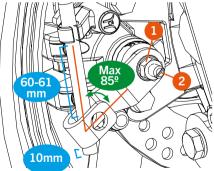
Tighten the nut (1) by holding the axle (2) with a flat screwdriver.



#### **TECHNICAL INFORMATION**

The cam must be adjusted in such a way that when the parking brake is applied to its maximum extent, the angle of the cam with reference to the cable has to be 85° at the most.

Do not carry out this operation when the handbrake is on. Only activate it when the nut (1) is tightened.







# **BRAKE WEAR**

If the thickness of any of the front or rear disc brake pads is less than 1.5 mm, completely change the set of affected pads.



Check that the thickness of the front and rear discs is at least 3.5

It is important to keep the area around the discs, pads and wheel spindles clean. Do not allow mud or external elements to accumulate over long periods of time. These elements can affect the performance. effectiveness and life of the materials.

We recommend that you go to your CORVUS dealer to change the brake pads. They will also check for any possible wear of the brake discs.

## **BRAKF FI IIID**

Inspect the brake fluid and change it regularly. You must also change it if is contaminated by water or dirt. Recommended fluid: DOT-4 brake fluid.



Do not mix different types of brake fluid. The fluid used to fill or renew your circuit must respond to the specified standard in the fluid reservoir of each circuit. You should NEVER change the specification, always respect the dot-4 specification. What is important is not that the brake fluid should be the same brand, rather that it MUST HAVE the same specification. NEVER use fluid from a container that is not sealed (unopened) at source. NEVER use brake fluid that has already heen used

The brake fluid level must be within the MIN/MAX range. If there is not enough liquid, it should be added.

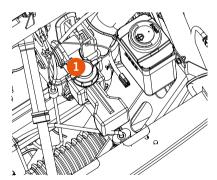


Do not spill brake fluid on paintwork.



Check that there is no loss of liquid through the gaskets. Check for possible damage to the brake sleeves.

It is recommended that you replace the brake fluid every 2 years.



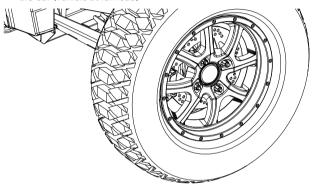


# **TIRFS**

Check that the tires are not worn, cracked or damaged. Also check that they are at the correct pressure.

Recommended front/rear pressure:

- 1.0 bar (empty vehicle)
- 1.5 bar (vehicle at full load)



# **BOLTS, NUTS AND FASTENINGS**

Every day before you drive your vehicle you should check that all the nuts and bolts are tight.

You should also check that the other fastenings are in place and in good condition.



NEVER drive with nuts or bolts removed, this could cause an accident or serious damage.

## **BATTFRY**

The battery (12 V and 55 Ah) does not need maintenance.

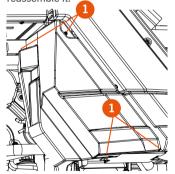
#### Changing the battery

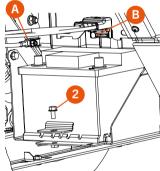
The battery is located at the right rear of the vehicle, under the right-hand spray shield or right-hand side box.

To change it, perform the following steps:

- 1. Loosen the 4 screws (1) securing the spray shield and remove it.
- 2. Remove the screw (2) securing the battery nail.
- 3. Loosen the battery terminals and remove the battery, first the negative terminal (A) and then the positive terminal (B).

Replace the battery with a new one and follow the steps in reverse order to reassemble it.







Do not handle or try to open the battery, the electrolyte and gases are toxic and can cause serious injury. Keep the battery out of the reach of children. Keep the battery away from sources of heat. open flames and sparks. Always store and charge the battery in well ventilated areas and wear protective clothing and goggles. Always disconnect the negative terminal first and connect it last.

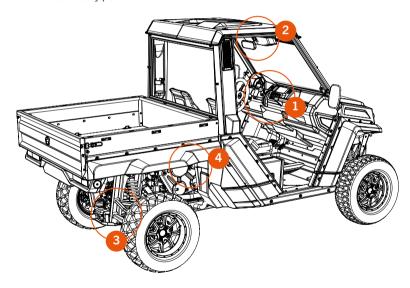


# **AUXILIARY POWER OUTPUTS**

The vehicle has 3 free auxiliary connectors and a direct battery positive whose maximum individual load capacity is 150 W at 12 V. To avoid problems with the electrical system or battery, never exceed this capacity.

These connectors are located:

- (1) Behind the central button panel on the instrument panel (direct battery positive).
- (2) Behind the upper roof button panel (positive after contact).
- (3) On the rear left-hand side of the vehicle (positive after contact).
- (4) On the engine pulleys, red terminal direct battery positive.

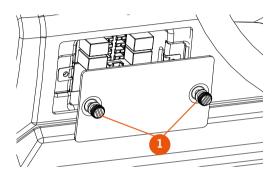




## **FUSES**

#### LOT 1

To access the fuse box you will need to remove the 2 screws on the cover located to the lower left-hand side of the driver's seat.



NEVER use fuses other than those indicated, as this could lead to malfunction or failure of the electrical system.



Alimentación remolque - Luces cortas + freno R7 - Start interlock // Seguridad de arrangue

#### \*: Optional // Opcional

30A **25A** 20A

TOP//SUPERIOR

R6

R5

**R2** 

**R1** 

F16

R8

R7

R4

R3



15A **7**,5A

R5 - Heater\* // Calefacción\*
R6 - Trailer supply - Low + stop lights

R8 - AC compressor\* // Compresor AC\*

# WINDSHIELD WIPER

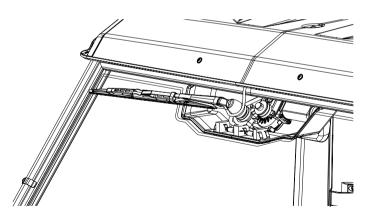
#### **WINDSHIELD WIPER BLADE\***

To remove the windshield wiper blade:

- 1 Separate the windshield wiper arm.
- The arm and the blade must form an angle of 90°.
- 2 Press the central clip.
- 3 Remove the blade downwards.

To assemble the blade:

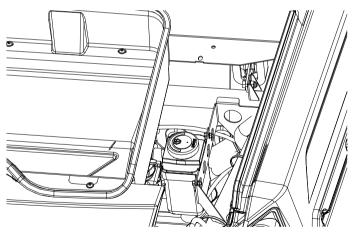
- 1 Place the windshield wiper arm between the blade.
- 2 Place the tip of the arm onto the central clip.
- 3 Twist the blade and return the arm to its initial position.



#### **WINDSHIELD CLEANER FLUID\***

The windscreen wiper fluid reservoir is located under the front hood.

- 1 Put the vehicle in a horizontal position.
- 2 Remove the four screws from the cover.
- 3 Remove the cap.
- 4 Fill the tank with fluid up to the top.
- 5 Screw the cap back on.
- 6 Check it works properly.





# **PRODUCT LIABILITY**



# PRODUCT LIABILITY

#### SUPPLEMENT SUBJECT TO PRODUCT LIABILITY DIRECTIVE 1999/34/CE OF 10/05/1999

- 1. The User Manual has been delivered to the customer or to his or her legal representative when they have taken delivery of the product. A contact person has been appointed to respond to queries.
- 2. The product has been presented to the client (legal representative) before it was handed over. The client (legal representative) has been informed that the product should be used only in accordance with the conditions laid down by the manufacturer (as described in the User Manual). The client (legal representative) fully understands the instructions.
- 3. The client (legal representative) has been informed that the manufacturer shall not be liable for problems resulting from any modification of the vehicle.
- 4. The client (legal representative) declares by their signature that they have been informed and that they understand the points set out above.

Date and signature of the client (legal representative).



# **WARRANTY MANUAL**



## PRFI IMINARY WARNINGS

(According to Royal Legislative Decree 1/2007, of 16 November, approving the revised text of the General Law for the Defence of Consumers and Users and other complementary laws.)

Rules regulating the warranty of the manufacturer CORVUS INNOVA S.L. Hereinafter, "CORVUS".

The company **CORVUS**, hereby warrants to the end consumer, the purchaser of a vehicle manufactured by **CORVUS**, that both the materials and the manufacture are free from defects in accordance with the highest quality standards.

Consequently, **CORVUS** hereby guarantees to the end purchaser (hereinafter, the "purchaser"), in accordance with the conditions expressed below, the repair of any material defect, hidden defect or manufacturing defect detected in a new vehicle, without charge, within the given warranty period and with a limitation of 1,000 operating hours.

#### WARRANTY PERIOD

The warranty term shall begin on the date the vehicle is delivered to the buyer by an authorized **CORVUS** dealer or official distributor, or in the case of demonstration models, on the date on which the vehicle begins operating for the first time. The seller shall be liable for any lack of conformity which might become manifest within the deadline set out in Royal Legislative Decree 1/2007, of 16 November, approving the revised text of the General Law for the Protection of Consumers and Users from the time of delivery and in accordance with Directive 1999/44/EC for the rest of the Member States of the European Community. For countries outside the European Community, the warranty term shall be governed by the rules in force therein. However, if the lack of conformity becomes apparent during the first six months from delivery of the vehicle, it is presumed that such failure already existed when it was handed over; from the sixth month, the buyer shall have to demonstrate that the lack of conformity existed at the time of delivery of the asset.

During the first six months after delivery of the repaired good, the seller shall be liable for the lack of conformity that led to the repair.

Any defect detected in the product must be brought to the attention of an official **CORVUS** distributor or authorized dealer within the warranty term. If the last day of the warranty term falls on a Sunday or an official holiday, the warranty term will be extended in such a way that the last day of the warranty term is the first working day after the Sunday or the official holiday.

Warranty claims for defects not brought to the attention of an official **CORVUS** distributor or authorized dealer before the end of the warranty term will be excluded.



# PRFI IMINARY WARNINGS

# **OBLIGATIONS OF THE BUYER**

**CORVUS** shall be entitled to refuse warranty claims if and to the extent that:

- 1. The purchaser has not submitted the vehicle to any of the inspections and/or maintenance work required in the owner's manual or has exceeded the date specified for such inspections or maintenance work. Defects appearing before the date specified for an inspection or maintenance work which has NEVER been carried out, or which was carried out after the specified date, are also excluded from the guarantee.
- 2. If inspection, maintenance or repair work has been carried out by third parties not recognized or authorized by CORVUS.
- 3. Any maintenance or repair work that has been carried out in violation of the technical requirements, specifications and instructions provided by the manufacturer.
- 4. Spare parts not authorized for use by **CORVUS** have been used when carrying out maintenance or repair work on the vehicle, or if and to the extent that it the vehicle has been used while using fossil fuels, lubricants or other liquids (including, among others, cleaning agents) that have not been expressly mentioned in the specifications of the User Manual.
- 5. The vehicle has been in any way altered or modified or equipped with components other than those that have been expressly authorized by **CORVUS** as admitted vehicle components.
- 6. The vehicle has been stored or transported in a manner not consistent with the technical requirements.
- 7. The vehicle has been used for a special use different from ordinary use, such as a competition, racing or an attempt to obtain whatsoever record.
- 8. The vehicle has been involved in an accident that has directly or indirectly caused damage.

# WARRANTY EXCLUSIONS

The following items will be excluded from the warranty:

- 1. Worn parts, including, without limitation, batteries, fuel filters, the oil filter element, air cleaners, brake discs, brake pads, clutch plates, CVT belts, CVT rollers, CVT variator, light bulbs, fuses, carbon brushes, tires, cables and other rubber components, and in general any parts subject to wear and tear.
- 2. Lubricants (for example, oil, grease, etc.) and operating fluids (for example, battery fluid, coolant, etc.).
- 3. Inspection, adjustment and other maintenance work, as well as all types of cleaning work.
- 4. Paint damage and subsequent corrosion due to external influences, such as stones, salt, industrial exhaust gases and other environmental impacts or improper cleaning using unsuitable products.
- 5. Damage caused by defects, as well as expenditure incurred directly or indirectly as a result of the occurrence of defects (e.g. communication costs, accommodation costs, car rental costs, public transport costs, towing costs, express courier costs, etc.), as well as other financial damage (e.g. damage caused due to the loss of use of a vehicle, loss of income, loss of time, etc.).
- 6. An acoustic or aesthetic phenomenon that does not significantly affect the nature of the use of the vehicle (for example, small or hidden imperfections, noise or shimmy due to normal use, etc.).
- 7. Phenomena due to the ageing of the vehicle (for example, the discolouring of paintwork or metalwork).



# PRFI IMINARY WARNINGS

# **VARIOUS**

A. Were the repair of the defect or the replacement of the part to be disproportionate, **CORVUS** will have the prerogative to decide at its sole discretion whether to repair or replace defective parts. Ownership of the replacement parts or the replaced parts, as the case may be, shall correspond to **CORVUS** without any other consideration. The official **CORVUS** distributor or authorized dealer to whom the repair of such defects has been entrusted will not be authorized to make binding declarations on behalf of **CORVUS**.

B. In the event of doubt as to the existence of a defect or if a visual or material inspection is required, **CORVUS** reserves the right to demand the return of the parts covered by a warranty claim or to request an examination of the defect by a **CORVUS** expert. Any additional warranty obligations on parts replaced without charge or for any service provided free of charge under this warranty will be excluded. The warranty for spare parts within the warranty term will end on the date of expiry of the warranty term of the product concerned.

C. If it were to prove impossible to repair a defect and the replacement thereof were to be disproportionate for the manufacturer, the consumer is guaranteed the right to cancel the contract (payment of compensation) or to a partial refund of the purchase price (discount), instead of the repair of the vehicle.

D. The purchaser's warranty claims under the sale and purchase agreement entered into with the corresponding official distributor or authorized dealer will not be affected by this warranty. This warranty will not affect the additional contractual rights of the buyer under the general conditions of business of the authorized dealer. Such additional rights, however, can only be claimed from the authorised dealer or authorized distributor.

E. If the purchaser were to resell the product within the warranty period, the terms and conditions of this warranty shall continue to exist to the current extent, so that the rights to claim under this warranty in accordance with the terms and conditions regulated herein shall be transferred to the new owner of the vehicle.



CHANGE OF OWNER	
OWNER No. 2	
NAME AND SURNAME:	
ADDRESS:	
POST CODE / TOWN:	
PHONE:	MOBILE:
E-MAIL:	

I confirm that I have received Proof of Delivery, the User Manual and two sets of keys. I have completely read and I understand the User Manual. I know the maintenance intervals. I know the warranty conditions.

Date and signature of the client (legal representative).

For your own safety (e.g. for the possible withdrawal campaigns by the manufacturer), we recommend, as a new owner, that you inform an official **CORVUS** distributor or authorized dealer, or **CORVUS**, itself directly, that you have purchased a **CORVUS** vehicle, so that your data can be registered in the service. This will ensure that you are correctly made aware of any campaign that might affect you.



# OWNER No. 3 NAME AND SURNAME: ADDRESS: POST CODE / TOWN: PHONE: MOBILE: E-MAIL:

I confirm that I have received Proof of Delivery, the User Manual and two sets of keys. I have completely read and I understand the User Manual. I know the maintenance intervals. I know the warranty conditions.

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