



CITROEN SPACETOURER

CITROEN JUMPY

4x4 DANGEL



INSTRUCTIONS FOR USE AND MAINTENANCE
(Complement to the car manufacturer's manual)

Dear Customer,

Thank you for selecting a vehicle with the 4-wheel drive system designed and manufactured by Automobiles DANGEL.

To ensure that you fully benefit from your DANGEL vehicle this manual includes all features of the 4-wheel drive system.

Please read this manual thoroughly before using the vehicle for the first time. This manual contains important information, details and advice.

It will assist you in using your DANGEL 4-wheel drive system.

Further information about the maintenance of your vehicle 4-wheel drive system to be read at the end of this booklet.

Automobiles DANGEL wish you pleasant reading and safe driving.



WARNING



Your 4-wheel drive system appreciably improves the capability of your vehicle; thus it can access to roads where, under some circumstances, a 2-wheel drive version would not be able to travel.

For your safety and the longevity of your vehicle, when road conditions become treacherous, please adapt your driving style accordingly (see pages of this manual about limits and operating recommendations).

This manual is an addition to the manufacturer's manual of your vehicle and only deals with features of the 4-wheel drive system by Automobiles DANGEL.

For any other information please refer to the manufacturer's manual.

We draw your attention on the fact that your vehicle is equipped with some of the equipment described in this document according to the version and the characteristics available in your country.

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OPERATING ADVICE



The 4-wheel system designed and manufactured by Automobiles DANGEL gives you additional traction, however basically your vehicle is not intended to clear obstacles.

Therefore the enhanced traction makes it suitable for **all-road but not all-terrain use**.

Non-compliance with the recommendations given in this manual may damage your vehicle and make the warranty null and void.

Driving

▪ **How does the 4-wheel mode work?**

Your vehicle is fitted with an automatic hydraulic coupler. It transfers a part of the engine torque to the rear axle in case the front axle loses traction. This transfer is **fully automatic** and does **not require any action from you**.

*Note: During tight parking manoeuvres (in 1st gear and reverse) and near steering locks, the 4-wheel drive system slightly brakes the vehicle. This **phenomenon is completely normal** and results from the different rotation speeds between the front and rear axles.*

Your vehicle is fitted with:

- An automatic hydraulic coupler: the viscous-coupling
- As an option, a lockable rear axle.



▪ Driving all-road

The all-road performance of this vehicle category (vehicle gross weight "G.V.W" up to 3.1 tons) is influenced by:

- The transported load, its distribution and load securing
- The available adherence
- The type of ground
- Wear and type of the tyres

When driving off road or when adherence becomes precarious, we advise you to:

- Drive gently and without jerks for a smooth drive.
- Moderate your speed to calmly negotiate a turn or a descent.
- Anticipate braking actions by taking into account that stopping distances will be significantly longer.

▪ Driving with a trailer

Under all-road conditions, when you pull a trailer you must take into account that:

- The trailer is not necessarily suited for all-road usage.
- Selection of parking place is important for re-starting easily.
- The weight of the trailer and its load will influence the behaviour and the trajectory of your vehicle. Try to anticipate and adapt your driving.

According to the instructions manual it is imperative to check the coupling torque of the hitch assembly after 1.000 km → see coupling instructions.

▪ Fording

Fording must be an **exception**.

- Check that the water depth does not go above the wheel radius, also take into account that waves could be generated.
- Deactivate the Stop & start function.
- Drive as slowly as possible without stalling. Do not exceed 10 km/h.
- Do not stop and do not run the engine off.

When coming out the water and as soon as the safety conditions allow it, use the brake gently a few times in order to dry up the brake discs and pads.

▪ How to cross an obstacle ?

To cross an obstacle (low ditches, step,...) we advise you to:

- Slow down before the obstacle;
- Accelerate gently before the obstacle;
- Cross the obstacle on the bias one wheel after the other;
- Slow down after crossing the obstacle.

We highly recommend you not to come over the obstacle head on.

▪ Vehicle equipped with Stop and Start

In order not to disturb the user when driving off road at low speed, we advise to neutralize the Stop & Start system following the manufacturer's instructions manual.

▪ In a slope

When driving in a slope we advise you to:

- Always take the trajectory in front of the slope, avoid taking the slope diagonally,
- Drive downwards slowly, steering straight ahead, using the engine brake;
- Take into account the adherence, the load and its distribution as these parameters can make the value of the maximal crossable rope vary.
- Always keep control of your vehicle.

We highly recommend not to approach the slope diagonally or take a U-turn in a slope, as the danger would be losing the adherence and/or side sliding and tumbling.

WARNING

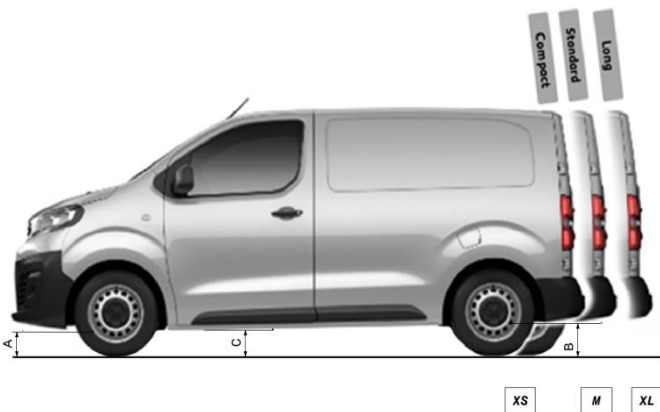
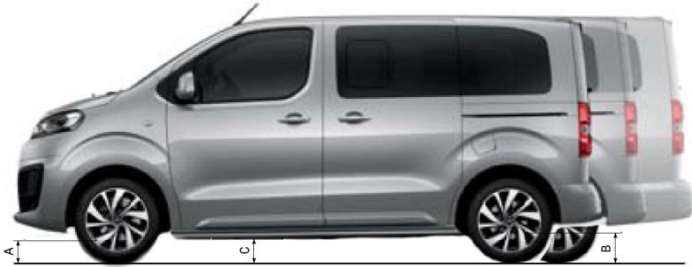
Driving off road is different than driving on road.

It implies to be trained to face all the difficulties safely.

An adapted driving enables to preserve the mechanical integrity and durability of your vehicle.

Drive carefully and slowly because the dimensions of your vehicle are different from the width, length and height of a light car and some obstacles may be difficult to be identified.

Converted by Dangel

Engines	Outlines
<p>LCV 2L BlueHDI FAP (DW10FE with or without S&S) Power 122 HP / 90 Kw Torque 340 N.m</p>	
<p>VP / LCV 2L BlueHDI FAP (DW10FD S&S) Power 150 HP / 110kW Torque 370 N.m</p>	

▪ Characteristics when the vehicle is empty:

Please refer to the car manufacturer's instructions manual.

It is important to mention that the limits of use are to be adapted according to the equipment and to the loading of the vehicle.

Weights and payloads

For more information, refer to your registration certificate.

WARNING

The **payload** values take into account the weight of the DANGEL equipment (approx. 90 kg depending on the version).

The 4-wheel drive system improves your vehicle's traction but overloading the vehicle is not authorised.

Towing speed is according to the EC 97/27 Directive for the commercial vehicle (LCV, N1) and EC 92/91 for the personal vehicle (PC, M1) or EU n° 458/2011 regulation.

In the case of a tractor vehicle it is forbidden to overtake the 80 kmph speed in commercial vehicle and 100 kmph in personal vehicle. Please take into consideration the authorized loads that can be towed as well as the speed limits in accordance with the local regulation of each country.

To know the permitted vertical load on the tow bar, refer to the installation instructions of the tow bar (inside the vehicle).

The values of G.C.W.R* and towing charges indicated are for a maximum altitude of 1000 meters, maximum trailer weight must be reduced by 10% in increments of 1000 meters further.

High outside temperatures can cause lower performance of the vehicle. To protect the engine when the outside temperature is above 37 ° C, limit the towed weight.

Note that the loading space and the internal dimensions of the vehicle remain unchanged by the equipment 4X4 (see the instructions manual of the base vehicle for more information).

* G.C.W.R.: Gross Combination Weight Rating

Tyres



▪ What should the tyre pressure be?

The tyre connects your vehicle to the ground. Therefore it is important to check the tyre pressure regularly in order to ensure:

- Your safety
- A good grip on the road
- Moderate fuel consumption
- Protection from wear

Reminder: **The tyre pressure must be checked when they are cold.**

Note:

- *The off-road tyres option brings features different from those of original tyres because they are adapted to off-road situations and to road grip changes. It is recommended to consider this for the use of the vehicle on the road.*
- *The tyre pressure value is indicated in the manufacturer's instructions manual or on the sticker situated on the central panel of the driver's door.*

WARNING on the 4x4 vehicles:

The tyres have to be the same brand, same type and have the same wear level on the front and on the rear axle.

Be sure to swap the **front and rear wheels regularly without crossing them** depending on the wear level.

Tyres wear has a direct impact on the traction of a vehicle manoeuvring in precarious conditions (snow, mud...).

For such uses do not hesitate to **replace the tyres earlier**, before they start showing signs of wear.

Do not hesitate to adapt the tyres to your use following the homologated dimensions for your 4x4 equipment.

Washing the vehicle



After that your vehicle has been used under severe conditions (mud, snow...), we advise you to wash the underside completely because mud and/or snow can accumulate under the body and prevent from a smooth functioning of your vehicle.

Check that the engine protection plates under the vehicle are not clogged with accumulated mud/snow, etc. If necessary dismount the plates to clean.

The accumulation may be situated in the inner part of the wheels which can cause vibrations.

In the above mentioned cases a high pressure wash on the underside will be more efficient. Nevertheless when washing with high pressure please keep proper distance in order to:

- Protect the painted surfaces;
- Protect the fragile mechanical items (joints, hoses ...).

In case of an incident

Contact a repair workshop certified by the manufacturer and give information that your vehicle is fitted with a DANGEL 4-wheel drive system (hand this manual over if necessary). For an easier identification you may give the vehicle's conversion number (see page 11).



WARNING

Like most of the 4-wheel drive vehicles **never haul by lifting the front or the back** (it can destroy the transmission).

The vehicle must be hauled with 4 wheels on the ground (or loaded on a deck).

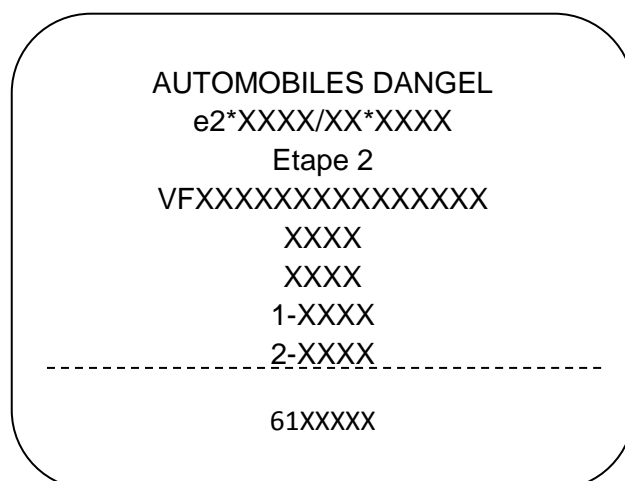
Note: Please refer to the last page of this manual for the information and documents to be shown.

VEHICLE IDENTIFICATION

The vehicle was fitted by Automobiles DANGEL. For its identification, there is a label placed on the central pillar of the right front door. It also includes the transformation number at the bottom of this one. (See photo below).



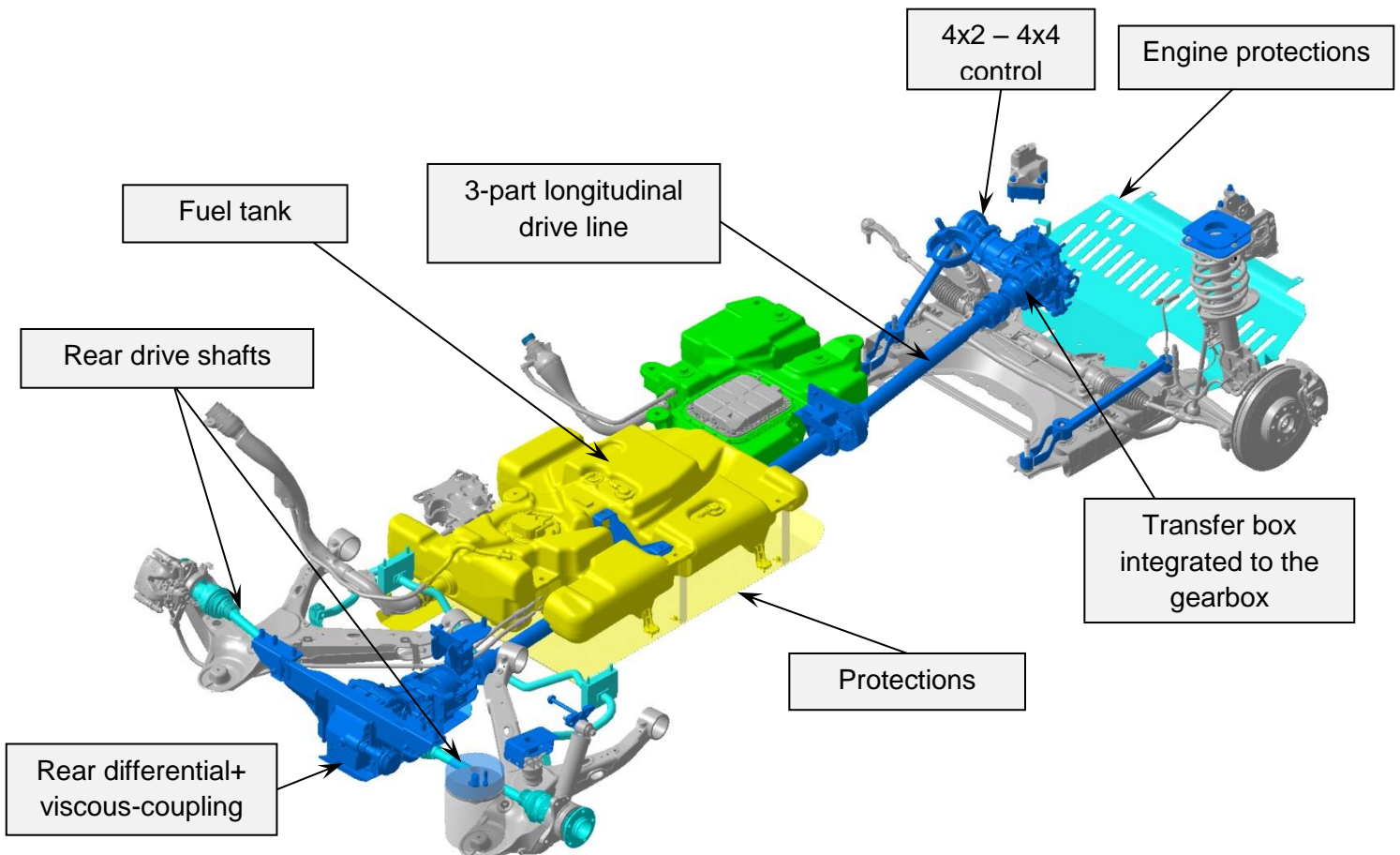
For all types of vehicles:



This transformation number is necessary for after sales and warranty service.

OPERATING MODE OF THE DANGEL 4X4 EQUIPMENT

Architecture of the Dangel system

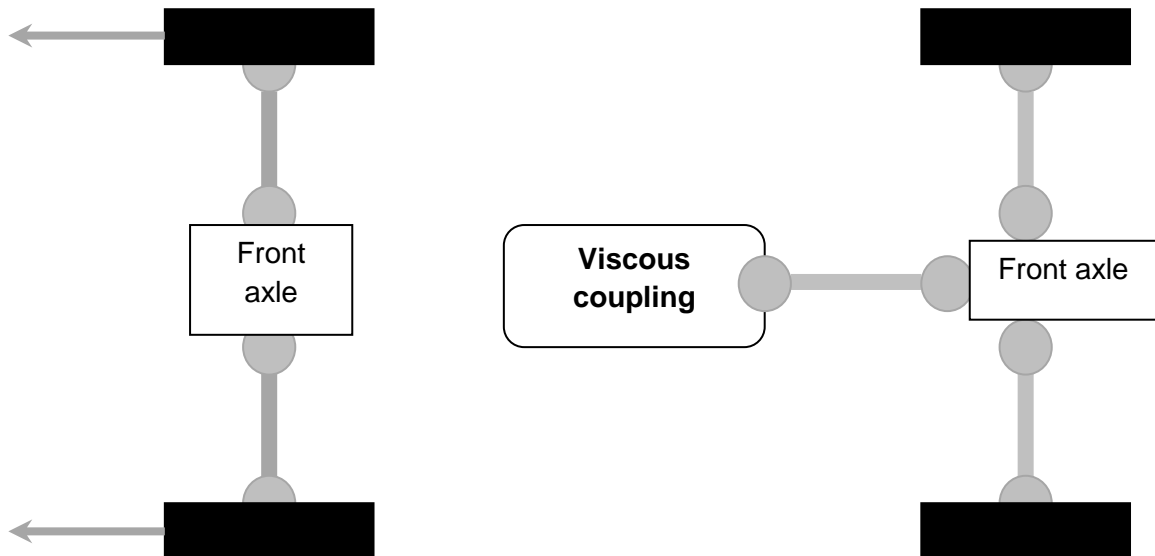


Characteristics of the Dangel 4x4 conversion

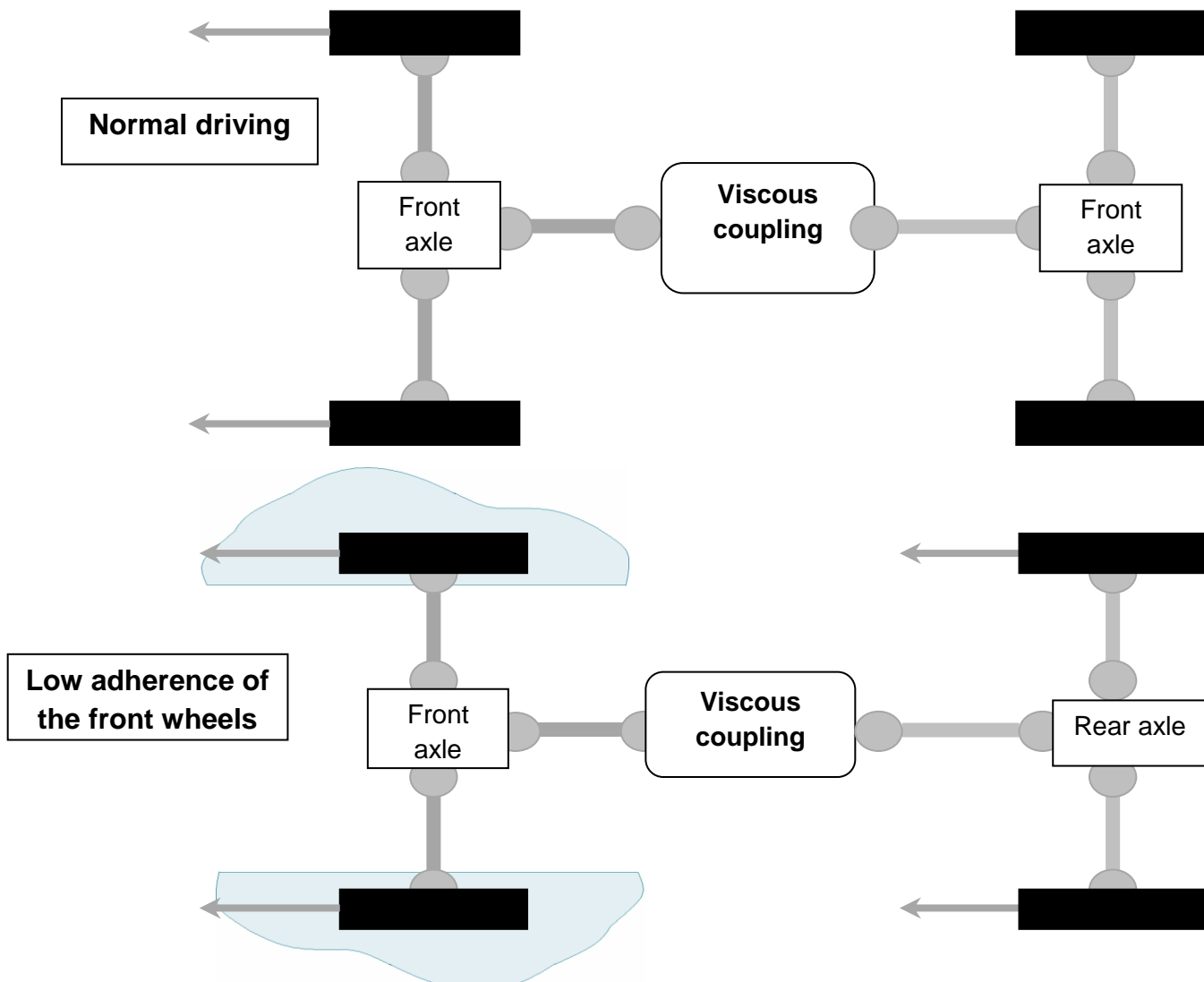
- 4x4 transmission with automatic transfer of torque through hydraulic coupler
- Gear ratios are unchanged
- Original tyres
- Weight of the equipment: approximately 90 kg (may vary according to the version)

Operating principle

▪ Functioning of ECO 2WD



▪ Functioning of AUTO 4WD



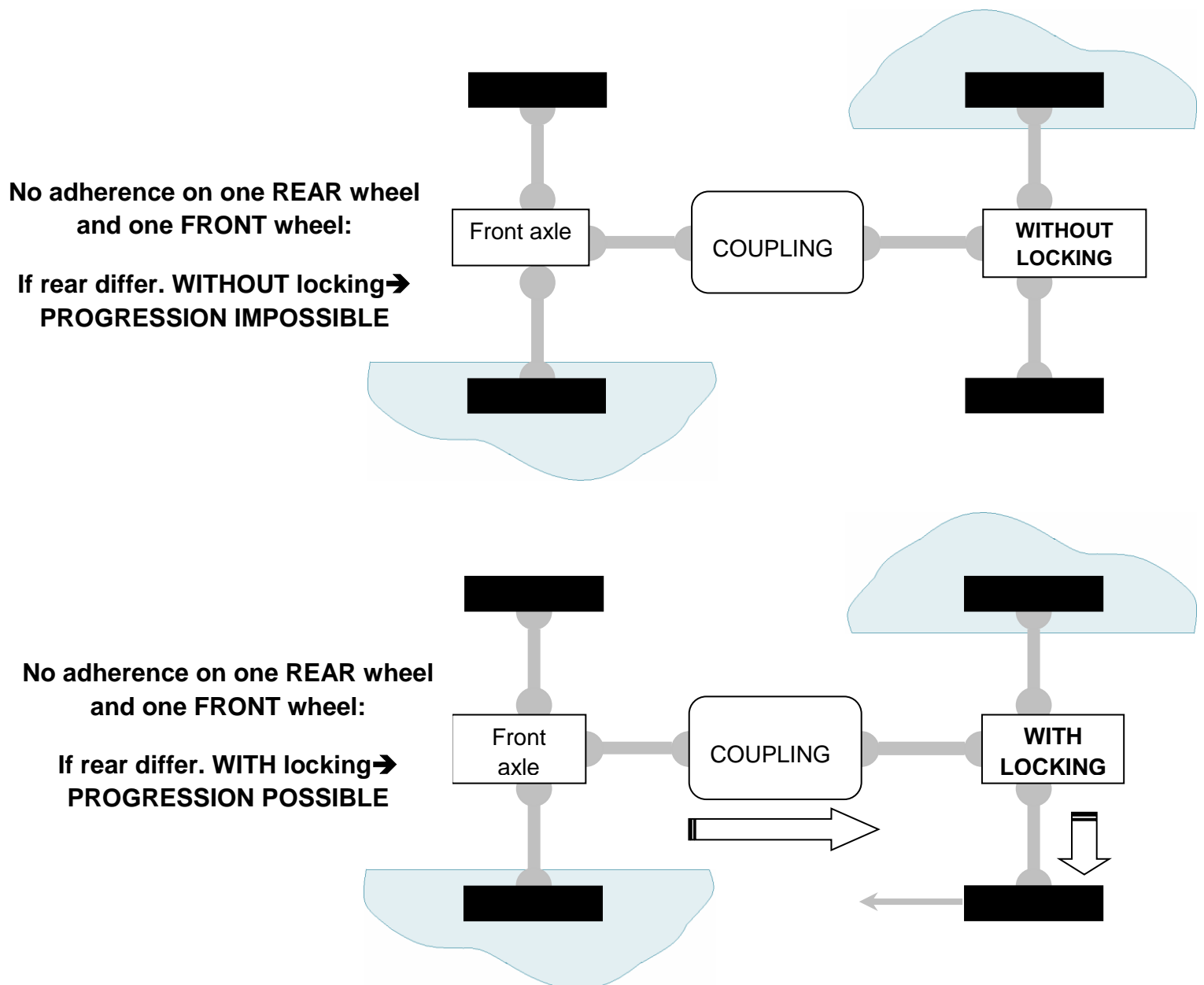
When there is no adherence on the front axle

Automobiles DANGEL's 4-wheel drive system operates based on **automatic** and **optimal distribution** of the **engine torque**. The **coupler** is the **heart of the system**.

Depending on the traction of the front wheels, the coupler automatically distributes the engine torque to the rear wheels which provides **additional traction** to the vehicle.

The Acceleration Slip Regulation (ASR) on vehicles equipped with the Electronic stability program (ESC) optimizes the additional driving power so that the wheels do not slip by braking the 4 driving wheels and acting on the engine torque.

▪ Functioning of Rear LOCK (option rear differential WITH locking)



Use of the 4-wheel drive

▪ Activation of the “4WD - 4 driving wheels” mode

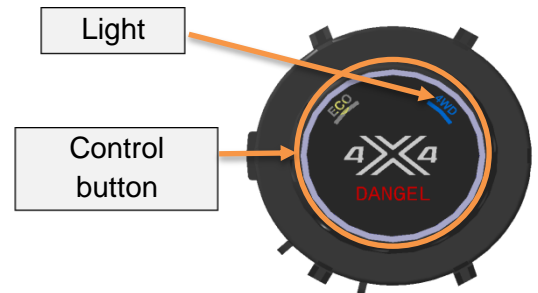
Turn the knob 1/4 to the right to switch from ECO position to 4WD / AUTO 4WD position.

A blue light on the knob shows that 4WD/AUTO 4WD – 4 driving wheels is ON.

While driving switching from ECO position to 4WD / AUTO 4WD position is possible, **EXCEPT if the front wheels are slipping.**

Note:

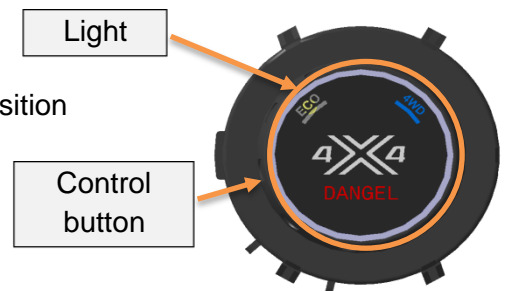
- If the control knob is on 4WD / AUTO 4WD position when turning the engine off, the electropneumatic deactivates the 4x4 system.
- If the control knob is on 4WD / AUTO 4WD position when turning the engine on, the electropneumatic activates the 4x4 system.



▪ Desactivation of the “4WD - 4 driving wheels” mode

Turn the knob 1/4 to the left to switch from 4WD / AUTO 4WD position to ECO position.

A white light on the knob shows that 4WD/AUTO 4WD – 4 driving wheels is OFF.



Note:

The clutching system is mechanical, therefore the electrical state does not represent the mechanical position of the clutching.

Rear differential locking (optional)

The rear axle with differential locking increases the all-road capability of your vehicle.

Highly bumpy or slippery slopes and uneven climbs areas can be managed when the rear differential is locked.

We advise you to lock the rear differential before entering the difficult areas.

On a slope with varying adherence, drive slowly in order to avoid jerks in the transmission. Under these conditions, and depending on the type of ground, it may happen that the whole rear drive power is transferred to a single rear wheel, the one that has maintained traction.

Do not make U-turns on a slope and always stay pointed up or down the line of the steepest slope.

IMPORTANT

- The rear differential locking must be used as an exception.
- Rear differential locking must be activated only on grounds with poor adherence.
- **Never use the locking on grounds with good grip, especially when turning !**
- Do not engage the locking when the wheels are slipping (hazard of abusive use not covered by the warranty).
- Engage slowly at the 1st restart.
- Unlock the differential after crossing the difficult area.

WARNING !

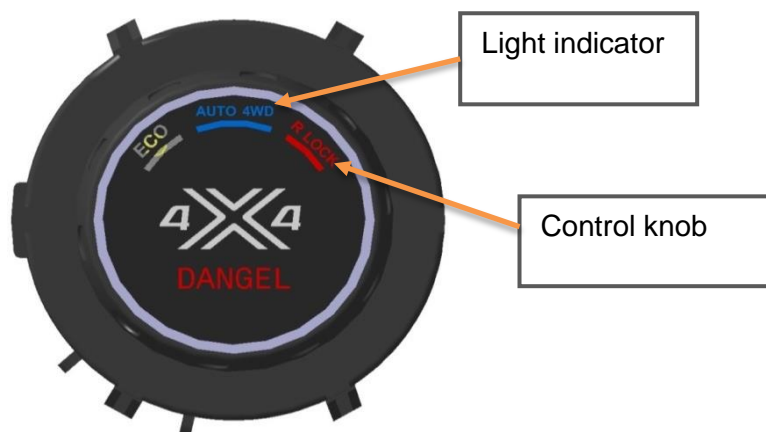
For your safety and a sustainable functioning of your vehicle, do not use the crossing capacities of your car excessively, **it is no off-road vehicle.**

▪ Locking the rear differential

The vehicle must stop or drive slowly when locking the rear differential; turn the knob 1/4 turn clock-wise and the knob will automatically return to the centre.

After turning the knob, the R LOCK indicator will start blinking (+ quick intermittent signal) until the axle is actually locked and then still lit to confirm that the locking is completed.

A buzzer sounds when the differential is actually locked (slow intermittent signal).



For your safety, the system prevents from locking the differential when the speed is over 30 km/h.

▪ Unlocking the rear differential

To disengage the rear differential locking, turn the knob again 1/4 turn clock-wise.

Note:

- *Unlocking is automatically achieved when the speed exceeds approx. 30 km/h, or after turning the engine off.*
- *When stopped the unlocking may not be instantaneous. It is signalled by a blinking light. Should this happen, just drive for a few meters straight ahead to unlock the differential.*

▪ Sound and light signals

- Under normal operation:
 - The red indicator lights continuously to confirm the locking.
 - A buzzer is heard when the differential is actually locked (slow intermittent sound signal).
- In transition mode (when locking asked but not mechanically engaged):
 - The red indicator blinks and the sound signal is intermittent and rapid.

WARNING

For your safety and to preserve your vehicle: Since the locking system is a mechanical system, the transition phase may be longer or shorter.

If the system remains in transition mode, please contact your certified repairer.

▪ Fuses

To access to the fuses, according to the version please refer to the manufacturer's manual. Please contact your car dealer to know the version of your vehicle.

▪ Version 1 (Eco)

On the Eco version the Dangel electropneumatic system is protected by a **5A fuse situated in F33** in the fuse box. The box is situated in the lower left side of the dashboard.

▪ Version 2 (Full)

In the Full version the Dangel electropneumatic system is protected by a **5A fuse situated in F10** in the fuse box. The box is situated on the upper plate of the engine compartment.

Technical description

■ Control for 4x2 / 4x4 on the dashboard

The system runs in two positions:

- The position **ECO** (2WD) enables to drive with traction only on both front wheels (white light is ON),
- The position **4WD / AUTO 4WD** enables an optimum traction from all four wheels depending on the road surface (blue light is on).

In option,

- The position **R LOCK** enables to lock the rear differential.

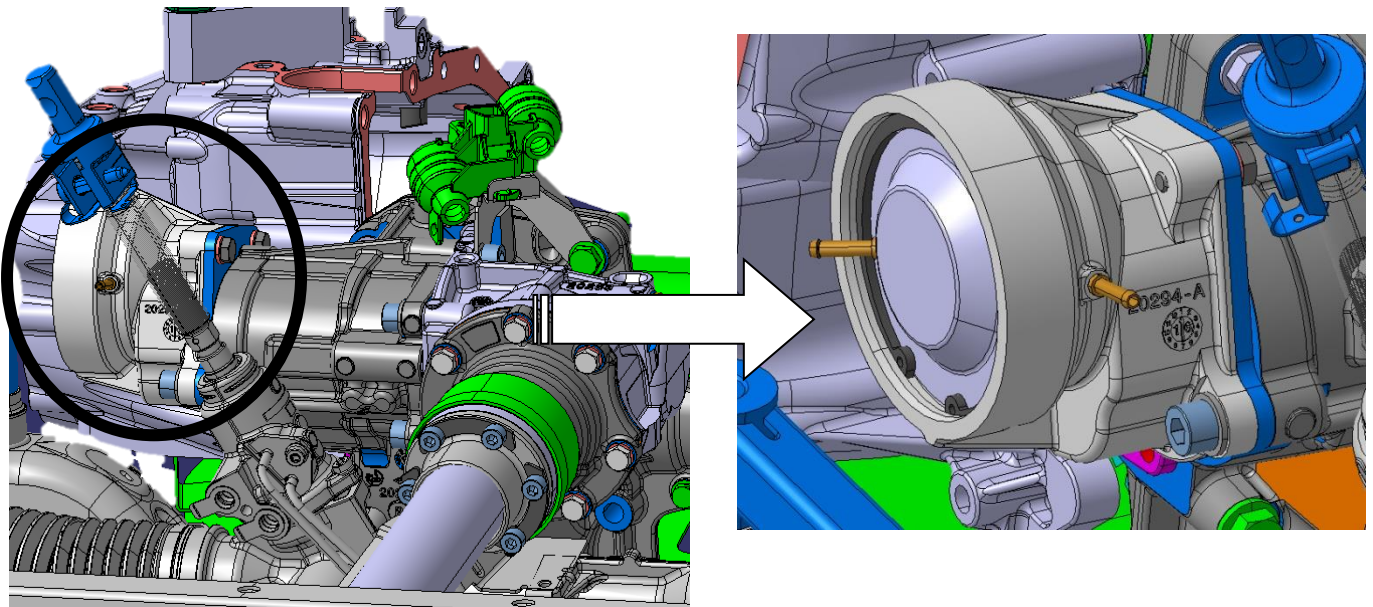
Control 4x2 – 4x4



Control 4x2 – 4x4 and WITH locking of the rear differential (option)

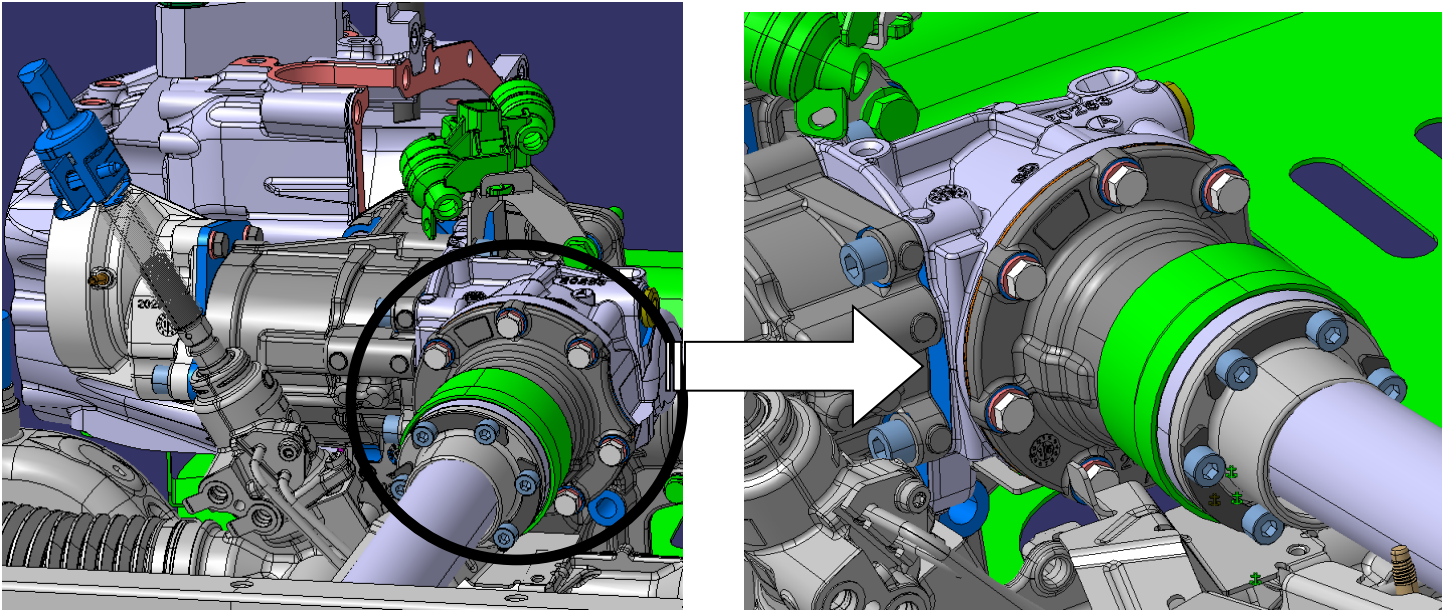


■ Front drive engagement 4WD/ 2WD



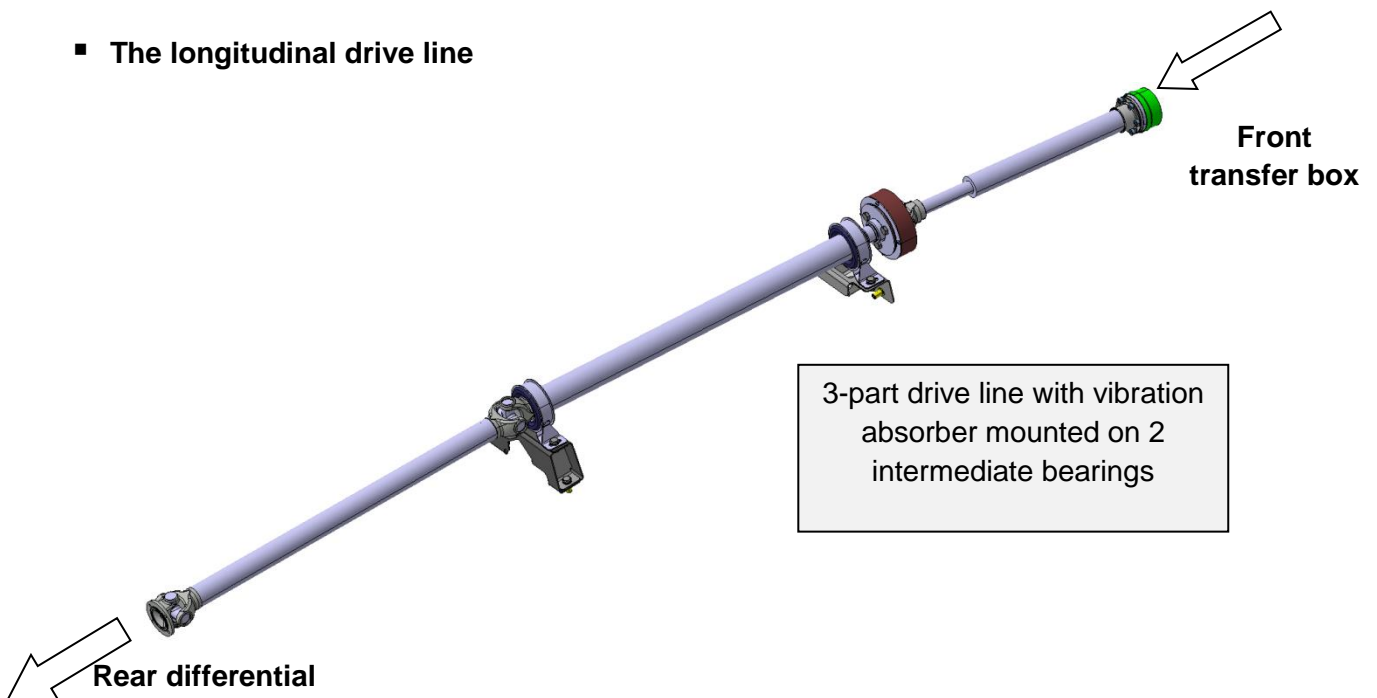
Mechanical assembly allowing switching from 2WD to 4WD using the knob on the dashboard.

- **Front transfer box integrated to the gear box**



Mechanical assembly that transfers the engine torque to the longitudinal drive line through a transfer box.

- **The longitudinal drive line**

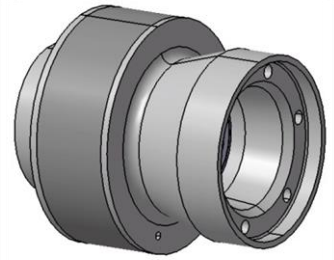


Mechanical assembly that transfers the engine torque to the rear wheels through a visco-coupler.

▪ The hydraulic coupler (or viscous-coupling)

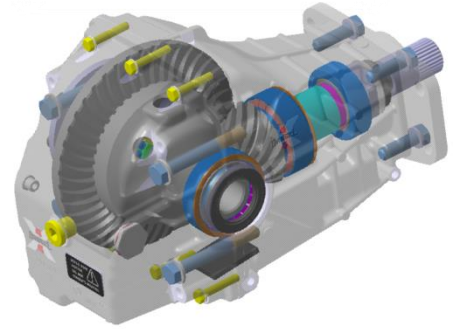
When activated in 4-wheel-drive mode, it detects the loss of traction at the front wheels and then transfers the engine torque to the rear wheels.

The coupler will adjust the torque percentage accordingly.



▪ The rear axle with differential

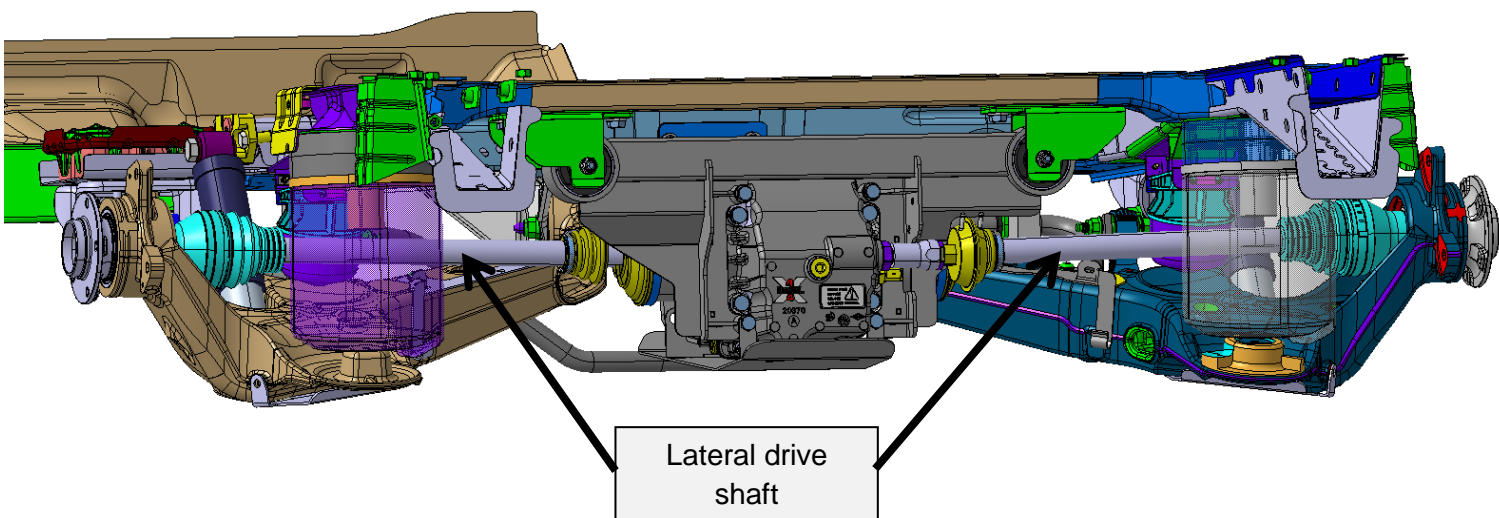
The differential, a mechanical assembly mounted in the rear axle, enables the two wheels of a single axle to rotate at different speeds (it is an absolute necessity when turning to prevent from the tyres to drift).



In **unlocked position (Auto 4WD)**, the rear DANGEL axle distributes the torque between the right and the left wheel. Moreover the differential enables the rear right wheel and the rear left wheel to turn at different speeds. In curves it enables a **safe road handling** and **preserves the drivetrain and the tyres**.

In **locked position (R-Lock)**, the rear DANGEL axle drives both rear wheels at exactly the same speed. This helps the vehicle move on the most difficult roads: uneven hills, steep and bumpy climbs, etc.

▪ The drive shafts



They transfer the engine torque from the differential to the wheels.

▪ **Safety !**

The electronic control of the ESC is specific to the vehicle and includes the following systems that are identical to those of the base vehicle: (please refer to the car manufacturer's manual for further information.)

- Wheels antiblocking system (**ABS**)
- Electronic Brakeforce Distribution (**REF**).



The warning light together with a sound signal and a message indicates a poor running of the system that can lead to a loss of control when braking.



The lighting of this indicator, coupled with the **STOP** indicator, together with a sound signal and a message indicates a poor running of the **REF** that can lead to a loss of control when braking.



In both cases, **the system gets inactive**, please rapidly contact a network dealer or a qualified workshop.

Note: when wheels are changed (tyres and rims), please take care that they are homologated for your vehicle.

When ABS is running it can show through light vibrations on the brake pedal.

- emergency brake assist (**AFU**).
- acceleration Slip Regulation (**ASR**).
- dynamic stability control (**CDS**).

The **CDS** system is automatically activated at the engine starting. In case of loss of adherence the system switches on and is indicated by the light blinking on the dash board.

In special conditions (mud, snow, soft soil), it might be necessary to neutralize the system by pushing the button in order to get the wheels slip and to have adherence again.

Note: Reactivation of the system can be made manually or automatically from 50 km/h on.

The Dynamic stability control **CDS** system offers additional safety on top of the 4x4 in normal use but it must not encourage the driver to take risks or drive at too high speeds over the limit of the laws of physics.

AUTOMOBILES DANGEL WARRANTY

Car manufacturer warranty

The car manufacturer warranty remains valid for the vehicles converted at Automobiles Dangel's production site, homologated in stage 2, according to the usual terms and conditions.

The 4x4 conversion warranty

▪ Warranty duration

Automobiles Dangel provide a 2-year-warranty and unlimited mileage on the 4x4 equipment. The Dangel warranty begins with the first registration of the vehicle. It is transmitted free of charge to possible subsequent owners.

When ordering the 4x4 conversion you may extend the warranty period by subscribing a warranty extension for a determined duration and mileage according to the applying sales conditions. The conditions of the Dangel warranty then replace the manufacturer's warranty.

The warranty extension ends up when the first of both terms is reached (mileage or time).

Then the conditions of the warranty extension replace the basis warranty.

▪ The warranty content

The Dangel warranty and warranty extension cover any fault that could be attributed to a manufacturing or assembly defect and that would occur on normal use of the vehicle during the warranty time.

▪ Limits and exclusions to Dangel warranty

The 4x4 equipment must be maintained according to Dangel instructions and recommendations. Those are mentioned in the manual for use and maintenance supplied together with our conversion (available as well on our web site www.dangel.com -> After Sales ->User). They are complementary to the car manufacturer's instructions and recommendations.

Please note that the repairing agreement granted by Dangel warranty is conditioned by the correct application of the maintenance plan of the 4x4 transmission parts and basis vehicle.

The document "warranty policy" gives detail of the complementary supporting documents to be shown when asking for the warranty for repairing (available as well on our web site www.dangel.com -> After Sales).

▪ **Exceptions to DANGEL warranty**

The following circumstances are grounds for **a total exclusion** from the warranty:

- Lack of the requested documents related to the maintenance and/or information required by Automobiles Dangel about the vehicle;
- Alterations of the 4x4 components not authorized or not planned by Automobiles Dangel;
- Recommendations about “Tyres” not followed;
- Original parts replaced by other parts not approved by the manufacturer and/or Automobiles DANGEL;
- Interventions made by manpower not authorized by Dangel (not part of the manufacturer’s network);
- Breakdown caused by a connection/mounting originally not made by Dangel;
- Breakdown caused by shocks, falls, sabotages;
- Use not conform to the specifications mentioned in the User’s manual ;
- Accidents, natural disasters or other causes beyond the reach of Automobiles Dangel due to cases of force majeure such as lightning, water, fire, acts of war, uprisings, disorders.

▪ **The warranty does not cover:**

The regular maintenance and checking of the 4x4 conversion components, the repair and replacement of the components due to wearing.

Transformations and adaptations made by other car converters than Automobiles Dangel which may alter the technical characteristics of the vehicle as delivered (conform to this manual) and the use made of the vehicle as defined.

MAINTENANCE AND CHECKING RECOMMENDATIONS

Who should you contact ?

Please contact a dealer or repairer workshop authorised by the manufacturer giving the information that the vehicle is equipped with a DANGEL 4-wheel drive system (hand this manual over if necessary), and refer to the detailed recommendations on the following pages.



In case of extreme uses (heavy loads, all-road driving, highway etc.) the mechanical elements of your vehicle are more stressed and need more frequent maintenance.



The maintenance and repair are to be done in the after-sales network of your car manufacturer.

Maintenance operations

To be done at each maintenance service, in addition to the check-list of the 4x2 vehicle:

OPERATIONS	PARTS	RECOMMENDED LUBRICANTS
 Oil change	Gearbox	75W TOTAL HBVFE – 2
	Rear differential	<u>Oil 80W90 API GL5</u> Yacco Bvx Ls 200 <u>Compatible oils*:</u> 80W90 according the norm API GL5 ZF TE-ML05C
Greasing	Longitudinal drive line	- Shell Retinax LX2 - FUCHS Renolith Duraplex GWB - Rhenus NorlpexLKP2
 Checking	Overall 4x4 transmission	

Note:

*To reach the top performance of your vehicle, **it is important to use the recommended quality and quantity of oil.***

** For further information about lubricants, please consult our web site www.dangel.com -> After Sales.*

Compulsory maintenance operations



WARNING



We remind you that all the interventions must be carried out by a **dealer/repairer authorized** by the manufacturer. Should these maintenance instructions **not be followed**, the Automobiles DANGEL **warranty would be invalidated**.

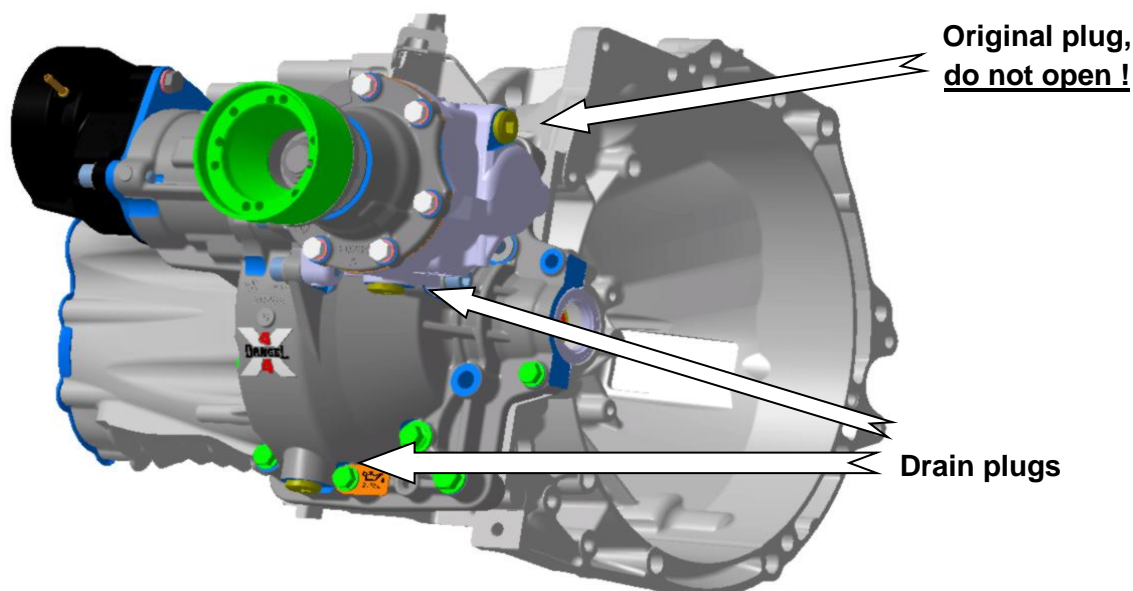


Gearbox

Capacity: 2.35 L +/- 0.05L → the greasing is the same for gearbox and transfer box

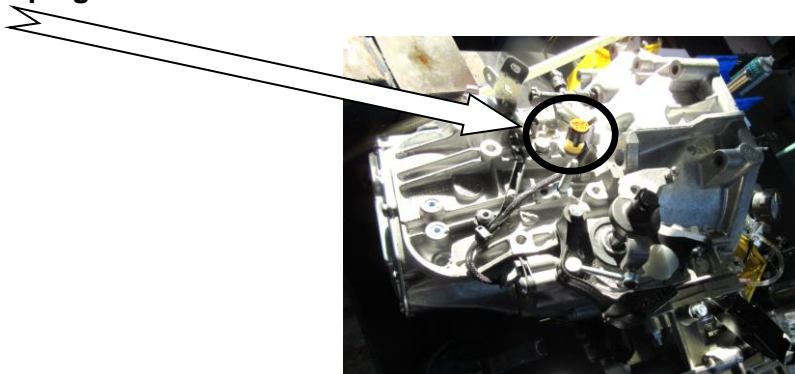
Oil: 75W TOTAL HBVFE – 2

Oil change: every 120.000 km



Note: *it is imperative to open both drain plugs to empty completely the remaining oil of the transfer box.*

Fill in through the breather of the gearbox with the prescribed quantity. The quantity of oil is indicated on the breather plug.





Longitudinal drive line



Grease the cross pieces* during the 4x4 maintenance or once a year.

* greasers are present according to the drive shaft models.



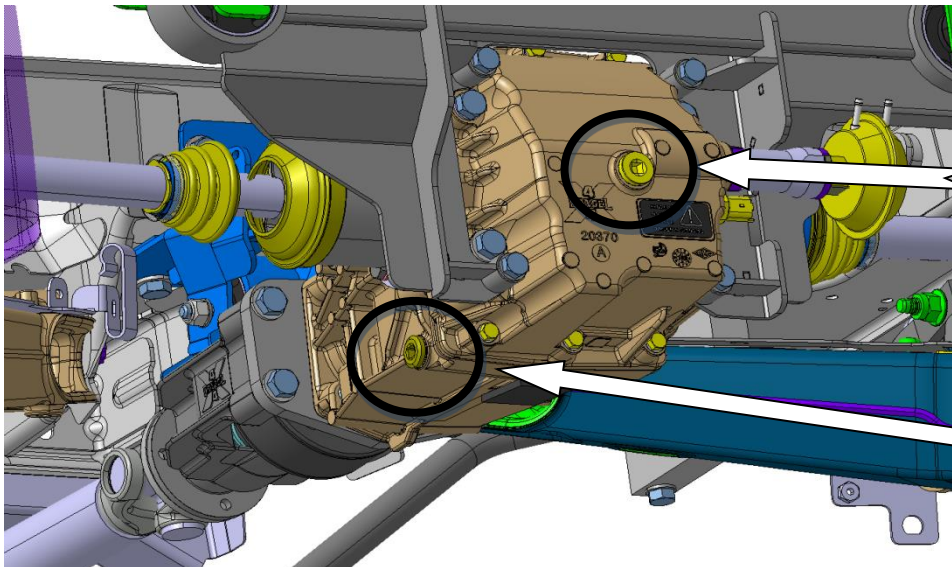
Rear differential

Capacity: 1,65 L +/- 0.05L

Oil: 80 W 90 API GL5 (YACCO BVX LS 200), or equivalent **80W90** according to the norm API GL5 ZF TE-ML05C.

Complete oil change to be done whichever comes first:

- Or during the engine maintenance,
- Or every 40.000 km
- Or once a year



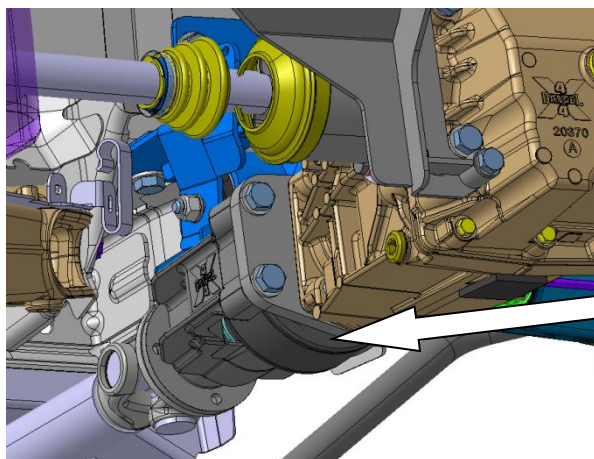
Filling plug

Does not show the oil level, measure the quantity

Drain plug



Hydraulic coupler (or viscous coupling)



Hydraulic coupler is without any maintenance

Visual compulsory checking to be done

▪ **In the cabin:**

When the engine is on, check that the control knob 4x2/4x4 works well.
Check the absence of warning light on the dashboard.

▪ **Tyres:**

Check that the 4 tyres are the same brand, same type and have the same wearing between the front and rear axle.

▪ **Under the body:**

Check that there is no accumulation of ground, grass, etc... especially in the protection plates.

▪ **Under the vehicle, on the front part:**

Check the integrity of each drive shaft boot.
Check that there are no leaks from the oiled parts, from the pipes and brake hoses, etc...

▪ **Under the vehicle, on the central part:**

Check the fastening of the longitudinal drive line supports.
Check that there are no leaks from the tanks.
Check the integrity of the vibration absorber.

▪ **Under the vehicle, on the rear part:**

Check the fastening of the rear differential.
Check that there are no leaks from the oiled parts, from the pipes and brake hoses, etc...
Check the integrity of each drive shaft boot.

Our complete check-list available on our web site www.dangel.com -> After-sales.

WARNING

When the vehicle is on a lift with 4 wheels hanging, the tests with « engine on » must be done only in position 4WD / AUTO 4WD.

In the same conditions **NEVER** switch from position ECO to 4WD/AUTO 4WD.

MAINTENANCE SERVICES

<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>

USE THE RECOMMENDED OIL QUALITY.

<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>

USE THE RECOMMENDED OIL QUALITY.

<p>MAINTENANCE _____ KM</p> <p>DATE : ____ / ____ / ____</p> <p>Prochaine visite le _____ ou _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE : ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE : ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>

USE THE RECOMMENDED OIL QUALITY.

<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>
<p>MAINTENANCE _____ KM</p> <p>DATE: ____ / ____ / ____</p> <p>Next service on: _____ or _____ km</p>	<p>AUTHOR. REPAIRER SEAL</p>

USE THE RECOMMENDED OIL QUALITY



Note

Note

Note

LIST OF THE DOCUMENTS AND INFORMATION TO BE GIVEN

In case of an intervention repair under warranty

Information about the vehicle	<ul style="list-style-type: none"> ✓ Chasis number ✓ Mileage ✓ Registration number ✓ Date of the 1st registration ✓ Picture(s) of the vehicle (external view) ✓ Description of the use made with the vehicle <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-top: 10px;"> Refer to the car registration document </div> <ul style="list-style-type: none"> ✓ Pictures of the equipment in the vehicle (external&internal)
Information about the customer	<ul style="list-style-type: none"> ✓ Repairer : name, phone, e-mail ✓ User : name, phone, e-mail ✓ Owner : name, phone, e-mail ✓ Fleet manager: name, phone, e-mail ✓ Leaser : name, phone, e-mail
Information to be given when contacting Dangel	<ul style="list-style-type: none"> ✓ Description of the malfunctioning ✓ Picture of the concerned parts ✓ Pictures of the 4 tyres showing: <ul style="list-style-type: none"> - The brand - The model - The dimensions - The tread surface - The wearing degree <div style="text-align: right;">   </div> <ul style="list-style-type: none"> ✓ According to the mileage, please show the invoices of the maintenance 2 WD and 4WD in conformity with the car manufacturer and Automobiles DANGEL recommendations. <p>NOTE: The invoices must mention</p> <ul style="list-style-type: none"> - The workshop name - The date of the invoice - The number of the invoice - The vehicle chasis number - The mileage at the intervention time - The detailed operations made - The lubricants used - The oils used (quantity, quality)



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FAX : +33 (0)3 89 82 59 13

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The manufacturer reserves the right to modify his production, without having to update the present manual.