

# AZURA | AZURA FLEX





**USER MANUAL** 

2010717-0



## Foreword

Thank you for the confidence you have shown Mathieu by purchasing an Azura - Azura Flex vehicle.

We invite you to carefully read this manual and keep in handy in the vehicle's cabin.

Regular maintenance is required for the correct operation and long life of your vehicle.

Ensure that this manual is always available in the driver's cabin during general and cleaning operations, it is essential for its correct use.

11/04/2016

Vehicle serial No.: \_ \_ \_ \_ \_

Translated manual (original in French)

No.: 2010717 rev: 0



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# A. GENERALITIES

# 1. DECLARATION OF CONFORMITY (EXTRACT)

The manufacturer MATHIEU S.A. declares that the new equipment designated below:

Azura MC210, road cleaning equipment, complies with the essential safety and health requirements of the following European directives.

- Directive 2006/42/EC: machines.
- Directive 2000/14/EC: environmental noise levels.
- NF EN 13019+A1 (2008): Road cleaning machines Safety requirements.

Serge Chaure Director



# 2. SAFETY INSTRUCTIONS FOR USE

The use of this vehicle requires training or a license (refer to the legislation in force in your country).

Drivers must know the Highway Code in force.

This vehicle must be used exclusively for the purpose for which it was designed.

Do not slide under the vehicle when the key is still in the ignition.

No not approach any part of the moving brush section or sweeping system.

Only tip the tank if the vehicle is on firm, flat ground.

Set up the safety prop before any work under the tank when it is raised.

Do not use the vehicle in a poorly ventilated area to void the risk of asphyxiation from exhaust gases.

Use the Personal Protective Equipment (PPE) that is adapted to your work.



# WARNING:

If a rear axle component fails the parking brake is no longer effective, in this case the driver must not stop the engine so that the foot brake continues to hold.



# 3. SCR SYSTEM (EURO 6 MODEL ONLY)

The EURO 6 engine uses the SCR (Selective Catalytic Reduction) pollution control system, which consists of treating the exhaust gas with an "AdBlue ®" additive, (AUS 32, urea solution DIN 70070) for converting the nitrogen oxide (NOx) into nitrogen and water.



#### WARNING:

During the evaporation process, the AdBlue ® crystallises and the crystals that are created are corrosive.

It is therefore important to avoid accidental diffusion of AdBlue ® over the rest of the vehicle and on the road. As long as the solution is liquid it is easy to remove.

Request the safety data sheet from your AdBlue ® supplier.



# INFORMATION:

AdBlue ® starts to crystallise at -11°.

It is therefore necessary to wait at least 6 minutes after switching off the ignition before stopping the general circuit breaker (depending on the model) to allow the AdBlue ® pipes to empty and prevent them freezing.



#### 4. TECHNICAL SPECIFICATIONS OF THE VEHICLE

#### a. Azura weight and dimensions (in functional order)

Length \_\_\_\_\_ : 3845 mm Width \_\_\_\_\_: 1293 mm Height \_\_\_\_\_: 2096 mm (without rotating beacon) Wheelbase\_\_\_\_\_: 2150 mm Ground clearance \_\_\_\_\_: 180 mm Weight when empty \_\_\_\_\_: 3600kg (depending on engine and options!) PTAC/maximum load per axle: see manufacturer's plate in cabin

#### b. Azura Flex weight and dimensions

Length \_\_\_\_\_\_: 3965 mm

 Width \_\_\_\_\_\_\_
 : 1293 mm

 Height \_\_\_\_\_\_\_
 : 2096 mm (without rotating beacon)

 Wheelbase \_\_\_\_\_\_\_
 : 2150 mm

Ground clearance \_\_\_\_\_: 180 mm

Weight when empty : 3600 kg (depending on engine and options!)

PTAC/maximum load per axle: see manufacturer's plate in cabin



#### c. Noise level

Reference engine speed = 1400rpm

As per	directive	2000/14/EC
--------	-----------	------------

	EURO 6 engine	STAGE IIIB engine
measured noise level (LwA)	102.5 dB(a)	103.5 dB(a)
declared noise level (LwA)	105 dB(a)	106 dB(a)

#### As per directive 2006/42/EC

	EURO 6 engine	STAGE IIIB engine
acoustic pressure in cabin (LPA)	less than 80 dB(a)	less than 80 dB(a)



#### d. Vibrations

Electro-pneumatically suspended seat.

	Vibration emission	
Whole component (seat)	a <sub>wzs</sub> = 0.39 m/s <sup>2</sup>	Uncertainty k = 0.5
Upper components (steering wheel)	$A_{hv} = 1.01 \text{ m/s}^2$	

#### e. Slope

Maximum slope \_\_\_\_\_: 25 %

#### f. Pneumatics

Type \_\_\_\_\_: Tubeless 225/65 R16 112/110 R Inflation pressure \_\_\_\_\_: 5.6 bars (~ 84 PSI) Note: a tyre pressure error has a serious incidence on the tyre's service life.

# g. Fuel

Type \_\_\_\_\_\_: Diesel in accordance with EN 590.



# WARNING:

If fuel with a sulphur content higher than 0.5% is used, the frequency of replacing the specified engine oil should be halved.

Fuel tank capacity \_\_\_\_\_: 70L

#### h. AdBlue ®

Tank capacity \_\_\_\_\_: 14L



#### i. Engines

	EURO 6 engine	STAGE IIIB engine (LEVEL IV)
Make	VM R754 EU6	KUBOTA V3800 CR T E4
Displacement	2970 cc	3800 cc
No. of cylinders	4	4
Power	62 kW(83hp) at 2300 rpm	55.4 kW (74hp) at 2200 rpm
Torque	270 Nm at 1350 rpm	310 Nm at 1500 rpm
Idling speed	950 rpm	950 rpm
Estimated consumption	5 L/h	5.5 L/h

#### j. Brakes

Front disc brakes with double hydraulic circuit on front axle (assisted by hydraulic accumulator).

Hydrostatic restraint on the rear axle depending on the driving mode.

Brake drums on the rear axle (depending on the country's legislation).

Parking brakes on rear axle.

#### k. Steering system

2 or 4-wheel steering modes with hydraulic assistance.

	Turning circle	
	Between walls	Between footpaths
4-wheel steering mode (two brushes)	~7.40 M	~6.30 M
4-wheel steering mode (three brushes)	~8.44 M	~6.30 M



## 5. VEHICLE IDENTIFICATION

The identification plate is located at the base of the driver's seat. Indications given:

- Platform.
- Type of vehicle.
- Year of manufacture.
- Approval.
- Chassis number.
- Serial No.
- Total load weight allowed.
- Maximum load at the front and rear.

The complete vehicle number is engraved on the chassis at the front right wheel. The number consists of 17 characters: Example: **VF9ABBC0EFT607ZZ** 

- VF9: iso constructor code (Part 1).
- A: Project Code.
- BB: Engine Code.
- C: Driving position side (R: right/L: left).
- 0: Neutral character.
- E: Development stage.
- F: Year of manufacture. (Iso code)
- T: Production factory. (T= Toul)
- 607: Iso manufacturer code (part 2).
- ZZZ: Three last numbers of the vehicle serial number.



**INFORMATION:** Always indicate the serial number of your vehicle when communicating or making inquiries with our after sales service. The guarantee and the general terms of sale are provided on the rear of your vehicle purchase confirmation form.



CE 🗞	MATHI FAYAT GROUP	:U
85, rue Sébastien Choule 54202 TOUL - FRANCE Plaform: plateforme		.63.19.82
Type:	Year: Année :	
Homologation homologation :		
Chassis number:		
Serial Number: N° de série ;		
Maximum Weight:		
Maximum load Front:	Rear	C





# 6. SAFETY STICKERS

- # 1: Danger of cutting fingers or hand.
- Wait until all vehicle components have completely stopped before touching.

#2: Danger of falling.

- Do not climb on top of the vehicle.

#3: General warning.

- Read the instruction manual before any handling or work on the vehicle.
- # 4: Danger of items thrown from sweeping system.
- Stay clear and keep other people at a safe distance.
- #5: Fuel (diesel);
- Do not smoke nearby.
- # 6: Danger of burns.
- Keep at safe distance.

#7: Crushing risk.

- Set up the safety prop before any work under the tank.

#8: Danger.

- Remove the key from the ignition and read the user manual before any mechanical intervention.









# 7. VEHICLE OPERATING PRINCIPLE

The vehicle sweeps and collects the waste at the suction nozzle inlet by using the sweeping system.

The waste humidification process waste uses sprinklers to avoid creating dust clouds and prematurely wearing the suction tube and turbine.

The turbine creates a vacuum in the tank, allowing the dirt to be suctioned level with the nozzle (height-adjustable).

The waste is directed into the tank through the suction tube.

Sprinklers installed on the nozzle continue the dampening process and lubricate the tube.

When the waste arrives in the tank, it is directed downwards and evenly distributed.

Air is evacuated above the vehicle through the blow pipe.

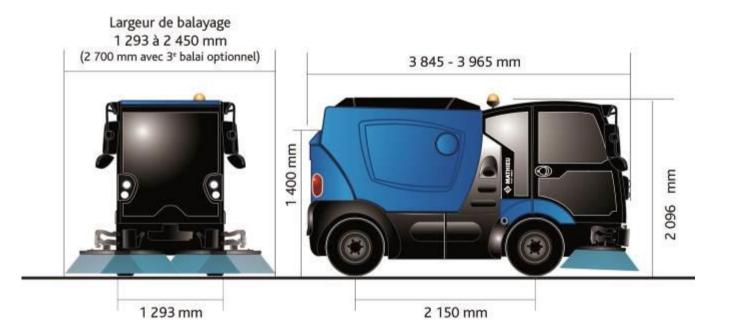


# 8. TECHNICAL SPECIFICATIONS OF VEHICLE WORK

BRUSHES		
Lateral offset of the brushes.	600 mm to the right and to the left	
Brushing width.	From 1293 to 2450mm (2700 with 3 <sup>rd</sup> brush)	
Brush diameter.	900 mm	
Brush drive.	Hydraulic	

SUCTION	
Turbine.	13000 m <sup>3</sup> h.
Waste tank.	2 m <sup>3</sup> empty
Nozzle width.	540 mm
arnothing Suction tube.	250 mm
EMPTYING SYSTEM	
Emptying height	1400 mm
Total deployed bin height.	3490 mm
DAMPENING	
Clean water tank	300 L
Additional clean water tank (optional)	250 L
Water tank in the container (recycling option)	200 L
Water sprinklers (two brush mode)	6 on the brushes and 4 on the nozzle
Water sprinklers (three brush mode)	8 on the brushes and 4 on the nozzle









# **B. DISCOVERING THE VEHICLE**



# **1. EXTERNAL VIEWS**

- A: Engine
- B: Suction tube
- C: Oil tank
- D: Suction nozzle and sweeping system
- E: Water tanks
- F: Fuel tank
- G: Water engine radiator and hydraulic oil
- H: Waste tank
- I: Turbine and suction grid
- J: Cover and blow zone







# 2. DRIVER'S SEAT

# a. Seat adjustment



# **WARNING:** Never adjust the seat while driving.

The seats in this vehicle can be adjusted differently depending on the model.

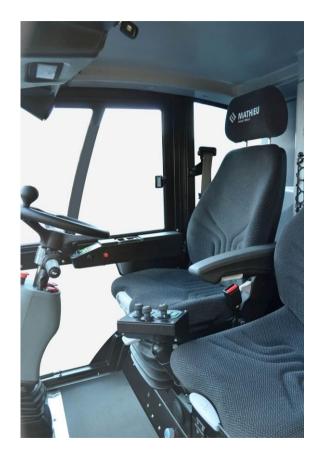
Refer to the instructions supplied with the seat.

### b. Seatbelts

Your vehicle is equipped with two seatbelts.









# c. Adjustment for the angle of the steering column and the height of the steering wheel



# WARNING:

Never adjust the steering wheel while driving. Ensure that the steering column is correctly blocked.

Unlock the column using the lever (A) located on the right-hand side:

- Adjust the angle (**B**).
- Adjust the height of the steering wheel (C).

Lock firmly with the lever (A) before any driving.







# 3. CONTROLS AND EQUIPMENT

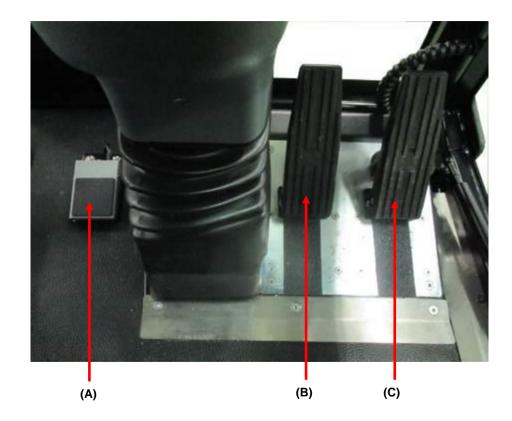
#### a. Pedals

(A) Pedal for reversing direction of travel

- transforms the Forward control to a Reverse control when this pedal is held down in addition to the accelerator pedal (only in work mode).
- (B) Brake pedals
  - actuates the vehicle brakes.
- (C) Accelerator pedal
  - allows the speed of the vehicle to be controlled.









#### b. Steering column

#### I- Left control stalk

The control stalk can activate:

#### The full beam headlights and headlight flashing:

Full beam is triggered by pushing the control stalk downwards (A). This only works if the headlights are on (switch on the central console).

The headlights can also be flashed, by pulling the control stalk upwards (B) from the low beam position.

#### Indicator lights:

Push the stalk either forwards (D) or backwards (C), the right or left turn signal is respectively activated.

#### (E) Windscreen washer:

To operate the windscreen washer, push in the central section of the lever.

# (F) Horn:

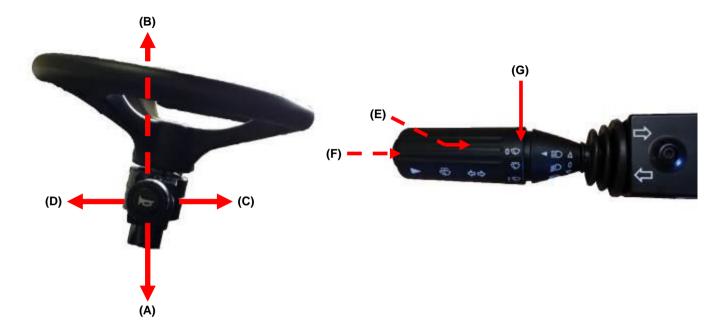
To sound the horn, push in the button on the end of the lever.

# (G) Windscreen wiper:

The windscreen wipers are switched on by turning the control stalk:

- First position: intermittent wiping.
- Second position: continuous wiping.







# II- Right control stalk:

The right control stalk (A) selects the driving direction (forward/reverse) and the operating mode (work/road).

Push the lever forwards (F) to activate Forward drive, pull inwards (R) for Reverse, in position (N) the vehicle is in neutral.

Operating modes:

- Position 1: "work mode"
   Vehicle drives with four-wheel steering and the speed is limited (from ~ 9 km/h to15 km/h depending on model).
- Position 2: "road mode"

Vehicle drives with two-wheel steering and the possibility of travelling up to 25km/or 50 km/h depending on the country.

# **III- Parking brake:**

The rear light switches on when the parking brake is applied (B).



# INFORMATION:

An audible warning sounds and a message appears on the screen when the parking brake is applied and when Forward or Reverse drive is activated.



# IMPORTANT:

The parking brake must not be activated unless the vehicle is completely stationary: except in emergency cases due to main brake malfunction. In this case the maintenance service must be informed of this manoeuvre!

# **IV- Hazard lights:**

The back-lighting is activated when the hazard warning lights are switched on (C).







#### V- Emergency stop button:

Press the emergency stop button in the event of any problem (A).

The entire vehicle's hydraulic functions stop, but the engine continues to run.

- Driving.
- Brush movement system.
- Brush rotation.
- Suction turbine stops.

An icon appears on the screen when the emergency stop is actuated (#1).

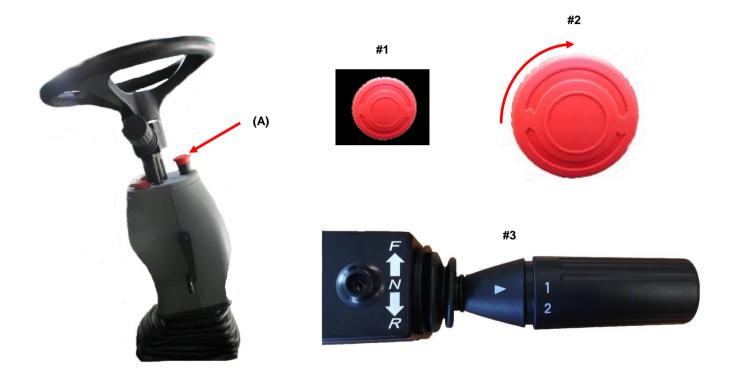


# IMPORTANT:

Before resetting the system, confirm the absence of any danger or its underlying cause.

To reset the system, turn the emergency stop button (**# 2**) a quarter turn, and return the right control stalk to the neutral (N) position (**# 3**).







#### c. Driver's door armrest

#### (A) Brush control joystick

The joystick (**A**) is on the right armrest for right-hand drive vehicles, and on the left armrest for left-hand drive vehicles. It controls several brush movements and the suction nozzle:

- Advancing/retracting the brushes (searching for objects mode).
- Tilting brushes.
- Selecting brushes

# (B) Not used.

#### (C) Rapid raising brush system button

Allows the brush system and suction nozzle to be raised quickly.

#### (D) Nozzle hatch control button

Opens and closes the nozzle hatch.

#### (E) Sweeping mode button (Start and Sweep)

Starts and stops the sweeping mode.

# (F) BOOST speed button

Activates and deactivates the BOOST speed (Turbine).

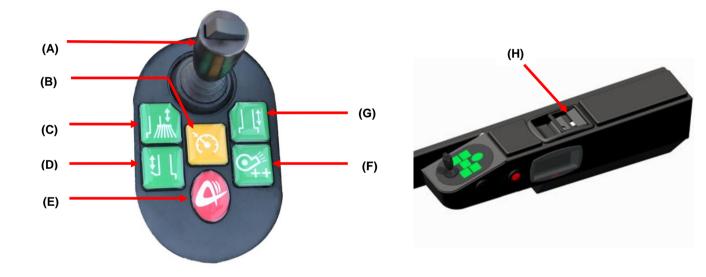
# (G) Nozzle control button

Raises and lowers the nozzle regardless of the brush system.

#### (H) Door opening control

Opens the door from the interior.







# Optional front tools (Azura Flex model)

#### (A) side/front tool brush selector

Selects the function controlled by the joystick.

#### (B) Front tool start/stop button

Starts and stops the front mounted tool that is installed.







#### d. Central console

# I- AZURA model

# (A) Rotary knob for adjusting brush contact pressure

Adjusts the contact pressure of the brushes on the ground

# (B) LST mode button

Activates and deactivates of the leaf suction tube.

# (C) Dampening and freeze protection button

Activates and deactivates dampening and the freeze protection process.

# (D) ECOMODE speed button

Activates the most economic turbine speed in terms of fuel.

# (E) "F1" configuration button (depending on model)

Activates and deactivates the configuration function.

# (F) Intermediate speed button

Activates and deactivates the intermediate turbine speed.

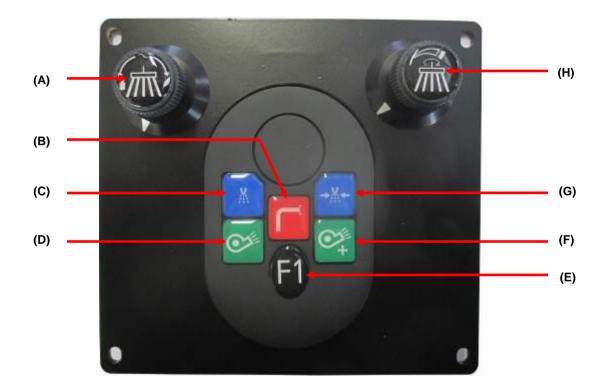
# (G) HP system start button (depending on model)

Activates and deactivates the high pressure system.

# (H) Rotary knob for adjusting rotational speed of brushes

Adjusts the rotational speed of the brushes.







#### **II- AZURA FLEX model**

(1) Standard controls

#### (A) Rotary knob for adjusting brush contact pressure

Adjusts the contact pressure of the brushes on the ground

#### (B) Dampening and freeze protection button

Activates and deactivates dampening and the freeze protection process.

# (C) ECOMODE speed button

Activates the most economic turbine speed in terms of fuel.

# (D) "F1" configuration button (depending on model)

Activates and deactivates the configuration function.

# (E) Intermediate speed button

Activates and deactivates the intermediate turbine speed.

# (F) HP system start button (depending on model)

Activates and deactivates the high pressure system.

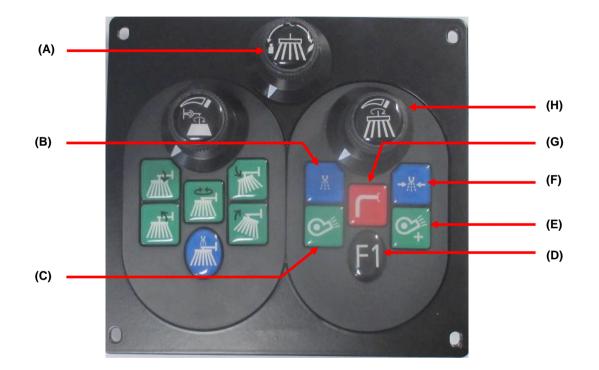
# (G) LST mode button

Activates and deactivates of the leaf suction tube.

# (H) Rotary knob for adjusting rotational speed of brushes

Adjusts the rotational speed of the brushes.







#### (2) Specific frontal tool controls

#### (A) Rotary knob for adjusting rotational speed of frontal tool

Adjusts the rotational speed of the frontal tool.

The following features only apply to the 3<sup>rd</sup> brush.

**(B)** Forward tilt button for 3<sup>rd</sup> brush Tilts the brush forwards.

(C) Rear tilt button for 3<sup>rd</sup>brush Tilts the brush backwards.

(D) Unused

(E) Unused

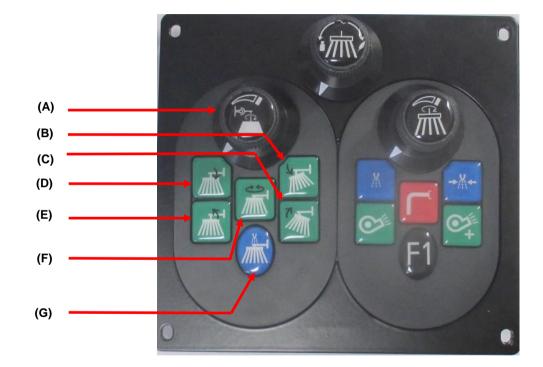
**(F)** Button for reversing the rotational direction of the 3<sup>rd</sup> brush Reverses the direction of rotation of the 3<sup>rd</sup> brush.

(G) Dampening control button for 3<sup>rd</sup> brush

Activates and deactivates dampening for the 3<sup>rd</sup> brush.









#### e. Upper front console

(AT) Radio (See the operating instructions supplied with the unit)

# (B) Key ignition

Starts and stops the engine.

# (C) Vehicle control display

#### (D) Position lights and low beam headlight switch

Turns on the vehicle lights.



#### **INFORMATION:**

The daytime running lights are lit when the vehicle is switched on (unless the parking lights are on).

# (E) Rear fog light switch

Turns on the rear fog lights.

# (F) Rotating beacon switch

Activates/deactivates your vehicle's rotating beacon(s).

# (G) Air conditioning/Heating control panel

#### (H) Door mirror defrost switch (depending on model)

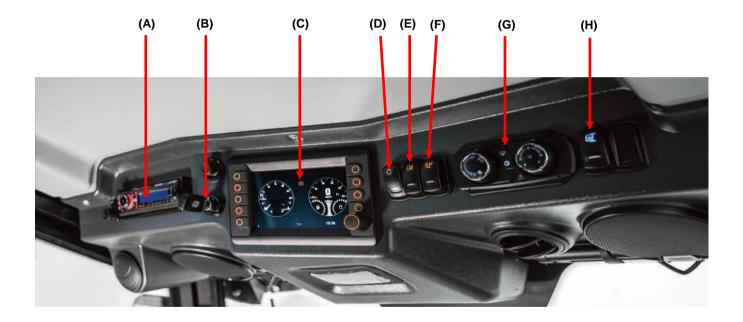
Turns on the electric defrosting of mirrors.



# INFORMATION:

Mirror defrosting does not automatically switch off; do not forget to turn it off once your mirrors are fully defrosted.







#### (I) USB connection

- Allows screen software to be updated (reserved for after-sales service).

#### (J) Mirrors orientation control knob

Adjusts the orientation of the electric mirrors.

# (K) Speakers

# (L) Ceiling

The ceiling light comes on when one of the doors is opened.

Centrally located, the lighting switches on when a door is opened. Located on either the right or left side, the lighting remains permanently lit.

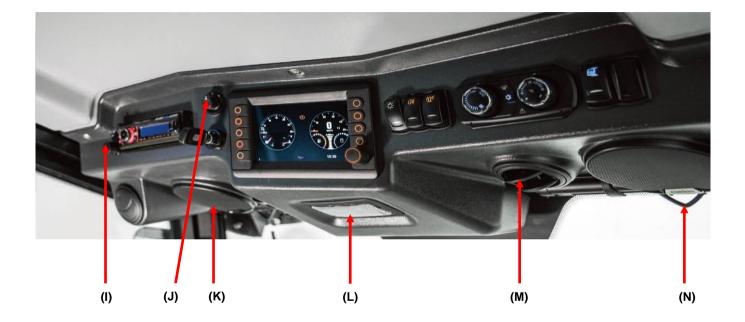
# (M) Vent outlets

The vehicle has six vents for adjusting the air conditioning/heating system. Four on the dashboard (for defrosting or defogging the windscreen) and two near the floor on the driver's side.

#### (NOT) Retractable sun visor

The vehicle has two retractable sun visors in the upper console. To unfold, pull the ring downwards. Push them up to replace them.







#### f. Control display

#### I- Main menu

The control display allows you to visualise the vehicle's operating status by indicating which devices are active.

It also displays information relating to fluid levels, temperature, and engine speed, etc.

The control display also warns the user of potential dangers through visual symbols and/or audible warnings.

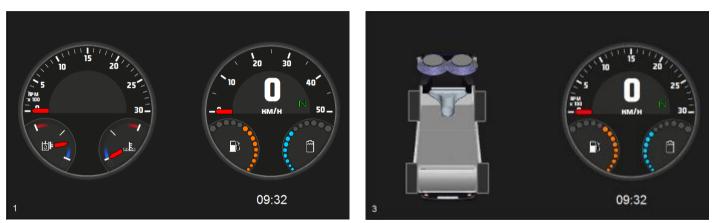
#### (A) : Control display in road mode

(B): Control display in work mode



(A)







#### **II-** Understanding the indicator lights

- (1) Engine indicators
- (A) Spark plug pre-heating indicator.
- (B) Engine fault indicators (compulsory stop).
- (C) Battery fault indicator (turns off once engine starts).
- (D) Engine oil pressure fault.
- (E) Presence of water in fuel indicator.
- (F) Engine fault "MIL LAMP".
- (G) Coolant temperature indicator.
- (H) Accumulator hydraulic load pressure indicator (turns off once engine starts and pressure is reached).
- (I) Clogged engine air filter indicator.
- (J) Particle filter regeneration request indicator.
- (K) Particle filter regeneration inhibited indicator.
- (L) Exhaust system fault indicator (VM engine only).
- (M) On-going particle filter regeneration indicator.
- (N) Maintenance reminder indicator.







#### (2) Machine indicator lights

- (A) Parking brake activated indicator.
- (B) Raised tank cover indicator.

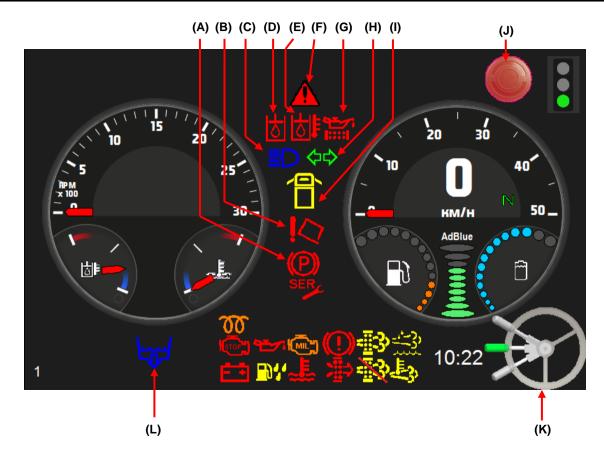


# ADVICE:

Ensure that the tank is closed with the cover by visual verification.

- (C) Main beam indicator.
- (D) Low hydraulic oil level indicator.
- (E) Hydraulic oil temperature indicator.
- (F) Fault indicator (Red triangle: Major fault  $\rightarrow$  Stop the vehicle, Yellow triangle: Fault).
- (G) Clogged hydraulic filter indicator.
- (H) Indicator light indicators.
- (I) Open cab door indicator.
- (J) Activated emergency stop button indicator.
- (K) Return to neutral indicator.
- (L) Tank decantation indicator (depending on model).



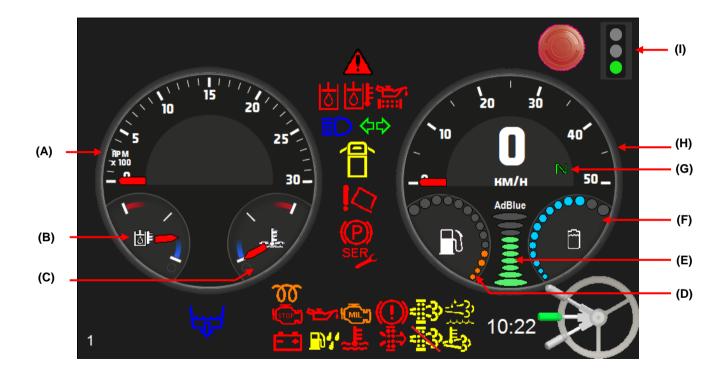




#### (3) Indicators

- (A) Rev counter.
- (B) Hydraulic oil temperature indicator.
- (C) Engine temperature indicator.
- (D) Fuel level indicator.
- (E) AdBlue ® level indicator (VM engine only).
- (F) Water level indicator.
- (G) Driving direction indicator.
- (H) Speedometer.
- (I) Start-up authorised indicator.







#### **III- Secondary menu**

The secondary menu display (# 1) allows access to settings, features or vehicle information.

To view this secondary menu, simply press briefly on the knob (A) located at the bottom right of the screen.

To access one of the functions described below, simply press the corresponding button (**B**) which is located right next to the indicator on the screen.



#1





#### (AT) Turbine cut-off button

Cuts off the turbine suction during work mode or while checking the vehicle.

#### (B) Tool selection button

Provides access to the menu for activating/deactivating tools (depending on model).

# (C) "Backup tipping mode" button

Manually forces the waste tank raise/lower command when using the emergency hand pump. (This command can only be used when the battery is operational).

# (D) Particle filter regeneration cut-off button

Cuts off particulate filter regeneration when the area in which you are working does not allow it.

# (E) "Machine hour meter" button

Displays your vehicle's hour meter.

# (F) "Vehicle display-related information and settings" button

Provides access the related sub-menu.

# (G) "Colour inversion" button

Inverses the background colour of the main screen (light or dark background).



**IMPORTANT:** Manipulating the control display while the vehicle is moving is to be prohibited. Moreover, if the main screen is not visible when the vehicle is moving, the warnings cannot be displayed.









#### IV- Information and settings related to your vehicle's display

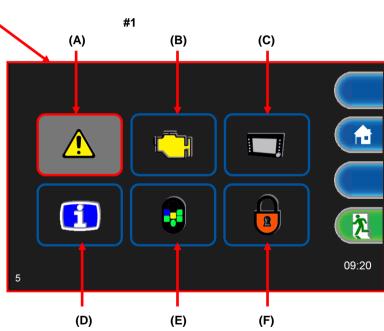
Once you have chosen to access this menu, you should see the display (#1).

From this sub-menu, the following requested functions can be accessed by briefly pressing the knob:

- (A): CAN network fault display
- (B): Engine information display
- (C): Screen and clock brightness adjustment
- (D): Installed software version display and vehicle serial number
- (E): Verification of vehicle control operating conditions
- (F): Reserved for MATHIEU SA technicians









#### - CAN network fault display

The fault display mode allows the user to view the machine's active faults.

Access is provided to the display of two fault types:

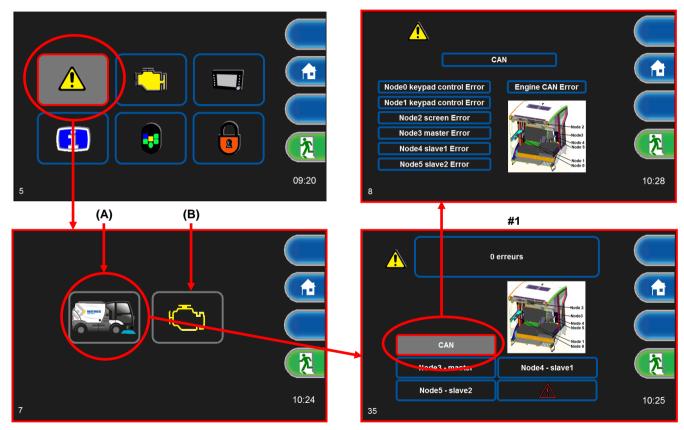
#### (A): General faults

To access one of the above categories and to visualise the faults, turn the main button until the category is selected and press briefly.

You should see the screen (#1) and the screen (#2) allowing you to view the faults that are active or not.









#### -Vehicle information display

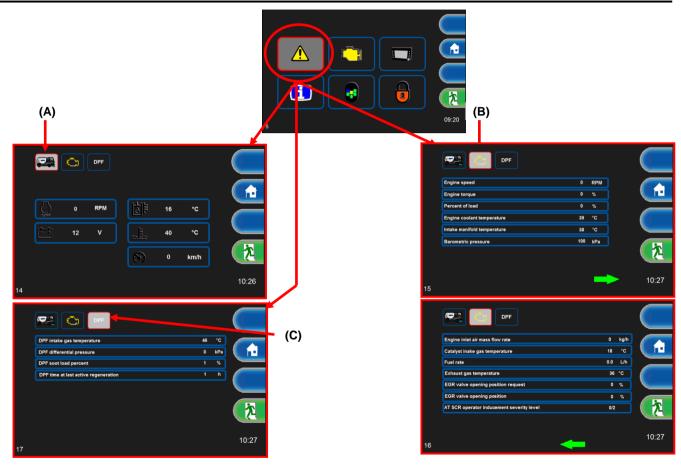
This function allows the user to view vehicle information (temperature, voltage, percentage, speed, etc.).

Access is provided to the display of three types of information:

(A): General information(B): Engine information(C): Exhaust system information

Use the main button on the display to navigate through the different types of information.







#### -Screen and clock brightness adjustment

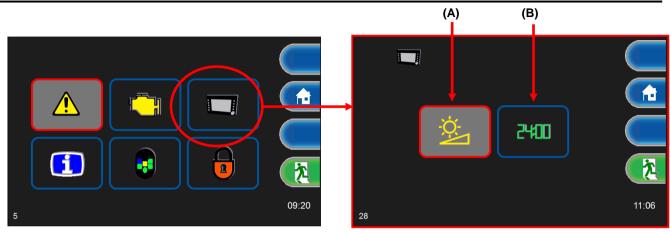
This feature allows the user to adjust the brightness of the screen (A) and the clock (B) which is present at the bottom right of the display.

Use the main button on the display to make the different adjustments.

Display (#1): Brightness adjustment.

Display (#2): Clock setting (year, month, day, hour, minute, second).





#1







#### -Installed screen software version display

This feature allows the user to view the software versions installed in the different machine controllers (**#1**) and the vehicle serial number.







#1



#### -Verification of vehicle control operation



# WARNING:

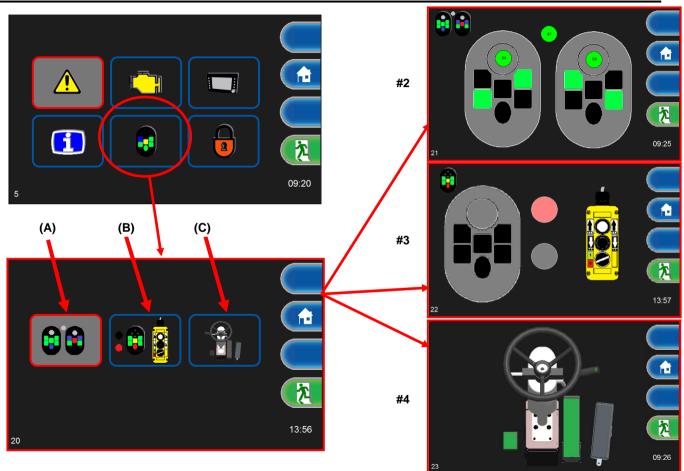
To access the following menus, the engine must be stopped.

This feature allows the user to check the operating status of these in-cabin controls.

```
(A): Central console pad and potentiometer → #2
(B): Armrest pad→ # 3
(C): Driving control→ # 4
```

Once you have accessed one of the three categories above, you can manipulate the selected controls present in the same category. These appear in a different colour to show the user that they are active and that they function normally.







#### g. Driving assistance cameras control screen

Provides a display of:

The rear of the vehicle in driving mode.

The suction nozzle in work mode.









#### h. Hour meter display

The following information is shown on display (# 1):

#### (A) General totaliser:

Total kilometres travelled. Total kilometres in work mode. Total working hours. Average consumption. Total engine hours. Number of hours until the next service.

#### (B) Partial totaliser:

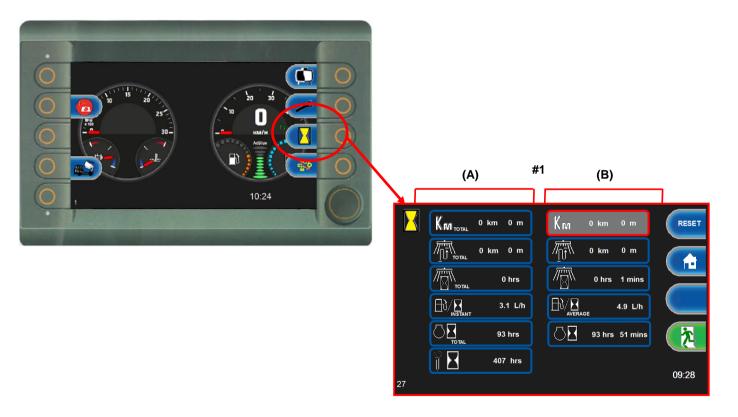
Kilometres travelled. Kilometres in work mode. Working hours. Average consumption. Partial engine hours.



#### **INFORMATION:**

The reset value must be selected before pressing the button next to the indication RESET.







#### i. Air conditioning/heating controls

Operation:

- The rotary knob (A) adjusts the air velocity and initiates the automatic control.
- The button (B) turns on the air conditioning.
- The rotary knob (**D**) adjusts the temperature.
- The button (E) turns the demister on and off.



#### **INFORMATION:**

It is preferable that the inside and outside temperature difference does not exceed 5 to 7° C degrees.



## WARNING:

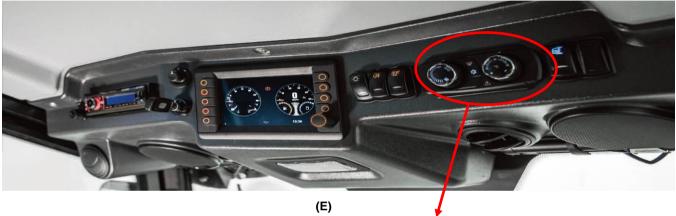
Run the air conditioning at least once a week, even in winter.

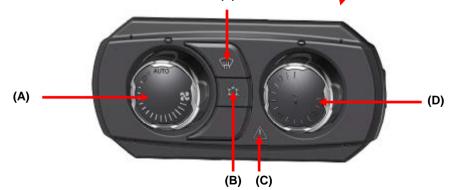


#### WARNING:

If the red triangle (C) is lit (= fault). Please contact the after-sales service.









# j. AZURA floor

# (A) Extinguisher

The fire extinguisher is located beneath the windscreen, in front of the passenger seat.



# WARNING:

Like any extinguisher, the validity date must be checked.

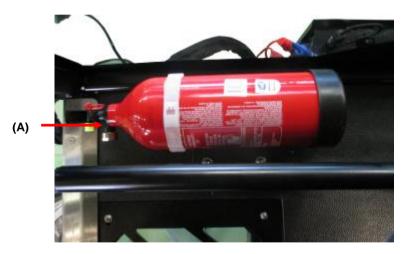


# **INFORMATION:**

To use the extinguisher, refer to the instructions provided above.







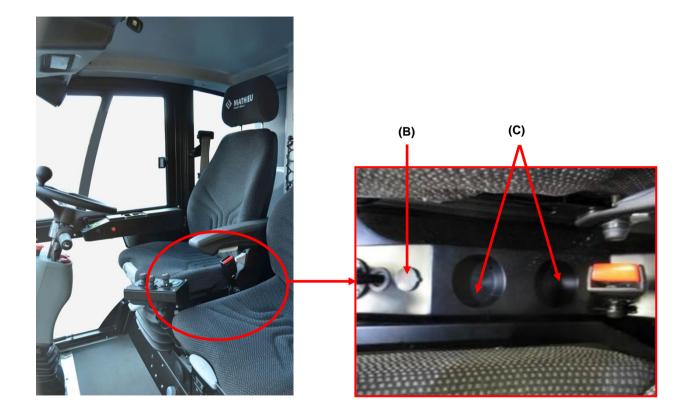


# (B) 12V socket

Auxiliary power socket between the seats (Maximum 7.5A).

#### (C) Cup holders Located between the two seats.







#### k. AZURA/AZURA FLEX floors

#### (A) Dampening valve control

Adjusts the amount of water used for the nozzle and the brushes.

#### (B) Nozzle descent blocking valve (AZURA FLEX only)

Blocks the descent of the suction nozzle (when using certain frontal tools only).







#### I. Rear trunk

The trunk is located on the tank cover at the rear of the vehicle. The "square" key (A) us used to lock and unlock the trunk.

The trunk contains:

In series:

- 1 filler hose.
- 1 spanner wrench (for clamping/unclamping dispenser connectors).

#### Optional:

Other components can also be stored in the trunk, such as the HP spray arm, for example.











#### 4. ON BOARD EQUIPMENT

This vehicle is provided with the following on board items:

A set of keys comprising:

- Two "square" keys for the tool trunk.
- Two ignition and door keys.
- Two diesel tank keys.

An instruction manual on a USB stick.

Technical manuals stored in the net behind the passenger seat comprising:

- A car radio user manual.
- A driver's seat user manual (depending on model).



# C. STARTING-UP AND DRIVING



#### **1. DRIVING SAFETY INSTRUCTIONS**

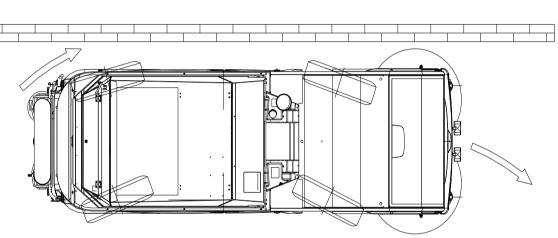
- Using this vehicle requires training.
- Drivers must know the Highway Code in force.
- Speed is limited to between 25 and 50 km/h depending on the laws in force in your country.
- This vehicle must be used exclusively for the purpose for which it was designed.
- Do not run the engine in an enclosed space due to the risk of asphyxiation.
- Do not forget that the vehicle is tall and narrow. Corners should be taken at an appropriate speed.
- Always apply the parking brake when stationary.
- The maximum size of an obstacle that can be passed frontally is 17 cm.
- Do not drive with:
- The tank raised.
- The cover open.
- If a warning light comes on while driving, stop the vehicle in a safe place and contact your technical service.
- There is no power steering when the engine is not running.
- The braking components consist of wear parts and should be regularly checked and replaced when necessary.



#### WARNING:

In the 4-wheel steering mode, the rear wheels turn in the opposite direction of the front wheels, attention must be paid to the rear of the vehicle! (# 1).





#1



# 2. FILLING THE FUEL TANK



#### WARNING:

The engine must be stopped. Do not smoke while handling fuel. Do not spill fuel on the engine or other hot parts.

#### To fill the diesel tank:

- Unlock and unscrew the cap (A) located on the left side of the vehicle by using the key supplied with the vehicle.
- Carefully fill the reservoir to avoid all risk of spillage.
- Close the tank by tightening then locking the cap.







# 3. FILLING THE ADBLUE ® TANK (EURO 6 ENGINE ONLY)

- Remove the cap (A) located on the right side of the vehicle (# 1).
- Fill the Adblue ® tank (MATHIEU 10L canister ref.: 2000212).
- Then close the cap.

If the AdBlue ® spills or overflows, the vehicle and especially the electrical bundle should be thoroughly rinsed to avoid corrosion.

The AdBlue ® level can be monitored by the gauge on the control panel (#2).

When the word AdBlue ® flashes in red (# 3), the AdBlue ®tank should be filled as quickly as possible. If the Adblue ® level is less than 17%, the Adblue ®warning light is permanently lit. If the Adblue ® level is less than 9%, the Adblue ®warning light flashes.



# ADVICE:

Check the AdBlue ® level before each use.



#### **INFORMATION:**

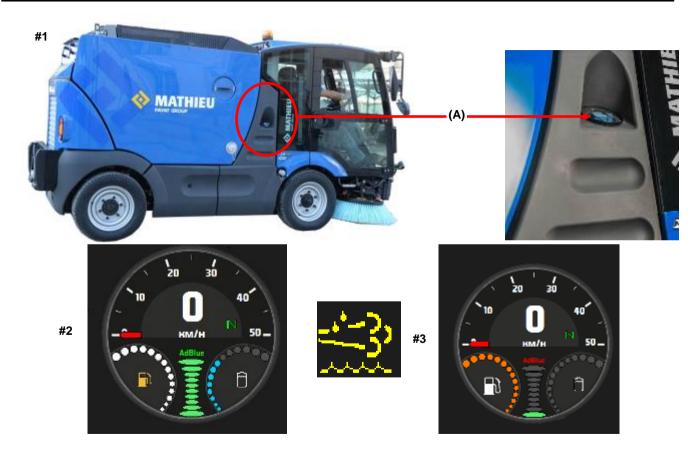
AdBlue ® consumption is as follows: about 1 full tank for 4-5 tanks of fuel (depending on the vehicle's mode of use).



## WARNING:

Using your vehicle without AdBlue ® results in inferior engine performance. Pollution and the presence of water can also result in malfunctions.







# 4. STARTING-UP AND STOPPING THE VEHICLE

#### a. How to start the vehicle

- Check that the driving direction switch is in the neutral position.
- Inserts the key into the ignition.
- Turn the key to the ignition position.
- Wait for the control display to turn on, and for the traffic lights at the top right of the display to go green (# 3).
- Activate the starter by gently turning the key.



# WARNING:

Do not activate the starter for too long.



# **INFORMATION:**

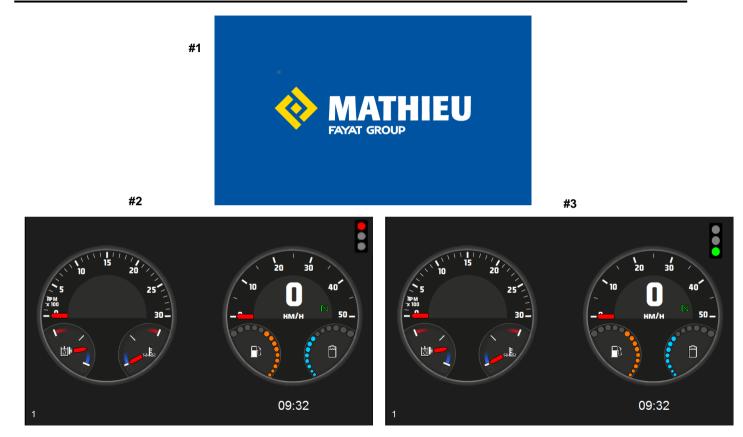
When you turn off the ignition, the display remains in standby for an hour. When switched back on, it will immediately display the main screen (**# 3**) and the engine can be started.

If the vehicle is stopped for more than an hour, the start screen will appear when it is switched on (**# 1**). You will have to wait for the green light on the main screen (**# 3**) before restarting.

#### b. How to stop the vehicle

- Park the vehicle on flat, firm ground.
- Apply the parking brake.
- Place the driving direction switch is in the neutral position.
- Turn the ignition key counter-clockwise.







# 5. DRIVING

#### a. Driving generalities

- · Check that no warning light is lit or flashing.
- Check that the brush system is always retracted and the nozzle is lifted when moving the vehicle.
- Fasten your seat belt.
- Turn on lights if necessary.
- Take off the parking brake.
- Position the driving direction switch in the desired direction.
- Gradually press on the accelerator pedal until reaching the desired speed.

### WARNING:



If one of the doors is open, a warning light (A) appears on the display (#1). A safeguard is triggered which overrides the drive command, the indicator (B) appears on the screen. The control stalk must be returned to neutral with the doors closed, then the direction of movement reselected before the vehicle can be moved again (# 2). When the parking brake is on a travel direction is selected, a warning buzzer is activated.



#### **INFORMATION:**

When the parking brake is released and the driving direction switch is in the reverse position " $\Psi$ ", a warning buzzer is activated which indicates that the vehicle is reversing, for people who may find themselves nearby.



#### **INFORMATION:**

The gear ratio can only be changed when the vehicle is travelling at less than 5km/h.





(B)





#### b. Braking

Two possible types of braking are available:

- The service brake:  $\rightarrow$  press on the brake pedal.
- The hydrostatic brake: →release the accelerator pedal. (The hydrostatic brake power depends on the driving mode). The brake lights come on automatically if the vehicle slows.



# WARNING:

The parking brake can only be used as an emergency brake if the other brake systems have failed.

### c. Changing gear ratios

When the control stalk is in position 1, the vehicle travels in low gear and automatically switches to the 4-wheel steering mode.

When the control stalk is in position 2, the vehicle travels in high gear and automatically returns to the 2-wheel steering mode.

The work mode can only be activated if the vehicle is driving in 1st gear.



## WARNING:

When shifting from 1st to 2nd gear and vice versa, the rear wheels move to the correct position related to the selected gear. It is strongly recommended that the gears are changed uniquely when the wheels are straight. It is recommended that the forward gear ratio is only changed when the vehicle is stationary.





#### d. Particulate filter regeneration

During the normal use of your vehicle, the soot generated by fuel combustion can clog the particulate filter. If the clogging rate is too high, the engine must regenerate the particle filter.

#### There are two possible techniques:

- Active regeneration:

This mode is imperceptible for the user; the engine modifies the fuel injection settings for burning the soot accumulated in the particulate filter, the indicator light (**# 1**) appears on the control display.

Under these conditions the exhaust system's temperature rises significantly, to the point that it will naturally burn some of the particles in the filter.

When regeneration is complete, the indicator (#1) is turned off.



# **INFORMATION:**

If you judge that the local environment is not suitable for this operation, you can inhibit the regeneration until the next start-up by pressing the button (A). The symbol (# 2) appears on the control display.

In order not to damage the exhaust system, it is strongly recommended not to cut regenerations when your vehicle is in use.

- Forced regeneration:

When active regeneration was not completely successful, the indicator light (**# 3**) appears on the control display. A forced regeneration must be performed as quickly as possible by qualified personnel (see maintenance instructions).







### 6. DRIVING ASSISTANCE CAMERA

Two driving assistance cameras are standard equipment on your vehicle.

- A camera that shows the suction nozzle in work mode (# 1).
- A second camera that shows the rear of the vehicle in drive mode (# 2).



#### **INFORMATION:**

When the reverse gear is selected in work mode, the screen immediately switches to the rear view.



#### WARNING:

Ensure that you can reverse safely without putting any individuals at risk.



#1

#2







## **D. WORK MODE OPERATION**



#### **1. WORKING SAFETY PRECAUTIONS**

Using this vehicle requires training.

Drivers must know the Highway Code in force.

This vehicle must be used exclusively for the purpose for which it was designed.

Ensure that no one approaches their hands, feet or other body parts towards mobile or articulated components.

Always monitor activity around the vehicle when working (cars, pedestrians) to avoid impacts, pay particular attention to the brushes.





#### 2. FILLING THE WATER TANKS

The water tanks must be filled before each working phase, or when the water tank level gauge indicates an insufficient level.

To fill:

- Take the filling hose (A) located in the trunk (B).
- Connect one end of the hose to a dispenser using the spanner wrench.
- Connect the second end onto the connector (C) located on the side of your vehicle.
- Slowly open the dispenser water supply.
- Once the tanks are full (overflow under the tanks), shut off the water supply from the dispenser.
- Disconnect and store the hose.



#### **INFORMATION:**

Full water tanks provide an hour of dampening.

## ADVICE



It is best to leave the water filter auto cleaning valve open (**D**) during filling. Water will flow under the machine through the suction nozzle, which is equivalent to normal operation.

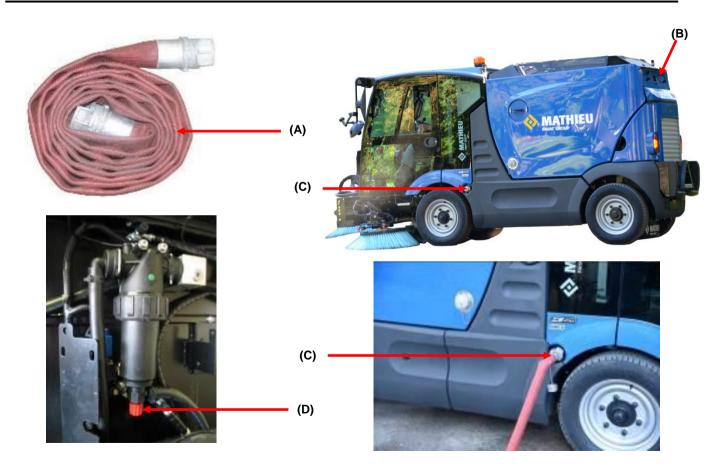
In some cases it may be necessary to purge the dispenser. Check that the plug on the opposite side to that being filled is shut.



#### WARNING:

It is imperative that the safety prop is in place before any work under the tank.







#### 3. STARTING WORK MODE.

#### a. Selecting the work speed

Place the right control stalk in position 1 to switch to 4-wheel steering. (#1) Select the desired work mode from amongst the different following modes:

- Sweeping mode.
- Frontal tool mode.
- HP mode.
- LST mode (Leaf Suction Tube).

#### b. Switching to 2-wheel steering during work mode.

The 2-wheel steering mode (**#** 2) during work mode allows the vehicle to be driven closer to walls, without the rear shifting while manoeuvring (attention must still be paid to the rear overhang).

To switch to 2-wheel steering, simply place the control stalk in position 2 while one of the work modes is active (brushing, LST or HP).



#### WARNING:

In this situation, the vehicle will automatically return to top gear when one of the working modes is stopped and the correct conditions are met.

At any moment the 4-wheel steering mode can be reselected by repositioning the control stalk in position 1.





#1



#2





#### 4. STARTING SWEEPING MODE



#### **INFORMATION:**

The work mode cannot be started if a door is open. Check that the cab doors are shut.

The sweeping mode is activated by pressing button (A) on the door console.

Automatic actions (# 1):

- Suction nozzle is lowered.
- Turbine started up.
- Brush rotation started up.
- Brushes dislodged.
- Brushes lowered.
- Dampening started up (water level permitting).

### WARNING:

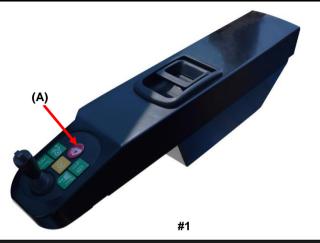
When a door is open in work mode, the safeguard that overrides the drive function also cuts the brush and nozzle system as well as brush rotation.

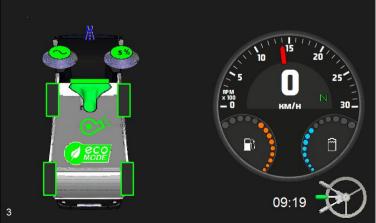


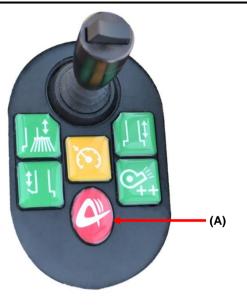
The indicator **# 2** appears on the display.

The control stalk must be returned to neutral with the doors closed, then the direction of movement reselected before the vehicle can once again move and work.









#2





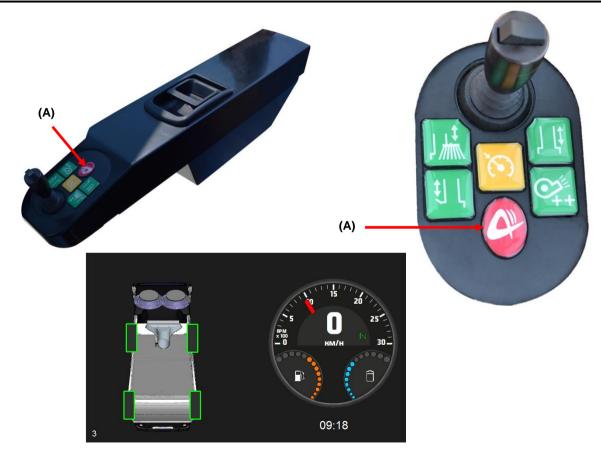
#### **5. STOPPING WORK MODE**

To stop the sweeping mode, press button (A) a second time on the door console.

Automatic actions:

- Brushes return under the cab.
- Brush rotation stops.
- Brushes are raised.
- Suction nozzle is raised.
- Dampening stops.
- Suction turbine stops.
- Engine returns to idling speed.





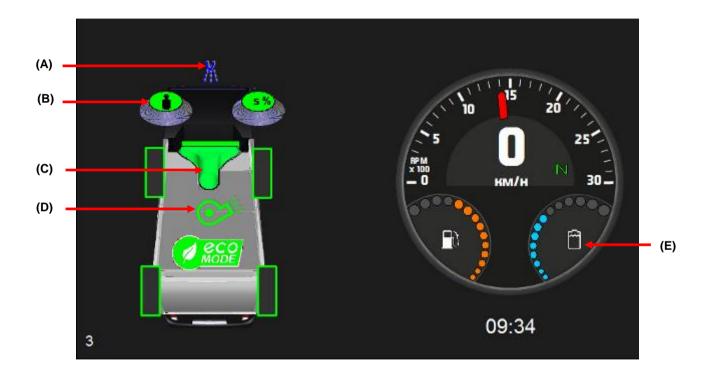


### 6. CONTROL DISPLAY IN SWEEPING MODE

Once the sweeping mode has been initiated, a new display appears. This displays complementary information to that already shown:

- (A) Dampening command activated.
- (B) Selected brush(s).
- (C) Lower suction nozzle command activated.
- (D) Selected turbine speed.
- (E) Water level in tanks.







### 7. ADJUSTING THE COMBUSTION ENGINE SPEED (DEFAULT START-UP IN ECOMODE)

There is a choice of three engine speeds during sweeping operations. Modifying the engine speed changes the speed of the suction turbine and thus the suction power.

To change the engine speed, press the buttons provided for this purpose:

- (A): 1st gear (ECOMODE): Used for everyday sweeping jobs.
- (B): 2nd gear.
- (C): 3rd gear (BOOSTMODE): Used for cleaning very soiled areas with bulk waste (pressing once switches to BOOSTMODE speed, press again to return to previous speed).



### ADVICE:

It is better to increase the engine speed to suction bulk waste (3rd gear if necessary) and create suction using the nozzle hatch.



#### **INFORMATION:**

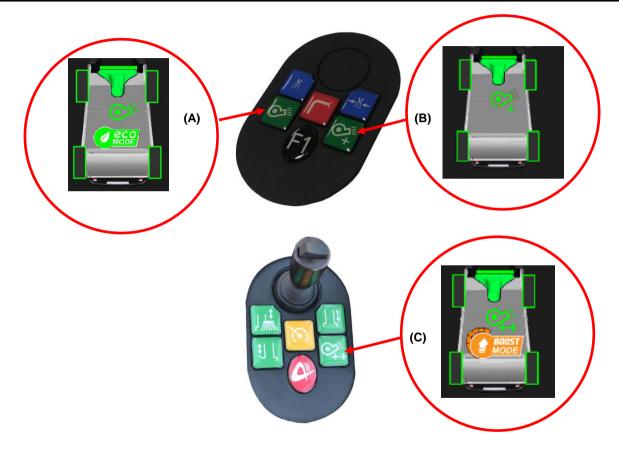
The 3rd gear (BOOSTMODE) can only be used for a period of 10 minutes (time-out limit). Once this period is over, the engine gear ratio automatically returns to the previously selected ratio. This gear can be re-engaged if the engine and hydraulic temperatures are not too high.



#### WARNING:

The BOOSTMODE speed increases fuel consumption and noise pollution.







### 8. ADJUSTING THE BRUSH ROTATION SPEED

It is possible to increase or decrease the rotation speed of the brushes during sweeping operations.

To do so:

- Turn the knob (A) clockwise to increase the rotation speed of the brushes (# 2).
- Turn the knob (A) counter-clockwise to decrease the rotation speed of the brushes (# 1).



### **INFORMATION**

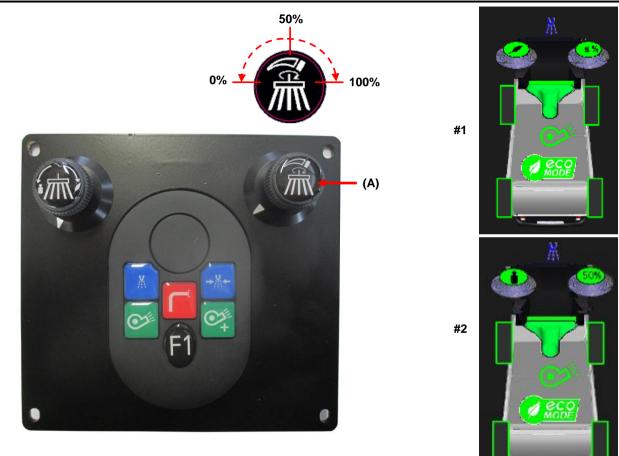
Brush wear and tear will be faster as the rotation speed is increased towards 100%.



#### WARNING:

The closer the brush rotation speed is to 100%, the more significant and likely the danger from thrown objects (waste, stones, etc.).







### 9. ADJUSTING THE CONTACT PRESSURE OF THE BRUSHES ON THE GROUND

It is possible to change the pressure applied by the brushes on the ground during sweeping operations.

Based on the surface to be cleaned, adjust the brush pressure on the ground by turning the knob (A).

Increase the pressure by turning the knob in the counter-clockwise direction (# 3), (a weight will appear on the display).

When the button is in its central position the brushes are in the Float setting, meaning they follow the ground contours (**# 2**), (a wave appears on the screen).

Reduce the contact pressure by turning the knob clockwise (# 1), (a feather appears on screen).



## ADVICE:

- The dirtier the surface, the more pressure should be applied by the brushes.
- Brush crushing should be minimal for optimal operation.
- Adjusting the brush pressure also depends on which type of brush is used.

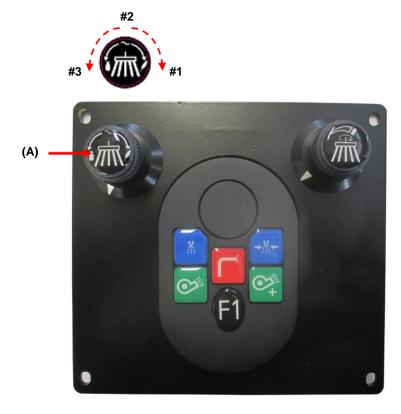


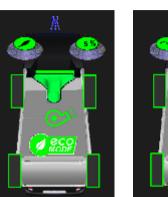
### **INFORMATION:**

The more pressure applied by the brushes, the faster they will wear. You can check the pressing setting of your brushes on the display.



#1







#2

#3





### **10. SELECTING THE BRUSH POSITION**

This vehicle is equipped with a sweeping system which has two work modes:

- Pulled brushes (default mode after switching on).
- Pushed brushes.

The position of the brush(s) can be controlled with the joystick (A).

#### a. Selecting brushes to adjust.

The switch on the driver's armrest joystick (A) selects the brush(s) that will be activated for adjustment. The display shows the current selection.

Position 0 (Switch in central position): both brushes are activated.

• On-screen display: (#0).

Position 1 (Right position): Only the right brush is activated.

• On-screen display (#1).

Position 2 (Left position): only the left brush is activated.

• On-screen display: (#2).









#0

Ø CO



#### b. Adjusting the spacing of the brushes with the joystick.

To push out the brush(s), press the joystick forwards: (A1). The selected brush(s) push out until they are place in front of the vehicle (# 1).

To return the brush(s), pull the joystick back: (A2). The selected brush(s) are pushed out and then placed under the vehicle (# 2).

The movement can be stopped at any time by releasing the joystick.

#### c. Adjusting the lateral tilt of the brushes with the joystick.

As with the brush positioning operation, the brush(s) that the user wishes to tilt must be selected (see previous paragraph).

To tilt the brush(s) push the joystick to the right (**B1**).

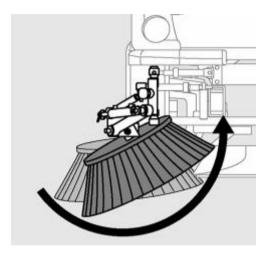
To straighten the brush(s) push the joystick to the left (B2).

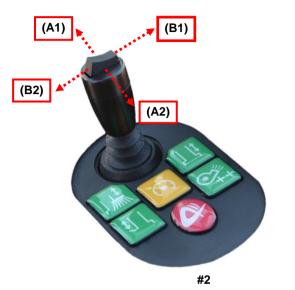


ADVICE:

The position of the brushes in relation to the working environment must be constantly monitored.















### **11. STARTING UP AND STOPPING THE DAMPENING FUNCTION**

The dampening function can be activated and deactivated during sweeping, which controls:

- 6 adjustable speed brush humidifiers (see next paragraph).
- 4 adjustable flow nozzle humidifiers.

Activate the dampening pump by pressing the button (A).

The water pump cannot be activated if there is no water in the tanks (pressing and holding the button activates the antifreeze procedure: see the freeze protection paragraph in the maintenance manual)

During sweeping, dampening can be stopped if the surface to be cleaned is already wet (rainy weather).

To deactivate dampening, press the button (A) a second time.

You can see this function's command status on the display:

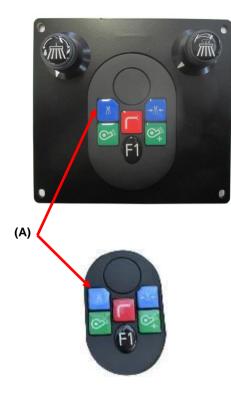
- Dampening system deactivated (# 1).
- Dampening system activated (# 2).

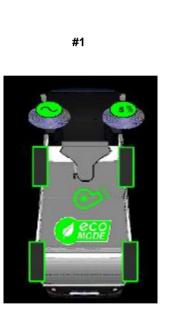


### WARNING:

For optimum suction, it is advisable to permanently dampen the suction nozzle (except when raining) to prevent the nozzles from clogging.







#2





### 12. ADJUSTING THE BRUSH AND NOZZLE DAMPENING SPRINKLER FLOW

The brush and nozzle dampening sprinkler flow can be adjusted via two valves on the cabin floor.

Proceed as follows:

Adjust the nozzle dampening valve (B) as well as the brushes valve (AT) as you wish.

- Turn the knob clockwise to decrease the flow.
- Turn the knob counter-clockwise to increase the flow.

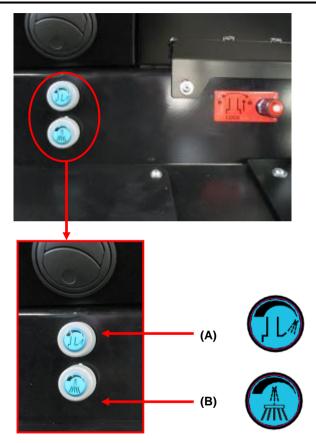
To stop brush dampening while continuing nozzle dampening, turn the adjustment knobs clockwise until they stop.



#### **INFORMATION:**

The higher the flow, the lower the autonomy.







### 13. RAISING/LOWERING THE SUCTION NOZZLE

When a large object or a pile of leaves is encountered during a sweeping operation, the nozzle may need to be temporarily raised to facilitate the passage and suction of the waste.

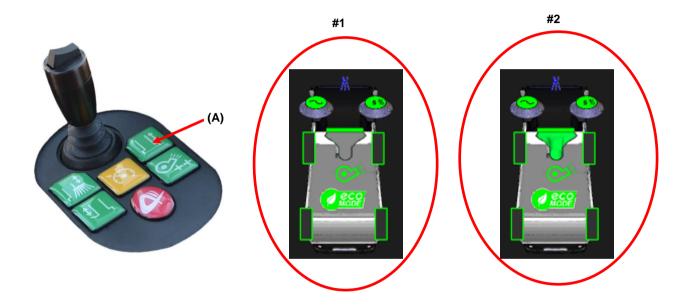
To do so:

Hold down the button (A) until the desired suction nozzle height has been reached, then release. The suction nozzle is shown on the control display in grey (# 1)

To lower the suction nozzle, briefly press the button. (A) The suction nozzle is shown in green on the control display (# 2).

To stop lowering the nozzle, briefly press the button again.





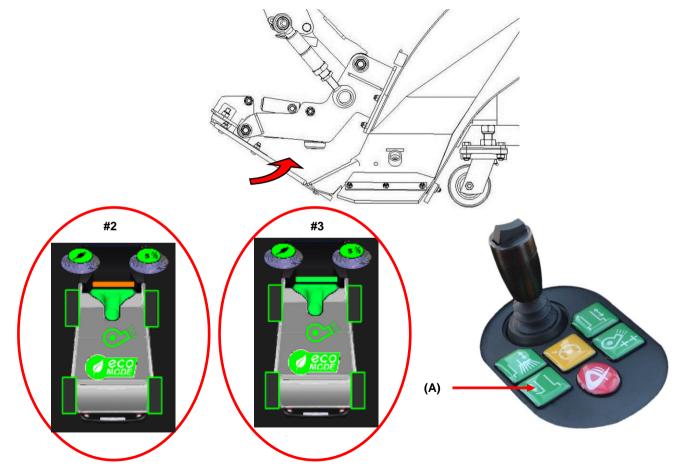


#### 14. OPENING/CLOSING THE NOZZLE HATCH

The nozzle hatch (#1) creates extra suction in the nozzle to help pull larger objects into the waste tank.

To open the nozzle hatch, press button (**A**): the hatch is shown in orange on the control display (**#2**). Press the button (**A**) a second time to close: the hatch is shown in green on the control display (**#3**).







#### **15. RAPID RAISING OF BRUSH SYSTEM**

It is possible to temporarily stop the brushing system during a sweeping operation (to pass an obstacle for example).

To do so:

Pressing the button (A) stops the brushes rotating, raises the brushes and the suction nozzle, and stops the dampening system.

To restart the brush system: press the button (AT) a second time.

You can see this function's command status on the display:

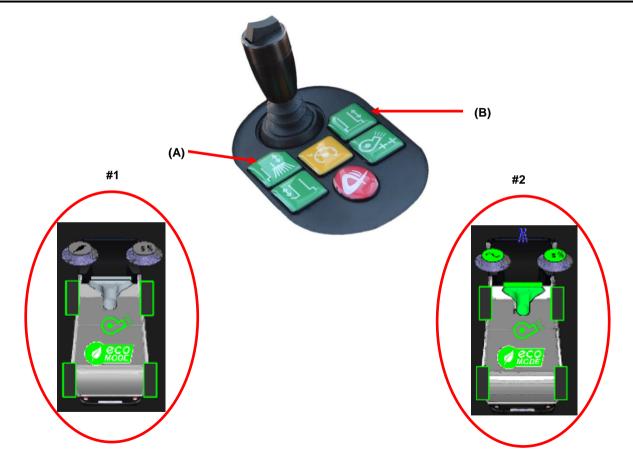
Brush system stopped: nozzle and brush in grey and water pump indicator off (#1) Brush system working: nozzle and brush in green and water pump indicator on (#2)



#### **INFORMATION:**

During the time that the brush system is stopped, the suction turbine continues to operate. The suction nozzle can only be lowered by briefly pressing the corresponding button (**B**).







#### **16. MANUAL DECANTATION**

When the vehicle is in work mode, the water used for dampening is sucked up by the nozzle along with any rain water on the ground. This water takes up a lot of space in the tank, which could otherwise be used for waste. In order to evacuate this water, a decantation valve under the tank can be used (right hand side).

There are two possible ways to decant:

1- Continuous decanting.

Simply open the valve (A) when beginning work. A small quantity of water will flow during the work phase, with a more important flow evacuated when the suction turbine stops.



#### **INFORMATION:**

This method can leave traces on the ground (dirty water marks) as the vehicle moves, and attention must be paid to where the work mode is stopped.

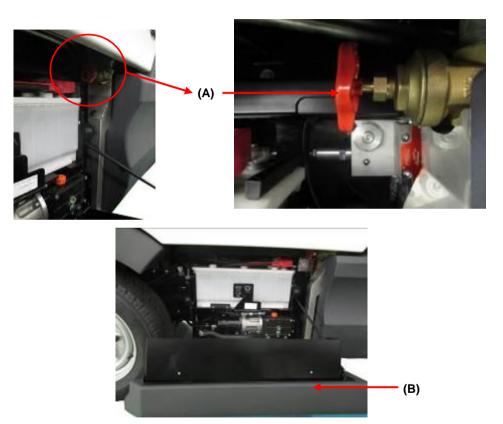
Decantation of dirty water from the container is not allowed in some countries. Please refer to the legislation in force.

2- Occasional decantation.

Each time decantation is required, open the right side panel (B), open the valve (A) and let the water drain in the chosen location (the turbine should be stopped for faster evacuation of water).

Once decanting is finished, close the valve (A) and close the side panel (B).







### **17. USING THE DIRECTION REVERSING PEDAL**

This pedal (A) only functions in the work mode.

While moving forwards (stalk control position F), the reverse direction pedal can be pressed while holding the accelerator pedal in position and the vehicle will go backwards, until the reverse direction pedal is released and the vehicle once again moves forwards.

Releasing the accelerator pedal during reverse stops the vehicle. The vehicle can also be stopped by moving the control stalk to neutral (N position).

During the reversing manoeuvre piloted by the reverse direction pedal, the suction nozzle cannot be raised (the brushes and the nozzle rest on the ground);

It is possible to raise the nozzle and/or the brushes when the vehicle is reversed by the reverse direction pedal (optional, requiring system configuration).

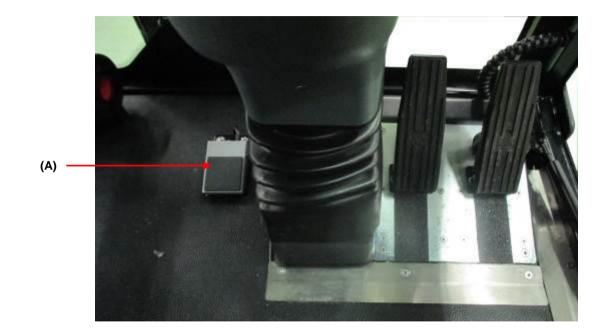


### INFORMATION:

Using the direction selection control stalk for reversing (in work mode), causes the nozzle and brushes to be raised, until the stalk is returned to the neutral or forwards position.

When the vehicle is in reverse the rear view camera is activated, and shows the trajectory on the screen.







#### **18. EMPTYING THE WASTE TANK**



### WARNING:

This operation must only be performed in a dedicated area. There must be sufficient space behind and above the vehicle. Ensure that nobody is present in the area.

This vehicle is designed for the tank to be emptied at either ground level or into a container.

Immobilise the vehicle at an appropriate site by activating the handbrake.

Ensure you are on a flat, stable surface.

To empty the tank, turn the safety button (C) a quarter turn to the right, and while holding it press on the button (A) of the control unit situated on the right of the driver's seat.



### **INFORMATION:**

If necessary, verify and clean the turbine grating.

To lower the tank and close the lid, turn the safety button (C) a quarter turn to the right, and while holding it press on the button (B) on the control unit.

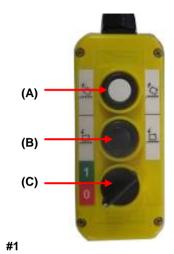


#### INFORMATION:

To access the next menu, the engine must be stopped. An emergency remote control function is integrated into the control display. All available remote controlled movements are also available from the screen (#1).















# E. AFTER USE





### **1. CLEANING THE VEHICLE**

After each day's work, daily cleaning is recommended for the correct operation and continued quality of sweeping, and for extending your vehicle's service life.





WARNING:

Remember to use appropriate protective equipment, to avoid the risks of eye damage etc.



### ADVICE:

Clean the vehicle in a dedicated area.



#### a. Cleaning the suction tube, of nozzle and the brushes

- Start up the vehicle.
- Turn on the work mode.
- Raise the nozzle.
- Abundantly wash the nozzle entrance until the nozzle is clean.
- Abundantly wash the brushes until they are clean.
- Switch off the work mode.

#### b. Cleaning the decantation system

- Open the decantation valve.
- Remove the tank plug (A).
- Connect the filler shaft to the tank.
- Connect the filler shaft to the dispenser.
- Open the water dispenser to clean the decantation grating.



### WARNING:

Dirty water can spill when removing one of the caps, if you have not waited until the water has been completely drained or if the evacuation duct is clogged. Do not wash the cabin interior with a high-pressure system.

- Abundantly wash the tank through one of the holes until clean water flows from the decantation valve.
- Replace the caps and store the decantation tube.
- Shit off the dispenser.









#### c. Cleaning the turbine, the air exhaust duct and the tank

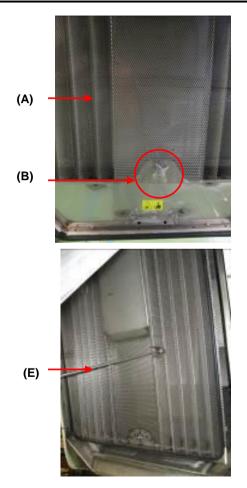


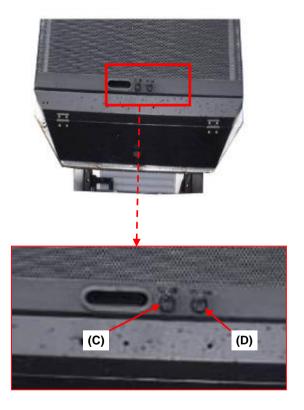
## WARNING:

Cleaning the turbine is essential to your vehicle's service life.Carefully handle the grating.

- Open the tank completely.
- Stop the vehicle and remove the ignition key.
- Open the lower grating (A) and unscrew the nut (B).
- Set up the safety prop (E).
- Unlock the hood (C) and the upper grating (D) using the "square" key.









- Open the top cover (G).
- Remove the filter (F) that is between the hood (G) and the upper grating (E).
- Clean all the gratings (C) (E), the hood (G), the turbine (B), the blower tube (D), the tank (A) and the filter (F) with a jet of water.



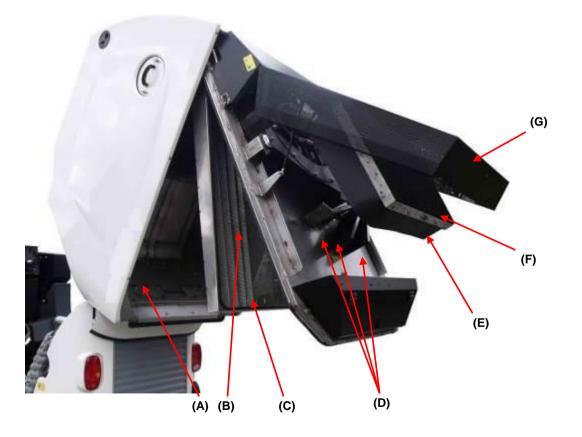
#### INFORMATION:

In some cases where the equipment is particularly dirty, it may be necessary to use a "high flow" water hose, or even a high-pressure blaster for the tank and gratings.

### d. After cleaning

- Replace the filter (F).
- Close the hood (G) and the upper grating (E) and lock all the components with the "square" key.
- Close the grating (C) and tighten the holding nut.
- Restart the engine and correctly close the tank.







# 2. VERIFYING THE CORRECT OPERATION OF SPECIFIC COMPONENTS

#### a. Spray nozzle flow

ADVICE:



## Ensure that there is still water in the tanks.

Start the sweeping system. Check that the 6 front sprinklers are not blocked before (# 1). Check that there is an adequate water flow in the sprinklers.

For the four nozzle sprinklers (**# 2**), Raise the suction nozzle. Cut the turbine by pressing the button (**A**). Exit the vehicle. Check that there is sufficient water flow in the nozzle.

#### b. Brushes

Check the conditions of the brush connections vis-a-vis possible impacts that may have occurred during use.

#### c. Lights

Walk around the vehicle to check the condition of all lights, ensuring the vehicle is visible to other road users. . If a light is not working, check the fuse first before replacing it.









# **F. TOWING**



- The vehicle can only be towed if traffic is blocked and then only at a speed below 5km/h. It must never be towed over long distances, which could damage certain mechanical transmission components.
- The transmission system and the parking brake must be disabled before towing.
- It is therefore very important to ensure that the vehicle is stationary by other means (wedges, lashing to towing vehicle, etc.) prior to the operations described in the following pages.
- These procedures must be performed by qualified personnel with full knowledge of the risks associated with these operations.



#### **1. FREE WHEEL PROCEDURE**

The valve is located under the translation pump behind the water pump.

To activate the free wheel, turn the valve (**A**) a quarter turn clockwise until reaching the lever stopper, the forward and reverse hydraulic circuits are now connected.

To deactivate the free wheel, turn the valve (A) a quarter turn **anticlockwise**: if it is not completely closed the vehicle may not be able to cross certain inclines or obstacles











### 2. PARKING BRAKE DISABLING PROCEDURE

#### a. Your battery is working:



#### WARNING:

Before disabling the parking brake, ensure that the vehicle cannot move on its own (put chocks under the wheels or attach it to the towing vehicle). After 1 minute the parking brake can gradually re-tighten itself, it is therefore imperative that the vehicle is only

towed to unblock traffic or for mounting a trailer for example.

To disable the parking brake (by lack of pressure) (# 1), follow the procedure below:

- Press the button (A) to electrically activate the solenoid valves S1.
- Deactivate the parking brake by pressing the switch (**B**).
- Use the lever located in the battery compartment in the hand pump housing.
- Operate the lever (two or three cycles are enough).



#1











#### b. Your battery is not functioning:



#### WARNING:

Before disabling the parking brake, ensure that the vehicle cannot move on its own (put chocks under the wheels or attach it to the towing vehicle).

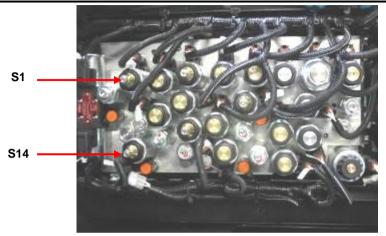
After 1 minute the parking brake can gradually re-tighten itself, it is therefore imperative that the vehicle is only towed to unblock traffic or for mounting a trailer for example.

To disable the parking brake (by lack of pressure), follow the procedure below:

- Raise the passenger seat.
- Manually activate the solenoid valves (S14) and (S1), by screwing the valve clockwise.
- Use the lever located in the battery compartment in the hand pump housing.
- Operate the lever (two or three cycles are enough).

Once the vehicle is on the trailer or on a clearance zone, it is best to let the parking brake tighten completely. To do so, completely unscrew the manual controls of the solenoid valves **(S14)** and **(S1)**.











**G. STOWING** 





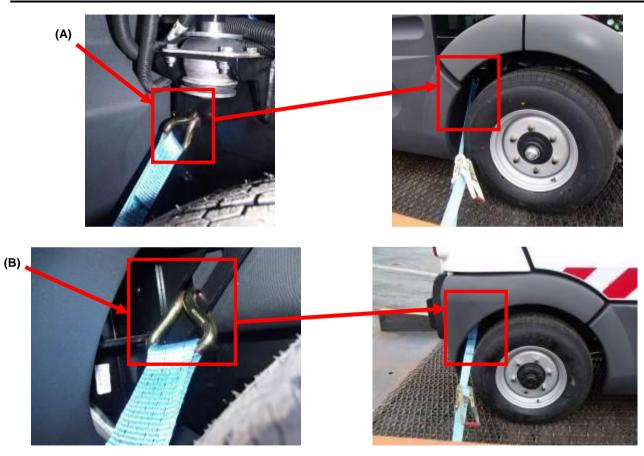
#### **INFORMATION:**

Before stowing the vehicle, make sure that it is in a stable position and the parking brake is on. This is imperative for correct lashing.

To stow your vehicle:

- Begin by passing one of the lashing strap hooks through the stowage point (A) on the chassis, located at the front of the vehicle.
- Attach the other end of your strap to a secure and strong point so that your strap can then be tightened. Ensure that the straps do not press on the vehicle tanks.
- Perform the same operation by passing a hook through point (**B**) on the chassis at the rear of the vehicle, and by passing the other end of the strap through a strong anchor point. Ensure that the straps do not press on the vehicle's fuel tank.
- Perform the same operation on the other side of the vehicle by passing a strap through the front and rear stowage points.
- Tighten all the straps using the winches provided for this purpose.









# **H. OPTIONS**



It is mandatory that any options installed on this vehicle are approved by MATHIEU SA



#### 1. USING THE HP SPRAY ARM

The HP spray arm (High Pressure) can be used without the vehicle being in work mode.

If the vehicle is in work mode, the use of the HP spray arm will stop the nozzle and brush dampening function.

To use the HP spray arm, simply:

- Take the HP spray arm from the tool box which is incorporated in the lid of the tank.
- Attach it to the HP connector (A) located under the cab step plate, on the driver's side.
- Turn on the high pressure pump by pressing the button (**B**).

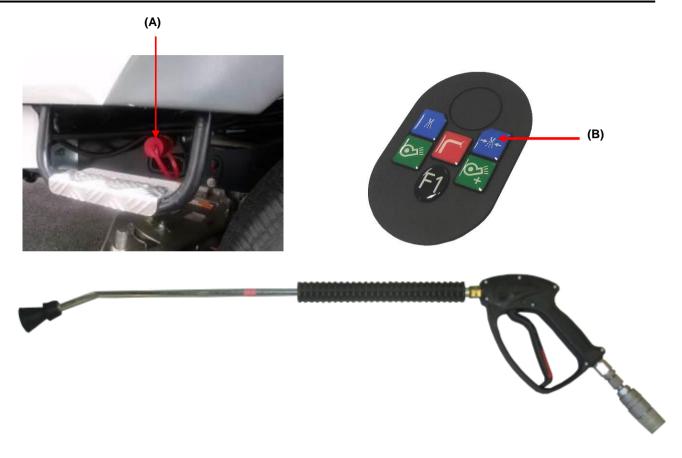
To stop the pump, press the button (**B**) a second time.



### WARNING:

Never aim the spray arm at a person, there is a real risk of injury.







### 2. USING THE LEAF SUCTION TUBE (LST)



### WARNING:

The leaf suction tube is a mobile suction device. Particular attention must be paid to your surroundings, to avoid hurting an individual or damaging elements that are near your work zone.

It is possible to suck up leaves or other objects without using the main suction tube, the LST on the rear of the vehicle can be used for this.

As a result, suction can be applied to difficult areas where the standard suction system cannot pass (e.g.: inside a manhole, in a rubbish bin, under a benched....).

### a. Description

The LST consists of two parts:

- A flexible portion.
- A rigid tube.

It is stored in the gallery attached to the rear of the vehicle.

The LST has two tips:

- The first is used to fix the LST into the hole in the tank on the driver's side of the vehicle.
- The second holds the rigid tube. The two handles means that the LST can be used with two hands.









#### **b.** Recommendations

To ensure a long service life for your LST, it is imperative to dampen the tube during use to avoid clogging and wear. The interior of the LST should be cleaned after each use.

#### c. Using the LST

• Raise the tank.

WARNING: It is imperative that the safety prop is in place before any work under the tank.

- Plug the suction pipe opening with the perforated cap (# 1).
- Close the tank.
- Unlock the cap which is located on the side of the tank (# 2).
- Connect the end of the LST in place of the cap (# 3).
- Connect the dampening hose to the connector located under the driver's door (# 4).
- Turn off the nozzle and brush system dampening using the valves on the cabin floor (# 5).
- Press the LST button (A).
- Your LST is now ready for use.







#2

#3





#4







#### d. LST storage and emptying the tank using the LST option

After storing the LST on its gallery, do not forget to replace the cap on the side of the tank and remove the perforated plug which blocks the nozzle hose.

To facilitate tank emptying, it is best to swing open the LST gallery **(# 1)** to the side of the vehicle before locking it in the open position with the pin **(# 2)**. This allows better access to the drain pan and prevents damage to the LST tube.

To get used to handling the LST, it is best to start with a low engine speed (1300 rpm).



#### WARNING:

Never aim the LST at a person, there is a real risk of injury.





#2



## 3. AUTOMATIC DECANTATION VIA THE NOZZLE (DEPENDING ON MODEL)

When the work mode is deactivated, the accumulated water in the tank can be drained by automatic decantation.

To activate the decantation:

• Press button (F1). The water in the tank flows through the suction nozzle.

To deactivate decantation:

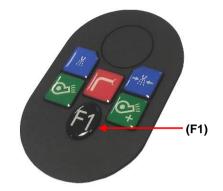
• Press the button (F1) a second time.



### **INFORMATION:**

This method can leave traces on the ground (dirty water marks) as the vehicle moves, and attention must be paid to where the work mode is stopped.











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