

# 2024 Mullen ONE

## Owner's Manual



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## Special Notices

### WARNING

Failure to follow instructions highlighted by the Warning Symbol can result in death or serious personal injury to yourself or others.

### WARNING

This vehicle is not a passenger vehicle. Failure to operate this vehicle in accordance with this manual or applicable laws and regulations could result in loss of vehicle control, vehicle rollover, personal injury or death.

### WARNING

## California Proposition 65



Operating, servicing, and maintaining a passenger vehicle or off-highway vehicle can expose you to chemicals including phthalates and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, wear gloves or wash your hands frequently when servicing your vehicle. For more information go to:

[www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).

### WARNING



Certain components of this vehicle such as airbag modules and seat belt pretensioners may contain Perchlorate Material. Special handling may be required for service or vehicle end of life disposal. See [www.dtsc.ca.gov/perchlorate](http://www.dtsc.ca.gov/perchlorate).

### WARNING



Battery posts, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

## Vehicle Emissions Control Information

This vehicle conforms to US EPA Federal Tier 3 Bin 0 and State of California regulations applicable to 2024 model year ZEV emission light-duty trucks.

MULLEN AUTOMOTIVE, INC.  
VEHICLE EMISSION CONTROL INFORMATION



THIS VEHICLE CONFORMS TO US EPA FEDERAL TIER 3 BIN 0  
AND STATE OF CALIFORNIA REGULATIONS APPLICABLE  
TO 2024 MODEL YEAR ZEV EMISSION LIGHT-DUTY TRUCKS.

MODEL: 2024 MULLEN ONE  
MOTOR: 3 PHASE PMSM  
TEST GROUP: RMLAT00.046D  
EVAP FAMILY: N/A

AGIC-006X-AF



## **Important Information**

### **Contact Us**

For service and parts:

Contact Mullen Automotive, Inc. at (248) 988-4498.

Email: [service@mullenusa.com](mailto:service@mullenusa.com)

Mullen Automotive, Inc.  
5755 New King Court  
Troy, MI 48098



Thank you for partnering with Mullen Automotive, Inc. (Mullen).

By operating a Mullen ONE electric van, you have joined a growing group of drivers who can fully appreciate the difference that a purpose-built vehicle can make.

Please take time to familiarize yourself with this owner's manual, the supplemental quick-start guide, and the vehicle itself. The time you invest will promote safety and ensure a great relationship with your Mullen ONE electric van.

Always use and operate your vehicle in a manner consistent with this owner's manual and in line with applicable laws and regulations. This owner's manual is an integral part of your vehicle and should be passed on to any subsequent owners of the vehicle.

We welcome any questions about the vehicle, feedback about this manual, and other comments or concerns. Please visit our website, [www.mullenusa.com/mullen-vehicle-center](http://www.mullenusa.com/mullen-vehicle-center) or contact us at (248) 988-4498.

Sincerely,

Your team at Mullen.

## 1 Introduction

This owner's manual is for vehicles sold and operated in the United States.

### 1.1 Owner/Driver Information

Visit [www.mullenusa.com/mullen-vehicle-center](http://www.mullenusa.com/mullen-vehicle-center) for the most current version of this manual.

### 1.2 Safety Notifications

Before driving the Mullen ONE electric van, review this manual for important information on how to safely drive and operate the vehicle.

This manual uses the following signal words: Danger, Warning, Caution, and Notice to identify areas of special concern.

#### DANGER

Content marked as “DANGER” indicates a hazardous situation which, if not avoided, will cause death or serious injury.

#### WARNING

Content marked as “WARNING” indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### CAUTION

#### CAUTION

Content marked as “CAUTION” indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### NOTICE

Content marked as “NOTICE” indicates matters not related to personal injury. Matters relating to damage of equipment or property may be included in this category.

### 1.3 Configuration Options

Options identified by "(if equipped)" indicate an optional configuration is available for different models of this vehicle. Please refer to your actual vehicle to determine if it is configured with these options.

### 1.4 Electrical Equipment

This vehicle has two types of electrical components: low voltage and high voltage. The low voltage system is similar to traditional motor vehicle systems and includes lighting and instrumentation. The primary purpose of the high voltage system is to provide power for moving the vehicle. The high voltage system is also used to charge the low voltage system. The vehicle will not start if the low voltage system is depleted.

#### 1.4.1 Low Voltage Equipment

The rated working voltage of low voltage electrical equipment is 12 volts. The low voltage system includes the instrument panel, audio-visual system, lights, speakers, fans, backup camera, and combination switches.

#### **WARNING**

**Batteries normally produce explosive gases that can cause personal injury. Therefore, do not allow flames, sparks or lighted substances to come near the battery. When working near the battery, always shield your face and protect your eyes. Always provide proper ventilation.**

#### **WARNING**

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

#### **WARNING**

**Keep batteries out of reach of children. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.**

**⚠️ WARNING**

**Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash your hands after handling.**

**1.4.2 High Voltage Equipment**

High voltage electrical equipment includes the drive motor, motor control unit, high voltage battery, air conditioner compressor, and heater. High voltage cables and connectors are bright orange in color.

**⚠️ DANGER**

**High voltage components, usually identifiable by attached orange cables, present an electrical shock hazard. To avoid injury, do not touch high voltage components, including the high voltage wiring harness and connectors.**

**1.4.3 Maximizing High Voltage Battery Life**

Maintaining the state of charge (SOC) between 20% and 90% of battery capacity will help improve the longevity of the high-voltage battery. Charge the high-voltage battery pack immediately if the SOC is below 20%. When charging, set the maximum state of charge at 90%.

For optimal performance, the vehicle should be stored in stored in temperatures between 32°F (0°C) and 113°F (45°C). If the vehicle will be parked for an extended period (for example, 30 days or more), set the maximum state of charge at 50%.

**NOTICE**

**If left unplugged, the vehicles will use energy from the high voltage battery to recharge the low voltage battery when needed.**

## 1.5 Vehicle Specifications

Useful technical parameters of the Mullen ONE are provided in the table on page 9.

**Table 1: Mullen ONE Vehicle Specifications**

	<b>One Seat w/Mobile Office</b>	<b>Two Seats</b>
GVWR	4,881 lbs (2,226 kg)	5,298 lbs (2,406 kg)
Max. Payload	1,683 lbs. (773 kg)	2,100 lbs (953 kg)
Curb Weight	3,198 lbs (1,450kg)	3,198 lbs (1,450kg)
Wheelbase	120 in. (305 cm)	120 in. (305 cm)
Front/Rear GAWR (Gross Axle Weight Rate)	45% Front/55% Rear	45% Front/55% Rear
Dimensions - Length	186 in. (472 cm)	186 in. (472 cm)
Width	64 in. (163 cm)	64 in. (163 cm)
Height	75 in. (191 cm)	75 in. (191 cm)
Tire Size	LT 175/70 14R 95/93T	LT 175/70 14R 99/93T
Number of Passengers in Cab	1	2
Maximum Speed	65 mph	65 mph

## 2 Before You Drive

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### **WARNING**

Follow these important driving rules to help ensure a safe and comfortable trip for you and your passengers.

- **NEVER** drive under the influence of alcohol or drugs.
- **ALWAYS** observe posted speed limits and never drive too fast for conditions.
- **ALWAYS** give your full attention to driving and avoid using vehicle features or taking other actions that could distract you.
- **ALWAYS** use your seat belts. Children under the age of 13 should not ride in the vehicle.
- **NEVER** allow anyone to ride in the rear cargo area.
- **ALWAYS** provide information about the proper use of vehicle safety features to all occupants of the vehicle.
- **ALWAYS** review this Owner's Manual for important safety information.

## 2.1 Before Starting the Vehicle

### **WARNING**

**This vehicle does not have “Park” on the gear selector. You must ALWAYS put your vehicle in Neutral and engage the parking brake when parking. See 6.5.4 [Parking Brake](#) on page 63 for more information.**

1. Walk around the outside of the vehicle. Make sure the area around the vehicle is clear of people and obstructions. Ensure that the air intake areas of the radiator are free of debris.
2. Inspect the vehicle's tire pressure and overall condition prior to driving. Maintain proper tire pressure in all four tires as indicated on the decal affixed in the driver's door frame. Keep a tire pressure gauge in the vehicle for this purpose. Low tire pressure causes premature wear to the tires and other vehicle components and diminishes vehicle performance and efficiency.
3. Ensure the parking brake is on.
4. Adjust the seat and mirrors.
5. Fasten the seat belt.
6. Turn off unnecessary accessories.

7. Ensure the gear selector dial is in Neutral (N).
8. Put the key in the ignition and turn the key to ON, but do not start the vehicle yet.
9. For a brief moment, you should see all the indicator lights on the instrument panel. Most of these lights will turn off. A few indicator lights will remain on until you start the vehicle.

## 2.2 Starting the Vehicle

1. Turn the ignition key to the START position to start the vehicle. The READY indicator turns on when the vehicle is running. At this point, all other indicator lights should be off. See 6.2.1 [Instrument Panel Indicators](#) on page 52 on for more information about vehicle warning lights.
2. With your foot on the brake pedal, release the parking brake by lifting up and pressing the button on the end of the lever. Then push the lever downward to its home position.
3. If the vehicle does not start as it should, turn the key to LOCK. Set the gear selector dial to Neutral (N), place your foot on the brake pedal, and then try starting the vehicle again.
4. Select desired gear on the gear selector dial: Reverse (R), Drive (D), or Eco-Sport mode (E).

5. Remove your foot from the brake pedal and use the accelerator to reach the desired speed.

## 2.3 Vehicle Operation

### 2.3.1 Hill Hold

This vehicle is equipped with Hill Hold. This feature prevents the vehicle from rolling downhill when switching the driver's foot from the brake to the accelerator. This feature will hold the brake pressure for up to 3.5 seconds when the vehicle is at a complete stop on an incline, or decline, and the driving direction is against the hill (for example: when using Drive (D) on uphill or Reverse (R) on downhill), this feature will hold the brake pressure for up to 3.5 seconds. The brake pressure releases when the driver presses the accelerator pedal.

### 2.3.2 Regenerative Mode

This vehicle features a regenerative (regen) mode to extend the driving range. In regen mode, the motor acts as a generator to convert kinetic energy from an object in motion to electrical energy that recharges the high voltage battery.

When the operator presses the brake pedal, regen assists the brakes by employing the motor to act as a generator. The generating process creates resistance against the rotating wheels

which, in turn, helps slow the vehicle. As the vehicle slows, electrical energy is to replenish the battery.

### 2.3.3 Eco-Sport Mode

Eco-Sport mode (E) provides a higher vehicle top speed with extended range in stop-and-go driving.

#### **WARNING**

**Do not turn off the ignition key while driving. Without vehicle power, steering and braking are less effective.**

### 2.3.4 Anti-Lock Braking System (ABS)

When slowing or stopping the vehicle, apply steady pressure on the brake pedal, and do not pump the brakes. The ABS performs best when steady pressure is applied to the brake pedal. Pumping the brakes will increase the stopping distance.

### 2.3.5 Electric Power Steering (EPS) System

The vehicle is equipped with an EPS system, which helps the steering action be light and smooth. Power steering is automatically activated after the vehicle is started.

If the EPS indicator light comes on, the EPS system requires service. See [Contact Us](#) on page 4 for service information.

**⚠ WARNING**

**Do not drive the vehicle if the EPS warning light is lit.**

### 2.3.6 Weather and Cruising Range

Temperature changes in the operating environment affect the high voltage battery capacity. Colder temperatures cause a decrease in the battery capacity and a corresponding decrease in the cruising range of the vehicle. This is normal and should be expected. Use of the air conditioning or heating system will also affect the cruising range.

**NOTICE**

**At low temperatures, the vehicle performance may be reduced until the battery comes up to temperature through either preconditioning (charging) or driving.**

### 2.4 Economic Driving Tips

For better battery performance:

- Perform preventive maintenance on schedule to ensure that the vehicle functions properly and efficiently. See 8.2.2 [Maintenance Schedule](#) on page 89

- Avoid aggressive acceleration and braking that will reduce electric vehicle operating range and increase wear on vehicle components.
- Turn off unnecessary lights and heat or air conditioning

#### 2.4.1 Audible Pedestrian Alert

At speeds less than 19 mph (30 kph), this vehicle will produce an audible sound to alert pedestrians that a vehicle is approaching. Always use extra care when driving near pedestrians and give them extra room to reduce the chance of an accident.

#### 2.4.2 Obstacle Avoidance

This vehicle is equipped with rear obstacle avoidance sensors. When obstacles are within 4 feet of any sensor while in Reverse (R) an audible sound is initiated to alert the driver of a potential danger.

#### 2.4.3 Special Notices for Driving Electric Vehicles

The vehicle does not turn off when it is stopped or reached a motor speed of zero. The vehicle is still running if the 'READY' indicator light is on

### 3 Operation

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#### 3.1 Charging Information

The Mullen ONE electric vehicle requires a 220 volt AC (VAC) outlet on a 20-amp circuit. The charging cable has an electric vehicle supply equipment (EVSE) J1772 plug for level 2 charging. The on-board charger is rated at 6.6 kilowatts (kW).

#### 3.2 Charging Procedure

##### 3.2.1 Charging Preparation

Before charging the vehicle, engage the parking brake, as specified in *Parking Brake* on page 63, turn the ignition key to LOCK and remove the key.

Locate the charging cable. Ensure it is in good condition and look for signs of cracks or tears in the insulation. Ensure the connection port is free of corrosion, water, or debris.

#### **⚠ WARNING**

**Do not modify the charging cable in any manner, and do not use a charging cable with signs of damage.**

The charging port of this vehicle is located near the passenger door, as shown in figure 1. Inside the small door is a port for charging.



**Figure 1: The charging port door.**

**⚠ WARNING**

**Damage to the charging port may affect the ability to charge the vehicle and may create an unsafe condition. Please have the vehicle serviced immediately.**

See [Contact Us](#) on page 4 for service information.

### 3.2.2 Vehicle Charging

**⚠ WARNING**

**The electric vehicle charging power supply line must be equipped with a 20 amp circuit breaker and be grounded. Equipment installation must be performed by a licensed and qualified electrician.**

**Do not move the vehicle during charging.**

**Do not use extension cords with the charging cable. Only use cables provided by Mullen Automotive.**

1. Pull the release handle located below the vehicle dashboard on the left-hand side of the steering wheel to release the latch for the charging port door in Figure 2.
2. At the charging port door, press release on the right side of the cover to open it and swing the cover to the left, as showing in figure 3.



**Figure 2: Charging port door release handle.**



**Figure 3: Charging port cover release.**

3. Plug the charging cable into the vehicle charging port. See figure 4.

The home screen on the instrument panel should display “Charging.”

### 3.2.3 Stowing Charger

1. Press the button on the charging plug to unlatch the handle and remove the charging plug from the vehicle.
2. Close the cover to keep dirt and debris out of the charging port.
3. Return the charging cord to the wall mounted electric vehicle supply equipment box.



**Figure 4: Insert the charging plug into the charging port.**

## 3.3 Battery Discharge Alert

Avoid completely discharging the battery. The instrument cluster will sound an alarm when the battery charge is less than 20%. Charge the battery when the alarm sounds to optimize the life of the battery.

### 3.3.1 Stored Vehicle Battery Renewal

If the vehicle is parked for an extended period, (for example, more than 20 days), the 12-volt auxiliary battery may lose charge and fail to start the vehicle. To prevent the 12-volt battery from becoming depleted, periodically start the vehicle as set forth below.

1. Apply the parking brake.
2. Insert the key into ignition and turn key to the START position.
3. The READY telltale will display on the dash cluster.
4. Let the vehicle sit in READY state for 2 hours.
5. Then, turn the key to the OFF position, the 12-volt battery should be fully charged.

Consider using a trickle charger on the 12-volt battery if the vehicle will not be driven for more than 20 days. Keep the doors fully closed and locked when parking the vehicle to prolong the battery life.

## 3.4 Key Fobs and Locks

### 3.4.1 Key Fobs

Each vehicle is equipped with two key fobs containing keyless entry remotes. See figure 5. The key fobs can unlock/lock the doors and the lift gate from outside the vehicle.



**Figure 5: Remote control keys**

Please keep the spare key in a safe place other than in the vehicle.

### FCC Information

See 4.2 [FCC Statement](#) on page 21.

### 3.4.2 Replacing a Lost Key Fob

Replacement keys may be obtained by contacting Mullen. Please see [Contact Us](#) on page 4 for service information.

### 3.4.3 Doors and Latches

The driver door, front passenger door, and the lift gate can be opened and locked with the keys, or remotely with the fobs.

The vehicle will not lock if driver's, passenger's or sliding cargo doors are open.

With a door ajar, attempts to lock the vehicle remotely will cause the exterior lights to flash and the horn to sound three times briefly. This is to notify the driver that a door is not fully closed.

The vehicle has a safety feature to automatically lock the doors under certain conditions. If you use the remote to lock and then unlock the doors without entering the car within 90 seconds, the car will automatically revert to being locked.

As a convenience, the lift gate can remain fully opened as the rest of the vehicle is locked, manually or remotely. The lift gate will lock automatically when closed.

### **⚠ WARNING**

**Never leave children or pets unattended in a vehicle.**

### **⚠ CAUTION**

**Never leave the keys in a vehicle that is unattended.**

**Outside the vehicle:**

You can use the key to lock or unlock the doors from outside.

**Driver side:** Insert the key into the driver's side door lock and turn the key clockwise to lock the door. See figure 6. Push on the key while turning it clockwise to lock all doors. Turn the key counterclockwise to unlock. Pull on the key while turning it counterclockwise to unlock all doors.



**Figure 6: Turn the key to lock or unlock the door.**

**Passenger side:** Insert the key into the passenger's side door lock and turn the key counterclockwise to unlock the door. Turn the key clockwise to lock the door. The passenger side door lock does not have the ability to lock and unlock all doors. After unlocking, the door can be opened by lifting the door handle. See figure 7.

The doors can be manually locked or unlocked from inside the vehicle by pushing or pulling the tab above the interior door handle. The tab will be red when the door is locked as illustrated in figure 8.



**Figure 7: Lift the door handle to open the door.**



**Figure 8: The red tab indicates the door is unlocked.**

### 3.4.4 Using the Keyless Remote

To lock the door remotely, using the key fob, press the lock button. Press the unlock button to unlock the door.

### 3.5 Lifting the Hood

#### **⚠ WARNING**

**Failing to set parking brake before lifting hood could result in death or in**

To open the hood:

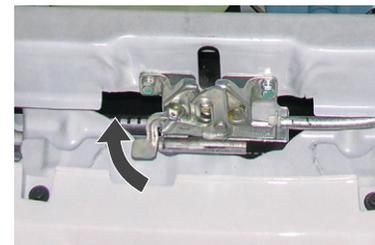
Ensure that the vehicle is turned off, the gear selector dial is set in Neutral (N), and that the parking brake is fully engaged. See 6.5.4 [Parking Brake](#) on page 63.

1. Locate the hood release on the lower left of the instrument panel and pull the lever to release the hood latch. See figure 9.



**Figure 9: Pull the hood release, located near the driver's left knee, to release the primary hood latch.**

2. Exit the vehicle and lift up the hood slightly.
3. Lift up the secondary hood release lever to fully release the hood latch. See figure 10.



**Figure 10: Lift the lever on the secondary release to lift the hood.**

4. Raise the hood and locate the hood support rod to the right of the hood compartment. See figure 11.
5. Lift the hood support rod and position it into the corresponding opening underneath the hood, as shown to the right.



**Figure 11: The hood support rod secures the hood in the open position.**

### 3.6 Closing the Hood

To close the hood:

1. Ensure tools, supplies, and hands are clear of the hood.
2. Return the hood support rod to the home position and secure it in the clip.
3. Allow the hood to drop, from a height of about six inches (15 cm), to close and latch itself.
4. Ensure the hood is secure. If not, open it and close it again. Do not slam or force the hood closed.

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### 4.1 Child Safety

The National Highway Traffic Safety Administration (NHTSA) recommends that all children ages 12 and under be properly restrained in a rear seat. Some states have laws restricting where children may ride. This vehicle is not equipped with rear seats.

**Therefore, children under the age of 13 should not ride in this vehicle.**

### 4.2 FCC Statement

#### General Information

The following regulatory statement applies to all (RF) devices equipped in this vehicle.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any

interference received, including interference that may cause undesired operation.

Key Fob FCC ID: 2BBX5-W0012203

Unintentional Radiators:

- RKE Receiver (Remote Keyless Entry)

TPMS Sensor FCC ID: 2BBMK-MMS-TPMS-0036

Unintentional Radiators:

- TPMS Receiver

This device complies with Part 21 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Telematics FCC ID: 2A673-SRTL-TCU

Unintentional Radiators:

- Telecommunication

Changes or modifications not expressly approved by Mullen Automotive could void your authority to operate the equipment.

**NOTICE**

**FCC Radiation Exposure: This equipment complies with FCC radiation exposure limits for an uncontrolled environment.**

**This equipment and its antennas must not be co-located or operated with any other antenna or transmitter.**

This equipment has been tested and found to comply with the limits for a Class B digital device(s), pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

### 4.3 Driver Position

The NHTSA recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and the chest.

### 4.4 Vehicle Data Recording, Security, and Privacy

This vehicle is equipped with an Event Data Recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur. NOTE: EDR data are recorded by your vehicle only if a nontrivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

Mullen will not share EDR information without the expressed consent of your corporate entity except if officially requested by law enforcement or government agencies. Additionally, Mullen collects safety and operational data to evaluate and improve existing vehicles and service solutions, as well as to develop new products. Mullen meets relevant security standards to protect your cooperate entity's data from unauthorized use. However, to further mitigate events that may compromise this data, please follow your corporate information security policies and only connect authorized devices and networks to the vehicle's systems.

## **4.5 Telematics General Information**

### **Modification Statement**

Mullen has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

### **Interference Statement**

This device complies with Part 15, 21, 22, 24, and 27 of the FCC and RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Telematics FCC ID: 2A673-SRTL-TCU

Unintentional Radiators:

- Telecommunication

### **RF Exposure**

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. The antenna should be installed and operated with minimum distance of 20 cm between the radiator and your body.

Telematics FCC ID: 2A673-SRTL-TCU

Unintentional Radiators:

- Telecommunication

#### **4.6 Reporting Safety Defects - United States**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Mullen.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Mullen.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

#### **Reporting Safety Defects - Canada**

If you believe that your Mullen ONE has a defect which could cause a crash or could cause injury or death, you should immediately inform Transport Canada, in addition to notifying Mullen. To contact Transport Canada, call their toll-free number: 1-800-333-0510.

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<b>5.1 Shifting</b>	
Ensure the instrument panel displays the selected gear when shifting to a new gear (Reverse, Drive, or Eco-Sport). Drivers must press the brake pedal while shifting. The vehicle will NOT shift to a new gear if the brake pedal is not pressed while shifting. See 6.5.33 <i>Gear Selector Dial</i> on page 62.	

**⚠️ WARNING**

**Improper shifting could cause the vehicle to move in an unexpected direction.**

## 5.2 Seat Belts

Seat belts are one of the most important safety devices for drivers and passengers. Remember to use a seat belt and fasten it before driving.

**⚠️ WARNING**

**Occupancy should never exceed the number of seat belts present.**

**Incorrect use of the seat belt may lead to severe injuries in the event of an accident.**

**Each seat belt can only be used for one person, and should never be used to secure more than one person at a time.**

**Seat belts should not have contact with fragile items, such as pens and glasses in clothes pockets. Otherwise, the user may be injured.**

**Do not change or tamper with any component of the seat belt device.**

**While driving, do not adjust the seat when the seat belt is fastened.**

**Pregnant women should position the seat belt below their abdomen such that the shoulder strap only crosses the center of their chest. Pregnant women and others with special medical conditions should consult their doctor with any driving concerns.**

### 5.2.1 Fastening the Seat Belt

Follow these steps to correctly use a seat belt:

1. First, adjust the seat to a comfortable and safe driving position. The adjustment range of the backrest in normal use is between 95 and 120 degrees.
2. Slightly pull out the latch plate from the withdrawal device, and do not twist the seat belt as you position it across your chest.
3. If the seat belt locks while pulling it out, release the belt and let it retract. After the belt retracts, pull it out to the required length.
4. Position the shoulder belt over your shoulder and the lap belt across your pelvis.

5. Insert the latch plate into the buckle until a click sound is heard. See figure 12.
6. Pull the seat belt quickly to check whether the seat belt retractor locking function is working correctly. The portion of the seat belt that crosses over the driver's lap should resist pulling.



**Figure 12: Insert the latch plate into the buckle.**

A click indicates the seat belt is securely fastened.

### 5.2.2 Unfastening the Seat Belt

Press the red buckle button to unfasten the belt. See figure 13. Once released from the buckle, the belt will withdraw automatically.



**Figure 13: Press the red button to unfasten the belt.**

### 5.2.3 Seat Belt Pretensioners

Seat belt pretensioners are the protective devices that pull a seat belt tight during a serious vehicle collision. Pretensioners reduce the distance that drivers and passengers are thrown forward. The instant a collision occurs, the pretensioners tighten the seat belts to restrain occupants and reduce injury.



**Figure 14: Seatbelt pretensioners help reduce injury.**

If the vehicle is involved in a crash and pretensioners and airbags deploy, the airbag indicator will light up on the instrument panel. If you see this indicator light, have the vehicle serviced. See [Contact Us](#) on page 4 to arrange for service.



### 5.2.4 Seat Belt Reminder Warning

The seat belt warning will activate if the driver or passenger (if occupied) seat belt is not fastened when the vehicle is powered on. The seat belt warning light will stay on and a warning chime will sound until the driver's and passenger's



(if applicable) seat belts are fastened.

### NOTICE

**Placing heavy objects in the passenger's seat (if equipped) may inadvertently activate the seat belt reminder for the passenger's seat.**

#### 5.2.5 Proper Use and Maintenance of Seat Belts

Keep the seat belt clean and dry. Avoid soiling the seat belt with food, drinks, oils, and chemicals. Neutral liquid soap can be used to carefully clean the seat belt.

Make sure that the seat belt is not damaged by sharp objects. Inspect the seat belt regularly for signs of damage, including fraying, and replace damaged components.



**Figure 15: Replace worn, cut, or frayed belts.**

### WARNING

**Regularly check all seat belt components and replace the seat belt assembly if any component is damaged.**

### WARNING

**If a seat belt is torn, worn, or otherwise damaged, it may not be able to restrain forward motion during a car accident, and the impact force may break the belt. IMMEDIATELY REPLACE A DAMAGED SEAT BELT WITH A NEW ONE.**

### WARNING

**Replace seat belts after an accident, even if they do not appear damaged. The force of an impact weakens seat belts, and they cannot be reliably reused for safety.**

#### 5.3 Head Restraints

Front seats are equipped with adjustable head restraints. Head restraints should meet the center of the back of the head. Head restraints that meet the back of the neck are too low and head restraints that meet the top of the head are too high. Ensure head restraints are in the proper position for all occupants before operating the vehicle.

An energy absorbing pad (1) is supported by two steel stems (2). Each stem fits into a guide sleeve (3) in the top of the seat. One stem has notches and a lock (4) that allow the head restraint to be locked at the appropriate height for the occupant. The notched stem also prevents the head restraint from unintended removal.



**Figure 16: Front seats are equipped with adjustable head restraint.**

### 5.3.1 Adjusting Head Restraints

The head restraint should be adjusted so the top of it is level with the top of the user's head and comfortable.

To adjust the head restraint:

1. Lift to raise the head restraint so the top of the restraint is even with the top of your head.
2. To lower the head restraint, apply downward force while pressing the lock button. See figure 17.



**Figure 17: Pressing the lock button allows lowering, or removal, of the head restraint.**

### 5.3.2 Removing Head Restraints

To remove the head restraint:

While pressing the button, lift the head restraint until it is free of the guides.

#### **CAUTION**

**If a head restraint is removed, it must be reinstalled to properly protect occupants.**

### 5.3.3 Reinstalling Head Restraints

To reinstall the head restraint:

1. Place the two head restraint guide rods in the guide channels in the top of the backrest.
2. Slide the head restraint downward until the head restraint engages the first notch. Typically you will hear an audible click.
3. To verify engagement, lift the head restraint to the highest level and confirm the head restraint cannot be removed.

#### **⚠️ WARNING**

**To minimize the risk of neck injury, never operate or ride in a vehicle before placing your head restraint in the proper position.**

### 5.4 Supplementary Restraints

Refer to the VIN on the dashboard to determine seating capacity. The eighth character identifies how the restraints are configured, which determines occupancy. For the Mullen ONE, there are currently two options: one-seat with a mobile office and the two-seat option.

An example VIN, with the eighth characters highlighted, follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
7	T	Z	1	1	1	C	1	6	R	R	0	0	0	0	0	1

The following key illustrates Mullen ONE configuration options.

**Table 1: Example VIN**

<b>Eighth VIN Character</b>	<b>Vehicle Type</b>	<b>Maximum Seating</b>
1	Mullen ONE with Mobile Office	1
2	Mullen ONE Two-seat	2

#### 5.4.1 Airbags

To supplement seat belts, Mullen ONE vehicles are equipped with frontal airbags, inflatable curtain airbags, and side (thorax) airbags for the driver (all models) and front seat passenger (two seat models only).

Frontal airbags are supplemental to seat belts, not a replacement for them. Airbags and seat belts work together to help reduce injuries during collisions.

**⚠️ WARNING**

**Airbags are not intended to be a substitute for seat belts. Always wear your seat belt when the car is in motion, even when vehicles have airbags.**

**NOTICE**

**Contact Mullen for questions regarding modifications for persons with disabilities that may affect the advanced air bag system.**

**All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening.**

**For frontal airbags, the word AIRBAG is on the center of the steering wheel for the driver and on the instrument panel for the front passenger (if equipped).**

**For thorax side airbags, the word AIRBAG is on the side of the seatback closest to the door.**

**For side curtain airbags, the word AIRBAG is on the ceiling or trim.**

**Airbags are designed to supplement the protection provided by seat belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.**

#### 5.4.2 Airbag Operation

Airbags deploy during any sudden event, such as a collision or roll-over, to instantly provide an air-filled cushion to protect the head and upper body. Airbags help prevent or reduce, forceful contact with the vehicle interior and possible ejection from the vehicle.

**⚠️ WARNING**

**Do not attach or place objects in front of any airbag. Objects attached to or placed on the covers marked "AIRBAG" may cause serious injury by interfering with the airbag's proper operation and being propelled inside the vehicle.**

#### 5.4.3 Driver Airbag

The driver's airbag is stored in the center of the steering wheel. The horn pad cover is embossed with "AIRBAG" in vehicles equipped with a driver airbag.

The driver dual stage airbag has a varying delay between the first and second stage, based on crash severity. The inflatable curtain airbag is standard on both driver and passenger sides of the vehicle. The seat belt anchor pretensioner actuates on impact to remove slack from the seat belt.

#### 5.4.4 Front Passenger Airbag (if equipped)

The airbag for the front passenger is stored in the dashboard. The location of the airbag is embossed with “AIRBAG” on the dashboard in vehicles that have a front passenger airbag.

The passenger seat is equipped with a dual stage airbag. The delay between the first and second stages is based on crash severity. A sensor, in the seat, determines if the passenger seat is empty, occupied by an adult, or occupied by a small occupant or a child seat. The passenger airbag will deactivate if a small child or infant seat is sensed in the passenger seat.

#### WARNING

**Children 12 years or under should not ride in the front passenger seat. If a child under 12 does sit in the passenger seat, please note that the sensors will deactivate the airbag if sensors detect the occupant is approximately 65 lbs (29 kg) or less. For more information on children as passengers, see 5.5 [Child Safety](#) on page 33.**

#### 5.4.5 Side Curtain Airbags

Side curtain airbags are designed to protect heads during a side impact and to reduce the chance of occupant ejection during a rollover. The bags are stored above the door pillars and will deploy in a side impact and stay in place and continue to protect the head should the car roll over. Vehicles equipped with side curtain airbags feature door pillar trim pieces with the word “AIRBAG” embossed near the top of the B pillar trim. Passenger side airbags are equipped in two-seat models only.

#### WARNING

**Do not use ropes or straps through windows to secure objects to the roof. The straps or ropes will interfere with proper operation of the side curtain airbags. In the event of a side impact or rollover, the driver and passenger will not have head protection and will risk ejection from the vehicle.**

#### 5.4.6 Thorax Side Airbags

Mullen ONE vehicles are equipped with thorax side airbags to supplement protection in addition to the side curtain airbags for side impact events. The thorax side airbags are integrated into the on-board driver's and passenger's (if equipped) seat. When deployed, the thorax side airbags provide protection for the occupant's chest during a side impact crash.

### 5.4.7 Crash Sensors and Airbag Indicator

Electronic sensors detect rapid deceleration, which indicates that a crash has occurred. These sensors trigger airbags and seat belt pretensioners to deploy. Once the supplemental restraints deploy, the instrument panel airbag indicator light turns on.

### 5.4.8 Airbag Disposal

An airbag is no longer functional after it deploys. A qualified technician must replace it. Do not attempt to service airbags yourself. Airbags contain explosive charges that could cause injury if mishandled or disposed of incorrectly.

#### DANGER

**Airbag servicing may cause injury, and must be completed by a qualified technician.**

### 5.5 Child Safety

#### NOTICE

**Mullen builds vehicles custom designed for commercial use. We strongly advise against allowing children under 12 to ride in any position of the vehicle.**

NHTSA recommends that all children ages 12 and under be restrained in a rear seat. Some states have laws restricting where children may ride.

Any child too small for a seat belt should be properly restrained in a child seat. A larger child should be properly restrained with a seat belt, using a booster seat if necessary.

Child restraint systems are designed to be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt.

Children could be injured in a crash if their child restraints are not properly secured in the vehicle.

When using a child seat, follow the child seat manufacturer's instructions for proper use and position. Use the seat belt to secure the child seat in place.

1. Slowly pull the shoulder part of the belt all the way out until it stops. This activates the lockable retractor.
2. Let the seat belt retract a few inches and check that the retractor has switched modes by pulling on the seat belt. It should not pull out again until it is reset by removing the latch plate from the buckle. If you are able to pull the shoulder belt out, the lockable retractor is not activated. Slowly pull the seat belt all the way out, and repeat steps 1-2.

3. Insert the latch plate into the buckle until a click sound is heard.
4. Pull back on the latch to ensure the buckle is locked.

For additional information related to airbag warning see [Airbag Warning](#) on page 42

** DANGER**

**Placing a rear-facing child seat in the front seat can result in serious injury or death during a crash.**

** WARNING**

**Rear-facing child seats should never be installed in a forward-facing position.**

** WARNING**

**Placing a forward-facing child seat in the front seat can be hazardous, even with advanced front airbags that automatically turn the passenger's front airbag off. If you must place a forward-facing child seat in front, move the vehicle seat as far back as possible, and properly restrain the child.**

## 5.6 Tires

The tires supplied by the manufacturer are chosen specifically for your vehicle to optimize comfort, safety, and handling. Inspect tires regularly for damage, tread wear and inflation. Replace or inflate tires as needed to ensure proper operation of the vehicle.

** WARNING**

**Only use replacement tires and wheels that are the same size, load index, speed rating and type as those originally provided by Mullen. The recommended tire and wheel size may be found on the Tire Label located on the driver's door frame. Use of any tire or wheel not recommended by Mullen can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury, and death.**

For information about replacement tires, please see [Contact Us](#) on page 4

### 5.6.1 Tire Pressure Monitoring System (TPMS)

As an added safety feature, your vehicle is equipped with a TPMS that activates a low tire pressure indicator light when one or more of your tires is significantly underinflated. If the low tire pressure indicator light turns on, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving

on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Underinflation also reduces efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

The TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if underinflation is not low enough to activate the low tire pressure indicator.

The TPMS low tire pressure indicator is also used to indicate a malfunction in the TPMS.

When the TPMS is malfunctioning, the system will not detect, or signal, low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of new or alternate tires or wheels that prevent the TPMS from functioning properly. Always check the TPMS low tire pressure indicator after replacing one or more tires or wheels on your vehicle to ensure that the TPMS continues to function properly.

When the TPMS indicator is on, check the air pressure in all four tires. If the tire pressure in all four tires is normal, this could be an indication that the TPMS component is malfunctioning. See [Contact Us](#) on page 4 to have the TPMS checked.

## FCC Information

See [FCC Statement](#) on page 21.

### 5.6.2 Tire Air Pressure

Check tire pressure at least twice per month. Conduct checks prior to driving, while tires are cool. Check the spare tire at the same time. Tires should be maintained at the inflation pressure recommended by the vehicle manufacturer, which is provided on the vehicle placard or tire inflation pressure label. See 5.6.3 [Tire and Loading Information](#) on page 36.

Maintain the spare tire pressure at the higher pressure used for the rear tires. In the event the spare tire is used on the front axle, release air from the spare to reduce the excess tire air pressure accordingly.



**Figure 18: The tire pressure placard is located in the driver's door frame.**

**⚠ WARNING**

**Excessive tire wear can cause a tire to fail if the tire pressure is too low or too high.**

**Table 2: Recommended Tire Air Pressure**

<b>Front wheel (full load)</b>	44 psi (303 k Pa)
<b>Rear wheel (full load)</b>	54 psi (372 k Pa)
<b>Spare (full size)</b>	54 psi (372 k Pa)

### 5.6.3 Tire and Loading Information


**TIRE AND LOADING INFORMATION**

SEATING CAPACITY	TOTAL	1	FRONT	1	REAR	0
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AGIC-002X-AE

**THE COMBINED WEIGHT OF THE OCCUPANTS AND CARGO SHOULD NEVER EXCEED 763 KG OR 1683 LBS.**

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	175/70 R14C 95	44 PSI / 303 kPa
REAR	175/70 R14C 95	54 PSI / 372 kPa
SPARE	175/70 R14C 95	54 PSI / 372 kPa

**SEE OWNER'S  
MANUAL FOR  
ADDITIONAL  
INFORMATION**

**Figure 19: Tire and Loading Information**

The tire and loading information label identifies seating capacity, tire size dimensions, and tire pressure. See figure 19. The label is found on the driver's door frame.

**NOTICE**

**Always readjust air pressure after tire rotation.**

### 5.6.4 Tire Identification Number (TIN)

Information about your tire can be found molded into the tire sidewall. The example below shows typical markings for a passenger tire.

## Tire Markings



**Figure 20: Example of Tire Markings**

On the side of your tire will be the following information:

1. **Maximum Load Rating:** Indicates the maximum load in kilograms and pounds that can be carried by the tire.
2. **Treadwear & Traction Grade:** See [Treadwear](#) on page 38 and [Traction](#) on page 38.
3. **Maximum Permissible Inflation Pressure:** Indicates the tire manufacturer's maximum permissible pressure or the

pressure at which the maximum load can be carried by the tire.

4. Temperature Grade: See [5.6.5.3 Temperature](#) on page 39.
5. **US DOT TIN:** This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, 0123 means the 1st week of 2023. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.
6. **P (Passenger) or LT (Light Truck) Size Designation:** Indicates a tire, designated by the Tire and Rim Association, that may be used for service on cars, and sport utility vehicles.
7. **Nominal Width:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge.
8. **Aspect Ratio:** Provides the tire's ratio of height to width.
9. **Radial:** Indicates this is a radial type of tire.
10. **Rim Diameter Code:** Indicates the wheel or rim diameter in inches.

11. **Tire Ply Composition & Materials Used:** manufacturers also must indicate the ply materials in the tire and the sidewall, which include steel, nylon, polyester, and others.
12. **Load Index/Speed Symbol:** The load index is an index that relates to how much weight a tire can carry. The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time under a standard condition of load and inflation pressure. For example a tire with a speed capacity of 118 mph (190 km/h).
13. **Road Conditions Rating: M+S or M/S** means Mud and Snow, **AT** means All Terrain, and **AS** means All Season.

### 5.6.5 Tire Warranty

The tire warranty is located in the Vehicle Warranty Booklet.

### 5.6.6 Uniform Tire Quality Grades

Federal regulations require the following information be provided:

Tire quality grades apply to new pneumatic passenger car tires. The quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example: Treadwear 200 Traction AA Temperature A.

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

#### 5.6.6.1 Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics, and climate.

#### 5.6.6.2 Traction



**The traction grade assigned to this tire is based on straight ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.**

The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government

test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

### 5.6.6.3 Temperature

#### **⚠️ WARNING**

**The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.**

The temperature grades are A (the highest, B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades A and B represent higher levels of performance on the laboratory test wheel than the minimum required by law.

### 5.6.6.4 Vehicle Loading Capacity

The maximum load capacity, the Gross Vehicle Weight Rating (GVWR) of the vehicle is the maximum total mass of the vehicle allowed, including cargo and passengers. Do not overload the vehicle. Consider driver and passenger weight in addition to cargo weight. Refer to the following table.

**Table 3: Mullen ONE Vehicle Weight Limits by Model**

	Mobile Office	2 Seats
<b>Max Payload Rated Load Mass</b>	1,683 lbs (773 kg)	2,100 lbs (953 kg)
<b>Curb Weight</b>	3,198 lbs (1,451 kg)	3,198 lbs (1,451 kg)
<b>GVWR Max. Total Mass</b>	4,881 lbs (2,226 kg)	5,298 lbs (2,406 kg)

#### **⚠️ WARNING**

**Exceeding the maximum weight capacity of the vehicle may cause injury to vehicle occupants or void the warranty.**

## 5.7 Precautions for Loading Goods

The following precautions should be taken when loading goods:

- Stow goods so they are stable and will not shake or slide when the vehicle moves.
- When loading, stack goods in the forward area of the cargo space.
- Do not overload the vehicle. Consult the weight chart in See 5.6.4 [Tire Warranty](#) on page 38.

## 5.8 Other Important Systems

### 5.8.1 Anti-Lock Braking System (ABS)

This vehicle uses an electric vacuum pump to assist the hydraulic braking system. If a braking system component fails, the ABS light will illuminate, and the code “107” will appear on the instrument panel to notify the driver that additional pressure is required on the brake pedal to stop the vehicle. Avoid driving the vehicle and have it serviced immediately. Please see [Contact Us](#) on page 4 for service information.

### 5.8.2 Electric Power Steering System (EPS)

The vehicle is equipped with an EPS device, which helps the steering action be light and smooth. When you start the vehicle, the power steering function is automatically activated.

If the power steering indicator light remains on after starting the vehicle, the electric power steering system has a fault. Avoid driving the vehicle and have it serviced immediately. Please see [Contact Us](#) on page 4 for service information.

## 5.9 Vehicle Modifications

The customer or their third-party vehicle modifier are solely responsible for any modifications to the vehicle, including without exception:

- Ensuring the vehicle complies with all federal, state, and local standards and regulations that may be affected by the modification.
- Ensuring the modified vehicle still meets the vehicle safety standards and emissions laws and regulations.
- Ensuring that the modification does not impair the safety of the vehicle.

Mullen is not responsible for the final inspection, product liability or warranty claims resulting from modification.

## 5.10 Vehicle Safety Labels

Safety labels provide drivers and passengers essential safety information pertaining to the vehicle. Follow instructions of all product labels and do not remove.

### 5.10.1 Refrigerant Warning Label

The air conditioning system relies on refrigerant that requires special handling equipment and techniques. Any service must be performed by a qualified technician. The label is found on the underside of the front hood. See figure 21.



**Figure 21: Refrigerant warning**

### 5.10.2 Mobile Office Console Warning

The mobile office console is not a seat. This label is positioned so it is visible when the front door on the curb side of the vehicle is open. See figure 22.



**Figure 22: Mobile office console warning**

### 5.10.3 Airbag Warning

Airbag warning labels alert front seat passengers to the presence of the airbag. The labels are attached to the sun visors.



**Figure 23: Airbag warning label**

### 5.10.4 First Responder Label

Emergency response information is available by using the QR code. This label is located inside the charging port door and inside the glove compartment. See figure 24.



**Figure 24: Emergency response information is accessible by using the QR code.**

## 6 Features and Controls

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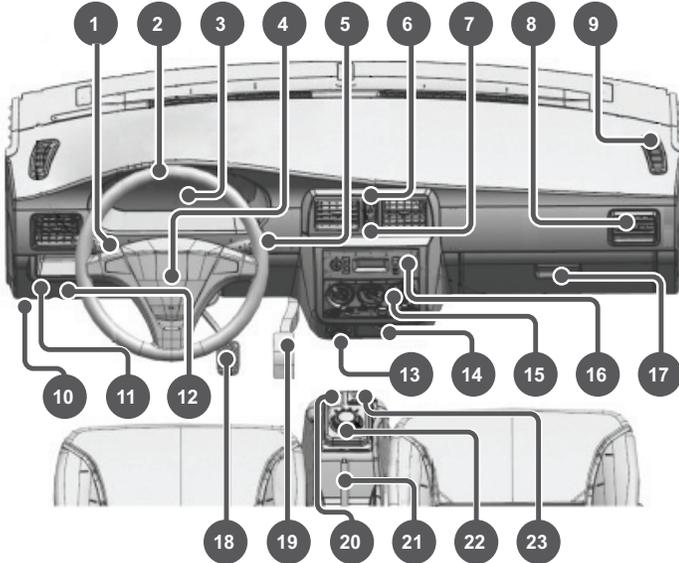
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## 6.1 Driver Controls Overview



- |           |   |           |  |
|-----------|---|-----------|--|
| <b>1</b>  | <b>Headlamp Switch</b>  | <b>12</b> | <b>Instrument Panel Dimmer</b>                                   |
| <b>2</b>  | <b>Steering Wheel</b>   | <b>13</b> | <b>12-Volt Accessory Outlet</b>                                  |
| <b>3</b>  | <b>Instrument Panel</b>                                       | <b>14</b> | <b>Coin Tray</b>   |
| <b>4</b>  | <b>Horn Pad</b>   | <b>15</b> | <b>Heating/Ventilation/Air Conditioning (HVAC) Control Panel</b> |
| <b>5</b>  | <b>Windshield Wiper and Washer Switch</b>                     | <b>16</b> | <b>Audio System Controls</b>                                     |
| <b>6</b>  | <b>Emergency Flasher Switch</b>                               | <b>17</b> | <b>Glove Compartment</b>   |
| <b>7</b>  | <b>Unused</b>   | <b>18</b> | <b>Brake Pedal</b>   |
| <b>8</b>  | <b>Heating/Ventilation/Air Conditioning (HVAC) Side Vents</b> | <b>19</b> | <b>Accelerator Pedal</b>   |
| <b>9</b>  | <b>Side Window Defroster Vents</b>                            | <b>20</b> | <b>Cargo Area Light Switch</b>                                   |
| <b>10</b> | <b>Charging Port Door Release</b>                             | <b>21</b> | <b>Parking Brake</b>   |
| <b>11</b> | <b>Hood Release</b>   | <b>22</b> | <b>Gear Selector Dial</b>  |
|           |   | <b>23</b> | <b>USB Port</b>  |

### 6.1.1 Charging Port Door Release

Pull the handle to open the charging port door. See figure 25.



**Figure 25: Charging port door release**

### 6.1.2 Ignition

**LOCK:** The key can only be removed when it is in the LOCK position.

The steering column locks when the key is removed.

Unlock the steering column by inserting the key and turning it clockwise to the ACC (accessory) or ON position. If it is difficult to turn the key, rotate the steering wheel slightly left and right while trying to turn the key.



**Figure 26: The ignition has four positions--LOCK, ACC, ON, and START.**

**ACC:** When the key is turned to the ACC position, accessories such as wipers, radio, and the USB port will be powered on, but no power will be supplied to the drive train.

**ON:** When the key is turned to the ON position, power is supplied to all vehicle devices. The motor remains in stand-by for starting.

**START:** With the gear selector in Neutral (N), and parking brake engaged, turn the key to the START position for 5 seconds. When the instrument panel displays "Ready," release the key, and it will return to the ON position, starting the vehicle.

### **CAUTION**

**Do not turn the vehicle off while the vehicle is moving, or the steering column will lock, creating a hazardous situation.**

### 6.1.3 Steering Column Controls

**Headlamp Control:** Turn the knob at the end of the left lever on the steering column to control the lights. See figure 27. There are three control positions, described below.



**Figure 27: Turn the knob to control the lights.**

**NOTICE**

**Headlamps do not automatically shut off when the vehicle is turned off. The headlamp switch must be manually switched to the OFF position to shut off the headlamps.**

**If the headlamps are left on when the key is removed from the ignition, the running light indicator will remain on as a signal that the headlamps are on.**

**OFF:** All lights turn off. See figure 28.



**Figure 28: The lights are in the off position.**

**Running Lights:** Running lights turn on including parking lights, tail lights, license plate light and instrument panel lights. See figure 29.



**Figure 29: The lights are in the running lights position.**

**ON:** Headlamps (low beam lamps) turn on along with all running lights and all other lights listed above. See figure 30.



**Figure 30: The lights are in the on position.**

**High Beams:** With the low beam headlamps on, push the left control lever forward until the high beam lights turn on along with the high beam indicator light on the instrument panel. See figure 31. To turn the high beam headlamps off, pull the left control lever back.



**Figure 31:** Push the lever forward to turn on high beams.

**Flash High Beams:** To momentarily flash the high beam headlamps, pull the left control lever and release it quickly. See figure 32.



**Figure 32:** Pull the lever back and release to flash high beams.

**Turn Signals:** Lift the left control lever upwards to engage the right turn signals, front and rear. See figure 33. The green right-turn indicator arrow on the instrument panel will flash.



**Figure 33:** Move the lever up or down to activate turn indicators.

Push the control lever downwards to engage the left turn signals, front and rear. The green left-turn indicator arrow in the instrument panel will flash.

The flash feature and turn signals can be used at the same time.

**Windshield Wiper Switch:**

With the ignition switch in the ACC or ON position, push the right control lever upward to set the speed of the windshield wipers: INT (intermittent), LO (low), or HI (high). When the wiper switch is turned to the OFF position, the wiper blade arms will return to their normal position at the base of the windshield. See figure 34.



**Figure 34:** The right-hand lever controls the windshield wipers.

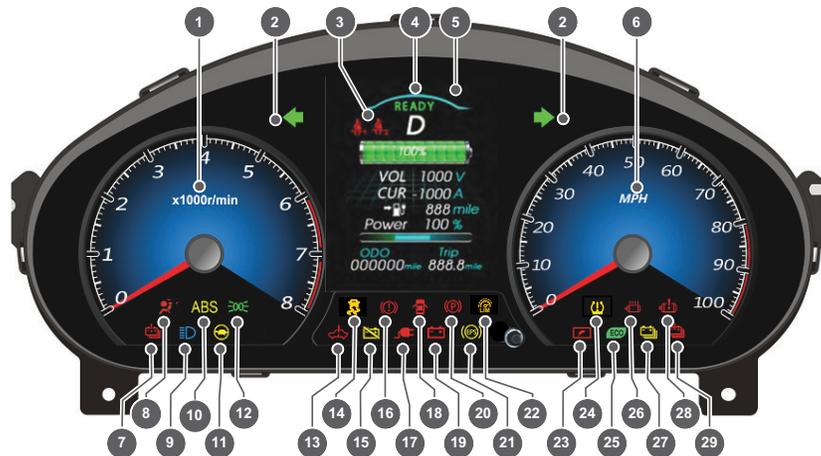
**Windshield Washer Switch:**

With the ignition switch in the ACC or ON position, pull the right control lever to spray washer fluid on the front windshield as the wipers cycle to clean the windshield. See figure 35. Release the right control lever, and the wipers will continue to cycle a few times to eliminate any residual cleaning fluid.



**Figure 35:** Pull the lever back to spray washer fluid.

## 6.2 Instrument Panel Indicators



- |   |  |
|---|--|
| 1 Motor Tachometer                        | 17 Charging Indicator                              |
| 2 Left/Right Turn Signal Indicator        | 18 Door Ajar Indicator                             |
| 3 Driver/Passenger Seat Belts             | 19 12-Volt Disconnect                              |
| 4 Ready Indicator                         | 20 Parking Brake Indicator                         |
| 5 Regen Indicator                         | 21 EPS Malfunction Indicator                       |
| 6 Speedometer                             | 22 Speed Limiter Indicator                         |
| 7 High Voltage Battery Fault              | 23 High Voltage Battery Insulation Fault Indicator |
| 8 Airbag Malfunction Indicator            | 24 Tire Pressure Monitoring System                 |
| 9 High Beam Indicator                     | 25 Eco-Sport Mode Indicator                        |
| 10 ABS Indicator                          | 26 Motor/Electronic Controller Fault               |
| 11 Driving Power Limit Indicator          | 27 DC-DC Fault Indicator                           |
| 12 Running Lamp Indicator                 | 28 Motor Fault Indicator                           |
| 13 Vehicle Disabled Indicator             | 29 Abnormal High Voltage Battery Temperature       |
| 14 Electronic Stability Control Indicator |  |
| 15 High Voltage Battery Disconnect        |  |
| 16 Brake Malfunction Indicator            |  |

### Instrument Panel Dimmer Switch

The instrument panel dimmer switch controls the illumination of controls and switches. The dimmer switch is located by the driver's left knee. Roll the dial upward to increase lighting, for daytime driving. Roll the dial downward to reduce the brightness for driving at night. See figure 36.



**Figure 36:**  
*Instrument panel dimmer*

### Motor Tachometer

The rotation of the motor is measured in units of 1000 revolutions per minute (RPM) and displayed on the tachometer. See figure 37.

#### NOTICE

**The red area on the tachometer represents extremely high RPM, which is dangerous to the vehicle.**



**Figure 37:** *Motor tachometer*

### Speedometer

The speedometer shows the speed of the vehicle in miles per hour (MPH) units. See figure 38.



**Figure 38:** *Speedometer*

## Home Screen and Odometer Display

### 1 Ready Indicator

Ready indicates the vehicle is ready to drive. Regen indicates the vehicle is in a regenerative mode and is charging the high voltage battery.

### 2 Gear Indicator

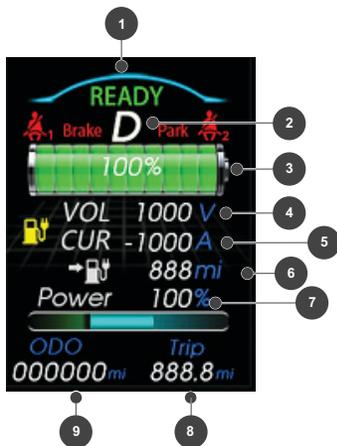
Indicates the selected gear (Reverse, Neutral, Drive, Eco-Sport).

### 3 State Of Charge Indicator

Displays the high voltage battery SOC: 100% indicates a full charge state. An SOC of 20% indicates a nearly empty state and the vehicle should be charged.

### 4 High Voltage Level Indicator

Displays the voltage level of the high voltage battery.



**Figure 39: Home Screen and Odometer Display**

In the event of a failure, this multipurpose display will show an error code such as Err – XXX. The error code display (if any) will alternate with the power display. See 9.2.1 [Diagnostic Trouble Codes](#) on page 96

### 5 Electrical Current Consumption

Indicates the total current of the high voltage battery. Negative values indicate the vehicle is consuming battery power. Positive values indicate the battery is being charged.

### 6 Predicted Range

Provides a predicted range based on the current state of charge and the current flow.

### 7 High Voltage Reserve

During standard operation the display will show the amount of power the vehicle has in reserve (at 0 mph, the display will show 0%).

### 8 Trip Odometer

Displays the trip odometer. Press and hold the mode button to reset the trip odometer to zero.

### 9 Total Mileage Odometer

Displays the total mileage the vehicle has been driven.

## Mode Button

The mode button is located to the left of the speedometer. Press briefly to cycle between total mileage and trip odometer. Press and hold to clear the trip odometer mileage.



Mode Button

### 6.2.1 Instrument Panel Indicators

Instrument panel indicators are described below and are arranged by color (red, yellow, green, blue).

#### 6.2.1.1 Red Indicators

##### Seat Belt Indicator

When the ignition switch is in the ON position, the seat belt indicator will display until seat belts for occupied seats are fastened.



##### Door Open Indicator

The door open indicator illuminates when any door is not fully closed (including the lift gate). When all the doors are fully closed, the indicator light goes out.



## **WARNING**

**It is dangerous to drive the vehicle with the doors or lift gate open or not fully closed. Secure the lift gate and all doors prior to driving the vehicle.**

### Parking Brake Indicator

The parking brake indicator will display when the parking brake is engaged.



### Brake System Fault

The brake system fault indicator signals that the brake fluid level is low. If the light comes on, confirm that it remains lit when the vehicle is on level ground. If so, add DOT 4 Brake Fluid to the brake fluid reservoir, while observing the minimum and maximum fluid level lines (labeled 'Max' and 'Min'). If the brake system fault indicator remains on after adding brake fluid, seek service immediately. Please see [Contact Us](#) on page 4 for service information.



### Charging Indicator

The charging indicator, when lit, shows the high voltage battery is charging.



### System Fault Indicator

The system fault indicator signals that the vehicle is



experiencing system distress and should be stopped as soon as it is safe to do so. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.

### Abnormal Battery Temperature

When the temperature of the battery exceeds 140°F (60°C), the abnormal battery temperature indicator will light. Allow the battery to cool until the temperature is normal. Arrange for battery testing or replacement as needed.



### DC-DC Fault Indicator

There is a DC-to-DC converter fault when the DC-DC indicator lights. The system should be inspected and repaired.



### High Voltage Battery Fault Indicator

The battery system requires inspection and repair when the high voltage battery fault indicator displays.



### High Voltage Battery Insulation Fault Indicator

The high voltage battery insulation fault indicator lights when the battery's insulation capability is reduced. This can be caused by excessive moisture. Allow the battery to dry and check it again. Battery replacement may be necessary.



### Motor Fault

When illuminated, this indicator means the motor is not operating properly. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



### Motor/Electronic Control Fault Indicator

The motor/electronic control fault indicator illuminates when the electronic control module requires attention. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



### Airbag Indicator

When the ignition switch is turned to the ON position, the airbag indicator will display momentarily. The indicator will also light if an airbag or pretensioner is deployed.



### 6.2.1.2 Yellow Indicators

#### High Voltage Battery Disconnect

Disruptions to battery connections will cause the high voltage battery cut indicator to light, requiring inspection and repair of the battery connections. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



#### Electronic Power Steering (EPS) Malfunction Indicator

When the ignition is turned ON, the indicator light comes on for a few seconds. If the light does not go out after starting, or illuminates while driving, the EPS requires attention.



#### WARNING

**Do not drive the vehicle if the EPS warning light is illuminated.**



#### ABS Indicator

ABS functionality is provided by the Electronic Stability Control module. If the ABS System is active while driving, the ABS will illuminate. If the ABS System light illuminates and does not go out, the system requires attention. Avoid driving the

vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.

When the ABS is active, expect to feel vibrations through the brake pedal and to hear sounds from the ABS cycling. This is normal. Continue braking consistently. Do not pump the brakes.

#### Driving Power Limit Indicator

The driving power limit indicator will illuminate if the vehicle has a secondary fault. The vehicle needs attention in this event, but it is drivable in what is sometimes called “limp-home-mode” where the power is limited and the speed is reduced. Once you have “limped home”, or to a similar safe location, avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



#### Speed Limiter Indicator

The Speed Limit Indicator is a warning to drivers that they are exceeding the vehicle's speed limit settings. The warning light should go off when the driver slows down. Seek service if the light remains light after slowing the vehicle down. See [Contact Us](#) on page 4 for service information.



### Electronic Stability Control (ESC) Indicator

When the ignition switch is turned ON, the indicator light comes on for a few seconds. If the light does not go out after starting, or comes on while driving, the ESC requires attention or the ESC System is active. Please see Contact Us on page 4 for service information.



### Tire Pressure Monitoring System (TPMS) Indicator

When the ignition switch is turned ON, the indicator light comes on for a few seconds. If the light does not go out after starting, or comes on while driving, the TPMS is letting you know a tire is under inflated or there is a problem with the TPMS system.



#### 6.2.1.3 Green Indicators

##### Ready Indicator

When the vehicle starts normally and passes its internal self-test, the ready indicator activates, indicating the vehicle is ready to drive.

READY

##### Left/Right Turn Signal Indicators

When the left or right turn signal is engaged, the corresponding indicator flashes. Both arrows flash when the Emergency Flasher Switch is engaged.



### Eco-Sport

The vehicle is running in Eco-Sport mode when the Eco-Sport mode indicator is active. For more information see [Eco-Sport Mode](#) on page 12.



### Running Lamps Indicator

This running lamps indicator signals that the running lamps (position/parking lights) are on.



#### 6.2.1.4 Blue Indicators

##### High Beam Indicator

The high-beam indicator displays when the high beam headlamps are on, or when the flash high beam function is being used.



### 6.3 Instrument Cluster Screen Functions

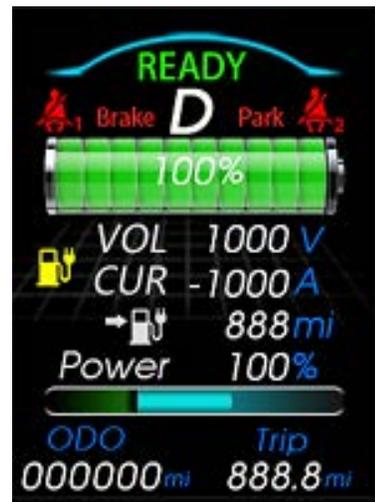


**Figure 40: Mullen ONE startup screen**

The startup screen will appear when starting the vehicle. Press the mode button to access different menu options: date, time, and brightness, and TPMS. The mode button responds differently depending on how long the button is held down. Use the short press to move to the next screen or to the next field. To short press, press the button and immediately let go. The long press is used to edit fields on various screens. To long press, press and hold the mode button for a few seconds.

#### 6.3.1 Home Screen

The home screen provides “State of Charge” information about the battery.



**Figure 41: Home Screen (State of Charge)**

### 6.3.2 Date

Use the date screen to view or set the current date.

1. Go to the date screen by pressing the mode button.
2. Long press the mode button to edit the year.
3. Increase the year value by pressing the mode button repeatedly. Each short press advances by one year. Valid years are from 2021 to 2099.
4. After setting the year to the desired value, long press to edit the month.
5. Follow same procedure to set month, ranging from 1 to 12.
6. After the month is set, edit the date from 1 to 31.
7. Long press to accept the date.



**Figure 42: Date screen**

### 6.3.3 Time

Use the time screen to view or set the current time.

1. Go to the time screen by repeatedly pressing the mode button.
2. Long press the mode button to edit the hour.
3. Increase the hour value by pressing the mode button repeatedly. Each short press advances by one hour. Valid hours are from 0 to 23.
4. After setting the hour to the desired value, long press to edit minutes.
5. Follow same procedure to set minutes, ranging from 0 to 59.
6. After the minute field is set, long press to accept the time.



**Figure 43: Time screen**

### 6.3.4 Brightness

The brightness screen allows the operator to change the brightness of the instrument cluster.



**Figure 44: Brightness screen**

### 6.3.5 Tire Pressure Monitoring System (TPMS)

The TPMS screen displays the inflation status of the tires. Always maintain proper tire inflations. See 5.6.3 [Tire and Loading Information](#) on page 36 for more information regarding correct tire pressure.



**Figure 45: Tire Pressure Display**

### 6.4 Lighting System

The Lighting System includes exterior lights, such as: headlamps, reverse lights, brake lights, turn signals, and emergency flashers. Interior lights include a dome light, for the driver and passenger, and cargo area light.

### 6.4.1 Emergency Flasher Switch

Pressing the emergency flasher switch, see figure 46, will cause the exterior turn signal lights to flash as hazard warning lights, indicating an emergency or hazardous condition. Press the switch again to turn the emergency flasher lights off. When the key is in the LOCK position, the emergency flasher lights are still available.



**Figure 46: Emergency flasher switch**

and will need to be readjusted by a qualified technician. See [Contact Us](#) on page 4 for service information.

### 6.4.4 Reverse Lights

Reverse lights, or “backup lights,” are used to warn others that the vehicle is about to move backwards. Reverse lights also provide illumination behind the vehicle when it is backing up in the dark.

### 6.4.5 Brake Lights

Brake lights illuminate when the brake pedal is pressed.

#### NOTICE

**Avoid unnecessary use of the emergency flasher lights to conserve the battery charge.**

### 6.4.2 Headlamps

The vehicle is equipped with two multi-beam forward headlamps.

### 6.4.3 Aiming Headlamps

Headlamp aim has been set at the factory and should not need adjustment.

In the event of a vehicle crash, the headlamp aim may be affected



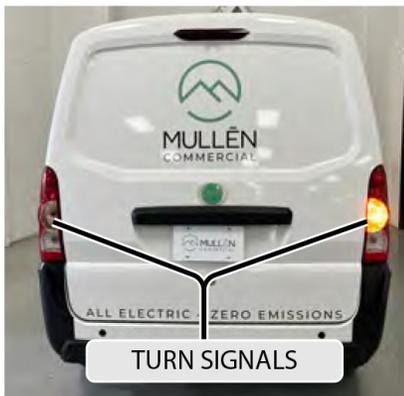
**Figure 47: Reverse lights**



**Figure 48: Brake lights**

### 6.4.6 Turn Signals

The left or right tail lights will flash when turn signals are activated. See figure 49. See 6.1.3 [Steering Column Controls](#) on page 45 for more information about turn signals.



**Figure 49:** Tail lights will flash when turn signals are activated.

### 6.4.7 Interior Lighting

Driver and passenger lighting is provided by a dome/map light close to the backup camera monitor. The switch on the top of the light has three positions: auto, on, and off.



**Figure 50:** Dome light

Move the switch to the auto position on the right, to have the light turn on when a front door is open and turn off when the front doors are closed.

Move the switch to the left to have light on, regardless of doors being opened or closed.

Move the switch to the center position, to turn the light off.

Cargo area lighting is controlled by a rocker switch on the gear selector panel.

See 6.5.3.1 [Cargo Area Light Switch](#) on page 62



**Figure 51:** Cargo Area light

## 6.5 Operator Controls

### 6.5.1 Horn

Sound the horn by pressing the pad in the center of the steering wheel. See figure 52. The horn can function without keys in the ignition.



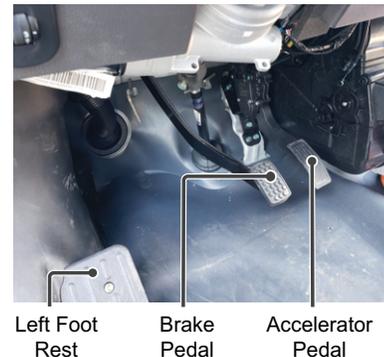
**Figure 52: Horn pad is located in center of steering wheel**

### 6.5.2 Floor Pedals

Use the floor pedals to accelerate and stop the vehicle. The areas around and behind the floor pedals must be kept clear of debris or obstructions. If floor mats are used, ensure they fit properly and cannot interfere with the accelerator or brake pedals.

#### 6.5.2.1 Accelerator Pedal

When pushed, the accelerator pedal causes the vehicle to move forward or in reverse if the gear selector is in Drive (D), Eco-Sport (E) or Reverse (R). See figure 53. The vehicle will move forward if either the Drive (D) or Eco-Sport (E) position is selected. If the gear selector is in Reverse (R), pushing the accelerator pedal will cause the van to move in reverse.



**Figure 53: Driver's floor pedals**

#### 6.5.2.2 Brake Pedal

When pushed, the brake pedal will slow or stop the vehicle. See figure 53. Applying greater pressure will cause the vehicle's speed to decrease more quickly.

**NOTICE**

**Prior to starting the vehicle, press the brake pedal, and ensure that the vehicle is set in Neutral (N). Once the vehicle is running, and the brakes are still applied, the driver may select the desired gear.**

**6.5.3 Gear Selector Panel**
**6.5.3.1 Cargo Area Light Switch**

Use the cargo area light switch to turn the lights on/ off in the cargo area. Cargo light operate even with the vehicle off. Make sure to turn off the cargo light if the vehicle is turned off to prevent discharging the 12-volt battery.

**6.5.3.2 USB Charging Port**

The USB charging port is an accessory power outlet that can charge and operate small electronic devices such as a mobile phone, computer tablets, or music players. See figure 54. The max-



Cargo Area Light Switch    Gear Selector    USB Port

**Figure 54: Gear selector panel**

imum power output is two amps. The port is only capable of providing power. The port does not provide media or data connectivity.

**6.5.3.3 Gear Selector Dial**

With the brake pedal pressed, position the gear selector to the desired gear:

R Reverse

N Neutral

D Drive

E Eco-Sport

**NOTICE**

**Reverse (R) can only be selected after the vehicle has stopped completely for several seconds, and your foot remains on the brake pedal while selecting Reverse (R).**

**Eco-Sport (E) Mode**

During normal driving, the driver may turn the gear selector to Eco-Sport (E) mode and continue driving. Eco-Sport mode (E) provides a higher vehicle top speed with extended range in stop-and-go driving.

### 6.5.4 Parking Brake

To engage the parking brake:

1. Ensure the vehicle at a complete stop.
2. With the vehicle in Neutral (N), press the brake pedal while pulling the parking brake handlever all the way up. See figure 55. Do not press the release button while engaging the parking brake.
3. Verify the parking brake light is on.



**Figure 55: Engaging the parking brake.**

When applying the parking brake, the driver will likely feel, and hear, a click as the catch engages each tooth. Under normal conditions, the maximum lift stroke should not exceed 12 clicks.

To disengage the parking brake:

4. Place your foot on the brake pedal and lift the parking brake hand lever while pressing the button on the end of the lever.
5. Push the lever down to its home position.

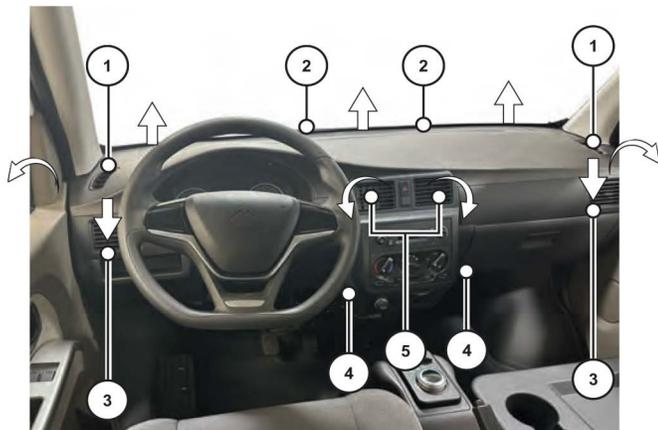
#### **WARNING**

**Failure to apply the parking brake may allow the vehicle to roll, potentially causing property damage and personal injury.**

**This vehicle does not have “Park” on the gear selector. You must ALWAYS put your vehicle in Neutral (N) and engage the parking brake when parking. When the vehicle is moving, the parking brake must be released fully; otherwise, it may cause permanent damage to the braking system and damage other components.**

**If the parking brake cannot be completely released, or the vehicle cannot be parked reliably, the vehicle must be repaired immediately. See [Contact Us](#) on page 4 for service information**

## 6.6 Heating/Ventilation/Air Conditioning System



**Figure 56: Heating/Ventilation/Air Condition (HVAC) controls and vents**

1. **Side Window Defroster Vents**  
Air flow is directed to the front door windows.
2. **Windshield Defroster Vents**  
Air flow is directed to the front door windows.

3. **Left- and Right- Side Vents**  
Air flow is directed to the passenger compartment through left and right air vents.
4. **Central Lower Vent**  
Air flow is directed to the passenger compartment of the vehicle through the central lower vent.
5. **Central Upper Vent**  
Air flow is directed to the passenger compartment through the central upper vent.

### NOTICE

**Vents with handles can also be used to change the direction of air flow.**

## 6.6.1 Control Panel

### 1. Temperature Selector Dial

Turn the dial to red for heat and to blue for air conditioning. Adjust the dial between the blue and the red to set the desired temperature.



**Figure 57: Cabin climate controls**

### 2. Fan Speed Dial

Turn this dial counterclockwise for lower fan speeds, and clockwise for higher fan speeds.

### 3. Air Flow Selector

Air Flow Selector Settings

 Use this dial setting for upper air flow.

 Use this dial setting for upper and lower air flow.

 Use this dial setting to direct air flow to the floor.



Use this dial setting to defrost/defog the windshield and side windows, while engaging lower heat at the same time.



Use this dial setting for defrosting/defogging the windshield and side windows.

### 4. Air Conditioning Button

Push the air conditioning button in to engage the air conditioner. An indicator light appears when the air conditioning is on. Push the button a second time to turn the air conditioning off. The indicator light will turn off.

### 5. Recirculate/Fresh Air Control



To direct fresh air into the vehicle, slide the recirculate/fresh air control lever to the left.



To recirculate the passenger compartment air, slide the recirculate/fresh air control to the right.

When activated, the vehicle's air conditioning (AC) system recirculates the air inside the car for cooling, instead of intaking air from the outside. Use the air recirculation button when the AC is on, but not when the heater is on.

#### 6. Positive Temperature Coefficient (PTC) Heater Button

With the AC button turned off, push the PTC button to heat the passenger compartment of the vehicle. A PTC heater provides the heat source in an electric vehicle (EV). A PTC heater is safer and more reliable than a traditional heater.

#### NOTICE

**The vehicle air conditioning and PTC heater cannot be used at the same time.**

**If possible and safe, avoid using the HVAC systems when the battery is low.**

#### NOTICE

**It is recommended to run the air conditioning at least once per month for 10 minutes to lubricate the AC compressor.**

#### 6.7 Audio System

The vehicle is equipped with a radio that operates on the AM and FM bands. Speakers are located in the driver and passenger doors. The radio also accepts input from an AUX cable. The radio can be used when the ignition key is in the ON or the ACC (accessory) position.



**Figure 58: AM/FM radio**

#### 6.8 Power Window Switches

Side window controls are located in the door armrest. See figure 59.

To lower a side window, push down on the corresponding side window switch.



**Figure 59: Side window controls**

To raise a window, lift up on the corresponding side window switch.

The driver has the ability to raise or lower both side windows. The passenger side armrest has a switch for the passenger side window.

## 6.9 Seating

### **⚠️ WARNING**

**Seating positions are based on the number of seat belts. Do not sit in a location without a seat belt installed by the manufacturer.**

### 6.9.1 Front Seat Adjustments

### **⚠️ WARNING**

**Do not adjust the seat while driving. Ensure that seat adjustments are correctly secured prior to driving the vehicle.**

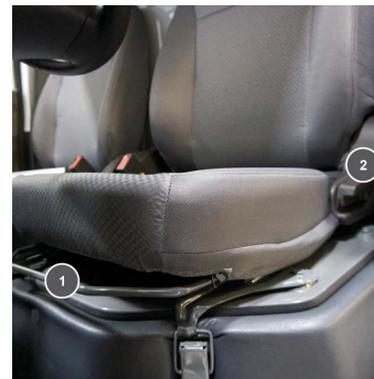
#### 1 Fore/Aft Lever

Lift the fore/aft lever to position the seat forward or backward. Release the handle when the seat in desired location.

#### 2 Recliner Lever

To adjust the angle of the seat back, lift and hold the recliner lever [2] until the desired position is achieved, and then release the lever.

The adjustment range of the seat back in normal use is between 95 and 120 degrees.



**Figure 60: Fore/aft lever [1]  
Recliner lever [2]**

### 6.9.2 Access Under Driver Seat

The driver seat can be flipped backward to service equipment underneath. The driver sits above the 12-volt battery which powers the lighting system and the dashboard.

**⚠️ WARNING**

**Do not open access under driver or passenger seat unless vehicle is stopped and the parking brake is fully raised.**

To gain access under the seat, flip the seat backward, as follows:

1. Lift the fore/aft lever and position the seat midway on its track.
2. Lift the recliner lever and bring the seat back forward and down fully.
3. Locate the seat latches at the base of the seat. See figure 60.
4. Push in the orange tab while lifting on the seat latch until it is unfastened. The seat has two latches.
5. Flip the seat backward and ensure that it is secured, prior to accessing the low voltage battery.
6. To return the seat to its normal position, follow these steps in the reverse order.



**Figure 61: Latch secured-left, latch released-right**

### 6.9.3 Access Under Passenger Seat (if equipped)

The front passenger seat can be flipped backward to service equipment underneath. To gain access under the seat, flip the seat backward, as follows:

1. Lift the fore/aft lever and position the seat midway on its track.
2. Lift the recliner lever and bring the seat back forward and down fully.
3. Locate the seat latches at the base of the seat.
4. Push in the orange tab while lifting on the seat latch until it is unfastened. The seat has two latches.
5. Flip the seat backward and ensure that it is secured.
6. To return the seat to its normal position, follow these steps in the reverse order.

### 6.9.4 Access Under the Mobile Office Console (standard)

The space under the mobile office console provides access for technicians to service vehicle electronics.

To gain access under the mobile console:

1. Clear any equipment or materials off the mobile office console.

2. Locate the latches at the front of the mobile office console.
3. Release the latches, tip the mobile console up, and tip it toward the rear of the vehicle.
4. To return the mobile office console to its normal position, follow these steps in reverse order.

## 6.10 Mirrors

### **CAUTION**

**Only adjust the mirrors while the vehicle is parked. Make the proper adjustments to all mirrors prior to driving the vehicle.**

### 6.10.1 Left and Right Exterior Rear View Mirrors

The left and right exterior mirrors are adjusted manually. An assistant is recommended to help adjust the passenger side mirror while the driver is behind the wheel.

Be careful, the mirrors are adjustable, but the housing are not.



**Figure 62: Adjust the glass mirror inside the housing.**

## 6.11 Camera Display

The vehicle is equipped with a backup camera and camera display. The camera is integrated into the center high mounted stop lamp. See figure 63. The display is integrated into the interior rear view mirror. See figure 64. Adjust the mirror as needed for viewing. When the vehicle is in reverse, the monitor shows the view from the backup camera. To increase the field of view while in Reverse, the image is zoomed out by five percent. "Tracks" on the screen represent the path of the wheels. When the vehicle is in Drive (D), the display shows a normal view.



**Figure 63: The backup camera is built into the center high mounted stop lamp.**

Never back up while looking only at the monitor. Always check behind, and around, the vehicle when backing, in the same way as you would if the vehicle did not have the back-up camera. If you back while looking only at the monitor, you may cause damage or injury. Always back slowly.

Remember the area displayed by the backup camera is limited. It does not display the entire panorama behind you.



**Figure 64: Backup camera**

### 6.11.1 Monitor Operation

Press “M” to access the menu. Use the Up and Down arrows to navigate the menu items. Press Menu again to access the selected menu item. See additional information regarding menu items below.

**Brightness:** Adjust image brightness.

**Contrast:** Adjust image contrast.

**Saturation:** Adjust image saturation.

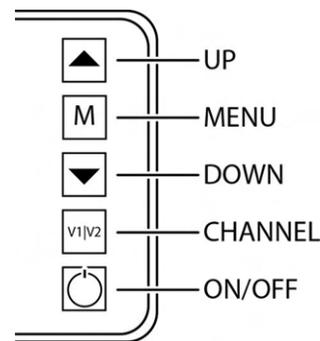
**Sharpness:** Adjust image sharpness.

**Picture Adjust:** Stretch or compress image horizontally.

**Turn:** Toggles between normal and mirror image.

**Day/Night Mode:** Mode 1 will turn on the back-lit buttons. Mode 2 will turn on the auto-dim feature on the monitor.

**Name:** Change the name of each individual channel.



**Figure 65: Backup camera monitor controls**

**Trigger Source:** Change the channel destination for each trigger.

**Distance Grid:** Choose the channel on which the distance grid will display.

**Grid Position:** Adjust the location of the grid lines on the display.

**Reset:** Reset all settings to the factory default.

**Channel (V1/V2)** Toggles display between separate video channels.

**ON/OFF:** Turns the monitor on or off.

### 6.12 Accessory Power Outlet

The accessory power outlet provides power for electronic devices such as laptops, phones, and tablets. See figure 66. Power for the outlet is supplied by a circuit with a 15A fuse.



**Figure 66: The accessory power outlet provides 12-volt power for accessories.**

### 6.13 Tools

The tool bag is stored in the vehicle's glove compartment, and contains the following items:

- 1 Lug Wrench for Wheel Nuts
- 2 Combination Screwdriver
- 3 Tow Ring
- 4 Tool Bag

The following items are located under the front hood:

- 5 Crank Rod for Scissor Jack
- 6 Scissor-Style Vehicle Jack

#### NOTICE

The front fascia will need to be removed to use the Tow Ring. See [Contact Us](#) on page 4 for service information.



**Figure 67: Tool set**

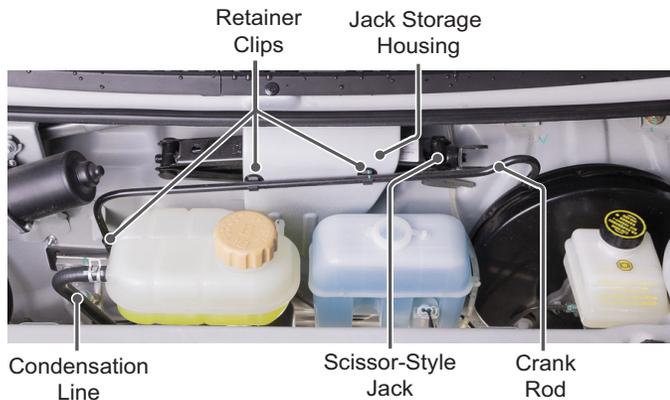


**Figure 68: Scissor jack and crank rod**

### 6.13.1 Jack Storage

The scissor-style jack and crank rod are stored under the vehicle's hood. Follow the instruction for lifting the hood (See 3.5 [Lifting the Hood](#) on page 19) and then look for the jack storage housing near the base of the windshield.

The crank rod is in front of the jack housing and clips into place. Note that the left end of the crank rod is parked between the cowl and condensation lines.



**Figure 69: Jack and crank rod storage location**

Use care when removing or returning the crank rod to avoid disrupting any components under the hood. Remove the crank rod prior to removing the jack, and start on the left end of the crank rod when removing it from its retainer clips.

To release and remove the jack from the housing, turn the crank on the right end counterclockwise, to compress the jack. Use the crank rod or the screwdriver from the tool kit if necessary. Once compressed, slide the scissor jack from its housing. See figure 70.

To store the scissor jack and crank rod, follow the previous steps in reverse. When the jack is back in its housing, use your hand or the crank rod to extend the jack enough to lock into place. Then return the crank rod to its retainer clips, starting with the left side.



**Figure 70: Stowing the jack**

### 6.14 Mobile Office Console (if equipped)

The mobile office console provides a workspace for a laptop or tablet. The console is intended for use while the vehicle is stationary.

#### **CAUTION**

**Do not sit on the console. It is not a seat, whether the vehicle is in motion or standing still.**

**Do not place more than 25 lbs (11.4 kg) on the console.**

**Before driving, secure any objects placed on the console.**



*Figure 71: Mobile office console*



*Figure 72: Warning decal for mobile office console.*

## 7 Emergency Situations and Handling

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### 7.1 Vehicle Fails to Start

#### 7.1.1 Charging Stop Mode

The vehicle has entered charging stop mode; confirm whether the charger is connected to the power grid. Unplug the charger and plug it back in to restart charging.

#### 7.1.2 12-Volt Battery Failure

Use a voltmeter to measure the open circuit voltage of the 12-volt battery. If voltage is lower than 12 volts, charge the 12-volt battery. Try starting the vehicle once the 12-volt battery shows a charge greater than 12 volts. If necessary, the vehicle can be jump-started.

#### 7.1.3 Jump-Starting the Vehicle

The 12-volt battery provides initial power to turn on the vehicle. In the event the 12-volt battery becomes depleted, the vehicle cannot start without another power source. Unlike jump-starting a gasoline powered vehicle, which requires considerable power to crank a starter motor, Mullen ONE, electric vehicles only require enough power to switch the power on. When jump-starting these vehicles, there is no need to wait for the 12-volt battery to charge before starting the vehicle. As soon as a charged battery is connected with jumper cables, the vehicle can be started. The high voltage battery will begin recharging the 12-volt battery as soon as the vehicle is started.

**⚠ WARNING**

If the operator is unfamiliar with the jump-starting process, it is advisable to have someone assist who has experience jump-starting electric vehicles. Ask your fleet manager to have a technician demonstrate the correct jump-starting process.

Only 12-volt batteries can be used for jump-starting.

Do not touch the on-board charging system during charging or jump-starting.

Use high quality jumper cables and ensure that their insulation is not frayed or damaged.

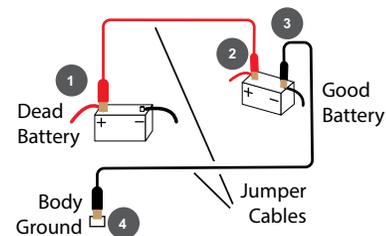
Keep jumper cable clamps away from any objects that are near the battery. Do not allow clamps to touch each other or any metal except for the correct battery terminals and vehicle grounding point.

**NOTICE**

The vehicle cannot be 'push-started'.

To jump-start a vehicle with another vehicle, follow these steps:

1. Turn off all lights and accessories in both vehicles. If the charged battery is in another vehicle, do not allow the two vehicles to touch.
2. Engage the parking brake fully, then select Neutral (N) on the gear selector dial in the uncharged vehicle.
3. Turn the ignition key to the LOCK position on the uncharged vehicle.
4. Connect the positive terminals of both batteries (the charged battery and the dead battery) with the red jumper cables. See figure 73.



**Figure 73: Connection diagram for jump-starting.**

5. Connect the black cable to the negative terminal of the charged battery. See figure 73.
6. Connect the other end of the black cable to a secure metal grounding point on the body of the uncharged vehicle, away from the battery.
7. Try starting the uncharged vehicle. If it does not start, check your jumper cable connections.
8. Try starting the uncharged vehicle again.
9. Once the uncharged vehicle starts, turn off the other vehicle.
10. Remove the negative (black) jumper cables then remove the positive (red) jumper cables.

Determine the cause of the battery becoming drained. Possible causes include headlamps or accessories left on. If the cause is not apparent, have the vehicle serviced. See [Contact Us](#) on page 4 for service information.

## 7.2 Vehicle Breakdown

Should the vehicle stop running while driving, guide it safely to a stop and turn on the emergency flashers. Park in a safe area. Take note of any fault indicators displayed on the instrument panel. Call for assistance. For service information see [Contact Us](#) on page 4.

## 7.3 Brake Failure

Loud screeching or clunking noises while braking, a soft brake pedal that does not provide resistance while braking, and a sinking brake pedal that sinks to the floor while braking are signs of possible brake failure. Do not ignore these signs. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



**Do not drive if the vehicle is showing signs of brake failure.**

## 7.4 Steering Failure

Signs of possible steering failure include difficulty turning the steering wheel, the vehicle veering off a straight line without turning, and loud clunking or grinding noises while turning. Do not ignore these signs. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



**Do not drive if the vehicle is showing signs of steering failure.**

## 7.5 Bulb Replacement

### **⚠ WARNING**

#### **Do not drive with burned out headlamps or taillights.**

The replacement of headlamp and taillight bulbs must be done by trained service technicians. If the vehicle has a burned out headlamp or taillight bulb, avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.

## 7.6 Wheels and Tires

If the tire(s) or wheel(s) are damaged, it is important to stop the vehicle as soon as it is safe to do so. Maintain control of the vehicle, and avoid panic as you stop.

### 7.6.1 Flat Tire Procedure

1. Turn on the emergency flashers.
2. Carefully guide the vehicle to a stop and



**Figure 74: Tires that are flat, or low, should be corrected as soon as possible.**

park in a safe area. Seek a parking area that is level and with firm ground or pavement.

3. Turn the vehicle OFF and engage the parking brake fully.
4. Wedge solid objects, or chocks, beneath the front and rear tires in a way that will prevent the vehicle from moving forwards or backwards. If proper wheel chocks are not available, improvise with large rocks or pieces of appropriately sized wood.
5. Use tool kit items to remove and replace the damaged tire or rim as explained below.

### **Locate the Spare Tire and Tire Tools**

### **⚠ CAUTION**

**Keep feet from the area under the tire. If possible, wear safety shoes when changing the tire.**

6. The tool kit ordinarily is in the glove compartment in a bag. Carry this bag to the tire or rim that needs service. Bring the lug wrench with you to the rear of the vehicle. The spare tire is under the back of the vehicle.

7. Open the rear lift gate.
8. Fit the lug wrench to the bolt head in the top of the rear bumper. Turn the lug wrench counterclockwise to lower the spare carrier cage. See figure 75.



**Figure 75: Use the lug wrench to lower and release the cage that supports the spare.**

9. Once the spare is lowered, wearing gloves, manually release the carrier from the lowering device and remove the tire from the carrier. See figures 76 and 77.



**Figure 76: Manually release the carrier from the lowering device.**

10. Carry or roll the tire to the damaged tire and rim.

11. Leave the tire storage cradle in the lowered position for now.



**Figure 77: Spare tire in the carrier cage.**

## Changing the Tire

### **⚠️ WARNING**

When fixing a flat tire, ensure that the vehicle is **OFF**. Never go under the vehicle while it is on a jack.

- Loosen, but do not remove the wheel lug nuts on the affected wheel with a lug wrench by turning the wheel lug nuts in a counterclockwise direction. See figure 78.

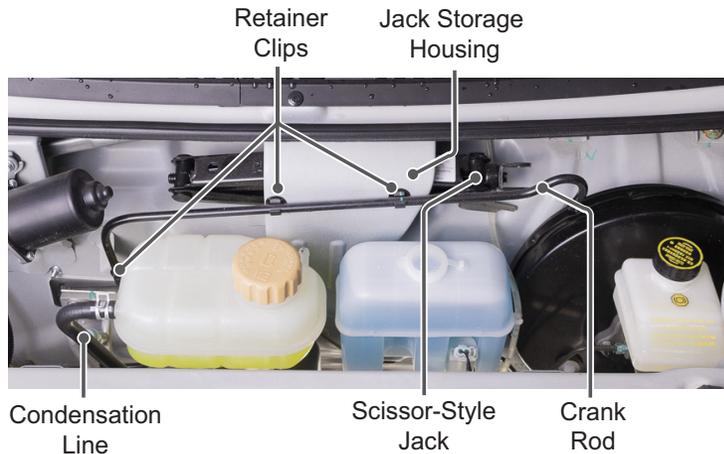


**Figure 78: Loosen the wheel lug nuts before lifting the wheel off the ground.**

### **⚠️ CAUTION**

Use care with the lug wrench to keep the wrench from slipping.

- Locate the scissor jack and crank rod under the hood, as shown. See 6.13.1 **Jack Storage** on page 72 for information about locating and removing the scissor jack and crank rod.



**Figure 79: Jack and crank rod storage location**

### Positioning the Jack

14. Position the scissor jack beneath the vehicle at the appropriate lift point near the tire needing service. See figures 80 and 81.



**Figure 80: Front jacking position**



**Figure 81: Rear jacking position**

15. With the scissor jack in position, place the curled end of the crank rod into the cranking point of the scissor jack.



**Figure 82: Scissor jack and crank rod**

16. Use the handle end of the crank rod and turn it clockwise to raise the vehicle.

17. Lift the vehicle carefully until the tire is 1 inch (2.5 cm) off the ground.

### **⚠ CAUTION**

**Wear gloves when handling the distressed tire/wheel to avoid injury.**

18. Remove the wheel lug nuts you loosened and set them safely aside.

19. Remove the tire, and place it at flat on its side to prevent unintended rolling.



**Figure 83: Remove the tire.**

20. Before installing the spare, use a cloth to wipe away any rust or dirt on the spare tire/rim. See figure 84. Do the same with the brake drum and disc brake, if necessary. See figure 85.



**Figure 84: Wipe dirt and rust from the tire rim.**

21. The goal is to have clean metal-to-metal contact between the rim and the vehicle components. Any breach in this contact may cause an improper fitting of the rim or may loosen wheel lug nuts while driving.



**Figure 85: Wipe dirt and rust from the brake or disc.**

22. Position the spare over the wheel studs. See figure 86.

**⚠ WARNING**

**Do not apply grease or lubricant on the wheel studs. Doing so can cause wheel lug nuts to loosen on their own while driving.**

**⚠ CAUTION**

**It is important to ensure the rim and mounting surfaces are clean. Failure to clean contacting surfaces could cause a wheel to fall off while driving.**



**Figure 86: Place the wheel over the wheel studs.**

23. Install each of the 5 wheel lug nuts to the studs, by hand. Turn clockwise, but only hand-tighten them for now. See figure 87.



**Figure 87: Install the wheel lug nuts by hand, leaving them finger tight.**

24. Use the lug wrench and begin to tighten the wheel lug nuts, paying careful attention to the sequence shown in figure 88. The goal is to balance the tightening process between each of the wheel lug nuts, but in sequence. Do not tighten one nut fully and then move on.



**Figure 88: Tighten the wheel lug nuts in a star pattern as shown from 1 to 5 above.**

25. Turn the crank handle on the scissor jack counter-clockwise to lower the vehicle back to the ground. Do so in a smooth and consistent manner.
26. Remove the scissor jack from beneath the vehicle and set it aside for now.
27. Tighten the wheel lug nuts to a torque of ~65 - 80 foot pounds (90-110 Nm.)

### **WARNING**

**After replacing a wheel with a spare, it is essential to re-tighten the wheel lug nuts after 50 miles (80km) to ensure that vibration has not caused them to loosen.**

### **Returning Items to Their Storage Location**

28. Place the bad wheel into the storage cradle beneath the rear of the vehicle. Reverse the steps used to remove the spare, and ensure that the bad wheel is properly secured.
29. Return the tools to their bag, and place them back in the vehicle's glove compartment.
30. Resume driving after turning off the emergency flashers and releasing the parking brake.
31. Repair or replace flat tire immediately and return spare tire to storage cradle.

### **NOTICE**

**If you are replacing a front tire with a spare, release pressure in spare tire to 44 psi (303 k Pa). See 5.6.2 [Tire Air Pressure](#) on page 35 for more information regarding recommended tire pressure.**

## 7.7 Vehicle Towing and Recovery

### **⚠️ WARNING**

**Do not allow occupants in the vehicle while it is being towed.**

All four tires/wheels must be off the ground for towing. Arrange for a flat-bed style ('roll-back') tow truck to collect the vehicle and bring it to the service garage. Follow the instructions of the tow truck driver, including staying in the vehicle for steering, braking, or ignition key position adjustments. Exit the vehicle when advised to do so.

Ensure that all accessories and lights are turned off prior to the vehicle being towed. If the vehicle must be dragged out of the way, do the following:

- Turn on the emergency flashers.
- Release the parking brake, place the vehicle in Neutral (N), and move it to a safe destination.
- Once the vehicle is out of the way, and in a safe place, re-engage the parking brake. Leave the emergency flashers on until help arrives. The vehicle, and any lights or accessories (other than the emergency flashers) should be turned off.
- If the driver must leave the vehicle, lock all doors, and arrange to get the keys to the tow truck driver.

## 7.8 Accident Response

If there has been an accident, call 911 for help. Move the vehicle only if it is possible to do so without endangering yourself or others. See section 7.7 [Vehicle Towing and Recovery](#) on page 84 for information regarding moving a vehicle in an emergency.

If it is safe to do so after moving the vehicle:

1. Remove the key from the ignition switch.
2. Apply the parking brake.
3. Activate the emergency flashers.
4. Lock and leave the vehicle.

After an accident, avoid driving the vehicle and have it serviced immediately. Please see [Contact Us](#) on page 4 for service information.

## 7.9 Unusual Driving Conditions

### 7.9.1 Wet Conditions

Slow down and maintain a safe distance from any vehicle in front of you when driving on wet, snow, ice and other slippery roads. Avoid hard braking, rapid acceleration, and sharp steering wheel turns to help prevent the tires from losing traction.

### 7.9.1.1 Driving on Standing Water

Avoid driving through standing water if possible. If necessary to drive through standing water, reduce speed and drive carefully.

#### CAUTION

**Never drive through water deeper than 4 inches (~10cm). Seek alternative route.**

#### WARNING

**After driving through water, mud, or snow, the brake response may lag and the braking distance should be lengthened. Tap the brake pedal several times to remove the water and ice inside the brake and drive cautiously. Do not brake suddenly after crossing a flooded road. Do not brake heavily when driving on wet roads.**

### 7.9.2 Other Driving Conditions

When driving on dirt, the tires have reduced traction. Drive slow and leave space for braking. When driving on a muddy road, drive slowly and keep the car moving to avoid getting stuck. If the car is stuck in sand, mud, snow, or ice, avoid spinning the wheels. To free the vehicle, it may be necessary to reduce the vehicle load or tow the vehicle.

#### WARNING

**Failure to comply with driving standards for special driving conditions may result in serious injury or damage to the vehicle.**

### 7.9.3 High Profile Vehicle Considerations

#### CAUTION

**Reduce speed when driving in crosswinds or on uneven surfaces.**

Utility vehicles have a significantly higher rollover rate than other types of vehicles.

#### 7.9.3.1 Maneuvering and Turning

Avoid sharp turns at high speeds. Your vehicle has a higher center of gravity than a typical passenger car, which may increase the risk of rollover during sharp turns. Use caution when driving on poor surfaces and adjust to changing conditions; for instance areas with bumps and potholes.

## 8 Vehicle Maintenance

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### 8.1 Daily Vehicle Maintenance

#### 8.1.1 Tires

Use a tire gauge to check the pressure of all four tires. Tires should all be set to the pressure that is listed on the tire placard in the driver's door frame. Do not drive a vehicle on over-inflated or under-inflated tires. See 5.6.2 [Tire Air Pressure](#) on page 35 for more information.

Check the overall condition of the tires. Ensure proper tread depth by measuring with a tread depth gauge.

#### 8.1.1.1 Adjusting Tire Pressure During Tire Rotation

When rotating tires, refer to the tire label in the driver's door jamb. The front and rear tire pressures are not always identical. See 5.6.2 [Tire Air Pressure](#) on page 35 for more information.

When adjusting the pressures for both the front and rear tires, the TPMS may require "retraining" or reprogramming. Seek service for TPMS retraining/reprogramming. See [Contact Us](#) on page 4 for service information.

#### 8.1.2 Lights

Ensure that all vehicle lighting, inside and out, is in proper working order. This includes headlamps, turn signals and brake lights. If necessary, arrange for a helper outside the vehicle to observe light functions. See 7.5 [Bulb Replacement](#) on page 77 if light bulbs require replacement.

#### 8.1.3 Fluid Levels and Specifications

Ensure that the levels of brake fluid, coolant, and windshield washer fluid are appropriate.

The specifications and reservoir capacities of vehicle fluids are shown in the table below, including lubricating oil, coolant and brake fluid.

**⚠ WARNING**

**Keep all vehicle fluids out of the reach of children and animals.**

***Table 4: Recommended fluids and capabilities***

<b>Fluid</b>	<b>Specifications (recommended)</b>	<b>Capacity (L)</b>
<b>Rear Lube</b>	75w90 GL-5	1.2
<b>Brake Fluid</b>	DOT4	0.5
<b>Coolant</b>	Ethylene Glycol 50/50 YA-992 Prestone Cor-Guard Antifreeze Coolant	6.8
<b>Refrigerant</b>	R134a	0.5

### 8.1.3.1 Brake Fluid Reservoir

Maintain the brake fluid level between the minimum and maximum levels. See figure 89. When adding brake fluid, take steps to make sure you do not introduce dirt or debris into the reservoir.



***Figure 89: Brake fluid reservoir minimum and maximum fill levels***

### 8.1.3.2 Windshield Washer Reservoir

The windshield washer reservoir. Avoid filling above the maximum level. See figure 90.



***Figure 90: Windshield washer reservoir maximum fill level***

### 8.1.3.3 Coolant Reservoir

As coolant heats up, and expands, the excess volume is directed to the coolant reservoir. Do not exceed the maximum level in the coolant reservoir. See figure 91. Extra space is required for overflow while the vehicle is running. After you stop driving, the coolant cools and some will be siphoned back into the coolant lines.



**Figure 91: Coolant reservoir maximum fill level**

### Fill Volumes

Refer to [Table 4](#) on page 87 to determine fluid reservoir capacities.

## 8.2 Vehicle Maintenance

Regular inspection and maintenance includes inspecting, repairing and adjusting the vehicle at regular intervals. Routine maintenance helps keep the vehicle in good working condition and ensures the safety and comfort of the occupants.

### 8.2.1 500 Mile Inspection

An initial vehicle shakedown inspection should be conducted after 500 miles. Initial vehicle inspection should include:

- Fluid level inspection
- Wheel alignment inspection
- Brake line inspection
- Inspection of connection bolts on drivetrain, steering, and suspension
- Tighten lug nuts

### 8.2.2 Maintenance Schedule

The following table lists specific requirements for regular maintenance and repair checks.

**Table 5: Maintenance Intervals**

Maintenance Activity	Maintenance Interval (Miles)																					
	500	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000	65,000	70,000	75,000	80,000	85,000	90,000	95,000	100,000	
Inspect Brake System		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inspect Fluid Levels	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Rotate Tires		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lubricate Locks, Latches, and Hinges		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inspect Wiper Blades			x		x		x		x		x		x		x		x		x		x	
Inspect Ball Joints				x			x			x			x			x			x			
Inspect Brake Lines	x			x			x			x			x			x			x			
Inspect Radiator and Condenser				x			x			x			x			x			x			
Inspect Rear Driveline				x			x			x			x			x			x			
Inspect 12V Battery							x						x						x			
Inspect Suspension System							x						x						x			

**Table 5: Maintenance Intervals**

Maintenance Activity	Maintenance Interval (Miles)																				
	500	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000	65,000	70,000	75,000	80,000	85,000	90,000	95,000	100,000
Flush and Refill Coolant							x						x						x		
Flush Brake Fluid									x								x				
Replace Differential Fluid									x								x				
Inspect Exterior Lighting									x								x				
Inspect Wheel Alignment	x																				
Inspect Connection Bolts on Rear Driveline, Steering, and Suspension.	x																				
Rust Inhibitor Application	Annually																				

**NOTICE**

**Adjust pressure for front and rear tires when rotating tires.**

### 8.3 Repair and Inspection

For questions related to maintenance intervals, please contact Mullen. Please bring the vehicle to a Mullen after-sales service or authorized maintenance service organization for inspection, service, and repairs.

Please choose genuine Mullen parts, fittings and accessories during maintenance to ensure the quality of vehicles.

**⚠ DANGER**

**Do not attempt to repair the vehicle unless you are properly trained, and authorized. High voltage components may cause death or serious injury.**

### 8.4 Cleaning the Vehicle

Washing the outside of the vehicle can be done by hand or at a drive-through car wash. If using a pressure washer to clean the underside of the vehicle, use a diffuse spray; otherwise you could damage seals that protect high voltage equipment.

Clean windows, inside and out, with standard glass cleaners to maintain good visibility through the glass.

### 8.5 Fuses

The fuse panel is located in the instrument panel interior, just above the accelerator pedal. If one of the electrical systems fail, such as the cargo area light, check for a blown fuse. See figure 92.

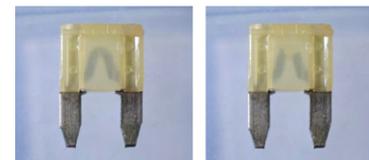


**Figure 92: Replaceable fuses are located in the fuse box, found above the foot pedals.**

Low Beam Relay	Low Beam 15A	EPS.ABS 10A	Condenser Fan Relay	Cigarette Lighter 15A	Radiator Fan Relay
	VCU 10A	VCU.BMS 5A		Wiper 15A	
Backup Lamp Relay	BMS 15A	Turn Signal 15A	Wiper / Washer Relay	BMS.VCU 5A	VAC Pump Relay
	Low Beam Lamps Horn 20A	MCU. USB 10A		Blower Motor 20A	
	Radio IP Cluster 10A	ACU 10A		Spare 5A	
High Beam Relay	Hazard Warning 10A	Coolant Pump 20A	Window LH Relay 1	Spare 10A	Window RH Relay 1
	Stop Lamp B/U Lamp Park Lamp 10A	MCU 15A		Spare 15A	
Master Control Relay	VAC Pump 30A	Central Control 20A		Window LH Relay 2	Spare 20A
	Cooling Fan 30A	Power Window 30A	Cooling Pump Relay		
Puller BXJ-8					

**Figure 93: Fuse box layout - Mullen ONE**

Replace the fuse as necessary, ensuring the proper fuse amperage. Do not use fuses with a higher amperage than what is called for. If the proper amperage fuse continues to blow, it indicates a problem with the vehicle's circuitry; arrange for the vehicle to be inspected and repaired prior to driving it.



Good fuse

Blown fuse

**Figure 94: Blown fuses have a visible gap in the metallic element.**

Fuses should fit firmly into their respective receptacle. Loose fuses will not perform properly; arrange for inspection and repair accordingly.

### 8.5.1 Accessing the Fuse Box

Follow these steps to replace a fuse:

1. Disconnect the cover by lifting bottom-right latch.
2. Push cover upward and wiggle it loose.
3. Locate the blown fuse, using the fuse puller as needed.
4. Replace the bad fuse.

5. Ensure all fuses and relays are properly seated.
6. Replace the fuse puller.
7. Replace the cover, first latching the top and then the bottom.
8. Verify the instrument panel is not illuminating any error indicators.

## 9 Fault Conditions and Troubleshooting

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### 9.1 Vehicle Will Not Start

If a vehicle will not start, use another 12-volt battery to jump start the vehicle. Refer to [Jump-Starting the Vehicle](#) on page 74.

If the READY indicator does not display after attempting to jump start the vehicle, make sure the 12-volt battery is fully charged and fully charge the vehicle's high voltage battery. See [Charging Procedure](#) on page 14 for charging the high voltage battery. If the READY indicator still does not display after these steps, seek service. See [Contact Us](#) on page 4 for service information.

Symptom	Possible Cause	Correction
The instrument panel does not light up when the ignition key is turned to ON.	The 12-volt battery is discharged.	Jump start the vehicle with an alternate 12V battery.
The READY indicator does not display when the ignition key is turned to START.	The high voltage battery is discharged.	Charge the vehicle.
The READY indicator does not display when the ignition key is turned to START.	Vehicle is not in Neutral (N).	Turn the key to LOCK. Shift the gear selector to Neutral (N). Press the brake. Turn the key to ON.

## 9.2 General Troubleshooting

Vehicle operators generally do not have the expertise to properly diagnose or repair problems with the vehicle — attempting to do so can lead to potentially dangerous situations. If the vehicle is exhibiting signs of distress, such as a diagnostic trouble code or fault code on the instrument panel, move the vehicle to a safe location as explained in 7.7 [Vehicle Towing and Recovery](#) on page 84. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.

### 9.2.1 Diagnostic Trouble Codes

#### **⚠️ WARNING**

**Do not drive a vehicle that is displaying a diagnostic trouble code.**

Diagnostic trouble codes or fault codes are generated if a system failure occurs. When the vehicle experiences a failure, a code will be displayed on the instrument panel. Avoid driving the vehicle and have it serviced immediately. See [Contact Us](#) on page 4 for service information.



**Figure 95: Example of a diagnostic trouble code “BMS\_Err: 089”.**

## 9.3 Service Information

### 9.3.1 Contact Us

See [Contact Us](#) on page 4 for service information.

### 9.3.2 Vehicle Identification Number (VIN)

The VIN can be found on the driver's side, near the lower corner of the windshield, or on the vehicle registration.

When you call for service, having the VIN available will help ensure efficient assistance.



***Figure 96: VIN tags are located near windshield on the driver's side.***

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