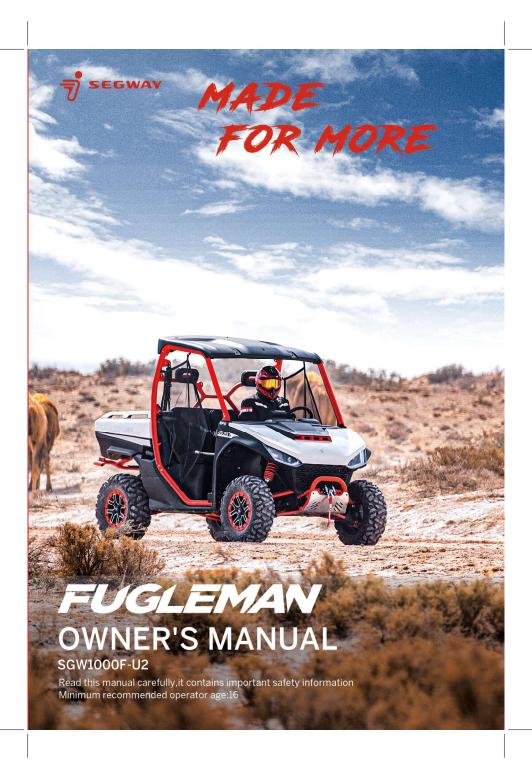


# **SEGWAY TECHNOLOGY CO., LTD.**

powersports.segway.com



Vision : 20210716 U09L01000002



# **WELCOME**

Thank you for buying this Segway. Segway Powersports on-road vehicles will bring you a new driving experience.

For your driving safety, read this manual before riding. This manual contains a large number of safety instructions, operation instructions, maintenance instructions and safety warnings.

Reading of this manual will help you quickly understand the vehicle and help you with safe driving practices.

Periodic maintenance procedures are included in this manual and should be performed regularly to keep your vehicle running safely.

### IMPORTANT NOTICE

This vehicle is designed and manufactured for on-road use and complies with all applicable on-road noise, vibration and emission regulations.

Before driving the vehicle, please understand the local laws and regulations, choose the allowed road for driving and, abide by the local traffic regulations.

This manual is applicable to the Fugleman fuel series and describes all equipment including optional components. Therefore, some of the optional equipment described in the manual may be not installed on your vehicle.

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Copyright 2020 Segway Powersports Inc. All information contained within this publication is based on the latest product information at the time of publication. Due to constant improvements in the design and quality of production components, some minor discrepancies may result between the actual vehicle and the information presented in this publication. Depictions and/or procedures in this publication are intended for reference use only. No liability can be accepted for omissions or inaccuracies. Any reprinting or reuse of the depictions and/or procedures contained within, whether whole or in part, is expressly prohibited.

If your vehicle needs any service and repair matters, please contact your dealer to provide service.

Visit http://powersports.segway.com for a list of dealers and service locations.



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# INTRODUCTION BEFORE YOU RIDE

This SEGWAY vehicle is an on-road vehicle. Familiarize yourself with all laws and regulations concerning the operation of this vehicle in your area.

### **⚠** WARNING

Failure to adhere the warnings and safety precautions contained in this manual will result in severe injury or death. Your SEGWAY vehicle is not toy and it can be hazardous to operate. This vehicle handles differently than cars, trucks or on-road vehicles. A collision or rollover can occur quickly, even during routine maneuvers like turning, driving on hills or over obstacles if you fail to take proper precautions.

- · Read the owner's manual that came with your vehicle.
- Understand all safety warnings, precautions and operating procedures before operating the vehicle.
- · Keep this manual with the vehicle.
- Never operate this vehicle without proper instruction.
- Take an authorized training course. See the Safety Training section for more information.
- This vehicle is an ADULT VEHICLE ONLY. You MUST be at least age 16 and have a valid driver's license to operate this vehicle.
- Always keep hands, feet and all other body parts inside the vehicle at all times.

- Always wear a helmet, eye protection, gloves, long-sleeve shirt, long pants and over-the-ankle boots.
- Never operate this vehicle under the influence of drugs or alcohol, as these conditions impair judgement and reduce the operator's ability to react.
- Complete the new operator driving procedures outlined this manual. Never allow a guest to operate this vehicle until the guest has completed the new operator driving procedures.
- Never permit a guest to operate this vehicle unless the guest has has completed a safety training, reviewed the owner's manual and all safety labels.

### The meaning of these signs:

### **▲** WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **A** CAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **NOTICE**

NOTICE is used to address practices not related to personal injury.

### **IMPORTANT**

IMPORTANT provides key reminders during disassembly, assembly, and inspection of components.

The Prohibition Safety Sign indicates an action NOT to take in order to avoid a hazard.



The Mandatory
Action Sign
indicates an action
that NEEDS to be
taken to avoid a
hazard.



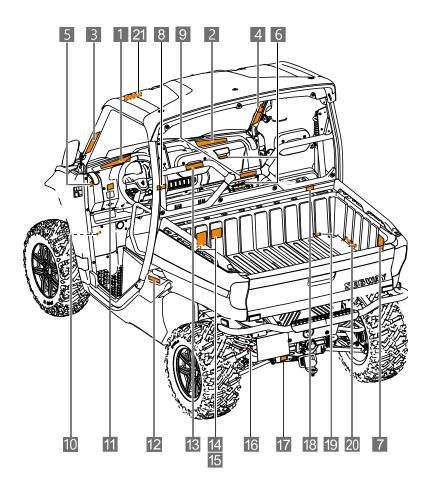
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SEGWAY

Failure to follow the warnings and safety precautions in this manual may result in serious injury or death. It can be dangerous to operate an on-road vehicle and is driven differently from other vehicles, such as motorcycles and automobiles. If proper precautions are not taken, a collision or rolled-over may occur during normal maneuvers such as turning, climbing, or overcoming obstacles. Understand all safety warnings, precautions and operating procedures before operating the vehicle. Bring this manual with you.

# **WARNING LABELS**

Warning labels have been placed on the vehicle for your protection. Read and follow the instructions on the labels carefully. If any of the labels depicted in this manual differ from the labels on your vehicle, always read and follow the instructions on the vehicle. If any label becomes illegible or comes off, contact Segway Powersports to obtain a replacement.



## SEGWAY

# **SAFETY INTRODUCTION**

1



2



3

### **▲** WARN**I**N

Be prepared in case of rollover if the vehicle rolls over, any part of your body (such as arms, legs, or head) outside of the cockpit can be crushed by the cab frame or other parts of the vehicle. Fasten seat belt.

NEVER Hold the cab frame while ridir NEVER Try to ste







4 WARN

case of rollover
If the vehicle rolls
over, any part of
your body (such
as arms, legs, or
head) outside of
the cockpit can be
crushed by the
cab frame or other

NEVER Hold the cab frame while riding

NEVER Try to stop a rollover using your



5



6



7



SEGWAY

8

# 🕰 WARNING Parking release: Hold the parking brake handle and press the parking trake handle and press the parking that the parking brake handle and press the parking hand inward to the end, the parking brake is released, a the vehicle can be pushed at this time

9

# **A WARNING** NEVER Attach to the cab frame to pull a load. This can cause the vehicle to tip over. Use only the trailer hitch or recovery hook to



pull a load.

11

# **A WARNING**

Turning the off road vehicle in 4WD-LOCK ("DIFF.LOCK") takes more effort. Operate at a slow speed and allow extra time and distance for maneuvers to avoid loss of control.

12



13

SEGWAY Technology Co., Ltd. certifies that this ROV complies with the American National Standard for Recreational Off-Highway Vehicles, ANSI / ROHVA 1 - 2016 Standard.

This roll over protective structure meets the performance requirements of (EU) No 1322/2014 Annex VIII .

### SEGWAY

# **SAFETY INTRODUCTION**

14

### **▲** WARNING



- Never carry passengers in cargo box.
   Passengers can be thrown off. This can cause serious injury or death.
   If total payload is greater than 227kg (500 lbs), the vehicle must be operated in LOW range.

IMPROPER TIRE PRESSURE OR OVERLOADING CAN CAUSE LOSS OF CONTROL. LOSS OF CONTROL CAN RESULT IN SEVERE INJURY OR DEATH.

- Neduce speed and allow greater distance for braking when carrying cargo.

  Overdoading or carrying tall, off-center, or unsecured bads will increase your risk of losing control. Loads should be centered and carried as low as possible in
- For stability on rough or hilly terrain, reduce speed

15

### **A** WARNING

Improper tire pressure or overloading can cause loss of control.
Loss of control can result in severe injury or

- Cold tire pressure: Front: **15.0** psi (**103** kPa) Rear: 16.0 psi (110 kPa)
- MAXIMUM WEIGHT CAPACITY: **680** kg. (**1500** lbs)
- MAXIMUM CARGO BOX LOAD: **350** kg. (**770** lbs)



18



17

### **A** WARNING

Improperly loading a trailer may cause loss of control. Evenly balance the load.

- Maximum unbraked towing mass 400 kg (882 lb)
- Maximum unbraked tongue mass 110 kg (242 lb)
   Maximum inertiabraked towing mass 700 kg (1543 lb)
- Maximum inertiabraked tongue mass 110 kg (242 lb)

19

**CAUTION** The air filter must be maintained in accordance with the requirements

of the Segway 《Owner's Manual》, otherwise it may seriously damage your engine.

20



21



## SEVERE INJURY OR DEATH

### Can result if you do not follow these instructions:

- The minimum recommended driving age for this vehicle is 16 years.
- Never operate this vehicle without wearing an approved motorcycle helmet that fits properly.
- Wear eye protection (goggle or a face shield), gloves, overthe-ankle boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this vehicle.
- · Never attempt jumps or other stunts.
- Never operate at speeds too fast for your skills or the conditions. Always go at a speed that is proper for the terrain, visibility, operating conditions, and your experience.
- Always inspect your vehicle each time you use it to be sure it is in safe operating condition.
- Never operate on excessively rough, slippery, or loose terrain until you have learned and practiced the skills necessary to control the vehicle on such terrain. Always be cautious on these kinds of terrain.
- Always follow the inspection and maintenance procedures as well as the schedules described in this manual.
- Never operate on hills that are slippery or ones where you
  will not be able to see safely far enough ahead of you. Never
  go over the top of a hill at speed if you cannot see what is on
  other side.
- Always keep both hands, arms, feet, and legs inside the vehicle at all times during operation. Keep your feet on the floorboard. Never hold onto the enclosure, otherwise, you

### SEGWAY

### SAFETY INTRODUCTION

could be injured.

- Always keep both hands on the steering wheel when driving.
- Always go slowly and be careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when driving the vehicle.
- Never wrap your thumbs and fingers around the steering wheel. This is particularly important when driving in rough terrain. The front wheels will move right and left as they respond to the terrain, and this movement will be felt in the steering wheel. A sudden jolt could wrench the steering wheel around, and your thumbs or fingers could be injured if they are in the way of the steering wheel spokes.
- Never turn at excessive speed. Practice turning at slow speeds before attempting to turn at faster speeds. Do not attempt turns on steep inclines.
- Always follow proper procedures for going uphill. If you lose control and cannot continue up a hill, back down the hill with the engine in reverse gear. Use engine braking to help you go slowly. If necessary, use the brakes gradually to help you go slowly.
- Never operate the vehicle on hills that are too steep. Go straight up and down hills where possible.
- Never operate the vehicle in fast flowing water or water deeper than the floorboards on this model. Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply the brake several times to let friction dry out the linings.
- Always be sure there are no obstacles or people are behind you when you operate in reverse. When it is safe to proceed in reverse, go slowly.
- Always check terrain before going down hills. Go as slowly as possible. Never go down a hill at high speed.

SEGWAY

- Always check for obstacles before operating in a new area.
- Do not brake abruptly when carrying loads in the cargo bed.
- Always use the size and type of tires specified in this manual.
- Always maintain proper tire pressure as described in this manual.
- Never exceed the stated cargo load capacity. Cargo should be as far forward in the bed as possible, and distributed evenly from side to side. Be sure cargo is secured so that it cannot move around during operation. Reduce your speed and follow the instructions in this manual for carrying cargo or pulling a trailer. Allow a greater distance for braking.
- Brake discs can be over heated after continuous braking.
   Allow brake disc to cool before servicing.
- Avoid the risks related to contact with hot surfaces, including residual risks such as filling oil or coolant in hot engines or transmissions.
- Exhaust system components are very hot during and after use of the vehicle. Hot components can cause burns and fire.
   Do not touch hot exhaust system components. Always keep combustible materials away from the exhaust system.
- Use caution when traveling through tall grass, especially dry grass. Always inspect the underside of the vehicle and areas near the exhaust system after driving through tall grass, weeds, brush, and other tall ground cover. Promptly remove any grass or debris clinging to the vehicle.

SEGWAY

# **SAFETY INTRODUCTION**

# **IMPORTANT SAFETY INFORMATION**

# **Reading the manual**

### **⚠** WARNING

Driving an vehicle improperly increases the risk of accidents. The driver must know how to drive the vehicle correctly in different situations and on different terrain.

Before driving the vehicle, all drivers must complete the required driving safety training. Please ensure that each driver has read this manual and all product warning labels and has passed the safety training course. Otherwise, the vehicle will not be allowed to drive.



# Safe driving age

### **MARNING**

The minimum recommended driving age for this vehicle is 16 years. Children under the age of 16 must not drive this vehicle. Not to drive the vehicle without proper driving training. Training courses are required. Please ensure that each driver has read this manual and all product labels and has completed a safety training course.



## **Riding equipment**

### WARNING

For your safety,we strongly recommend that you always wear an approved motorcycle,eye protection,boots,gloves,long pants,and a long-sleeved shirt or jacket whenever you ride.

Although complete protection is not possible, wearing proper gear can reduce the chance of injury when you ride.

### Helmet

Wearing a helmet can prevent head injuries. At all times, you must wear a helmet that meets basic safety standards when driving. Both U.S. and Canadian qualified helmets bear a U. S. Department of Transportation label. ECE 22.05 marks are available in Europe, Asia and Oceania. The ECE mark consists of a circle around the letter E, followed by the approved area codes for different countries. The approval number and serial number are also displayed in the label.

### **Additional Riding Gear**

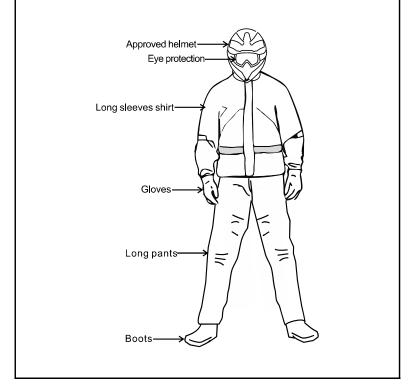
Sturdy on-road motorcycle boots to help protect your feet, ankles, andlower legs.

On-road motorcycle gloves to help protect your hands.

It is recommended to wear riding pants with knee and hip pads, a riding jersey with padded elbows and, a chest/shoulder protector.

### **MARNING**

Driving vehicle after drinking or taking drugs may adversely affect a driver's judgment, reaction time, balance, and feelings. Do not drink alcohol or take drugs before or during driving.



# **Using alcohol or drugs**

# **WARNING**

Operating this vehicle after consuming alcohol or drugs could adversely affect operator judgment, reaction time, balance and perception.

Never consume alcohol or drugs before or while operating this vehicle.



### **Vehicle modification**

### A

### WARNING

We strongly recommend that consumers do not attempt to increase vehicle speed or use any equipment that increases the power of the vehicle. If any equipment is added to the vehicle, or if any modifications are made to the vehicle to increase the vehicle speed or power, the all-terrain vehicle warranty is terminated. The addition of certain parts may change the handling of the vehicle, including (but not limited to) mowers, sledges, tires, sprayers, or large luggage racks.



## **Passengers**

### **WARNING**

Do not carry passengers unless you have operated the vehicle for at least two hours and have completed the new operator driving instructions outlined on page 69. Passengers must always sit in the passenger seat with the seat belt secured. Carrying more than one passenger in a two-seater vehicle affects the operator's ability to operate and operate control, increasing the risk of loss of control and accidents or rollovers.



### **Contact with exhaust**

### **MARNING**

Engine exhaust is toxic and can cause loss of consciousness or death in a short time. Do not start or run a motor in a closed space. The engine exhaust of this product contains chemicals that cause cancer, birth defects or other reproductive damage, and you can only drive it outside the room or in a well-ventilated place.



## **Seat Belts**

Riding in this vehicle without wearing the seat belt may increase the risk of serious injury in the event of rollover, loss of control, other accidents, or sudden stop. Seat belts may reduce the severity of injury in these circumstances. The operator must wear the seat belt at all times.



## **Loading on the vehicle**

The weight of cargo and passengers affects the running and stability of the vehicle. For your own safety and the safety of others, think carefully about how to safely operate the vehicle when loaded with passengers and cargo. Follow the instructions in this manual for loading, tire pressure, gear selection and speed.

- The maximum weight capacity of the vehicle is listed in the instruction section of this manual and on the vehicle label. As more passenger weight is added, the cargo weight may need to be reduced accordingly. Do not exceed the vehicle's weight capacity.
- Recommended tire pressures are listed in the instruction section of this manual and on the vehicle label.

### Always follow the following guidelines:

| Under these conditions:   | Do all of these steps:              |
|---|-------------------------------------|
| Operator and/or cargo exceeding half of the maximum weight capacity | 1. Slow down.                       |
| Operating in rough terrain  | 2. Verify tire pressure.            |
| Operating over obstacles  | 3. Use extra caution when operating |
| Climbing  |                                     |
| Traction  |                                     |

## No Passengers in the cargo box

Passengers in the cargo box may cause the vehicle fall over or collide, which may cause injury or more serious accidents. Never let passengers in the cargo box when operating the vehicle. Passengers must be seated in passenger seats with fixed seat belts.



# **Operating on Pavement**

The vehicle's tires are designed for on-road use only, not for use on pavement. Operating this vehicle on paved roads (including sidewalks, paths, parking lots and driveways) may adversely affect the handling of the vehicle and may increase the risk of loss of control and accidents or rollovers. Avoid operating the vehicle on pavement. If it's unavoidable, drive slowly and avoid sudden turns or stops.

# **Operating on Public Roads**

Operating this vehicle on public streets, highways or highway could result in a collision with another vehicle.

## **Operating at Excessive Speed**

Operating this vehicle at excessive speeds increases the operator's risk of losing control. Always operate at a speed that's appropriate for terrain, the visibility, operating conditions and your skills and experience.

### **Turning Improperly**

Turning improperly could cause loss of traction, loss of control, accidents or rollover. Always follow proper procedures for turning as described in this owner's manual.

Avoid sharp turns. Never turn while applying heavy throttle. Never make abrupt steering maneuvers. Practice turning at slow speeds before attempting to turn at faster speed.

# **Jumps and Stunts**

Exhibition driving increases the risk of an accident or rollover. DO NOT do power slides, "donuts", jumps or other driving stunts. Avoid exhibition driving.

# **Improper Hill Climbing**

Improper hill climbing could cause loss of control or rollover. Use extra caution when operating on hills. Always follow proper procedures for hill climbing as described in this owner's manual. See page 74.

# **Descending Hills Improperly**

Improper descending a hill could cause loss of control or rollover. Always follow proper procedures for traveling down hills as described in this owner's manual. See page 75.

# **Crossing Hillsides**

Driving on a sidehill is not recommended. Improper operation could cause the loss of control or rollover. Avoid crossing the side of any hill unless absolutely necessary. If crossing a hillside is unavoidable, always follow proper procedures as described in this owner's manual. See page 76.

# **Fuel safety**

### Gasoline is very flammable under certain conditions

- · You must be extremely careful when handling gasoline.
- When refueling, the engine must be shut off and must be done outdoors or in a well-ventilated area.
- No smoking, no open flames or sparks at or near the refueling or gasoline storage location.
- Do not overflow when refueling. Do not fill the tank to the filler neck.
- If gasoline gets on your skin or clothes, wash them with soap and water immediately and change clothes.

# **VEHICLE DEVICE**

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# **VEHICLE DEVICE**

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### VEHICLE ACTIVATION

This vehicle is equipped with vehicle DTS system for you. DTS is used to communicate with background system and mobile APP, so as to obtain vehicle information and control vehicle with mobile APP. This is an optional system. In order to make you quickly familiar with and use the system, please read the user's manual carefully, understand the relevant operation and use information.

### **NOTICE**

The new vehicle must be activated on the APP for the first time if equipped with vehicle DTS, otherwise the engine will not start.

IOS mobile phone search "Segway powersports" to download application from "APP STORE", Android mobile phone first download "Google play", and then search "Segway powersports" to download application in Google Play.

After the successful installation of the APP, the vehicle will be registered and activated. Firstly, find the VIN code on the vehicle and register on the APP. The registration procedure is as follows:

1. Power on the vehicle with the mechanical key.

Input or scan vehicle VIN code according to APP registration prompts, and step on the vehicle brake at the same time. Note: The vehicle identification code may not be scanned due to the influence of light. You can try to enter the VIN code manually. The vehicle VIN code is either on the vehicle frame (see Page 163) or on the vehicle nameplate (see Page 165).

- Click the "CONFIRM" button to complete the vehicle binding operation.
- 3. Click "START" to start the vehicle.

### Vehicle Unlocked

There are three ways to unlock a vehicle:

### 1. Mechanical key (preferred).

### 2. APP remote unlock vehicle

APP Remote Unlock is based on 4G network. As long as the area covered by the network, you can use the remote unlock function in the APP to unlock the vehicle.

### 3. APP Bluetooth unlock vehicle

When both the vehicle and the mobile phone are on, within the effective connection distance of the Bluetooth signal, the vehicle Bluetooth module will automatically unlock the vehicle after acquiring the mobile phone Bluetooth signal, and automatically lock the vehicle when the mobile phone is far away.

### **NOTICE**

After using the mechanical key to power down, the vehicle cannot be unlocked by induction to power up again. It needs to disconnect the reconnection and close the unlock to restart.

Mechanical key unlock is the optimal unlock method for vehicles. If you do not want to use the sensor unlock function, the sensor unlock setting can be turned off in the APP.

# **VEHICLE DEVICE**

SEGWAY

## **APP Function**

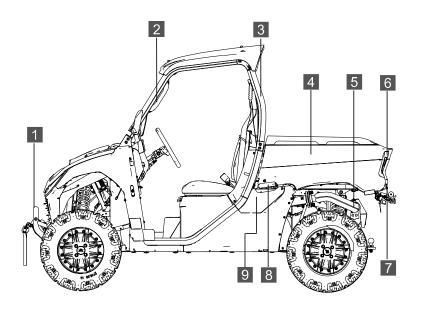
This app is a program designed for users who have the Segway Powersports vehicle.

Main features: driving control analysis, vehicle data analysis...

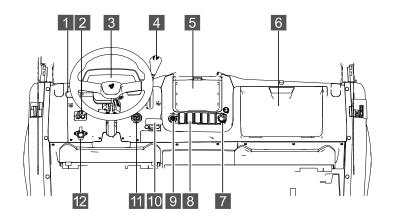
Detail information see Segway Powersports APP User Manual.

# **VEHICLE DEVICE**

## **PARTS AND CONTROL**



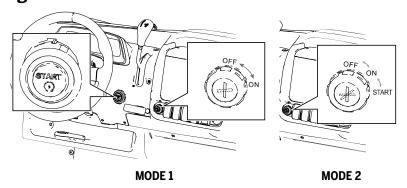
- 1 Front Bumper
- 4 Cargo Box
- **7** Rear Bumper
- 2 Handrails
- 5 Muffler
- 8 Cargo Box Flip Handle
- 3 ROPS
- 6 Tailgate
- 9 Fuel Cap



- 1 Light Switch
- 4 Gear Shifter/Selector
- 7 DC Socket
- 10 Parking Brake
- 2 AWD Switch
- 5 Storage Box
- 8 Switch
- 11 Start Button
- 3 Instrument Cluster
- 6 Storage Box
- 9 Ignition
- 12 12 Volt Socket

### FRONT PANEL

## **Ignition Lock/Start Button**



#### MODE 1:

#### **Ignition Lock**

Turn the key to the position "ON": the vehicle is energized and the electrical components of the vehicle can be used.

Turn the key to the position "OFF": the whole vehicle circuit is disconnected and the engine stops. When the switch is in the off position, the key can be taken out of the switch.

#### **Start Switch**

Turn the key to the ignition switch "ON" position, Press the Engine Start/Stop "\(\inft\)", press the start switch, and the vehicle will start.

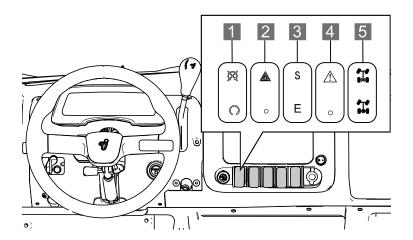
#### MODE 2:

Turn the key to the position "ON": the vehicle is energized and the electrical components of the vehicle can be used.

Turn the key to the "Start" position without loosening. Wait for 1.5 or 2 seconds before the engine starts(Do not exceed 4 seconds), and the key will automatically return to the "ON" position.

Turn the key to the position "OFF": the whole vehicle circuit is disconnected and the engine stops. When the switch is in the off position, the key can be taken out of the switch.

### **Switchs**



- 1 Emergency shutdown Switch 2 Emergency Switch 3 Mode Switch
- 4 Override Switch 5 Four-Wheel Drive Switch (if equipped)

#### **Emergency shutdown Switch**

- "X ": Engine Stop
- "C": Engine Start

#### **Vehicle launch (mode 1)**

- 1. Depress the brake pedal when the gear is in "P" gear or "N" gear.
- 2. Press the Engine On Switch "\(\mathbb{O}\)".
- 3. Turn the ignition key into "ON" position.
- 4. Press the "start" button for 1.5 seconds to 2 seconds, the engine start.

#### Vehicle launch (mode 2)

- 1. Depress the brake pedal when the gear is in "P" gear or "N" gear.
- 2. Press the Engine On Switch "O".
- 3. Turn the key to the "Start" position without loosening. Wait for 1.5 or 2 seconds before the engine starts(Do not exceed 4 seconds), engine start.

#### The vehicle stop

- Put the shift lever in the "P" position and turn on the parking brake.
- 2. Press the flameout switch "X", and the engine will stop.

#### **Emergency Switch**

Use this switch when the vehicle is in an emergency. Press the switch to the "▲" position, the emergency light turns on, and the vehicle position light flashes, and press the switch to the "●" position to turn off the emergency light.

- " A ": Emergency light on.
- " ": Emergency light off.

#### Use this switch when the vehicle is in an emergency

- · Temporary parking of vehicles
- The vehicle is malfunctioning.
- · The vehicle encounters other emergencies.

#### **Mode Switch**

#### "S": Sport mode

This mode can increase the RPM of engine, the vehicle power is stronger, the speed is faster, and the fuel consumption is more. It is recommended not to start in sport mode.

#### " E": Economic mode

Under the condition of ensuring the power of the vehicle, this mode can effectively allow the vehicle to save fuel, reduce fuel use

as much as possible, and enhance fuel economy.

#### **Override Switch**

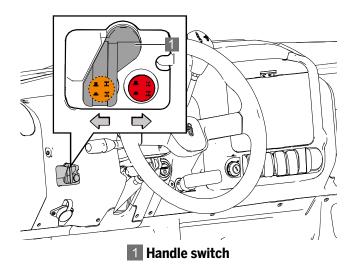
"  $\stackrel{\wedge}{\triangle}$  ": Release the max speed limit of the vehicle in 4WD-LOCK MODE (30KM/h).

#### Four-Wheel Drive Switch (if equipped)

" : Rear wheel differential lock

"♠" :4WD(Unlock)

## Toggle switch for Two-wheel drive or Four-wheel drive



Red button pops up: 2WD mode

Red button pressed and Yellow button pressed: 4WD mode

Yellow button pops up: 4WD locking mode

#### 2WD mode

#### 4WD mode

When the 4WD mode, the symbol " " of 4-wheel drive is displayed on the instrument. At this time, the instrument is in the state of 4-wheel drive, with power output of the front wheel and power output of the rear wheel. This mode is suitable for muddy conditions, mountainous conditions and other bad road conditions.

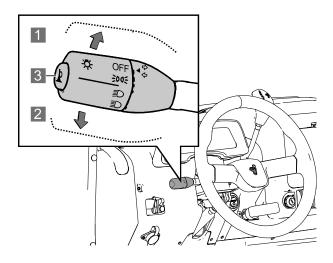
#### 4WD locking mode

When the 4WD locking mode, the four-wheel drive lock symbol " is displayed on the instrument. At this time, the four-wheel drive lock is working in the state of 4-wheel drive lock. The front wheel has power output, the rear wheel has power output, and the left and right tires of the rear wheel output the same speed and power. The vehicle will in speed limitation and speed cannot more than 30km/h, this mode is suitable for vehicle in troubles.

#### **A** CAUTION

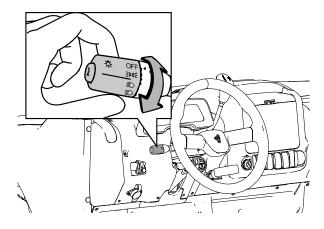
when switching to 4WD locking mode, more force is required to manipulate the direction during steering.

### **Combination Switch**



- 1 Push the control lever up to turn on the right turn signal light, the right turn indicator flashes on the meter
- 2 Push the control lever down to turn on the left turn signal light, and the left turn indicator on the instrument flashes.
- 3 Horn switch

## **Headlight Switch**



As shown in the picture above, turn the end of the lever to turn on the lights

- " $\mathfrak{DG}$ ": Front position lights, tail lights, license plate lights and dashboard lights are turned on.
- "  $\hfill \hfill \hfil$
- " $\fill\Box$ ": Turn the switch to this position, the front light is placed on the high beam, and the high beam logo on the instrument lights up"OFF": Turn off the lights

": Horn switch

## **Electronic Power Steering (EPS)**

When the engine is started, the electronic power steering device (if equipped) starts to work. When the key is turned to the "ON" position the EPS system is energized.

#### **NOTICE**

When the key is turned to the on position, the EPS warning indicator lights up briefly. Please refer to P59.

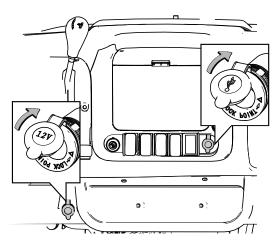
After the key switch is turned to the "OFF" position, the EPS system will be turned off.

If the EPS indicator light continues to light up after the engine is started, it means that the EPS system has failed. Please contact your Segway Powersports dealer.

## **VEHICLE DEVICE**

### **12V Socket**

The vehicle is equipped with two 12V sockets. Located in the middle of the front panel of the vehicle.



The power socket can be used for 12V accessories with a working current of less than 10A.  $\,$ 

**Output power: 120W** 

Top: USB interface Bottom: DC interface

Open the lid

Conditions of use of power sockets:

When the ignition lock is in "ON" mode.

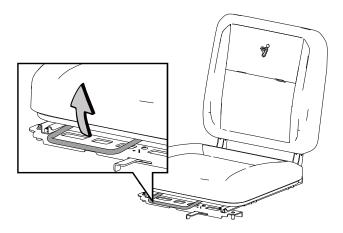
### **SEAT**

The driver's seat can be adjusted forwards and backwards, before driving. Adjust the position of the seat so that the driver's back can touch the seat back, and the driver's feet can step on the brake pedal and accelerator pedal.

## **Driver seat adjustment**

There is a U-shaped adjusting handle at the front end of the seat. Pull the U-shaped adjusting rod upward by hand

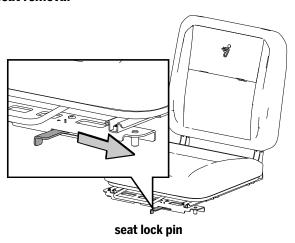
Keep sliding the seat forward or backward and slide the seat to the desired position. Release the handle. The seat will be locked in the new position.



Seat adjusting handle

### Driver seat removal/installation

#### **Driver seat removal**



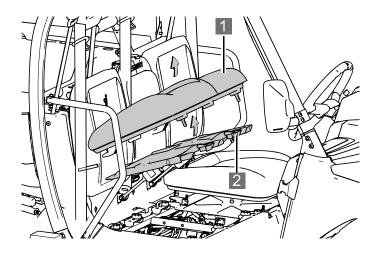
- 1. Move the seat lock pin to the outside.
- 2. Gently pull the seat forward, and pull out the cable connector under the seat.
- 3. Remove the seat from the vehicle.

#### **Driver seat installation**

- 1. Plug the cable connector under the seat.
- 2. Insert the two fixing pins behind the seat into the hooks.
- 3. Turn the seat to lock the lock pin of the seat and frame.

After installation, check whether the seat is installed in place to ensure the driver's safety.

## **Passenger Seat removal**



1 Passenger seat 2 Passenger seat cover

Lift the front end of the seat to remove the seat from the vehicle.

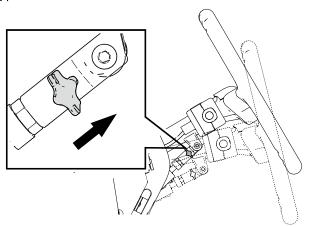
The seat cover is located under the passenger seat. After the passenger seat is removed, hold the seat cover with both hands

Move it upwards and remove the seat cover.

The battery and a storage compartment are located under the passenger seat.

## **Steering Wheel Adjustment**

The steering wheel can be tilted up or down to meet the driver's driving preferences.



#### Steering wheel angle adjustment:

After raising the steering column adjustment lever toward the steering wheel, do not loosen it.

Move the steering wheel up or down to adjust to a suitable position, hold the steering wheel, and release the adjustment pole.

After adjusting the angle of the steering wheel, check whether the steering wheel is firm.

#### **▲ WARNING**

Do not adjust the steering wheel while driving.

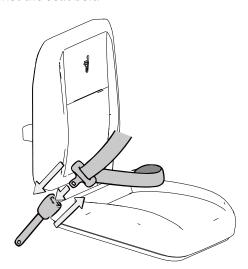
Otherwise, it may cause the driver to control errors and cause an accident, which may result in serious injury or death.

### **Seat Belt**

Fasten your seat belt as soon as you get in the vehicle. The seat belt can effectively protect the driver and the passenger.

In the event of an accident, the seat belt can reduce the risk of injuries. Fasten seat belts correctly:

- ◆ Stretch the shoulder buckle so that it covers the entire shoulder, but do not touch the neck or slipping off the shoulder.
- ◆ Place the waist buckle as low as possible across the hip.
- ◆ Sit up straight with your back against the seat.
- ◆ Do not twist the seat belt.



Insert the lock tab into the buckle until you hear a click to fasten the seat belt.

Press the release button to release the seat belt.

### **A** CAUTION

Before each use, check all seat belts are working properly.

- 1. Push the latch plate into the buckle until it clicks.
- 2. Pull out each seat belt and check for any damage, including cutting, grinding

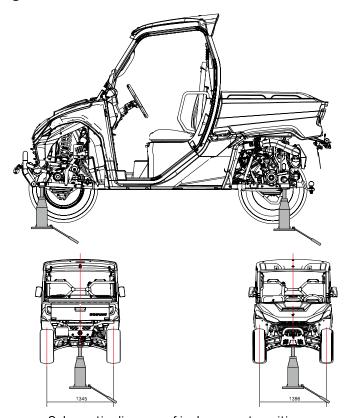
Damage, wear, or stiffness. If any damage is found, please contact a Segway Powersports dealer for replacement.

3. Clean the dirt or debris on the seat belt, wipe the belt with mild soap and water. Never use bleach, dyes or household detergents.

## Lifting and supporting the vehicle

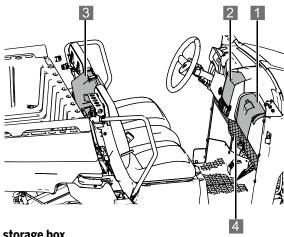
Place vehicle on a flat non slippery ground. Engage the 4WDmode. Ensure vehicle shift lever is set to PARK.

When lifting the front or rear of the vehicle, place the jack in the left and right center of the front or rear of the vehicle, as shown in the figure below:



Schematic diagram of jack support position

## **Storage Box**



1 Front storage box

Tooling are placed in this box.

- 2 Middle storage box
- 3 Passenger backrest storage box

This box can be removed. Click the upper part of box and lift it out. Meanwhile, move upper left and right buckles of box to open this box.

4 Middle lower storage box

#### **WARNING**

Keep the storage box closed if you do not use it. Or, you will be possible to be hurt by the goods kept in the storage box or while you open it in emergency brake or turning, resulting in accident.

## **Fuel Tank Cap**

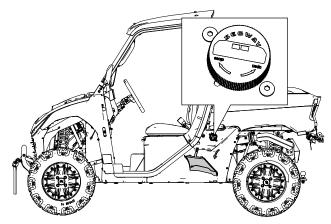
#### **▲ WARNING**

Always gas up fuel type as per requirement.

Do not smoke while refueling or it may ignite the fuel and cause fire hazard.

Do not touch other people or stuff with static electricity or it may cause static electricity accumulation and ignite fuel.

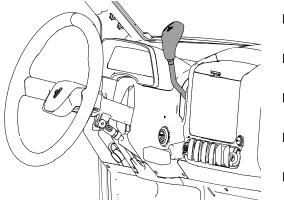
Do not overfill the fuel when you gas up.



- 1. Hold the cover and pull it out.
- 2. Turn out the cap in the direction of "OPEN" (see direction sign in the cap)
- 3. Refuel the vehicle (do not overfill)
- 4. Turn the cap in the direction of "CLOSE".

### **Gear Shift Selector**

Different operation modes correspond to different gears. After selecting the gear. Check the indicator light on the instrument panel to ensure that the gear has been switched to the desired position. See the table below for the tap position description:



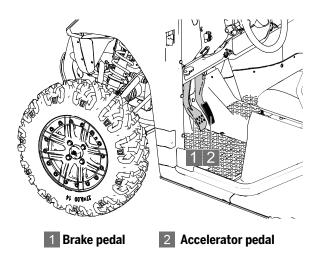
- L Low speed
- H High speed
- N Neutral
- R Reverse
- P Parking

### **A** CAUTION

The transmission will be damaged when you change shift gear if the engine is running over the idle speed or in the driving process.

Put shift gear in P position and lock parking brake when the driver is out of the vehicle.

### **Brake Pedal and Accelerator Pedal**



#### **Brake pedal**

Step on brake pedal 1 to select gear, reduce speed, or stop the vehicle. Use this brake pedal when you start the engine.

If you want to reduce speed or stop the vehicle, step on the brake pedal with your right foot.

The brake pedal is spring load style. It will return to balance position if no force is on it.

#### Accelerator pedal

Step on accelerator pedal 2 downward to increase engine speed. If you want to increase speed or keep speed, use your right foot to hold the accelerator pedal.

If you want to decrease speed, loosen your accelerator pedal. The accelerator pedal is spring load style. It will return to balance position if no force is on it (idle speed).

When released, the spring pressure returns the pedal to the rest position. Before starting the engine

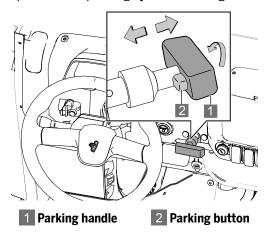
Before, be sure to check if the accelerator pedal returns normally

#### **A** CAUTION

If the accelerator pedal and the brake pedal are applied at the same time, the engine power may be affected limit

### **Parking brake**

Whenever a person leaves the vehicle, the parking brake must be turned on to put it in the parking system working status



#### Turn on the parking brake:

When parking the car, first park the car on a suitable road, step on the brake pedal to make the car stand still, and then hold the T-shaped parking handle with your hand and pull it up until your foot releases the brake The vehicle is still in a reliable stationary state when pedaling, and the parking brake is turned on at this time.

#### Release the parking brake:

Press the lock button with your index finger, while holding the T-shaped handle, rotate it 90 degrees clockwise, and push the parking handle down to the bottom to release the parking.

#### **A** CAUTION

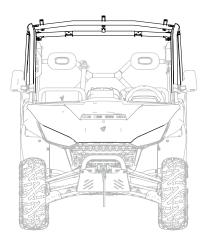
When the driver leaves the vehicle, the parking brake of the vehicle must be turned on

## **Roll-Overprotective Structures(ROPS)**

The rollover protection device (ROPS) of the vehicle meets (EU) No 1322/2014 Annex VIII rollover performance.

If there is any damage to the vehicle's rollover protection device, please contact Segway Powersports.

The dealer thoroughly inspects the ROPS or replaces it.



Always follow all safe operating practices outlined in this manual to avoid vehicle rollover.

#### **MARNING**

Vehicle rollover could cause severe injury or death. Always avoid operating in a manner that could result in vehicle rollover.

### **INSTRUMENT PANEL**

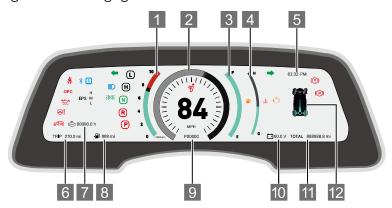
The instrument panel provides the operator with the vehicle information, and the driver should understand the meaning of the various indicators, warning lights and display content information on the instrument table, to understand the vehicle status.

#### **NOTICE**

The combination meter may be damaged by using a high-pressure cleaner. Do not clean the instrument with alcohol or corrosive detergent. Corrosive liquid will corrode the surface of the instrument and cause damage to the instrument.

### **Instrument Indicator Light/Warning Light**

Indicator lights and warning lights on the instrument indicate the status of the vehicle's systems. The figure below shows all the lights and warning lights.



The ignition lock switch is set to "ON" mode, the indicator is switched on, and all warnings on the indicator. The light will be briefly lit for 1 second.

#### 1 Engine Tachometer shows

Display the real-time RPM of the vehicle.

 $0\rightarrow2\rightarrow4\rightarrow6\rightarrow8\rightarrow10$  (from low to high)

#### 2 Speedometer

Display the real-time speed of the vehicle.

#### 3 Gage

E: Fuel empty F: Fuel full

Shows the fuel level in the fuel tank. Activate the low fuel warning when the last section is cleared. All segments including the fuel icon will flash and refuel immediately.

#### 4 Engine Water Temperature

thermometer shows the engine water temperature.

C: engine water temperature low

H: engine water temperature high

#### 5 Time Display

After the vehicle is bound to the "Segway Powersports" APP, the time displayed on the dashboard will be automatically synchronized to the local time

#### 6 Subtotal Mileage

The dashboard does not have the function of clearing subtotal mileage, please clear the subtotal mileage through "Segway Powersports" APP

#### 7 Engine Running Time

Display engine running time

#### 8 Dynamic Residual Mileage

Display the mileage that can be driven by the current remaining fuel

#### 9 Fault Code Display

In case of partial failure of the vehicle, the fault code is displayed in this area. See page 59 for detailed description of the fault code.

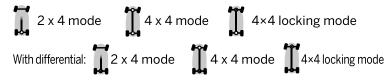
#### 10 Battery Voltage

Display the current voltage of the vehicle battery

#### 11 Total Mileage

Display the total mileage accumulated by the vehicle

#### 12 Four-Wheel Drive Full DifferentialLock



## Indicator light/warning indication

| light    | Instructions   | status  |
|----------|----------------|---|
| <b>*</b> | Safety Belt    | This light reminds the operator to ensure that all riders wear helmets and safety belts before work. The driver's seat belt is equipped with a seat belt interlocking device. If the seat belt is not secured, the vehicle speed will be limited to 24 km/h |
| OPC      | Off-Seat       | When the driver leaves the seat and park break not applied, the OPC light will be on and the buzzer will sound.   |
| <u> </u> | Oil Pressure   | This light is on when oil pressure is too low.  |
| ⊖!       | EPS System     | Indicates a failure in EPS system<br>(optional equipment, if equipped)  |
| ((!))    | Draka Cuatara  | Low brake fluid level   |
|          | Brake System   | The braking system is faulty  |
| (P)      | Parking Brake  | This light is on after parking brake is applied.  |
| Ō        | Engine Failure | This indicator appears if an EFI-related fault occurs. Do not operate the vehicle if this warning appears. Serious engine damage could result.  |

|   | Coolant<br>Temperature     | Indicator light showing excessive temperature of engine coolant. When it lights up and alarms, the engine should be stopped immediately and shut down. After cooling down to normal temperature, the engine should continue to run. |  |
|---|----------------------------|---|--|
| <b>←</b>  | Left Turn                  | This light is lit when the left turn signal is turned on.   |  |
| <b>≣</b> D  | High Beam                  | This lamp illuminates when the headlamp switch is set to high beam.   |  |
| ∋DQ€  | Position light             | The front light, tail light, license plate light and instrument panel light are on.   |  |
| Right turn This light is lit when the indicator is turned on. |                            | This light is lit when the right turn signal is turned on.  |  |
| *   | Power icon on<br>Bluetooth | The icon will light on when the APP<br>Bluetooth power is used.   |  |
| 5   | Remote Power<br>on         | When power on the vehicle, the APP in the mobile phone and the light will be on.  |  |
| H<br>EPS M<br>L   | EPS mode                   | EPS mode was set in the APP and the preferred mode of the rider was selected:  M -Normal mode, power normal  H -Comfort mode, power light  L -Motion mode, booster weight   |  |

## Diagnostic displays code definitions

This area displays the code information of electrical components, circuits issues of the vehicle in case of failure or abnormality, please contact your dealer for any abnormalities or problems with this type of vehicle.



1 Fault Code Display Area

| System | Failure<br>Code | Failure Description  |
|--------|-----------------|--|
|        | P0108 17        | Manifold Absolute Pressure/Barometric Pressure<br>Circuit High |
|        | P0107 16        | Manifold Absolute Pressure/Barometric Pressure<br>Circuit Low  |
|        | P010C 17        | Mass or Volume Air Flow "B" Circuit Low                        |
|        | P010D 16        | Mass or Volume Air Flow "B" Circuit High                       |
| ECU    | P0113 17        | Intake Air Temperature Sensor 1 Circuit High                   |
| ECO    | P0112 16        | Intake Air Temperature Sensor 1 Circuit Low                    |
|        | P0118 17        | Engine Coolant Temperature Sensor 1 Circuit High               |
|        | P0117 16        | Engine Coolant Temperature Sensor 1 Circuit Low                |
|        | P0650 11        | MIL Control Circuit Low  |
|        | P0650 13        | MIL Control Circuit Open                                       |
|        | P0692 12        | Fan 1 Control Circuit High                                     |

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|     | P0691 11 | Fan 1 Control Circuit Low  |
|-----|----------|--|
|     | P0480 13 | Fan 1 Control Circuit  |
|     | P0629 12 | Fuel Pump "A" Control Circuit High                                 |
|     | P0628 11 | Fuel Pump "A" Control Circuit Low                                  |
|     | P0627 13 | Fuel Pump "A" Control Circuit /Open                                |
|     | P0459 12 | Evaporative Emission System Purge Control Valve Circuit High       |
|     | P0458 11 | Evaporative Emission System Purge Control Valve Circuit Low        |
|     | P0444 13 | Evaporative Emission System Purge Control Valve Circuit Open       |
|     | P0412 12 | Secondary Air Injection System Switching Valve "A" Circuit         |
|     | P0414 11 | Secondary Air Injection System Switching Valve "A" Circuit Shorted |
|     | P0413 13 | Secondary Air Injection System Switching Valve "A" Circuit Open    |
| ECU | P0262 12 | Cylinder 1 Injector Circuit High                                   |
|     | P0261 11 | Cylinder 1 Injector Circuit Low                                    |
|     | P0201 13 | Injector Circuit/Open – Cylinder 1                                 |
|     | P0265 12 | Cylinder 2 Injector Circuit High                                   |
|     | P0264 11 | Cylinder 2 Injector Circuit Low                                    |
|     | P0202 13 | Injector Circuit/Open – Cylinder 2                                 |
|     | P0563 17 | System Voltage High  |
|     | P0562 16 | System Voltage Low   |
|     | P0560 1C | System Voltage Not plausible                                       |
|     | P0501 29 | Vehicle Speed Sensor "A" Range/Performance                         |
|     | P0641 00 | Sensor Reference Voltage "A" Circuit/Open                          |
|     | P0651 00 | Sensor Reference Voltage "B" Circuit/Open                          |
|     | P0571 29 | Brake Switch "A" Circuit   |
|     | P0571 1C | Brake Switch "A" Circuit   |
|     | P0123 17 | Throttle/Pedal Position Sensor/Switch "A" Circuit High             |

# **VEHICLE DEVICE**

|     | P0122 16 | Throttle/Pedal Position Sensor/Switch "A" Circuit Low               |
|-----|----------|---|
|     | P0121 29 | Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance |
|     | P0223 17 | Throttle/Pedal Position Sensor/Switch "B" Circuit High              |
|     | P0222 16 | Throttle/Pedal Position Sensor/Switch "B" Circuit Low               |
|     | P0221 29 | Throttle/Pedal Position Sensor/Switch "B" Circuit Range/Performance |
|     | P2106 12 | Throttle Actuator Control System Forced Limited Power               |
|     | P2106 19 | Throttle Actuator Control System Forced Limited Power               |
|     | P2106 92 | Throttle Actuator Control System Forced Limited Power               |
|     | P2106 13 | Throttle Actuator Control System Forced Limited Power               |
|     | P1568 00 | Idle Speed Contr.Throttle Pos. mechanical Malfunction               |
|     | P1545 00 | Throttle Pos.Contr. Malfunction                                     |
|     | P1545 22 | Throttle Pos.Contr. Malfunction                                     |
|     | P1545 21 | Throttle Pos.Contr. Malfunction                                     |
| ECU | P1565 00 | Idle Speed Control Throttle Position lower limit not attained       |
|     | P2123 17 | Throttle/Pedal Position Sensor/Switch "D" Circuit High              |
|     | P2122 16 | Throttle/Pedal Position Sensor/Switch "D" Circuit Low               |
|     | P2138 29 | Throttle/Pedal Position Sensor/Switch "D"/"E" Voltage Correlation   |
|     | P2128 17 | Throttle/Pedal Position Sensor/Switch "E" Circuit High              |
|     | P2127 16 | Throttle/Pedal Position Sensor/Switch "E" Circuit Low               |
|     | P0606 94 | ECM/PCM Processor   |
|     | P0606 92 | ECM/PCM Processor   |
|     | P2106 29 | Throttle Actuator Control System Forced Limited Power               |
|     | P0606 64 | ECM/PCM Processor   |
|     | P0606 61 | ECM/PCM Processor   |
|     | P0606 67 | ECM/PCM Processor   |
|     | P0606 1C | ECM/PCM Processor   |
|     | P0606 55 | ECM/PCM Processor   |
|     |          |   |

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|     | P0606 00 | ECM/PCM Processor  |
|-----|----------|--|
|     | P0606 62 | ECM/PCM Processor  |
|     | P0606 96 | Function monitoring: fault of ECU ADC - Null Load Test Pulse                                 |
|     | P0606 97 | function monitoring: fault of ECU ADC - test voltage   |
|     | P0606 47 | function monitoring:fault of ECU monitoring modul error                                      |
|     | P0606 17 | Reported OverVoltage of VDD5   |
|     | P0606 16 | Reported UnderVoltage of VDD5  |
|     | P0606 49 | Diagnostic fault check to report "WDA active"  |
|     | P0606 48 | Diagnostic fault check to report "WDA active" due to errors in query-/response communication |
|     | P0606 91 | Diagnostic fault check to report "WDA active" due to overvoltage detection                   |
|     | P0032 12 | O2 Sensor Heater Control Circuit High Bank 1 Sensor 1  |
|     | P0031 11 | O2 Sensor Heater Control Circuit Low Bank 1 Sensor 1   |
|     | P0030 13 | O2 Sensor Heater Control Circuit Bank 1 Sensor 1   |
| ECU | P0132 17 | O2 Sensor Circuit High Voltage Bank 1 Sensor 1   |
|     | P0131 16 | O2 Sensor Circuit Low Voltage Bank 1 Sensor 1  |
|     | P0130 29 | O2 Sensor Circuit Bank 1 Sensor 1  |
|     | P0134 13 | O2 Sensor Circuit No Activity Detected Bank 1 Sensor 1                                       |
|     | P0052 12 | O2 Sensor Heater Control Circuit High Bank 2 Sensor 1  |
|     | P0051 11 | O2 Sensor Heater Control Circuit Low Bank 2 Sensor 1   |
|     | P0050 13 | O2 Sensor Heater Control Circuit Bank 2 Sensor 2   |
|     | P0152 17 | O2 Sensor Circuit High Voltage Bank 2 Sensor 1   |
|     | P0151 16 | O2 Sensor Circuit Low Voltage Bank 2 Sensor 1  |
|     | P0150 29 | O2 Sensor Circuit Bank 2 Sensor 1  |
|     | P0154 13 | O2 Sensor Circuit No Activity Detected Bank 2 Sensor 1                                       |
|     | U0073 88 | Control Module Communication Bus Off   |
|     | U0140 87 | Lost Communication With Body Control Module  |
|     | U0121 87 | Lost Communication With Anti-Lock Brake System (ABS) Control Module                          |

# **VEHICLE DEVICE**

|     | E0001 | No midpoint of torque is written   |
|-----|-------|--|
|     | E0002 | No end point of rotor angle is written   |
|     | E0003 | Memory read write failure  |
|     | E0004 | The main torque sensor is disconnected   |
|     | E0005 | Abnormal output of main torque sensor  |
|     | E0006 | The secondary torque sensor is disconnected  |
|     | E0007 | Abnormal output of secondary torque sensor   |
|     | E0008 | The difference between main and secondary torques is too large                     |
|     | E0009 | The difference between the main torque before and after amplification is too large |
|     | E0010 | Electrical machinery unassisted  |
|     | E0011 | Over electric current  |
| EPS | E0012 | Abnormal busbar electric current   |
|     | E0013 | CAN communication abnormal (Output abnormally)                                     |
|     | E0014 | Rotor Angle jump   |
|     | E0015 | The rotor Angle sensor is disconnected   |
|     | E0016 | Power module failure   |
|     | E0017 | Abnormal A phase electric current  |
|     | E0018 | Abnormal C phase electric current  |
|     | E0019 | Steering wheel Angle small gear abnormal   |
|     | E0020 | Steering wheel Angle middle gear abnormal  |
|     | E0021 | Steering wheel Angle jumps   |
|     | E0022 | Steering wheel Angle value exceeds limit   |
|     | E0023 | The steering wheel Angle is not right  |
|     | E0024 | Abnormal voltage at electrical machinery end                                       |

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| т-вох | T0001 | GPS module failure                   |
|-------|-------|--------------------------------------|
|       | T0002 | 4G module failure                    |
|       | T0003 | Bluetooth module failure             |
|       | T0004 | Sensor failure                       |
|       | T0005 | Power CAN failure                    |
|       | T0006 | Body CAN failure                     |
|       | A0001 | Left front wheel speed error signal  |
|       | A0002 | Right front wheel speed error signal |
|       | A0003 | Left rear wheel speed error signal   |
| ABS   | A0004 | Right rear wheel speed error signal  |
| ABS   | A0005 | Voltage of ABS module is too high    |
|       | A0006 | Voltage of ABS module is too low     |
|       | A0007 | Vehicle speed single failure         |
|       | A0008 | CAN single failure                   |



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#### SEGWAY

#### **OPERATION**

This section provides basic operating instructions, including how to start and stop the vehicle, driving skills and precautions when driving on different roadways.

Even if you've ridden other on-road vehicles, you must take time to familiarize yourself with how the vehicle operates. Practice in flat and wide areas until you are familiar with this all-terrain vehicle.

#### WARNING

Failure to inspect and verify that the vehicle is in safe operating condition before operating increases the risk of an accident. Always perform the Pre -Ride Inspection outlined in the Operation chapter before each use of your

vehicle to make sure it's in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this owner's manual. See the Periodic Maintenance section of the Maintenance chapter.

## **BASIC DRVING GUIDE**

## **Trail Etiquette**

Always practice good etiquette when riding. Allow a safe distance between your vehicle and other vehicles operating in the same area. Communicate to oncoming operators by signaling the number of vehicles in your group. When stopping, move your vehicle to the edge of the trail as far as possible to allow others to pass safely.

### Know your riding area/tread lightly

Familiarize yourself with all laws and regulations concerning the operation of this vehicle in your area. Respect the environment in which you ride your vehicle.

Find out where the designated riding areas are by contacting your dealer, a local riding club, or local officials. Help keep our trails open for recreational vehicle use.

#### **Vehicle Break-In Period**

Your vehicle's break-in period is the first 25 hours of operation or the riding mileage which used first two full tanks of gas. Careful handling of new engine and drive components will improve the performance and service life of these components. Follow these steps carefully.

## **Brake System Break-In Period**

In order to achieve the best braking performance, the brake must be not less than 200Km run-in when use.

Heavy or excessive braking when using the new braking system may damage the brake pad and disc.

#### **Belt Break-In Period**

Proper break-in of the clutch and driving belt will ensure longer service life and better performance. Run the break-in clutch and belt at low speeds for the recommended break-in time, only pulling light loads. Avoid violent acceleration and high speed running during break-in. If the belt is broken, be sure to clean up the intake and outlet pipeline and any debris from the clutch and engine compartment during belt replacement.

#### SEGWAY

## **New Operator Driving Procedures**

- 1. Before operating this vehicle, read and understand the owner's manual and all warning and instruction labels.
- 2. Perform a pre-ride check.
- 3. Do not carry goods during this period.
- 4. Do not carry passengers until you have driven the car for at least two hours.
- 5. Choose a suitable and open area to familiarize yourself with the operation of the vehicle.
- Safety helmets, eye protection, gloves, long-sleeved shirts, trousers, ankle boots and safety belts must be worn at all times.
- 7. Sit in the driver's seat, fasten the seat belt, and put the transmission in the "P" position.
- 8. Depress the brake pedal and release the parking brake.
- 9. Start the engine.
- 10. Put the transmission in low gear.
- 11. Check your surroundings and determine your driving route.
- 12. Hold the steering wheel with both hands, slowly release the brake, depress the accelerator with your right foot, and start driving.
- 13. Drive slowly at first, and practice starting, stopping, turning, maneuvering, using the accelerator, brakes, and reversing on a flat ground. When learning how the vehicle operates, practice left and right turns at a slow speed.
- 14. When you make a turn proficiently and start to run at a faster speed, please observe the following precautions:

#### **Avoid sharp turns**

- · Don't turn when stepping on the accelerator.
- Don't swerve when driving the vehicle.
- Operate according to your skills conditions and terrain.
- · Do not jump the vehicle or perform any other driving stunts.

#### **Driving with Passengers**

- 1. Finish the overview of the new operator driver on the page 69.
- 2. Pre-ride check. Please refer to the page 78.
- Don't carry more than one passenger in a two-seat vehicle. The additional passenger will affect the operator's ability to drive and control the vehicle.
- 4. All riders must be able to sit with their backs on the seat, with their feet flat on the floor, and their hands on the steering wheel (if driving) or on the passenger armrest/grab bar.
- 5. The driver and all passenger must wear helmets, eye protectors, gloves, long-sleeved shirts, trousers, ankle boots and seat belts. Please refer to the page 13.
- 6. Passenger can only sit in the passenger seat when driving.
- Slow down. Always travel at a speed appropriate for your skills, your passengers' skills and operating conditions. Avoid unexpected or aggressive maneuvers that could cause discomfort or injury to a passenger.
- 8. Vehicle handling may change with passengers and/or cargo on board. Allow more time and distance for braking.



## Starting the Vehicle

- 1. Depress the brake pedal when the gear is in "P" gear or "N" gear.
- 2. Turn the ignition key into "ON" position.
- 3. Press the flameout switch "Q"
- 4. Press the "start" button for 1.5 seconds to 2 seconds, the engine start

Before starting your vehicle, please wear the cycling equipment, that both passenger and passenger wear seat belts.

#### **Park the Vehicle**

- 1. Press the brake pedal and put the shifter in "P".
- 2. Turn the key to the "OFF" position (P. 31) and the key can be taken out of the switch.
- 3. Put down the parking brake handle (P. 52)

## **Braking**

1. Release the throttle pedal completely.

#### **NOTICE**

When the throttle pedal is released completely and engine speed slows to near idle, the vehicle has no engine braking.

- 2. Press on the brake pedal evenly and firmly.
- 3. Practice starting and stopping (using the brakes) until you're familiar with the controls.

## Parking the vehicle

- 1. Stop the vehicle on a level surface. When parking inside a garage or other structure, be sure that the structure is well ventilated and that the vehicle is not close to any source of flame or sparks, including any appliance with pilot lights.
- 2. Place the transmission in PARK.
- 3. Stop the engine.
- 4. Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.
- 5. Remove the ignition key to prevent unauthorized use.

## **Driving on Slippery Surfaces**

Whenever riding on slippery surfaces such as wet trails or loose gravel, or during freezing weather, follow these precautions:

- 1. Do not operate on excessively rough, slippery or loose terrain.
- 2. Slow down when entering slippery areas.
- 3. Engage 4X4 before wheels begin to lose traction.

#### **NOTICE**

Severe damage to drive train may occur if the 4X4 is engaged while the wheels are spinning. Allow the rear wheels to stop spinning before engaging 4X4, or engage 4X4 before wheels begin to lose traction.

- 4. Maintain a high level of alertness, reading the trail and avoiding quick, sharp turns, which can cause skids.
- Correct a skid by turning the steering wheel in the direction of the skid. Never apply the brakes during askid.

## **Driving through water**

Your vehicle can operate through water with a maximum recommended depth equal to floor level. Follow these precautions when operating through water:

#### **NOTICE**

Major engine damage can result if the vehicle is not thoroughly inspected after operating in water. Perform the services outlined in the Periodic Maintenance Chart. The following areas need special attention: engine oil, transmission oil, demand drive fluid and all grease fittings. If the vehicle tips or overturns in water, or if the engine stops during or after operating in water, service is required before starting the engine. Your dealer can provide this service. If it's impossible to bring the vehicle in before starting the engine, perform the service outlined in the Vehicle Immersion section of this manual, and take the vehicle in for service at the first opportunity.

- 1. Determine water depths and current before entering water.
- 2. Choose a crossing where both banks have gradual inclines.
- 3. Avoid operating through deep or fast-flowing water.
- 4. After leaving water, test the brakes. Apply them lightly several times while driving slowly. The friction will help dry out the pads. If it's unavoidable to enter water deeper than the footrest level.
- 5. Proceed slowly. Avoid rocks and obstacles.
- 6. Balance your weight carefully. Avoid sudden movements.
- 7. Maintain a steady rate of speed. Do not make sudden turns or stops. Do not make sudden throttle changes.

### **Driving in reverse**

Follow these precautions when operating in reverse:

- 1. Always check for obstacles or people behind the vehicle.
- 2. Apply the throttle lightly. Never open the throttle suddenly.
- 3. Back slowly.
- 4. Apply the brakes lightly for stopping.
- 5. Avoid making sharp turns.

## **Driving over obstacles**

Follow these precautions when operating over obstacles:

- 1. Before operating in a new area, check for obstacles.
- 2. Watch out for bumps, potholes and other obstacles in the terrain.
- 3. When you approach any obstacle, reduce your speed and be prepared to stop.
- 4. Never try to ride over large obstacles, such as large rocks or fallen logs.
- Always have a passenger dismount before operating over an obstacle that could cause a fall from the vehicle or vehicle tip over.

## **Driving uphill**

Braking and handling are greatly affected when operating in hilly terrain. Improper procedure could cause loss of control or rollover. Whenever traveling uphill, follow these precautions:

1. Always move the 4X4 switch to 4X4WD (if equipped) before

#### SEGWAY

ascending or descending a hill.

- 2. Always travel straight uphill.
- 3. Keep both feet on the floor.
- 4. Always check the terrain carefully before ascending any hill. Never climb hills with excessively slippery or loose surfaces.
- 5. Proceed at a steady rate of speed and throttle opening. Never open the throttle suddenly.
- 6. Never go over the crest of a hill at high speed. An obstacle, a sharp drop, or another vehicle or person could be on the other side of the hill.

## **Driving downhill**

When driving downhill, follow these precautions:

- 1. Avoid excessively steep hills.
- 2. Always move the 4X4 switch to 4X4WD (if equipped) before ascending or descending a hill.
- Drive straight downhill. Avoid descending a hill at an angle, which would cause the vehicle to lean sharply to one side. Travel straight downhill when possible.
- 4. Slow down.
- 5. Apply the brakes slightly to aid in slowing.

## **Driving on a sidehill (sidehilling)**

Driving on a sidehill is not recommended. Improper procedure could cause loss of control or overturn. Avoid crossing the side of any hill unless absolutely necessary.

#### If crossing a sidehill is unavoidable, follow these precautions:

- 1. Slow down.
- 2. Exercise extreme caution.
- 3. Avoid crossing the side of a steep hill.

## Parking on an incline

## Avoid parking on an incline if possible. If it's unavoidable, follow these precautions:

- 1. Stop the engine.
- 2. Place the transmission in PARK.
- 3. Lock the parking brake.
- 4. Always block the rear wheels on the downhill side.

## Parking the vehicle

- 1. Stop the vehicle on a level surface. When parking inside a garage or other structure, be sure that the structure is well ventilated and that the vehicle is not close to any source of flame or sparks, including any appliance with pilot lights.
- 2. Place the transmission in PARK.
- 3. Turn the engine off.
- 4. Engage the parking brake (if equipped).

- 5. Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.
- 6. Remove the ignition key to prevent unauthorized use.

## **Engine Break-In Guidelines**

The engine break-in period is the first 25 hours of operation or the riding mileage which used first two full tanks of fuel.

- Avoid full throttle operation.
- Avoid pressing the accelerator pedal past 3/4 down.
- Avoid continuous acceleration.

The brake needs a 200km break-in period.

New brakes will not operate at their maximum efficiency until the break-in period is over. Brake performance may be compromised if not followed.

#### **NOTICE**

During this period, avoid full-throttle running, rapid acceleration, and constant rpm operation.

## PRE-RIDE INSPECTION

Perform a pre-ride inspection before each ride to detect any potential problem that could occur during operation. The pre-ride inspection will help you monitor component wear and deterioration before they become a problem.

Correct any problems that you discover to reduce the risk of a breakdown or accident. Inspection Items.

| Item                      | Note                                       | Page     |
|---------------------------|--|----------|
| Brake system/pedal travel | Ensure proper operation                    | P50      |
| Brake fluid               | Ensure appropriate level                   | P127     |
| Front suspension          | Check and lubricate if necessary           | P134     |
| Rear suspension           | Check and lubricate if necessary           | P134     |
| Tire                      | Check status and pressure                  | p129     |
| Wheel/fastener            | Check to ensure the tightness of fasteners | p132     |
| Nut bolt fastener         | Check to make sure it's tight              |          |
| Fuel                      | Ensure appropriate level                   | P48      |
| Engine oil                | Ensure appropriate level                   | P107     |
| Coolant level             | Ensure appropriate level                   | P124     |
| Coolant pipe              | Check leakage                              |          |
| Throttle                  | Ensure proper operation                    |          |
| Air intake prefilter      | Check ,clean                               | P136-138 |
| Front headlight           | Check operation                            | P139     |
| Brake light/taillight     | Check operation                            |          |

| SEGWAY    | OPEI   | RATION |
|-----------|--|--------|
| Seat belt | Check the length of the seat<br>belt for damage and check<br>whether the latch is in normal<br>operation | P44    |

## **HAULING CARGO**

#### A

#### WARNING

Overloading the vehicle or carrying cargo improperly can alter vehicle handling and may cause loss of control or braking instability. Always follow these precautions when hauling cargo:

Never exceed the stated load capacity for this vehicle.

Reduce speed and allow greater distances for braking when hauling cargo.

Never exceed the maximum weight capacity of the vehicle. When determining the weight you are adding to the vehicle, include the weight of the operator, passenger(s), accessories and loads in the rack or box. The combined weight of these items must not exceed the maximum weight capacity.

Always load the cargo box with the load as far forward and as low as possible.

When operating over rough or hilly terrain, reduce speed and cargo to maintain stable driving conditions.

Always operate the vehicle with extreme care when hauling cargo. Slow down and drive in the lowest gear available.

#### WARNING

**SECURE ALL LOADS BEFORE OPERATING.** Unsecured loads can create unstable operating conditions, which could result in loss of control of the vehicle.

**OPERATE ONLY WITH STABLE AND SAFELYARRANGED LOADS.** When handling off-centered loads that cannot be centered, securely fasten the load and operate with extra caution.

**HEAVY LOADS CAN CAUSE BRAKING AND CONTROL PROBLEMS.** Use extreme caution when applying brakes with a loaded vehicle. Avoid terrain or situations that may require backing downhill.

**USE EXTREME CAUTION** when operating with loads that extend over the rack sides. Stability and maneuverability may be adversely affected, causing a rollover.

**DO NOT TRAVEL FASTER THAN THE RECOMMENDED SPEEDS.** Vehicle should never exceed 16 km/h while towing a load on a level grass surface. Vehicle speed should never exceed 8km/h when towing loads in rough terrain, while cornering, or while ascending or descending a hill.

If total payload is greater than 227kg (500 lbs), the vehicle must be operated in LOW range. Carrying a passenger in the cargo box could result in a fall from the vehicle or contact with moving components. Never allow a passenger to ride in the cargo box.

Your vehicle has been designed to carry or tow specific capacities. Reduce speed and allow a greater distance for braking when carrying cargo.

Loads should be centered and carried as low as possible in the box. For stability on rough or hilly terrain, reduce both speed and cargo. Exercise caution if the cargo load extends over the side of the box.

Always read and understand the load distribution warnings listed

on warning labels and in this manual. Never exceed the maximum capacities specified for your vehicle.

#### **Belt life**

To extend belt life, use low gear when hauling or towing heavy cargo.

### **Towing loads**



#### WARNING

Towing improperly can alter vehicle handling and may cause loss of control or brake instability.

Always follow these precautions when towing:

- 1. Never load more than 110 kg tongue weight on the towing bracket.
- 2. When towing a disabled vehicle, place the disabled vehicle's transmission in neutral. Do not operate the vehicle faster than 16 km/h when towing.
- 3. Towing a trailer increases braking distance. Do not operate the vehicle faster than 16 km/h when towing.
- 4. Do not tow more than the recommended weight for the vehicle.
- 5. Attach a trailer to the trailer hitch bracket only. Do not attach a trailer to any other location, which could result in loss of control of the vehicle.
- 6. The total load (operator, accessories, cargo and weight on hitch) must not exceed the maximum weight capacity of the vehicle.

## **Maximum loading capacity**

Don't over the maximum loading capacity:

| Vehicle Model                     | SGW1000F |
|-----------------------------------|----------|
| Maximum weight capacity           | 680 kg   |
| Maximum cargo load                | 350 kg   |
| Maximum unbraked towing mass      | 400 kg   |
| Maximum unbraked tongue mass      | 110 kg   |
| Maximum inertiabraked towing mass | 700 kg   |
| Maximum inertiabraked tongue mass | 110 kg   |

## **Dumping the cargo box**

To dump the cargo box, do the following:

- 1. Select a level site to dump the cargo box. Do not attempt to dump or unload the vehicle while parked on an incline.
- 2. Apply the brakes.
- 3. Set the parking brake.
- 4. Turn the key to the off position.
- 5. Dismountvehicle.
- 6. Ensure that the cargo is positioned evenly or toward the front of the cargo box.

#### **MARNING**

If the weight distribution on the box is located toward the rear of the box when the release lever is pulled forward, the box may dump unexpectedly and cause serious injury to the operator or bystanders. Never operate the dump lever without ensuring that the load is positioned evenly or at the front of the box.

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- 7. Release the tailgate latches.
- 8. Stand clear and pull up on the cargo box release lever.
- 9. Lift the front of the cargo box to dump the cargo.
- 10 Lower the cargo box and push down securely to latch.
- 11. Close the tailgate and secure both tailgate latches.



#### WARNING

Operating the vehicle while the cargo box is raised could result in severe injury. The box could close unexpectedly and cause injury to the driver or passenger. The rear tires will also catch the rear of a raised box, damaging the vehicle and creating hazardous driving conditions. Never operate this vehicle with the cargo box in the raised position.

## **Loading guidelines**

#### When transporting cargos, please follow below instructions:

- Do not exceed the weight specified in the warning label and this manual.
- 2. Don't allow passengers to sit in the cargo box.
- 3. Make sure all cargo is secured before riding.
- Avoid riding on steep slopes when carrying cargo or pulling a trailer.
- 5. Use low-speed gear when hauling heavy cargo.
- 6. When handling cargo, operate the vehicle with caution.

#### **Trailer**

The towing device is a detachable part. It can be removed from the vehicle when not in use. When towing a load that the towing weight does not include the towing device.

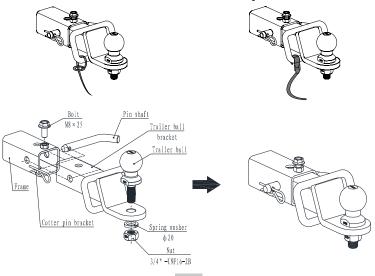
 The total load (weight on the operator, accessories, cargo and trailer) shall not exceed the maximum capacity of the vehicle.

## Where a designated attachment point is provided on the towbar:

Either:

Or:

Pass the cable through the attachment point and clip it back on itself. Attach the clip directly to the designated point, This attemative must be specially permitted by the trailer manufacturer since the clip may not be sufficiently strong for use in this way.



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### WINCH OPERATION

If your vehicle is equipped with a winch, please read this manual before installation and use to understand and be familiar with the relevant safety precautions and operating instructions.



#### WARNING

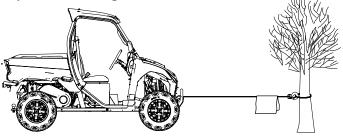
The user must read and understand the operating instructions and warnings of this owner's manual. If the

instructions or warnings are not followed, serious property damage or personal injury may occur.

- It is strictly prohibited for people under the age of 16 years old to use this equipment.
- Before operation or during use, pay attention to the safety and environmental conditions within the operating range of the winch.
- Do not overload. Ensure that all equipment used meets the maximum rope pull force rating. We recommend using an optional pulley block, double rope using a pulley block double rope will help reduce the load on the winch, rope and battery. When using a double rope, the rated value of the pulley block should be two times the rope pull of the winch rating.
- Under heavy loads, do not operate the winch for long periods of time. Electric winches are only designed for intermittent use and, should not be used under constant load. Do not pull for more than one minute. If the winch motor feels very hot, stop the winch and let it cool down for a few minutes.
- The rope end cannot bear the full load when fully extended, the rope must rotate around the drum at least 5 times.
- Avoid pulling from extreme angles, as this will cause the rope

to be rolled on one end of the barrel and may damage the rope or winch.

- Note that the rope-drawing capacity of the winch is the maximum rope- drawing capacity of the first layer, do not operate the winch with overload capacity past this amount of rope.
- Never hook the rope back to itself, otherwise the rope will become damaged. Use trunk protection protector.
- Before operation, make sure that the winch is firmly installed on the vehicle or bracket.
- Before moving heavy objects, check the rope to prevent kinks and uneven wire layers. The rope slack must be properly tightened under a weight of about 100Kg.
- When pulling the load, be sure to place a protective layer on the wire rope near the hook end. This will prevent the possibility of breaking the rope and help prevent serious injuries and damage.



- Do not move the winch to assist in hauling heavy objects, it is easy to overload the winch and cause damage to the rope.
- Pay attention to the dangerous area. Stay away from the danger area during winch operation. The dangerous area is the area that contains the winch drum, fairlead, rope, pulley block, hook and motor.
- When the winch is under load, do not approach or cross the

rope.

- When using the winch to move the load, place the vehicles transmission in neutral and apply the brake of the vehicle and place wedges under each wheel. When the hoist is working, the vehicle engine should be operated to charge the battery. Never use the winch with insufficient voltage.
- Never disconnect the power supply when there is a load on the winch.
- After the operation, release the load immediately and do not tighten the rope.
- Always stay away from ropes, hooks and winches when in operation or under load.
- Check winches, ropes, hooks, and broken strands of worn rope regularly. When handling the rope, please wear thick leather gloves. Do not let the rope slip over your hands. Check the rope before use.
- Crushed, pinched, worn or kinked areas seriously reduce the carrying capacity. A damaged rope should be replaced. It must be re-wound under a load of about 100 pounds.
- The clutch should be disconnected first, and then the rope should be pulled by the hook of the protective lever. Do not pull the rope directly through the hook with your fingers.
- Maintain the specified tension so that the rope can be wound on the reel and re-rolled after the operation tight.
- Do not operate the winch under the influence of alcohol or drugs. Be cautious during operation. If there is a problem, you should cut off the battery immediately and check it carefully.
- Wear goggles, insulating overalls, non-slip shoes, work caps, thick leather gloves, Place long hair tightly under a work cap and remove all jewelry.

#### SEGWAY

## **OPERATION**

- When the winch is in use, be sure to start the vehicle engine and set the gear position to "N."
- When the winch is working, it will draw voltage, so you must start the vehicle and step on the accelerator lightly to avoid damage to the battery.
- If severe noise or vibration occurs during the use of the winch, it must be stopped immediately
- When the winch is not used, please remove the controller.

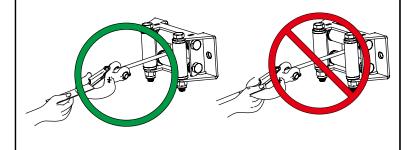
#### **WARNING**

When releasing or retrieving the winch rope, both ends of the rope must be left with sufficient

length to prevent the rope from being over-rolled in or out. When the rope is retrieving, please maintain a certain tension so that the wire can be retracted smoothly and can be wound tightly during retrieving.

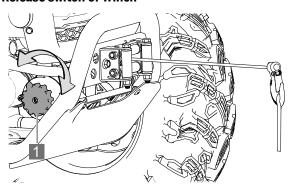
#### WARNING

Always use the tow rope to pull the hook, do not hold the hook with your hands. This is not only important when winding the wire rope, but also when removing the wire rope from the winch under power.



## **Winch Operation**

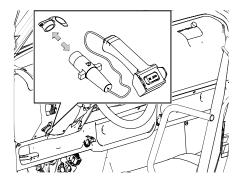
#### **Manual Release switch of Winch**



1 Manual release switch of Winch

- When the winch manual release switch is turned clockwise, the winch cable can be pulled out manually.
- When the winch manual release is switched (turned counterclockwise), the winch can be controlled by the switch.

#### **Operation of control Switch**



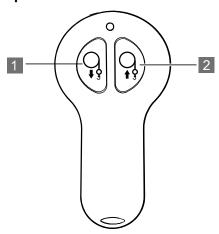
OUT: Release the winch cable

IN: Recoil the winch cable

Remove the control switch from the passenger armrest storage and connect the control switch to the power interface of the winch located at the front of the vehicle.

- Open the waterproof cover of the power interface of the winch switch.
- 2. Insert the control switch wire into the power interface.

#### Remote control operation



1 Release the winch cable

2 Reclaim the winch cable

#### **NOTICE**

When the remote control doesn't work, it may be that the battery in the remote control is exhausted. Replace the battery with a new one.

When the winch is needed, the rope should be aligned with the vehicle, preferably in a straight line. Too large an angle will change the direction of tension and damage the cable. In case of serious noise or vibration during the use of the winch, the operation of the winch must be stopped immediately.



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## PERIODIC MAINTENANCE

Periodic maintenance will help keep your vehicle in the safest, most reliable condition. Inspection, adjustment and lubrication of important components are explained in the periodic maintenance chart.

Inspect, clean, lubricate, adjust and replace parts as necessary. When in the need for replacement parts, use genuine Segway Powersports parts available from your authorized Segway Powersports dealer.

Service and adjustments are important for proper vehicle operation. If you're not familiar with the service and adjustment procedures, have a qualified Segway Powersports dealer perform these operations.

Maintenance intervals in the following chart are based upon average riding conditions. Vehicles subjected to severe use and / or conditions must be inspected and serviced more frequently.

#### Severe use is defined as:

- · Frequent immersion in mud, water, or sand.
- · Frequent or prolonged operation in dusty environments.
- · Short trip cold weather operation.
- · Racing or racing-style high RPM use.
- Prolonged low speed, heavy load operation.
- · Extended idling.

## MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

#### **Maintenance Chart Key**

| Symbol | Description  |
|--------|--|
| •      | Perform these procedures more often for vehicles subjected to severe use.                      |
| D      | Have an authorized Segway Powersports dealer or other qualified person perform these services. |

## **MARNING**

Improperly performing the procedures marked with a D could result in component failure and lead to serious injury or death. Have an authorized Segway Powersports dealer or other qualified person perform these services.

Perform all services at whichever maintenance interval is reached first. Record maintenance and services in the Maintenance Log.

## SEGWAY MAINTENANCE,STORAGE AND TRANSPORTATION

|   |                                       |       | NANCE INTEVER COMES |                  |   |  |
|---|---------------------------------------|-------|---------------------|------------------|---|--|
|   | ITEM                                  | HOURS | CALENDAR            | MILES<br>(MI/KM) | REMARKS   |  |
|   | Steering                              |       | Pre-Ride            |                  |   |  |
|   | Front suspension                      |       | Pre-Ride            |                  | Viewelle, in one of toot                                    |  |
|   | Rear suspension                       |       | Pre-Ride            |                  | Visually inspect, test, or check components.                |  |
|   | Tires/ Wheels/<br>fasteners           |       | Pre-Ride            |                  | Make adjustments and/                                       |  |
|   | Brake fluid level                     |       | Pre-Ride            |                  | or schedule repairs   |  |
|   | Brake system                          |       | Pre-Ride            |                  | when required   |  |
|   | Accelerator                           |       | Pre-Ride            |                  |   |  |
|   | Engine oil level                      |       | Pre-Ride            |                  |   |  |
| • | Air filter, pre-filter                |       | Daily               |                  | Inspect. clean often.<br>replace as<br>needed               |  |
|   | Coolant                               |       | Daily               |                  | Check level   |  |
|   | Power steering unit (if equipped)     |       | Daily               |                  | Inspect daily. clean often                                  |  |
|   | Headlight/<br>taillight/<br>worklight |       | Daily               |                  | Check operation, apply dielectric grease if replacing lamps |  |
| • | Air filter, main element              |       | Weekly              |                  | Inspect. replace as needed                                  |  |

## MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

| ITEM     |                              | MAINTENANCE INTERVAL<br>(WHICHEVER COMES FIRST) |          |                  | REMARKS   |
|----------|------------------------------|---|----------|------------------|---|
|          | II LIVI                      | HOURS   | CALENDAR | MILES<br>(MI/KM) | NEWATO  |
| D D      | Brake pad wear               | 10 H  | Monthly  | 100 (160)        | Inspect periodically  |
|          | Battery                      | 20 H  | Monthly  | 200 (320)        | Check terminals. clean. test  |
|          | Fuel System                  | 20 H  | Monthly  |                  | Inspect. cycle key to pressurize fuel pump. check lines and fittings for leaks and abrasion   |
| •        | Engine oil change            | 25 H  | 1 M      | 200 (320)        | Break-in oil and filter<br>change   |
| <b>•</b> | Front gearcase oil           | 25 H  | 1 M      | 200 (320)        | Break-in oil level check  |
| <b>•</b> | Rear gearcase oil            | 25 H  | 1 M      | 200 (320)        | Break-in oil level check  |
| •        | General<br>lubrication       | 50 H  | 3 M      | 500 (800)        | Lubricate all fittings, pivots, cables, etc.  |
|          | Throttle Body<br>Intake Duct | 50 H  | 6 M      | 500 (800)        | Inspect duct for proper sealing/air leaks   |
|          | Drive belt                   | 50 H  | 6 M      | 500 (800)        | Inspect. adjust. replace as needed  |
|          | Cooling system               | 50 H  | 6 M      | 1000(1600)       | Inspect coolant strength seasonally, pressure test system yearly  |
| <b></b>  | Engine oil change            | 100 H   | 6 M      | 1000(1600)       | Change the oil and filter   |
| <b>•</b> | Oil lines and fasteners      | 100 H   | 6 M      | 1000(1600)       | Inspect for leaks and loose fittings  |
| <b></b>  | Front gearcase oil           | 100 H   | 12 M     | 1000(1600)       | Change fluid.   |
| <b>•</b> | Rear gearcase oil            | 100 H   | 12 M     | 1000(1600)       | Change fluid  |
| D        | Fuel system/filter           | 100 H   | 12 M     | 1000(1600)       | Cycle key to pressurize fuel<br>pump. check for leaks at fill<br>cap,<br>fuel lines/rail and fuel pump.<br>replace lines every two<br>years |

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

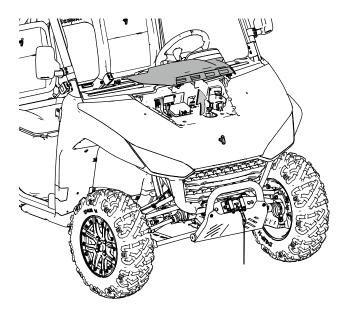
| ITEM     |                                   | MAINTENANCE INTERVAL<br>(WHICHEVER COMES FIRST) |             |                  | REMARKS                            |
|----------|-----------------------------------|---|-------------|------------------|------------------------------------|
|          | I I EIVI                          |   | CALENDAR    | MILES<br>(MI/KM) | REWARKS                            |
| •        | Radiator<br>(if applicable)       | 100 H   | 12 <b>M</b> | 1000 (1600)      | Inspect. clean external surfaces   |
| •        | Cooling hoses<br>(if applicable)  | 100 H   | 12 <b>M</b> | 1000 (1600)      | Inspect for leaks                  |
| <b>•</b> | Engine mounts                     | 100 H   | 12 M        | 1000 (1600)      | Inspect                            |
|          | Exhaust muffler/<br>pipe / Joints | 100 H   | 12 M        | 1000 (1600)      | Inspect. clean. replace worn parts |
| D        | Spark plug                        | 100 H   | 12 M        | 1000(1600)       | Inspect, replace as needed         |
| D        | Clutches<br>(drive and driven)    | 100 H   | 12 M        | 1000 (1600)      | Inspect. clean. replace worn parts |
| D        | Front wheel bearings              | 100 H   | 12 M        | 1000 (1600)      | Inspect, replace as needed         |
| D        | Brake fluid                       | 200 H   | 24 M        | 2000(3200)       | Change every two years             |
|          | Spark arrester                    | 300 H   | 36 M        | 3000(4800)       | Clean out                          |
| •        | Coolant                           |   | 60 M        |                  | Replace coolant                    |
| D        | Valve clearance                   | 500 H   |             | 5000 (8000)      | Inspect. adjust                    |
| D        | Toe adjustment                    |   |             |                  | Adjust as needed                   |
|          | Headlight aim                     |   |             |                  | Adjust as needed                   |

## **LUBRICATING OIL**

Check and lubricate all components at the intervals listed in the periodic maintenance chart. Items not listed in the chart should be lubricated in the general lubrication interval. The rocker arm is lubricated at the factory and does not require additional lubrication. However, if these components are heavily used, the user may perform additional lubrication as required.

| Project                              | Recommended model         | Capacity | Inspection procedure                            |
|--------------------------------------|---------------------------|----------|---|
| Engine oil                           | SAE 5W-40/SN<br>Or higher | 3000 mL  | Maintain level<br>in safe range on<br>dipstick  |
| Front<br>Differential                | SAE 75/80W-<br>90 GL5     | 230 mL   | Drive each<br>2000km Kilometers.                |
| Rear<br>Differential                 | SAE 75/80W-<br>90 GL5     | 1400 mL  |   |
| Coolant                              |                           | 6800 mL  | Maintain the level between the fill lines.      |
| Brake fluid                          | DOT4                      |          | Maintain the level between the fill lines.      |
| Suspension,<br>balance bar<br>grease |                           |          | Grease nozzle<br>( 2 Pump max) per<br>500 mile. |

## Front service lid



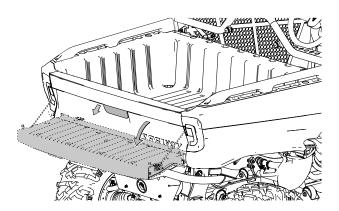
Hold the front service lid and lift it upward. Open the lid. Fuse box, coolant filling port, located under the front service lid.

## **Cargo Box**

#### **MARNING**

Do not carry passengers on cargo container. When loading the goods, do not exceed the maximum load of the container.

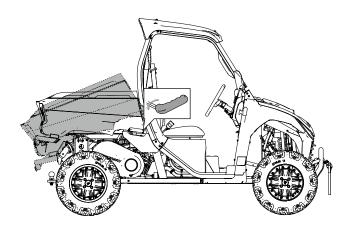
#### Cargo box tailgate



Open the tailgate by lifting the handle of the rear door panel.

Raise the tailgate up and push it hard. When you hear the "click" of the tailgate lock the door is closed. After closing, check whether the tailgate is locked.

Lift cargo bed



The cargo bed release handles are available on the left and right sides of the vehicle.

Lift the cargo bed release handle to raise the cargo bed. The lock hook of the container will spring open. The cargo bed will slowly tilt upwards, and stop automatically when it reaches the turning limit. Push down from the front of the cargo bed to lower and secure the latch.

#### **A** CAUTION

Before lifting the container for unloading, Open the tailgate of the cargo box first.

## **ENGINE OIL MAINTENANCE PROGRAM**

Be sure to check and change the oil at the time required by the regular maintenance chart. Be sure to use the recommended engine oil. The oil filter must also be changed every time the oil is changed. Pay attention to the oil level. An increase in the oil level during cold weather can indicate contaminants collected in the oil sump or crankcase. If the oil level starts to rise, change the oil immediately. Monitor the oil level, if it continues to rise, stop using it and determine the cause. Your Segway Powersports dealer can assist.

#### **WARNING**

Vehicle operation with insufficient, degraded or contaminated engine oil will cause accelerated wear and tear, and may result in engine failures, accidents and / or injuries. Always perform the maintenance procedures listed in the periodic maintenance chart.

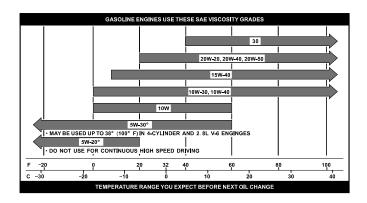
#### **Oil Recommendation**

The oil filter must be changed every time the oil is changed.

It is recommended to use 5W/40-SN four-cycle oil or similar oil for this engine. Follow the manufacturer's recommendations for ambient temperature operation. Please refer to the lubricant guide section for fluid recommendations, capacity.

#### **A** CAUTION

Mixing brands or using non-recommended oils may cause engine damage.



## **Engine Oil Level Check**

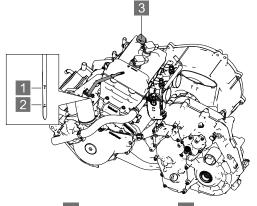
#### **NOTICE**

Running the engine with an improper oil level can cause serious engine damage.

#### **Daily Oil Level Check**

- Position vehicle on a level surface and place the transmission in PARK.
- 2. Raise the cargo box, the oil dipstick is at the bottom.
- 3. Unlock the dipstick lever and pull it out.
- 4. Wipe the dipstick clean and re-insert it, then take it out and check the oil level.

Check the oil level as shown in the figure below. If the oil level is between the upper engraved line 1 and the lower engraved line 2 , it is the proper oil level. Below the lower scale means the oil is too low, and the upper scale means the oil is too full, too low or to full is not recommended.



1 Upper Line

2 Lower Line

3 Oil Filler cap

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

- 5. After cleaning the dipstick, reinsert and tighten the dipstick.
- 6. If the oil level is close to or lower than the MIN level mark, please refer to page 113 to add an appropriate amount of oil.

#### Oil Level Check After Oil Change

#### **NOTICE**

Note: This procedure is only for the new vehicle first oil level check or after an oil change in engine.

- 1. Position vehicle on a level surface and place the transmission in PARK.
- 2. Start the vehicle and let the engine idle for five minutes.
- 3. Stop the engine and allow it to cool down.
- 4. Removing the dipstick.
- 5. Wipe the dipstick clean and re-insert it, then take it out to check the oil level.

Check the oil level as shown in the figure below. If the oil level is between the upper engraved line 1 and the lower engraved line 2, it is the proper oil level. Below the lower scale means the oil is too low, and the upper scale means the oil is too full, too low or to full is not recommended.

6. After cleaning the dipstick, reinsert and tighten the dipstick.

## **Changing Engine Oil & Filter**

#### **NOTICE**

Whenever changing oil change the oil filter.

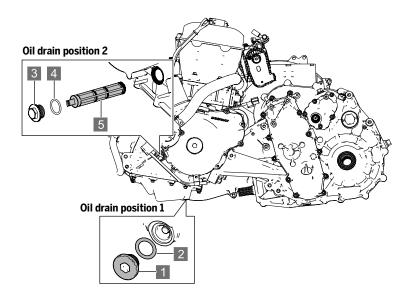
#### WARNING

The used engine oil contains potentially hazardous pollutants, which can cause causes skin diseases such as dermatitis and skin cancer, so care should be taken to avoid prolonged and repeated exposure to such oils. Wash the skin thoroughly with soap and water to remove the used engine oil.

The used oil and filter must be disposed in a safe and compliant way with environmental regulations. Do not dispose used oil and filters in domestic garbage, sewers or on the ground. For information on oil recycling or scrapping, please consult your Segway Powersports Powersports dealer.

Do not put used engine oil in a place where children can reach.

## **Drain the Engine Oil**



1 Oil Drain Plug 2 O-ring 3 Oil Filter Strainer

4 O-ring 5 Oil Drain Plug

There are two places on the engine where the oil can be drained, and both places should be drained, otherwise the waste oil cannot be drained completely.

#### Oil drain position 1

The oil drain position 1 is located at the bottom of the vehicle, under the engine

## MAINTENANCE, STORAGE AND TRANSPORTATION

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#### Oil drain position 2

The oil drain position 2 is located inside the left cover assembly. Remove the flange bolt M6×16 and step bolts on the left cover assembly first, then remove the left cover assembly, and the oil drain position 2 can be seen.

- 1. Put the vehicle on the horizontal surface.
- 2. Start the engine. Let it heat up for two to three minutes at idle.

#### A

#### **WARNING**

Hot oil can cause skin burns. Don't let hot oil touch the skin

- Place a suitable container under the oil drain plug 1 to collect the discharged waste oil
- 4. Remove the oil drain plug 1, remove the O-ring and wait for the waste oil to drain completely
- 5. Place a suitable container under the oil drain plug 3 to collect the discharged waste oil
- 6. Remove the oil drain plug 3 and remove the O-ring 4
- 7. Take out the oil filter strainer 5 and clean the oil filter. See P112 for details
- 8. Wait for the waste oil in drain position 1 and drain position 2 to drain completely

**Torque** 

Drain Plug: 11.8-14.8ft-lb. (16~20N.m)

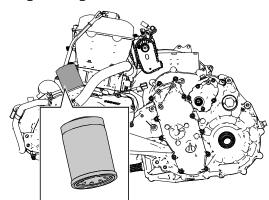
## Replace Oil Filter/Oil Strainer

#### **IMPORTANT**

Change the oil filter and clean the oil strainer with each oil change

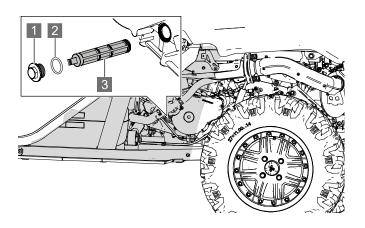
#### **Change the Oil filter**

The oil filter is under the cargo box, Refer to fluid recommendations for capacity and plug torque. Always change the filter at the same time you change the engine oil.



- 1. Using a oil filter wrench, turn the filter counter-clockwise to remove it.
- Using a clean dry cloth, clean the filter sealing surface on the crankcase. Make sure the old filter o-ring is completely removed
- 3. Lubricate the o-ring on the new filter with a film of fresh engine oil. Check to make sure the oring is in good condition.
- 4. Install the new filter.

## **Oil Strainer Cleaning**

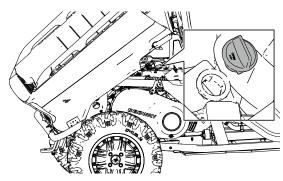


2 O-ring 3 Oil filter 1 Oil drain plug

Oil drain plug: 16~20N.m **Torque** 

- Remove the drain plug, take off the O-ring, and remove the oil strainer.
- 2. Clean the strainer and allow to dry.
- 3. Install new O-rings and reinsert the clean oil strainer

## **Add Engine Oil**



Turn the open the cargo boxr (page 103), and add engine oil cover underneath.

- 1. Unscrew the oil cap counterclockwise.
- 2. Add an appropriate amount of the recommended type of oil type and be careful to do not overfill it. The correct oil level is between the upper level and the lower level marks on the dip stick.
- 3. Retighten Replace the oil cap.
- 4. Put the gear shifter in "park".
- 5. Lock the parking brake.
- 6. Start the engine and leave let it idle for 5 minutes.
- 7. Stop the engine.
- 8. Check for any leaks.
- 9. Check the oil level and add oil as needed to make the oil level reach the mark on the dipstick.
- 10. Properly handle dispose any used filters and oil.

# FRONT/REAR GEARBOX (DEMAND DRIVE) FLUID

Check and replace the demand drive fluid at intervals in the periodic maintenance chart. Replace the front gearbox fluid every 25 hours if the 4WD unit is exposed to extreme use. Extreme use includes any of the following:

Continuous 4WD operations running

in mountain or mountain areas for long periods of time in 4WD mode 4WD is the primary mode of all-wheel drive operations.

#### **NOTICE**

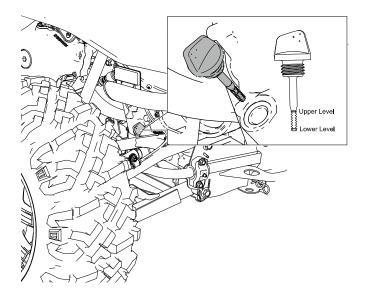
If the front gearbox makes too much noise during 4WD operation, change the demand drive fluid. If the noise continues, see your Segway Powersports dealer.

Use the recommended oil type. The use of other oil may result in improper operation. Maintain oil level to the bottom of filling hole thread.

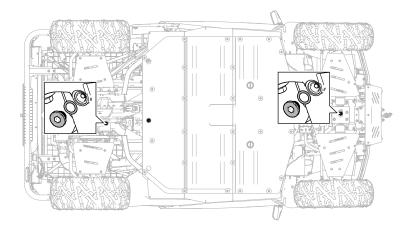
## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

## **Check the Rear Gear Box Oil Level**

- 1. Park the vehicle on the level ground. Put the vehicle to a stop.
- 2. With a rag, remove and pull out the oil dipstick.
- 3. Clean the dipstick.
- 4. Re-insert the dipstick completely.
- 5. Check the oil level as shown in the figure above. The oil should be in the gradient marks. Add if the oil level is low.
- 6. Wipe the dipstick before reinstalling.



## Front/Rear Gearbox Oil change



- Place a container under the vehicle oil drain to collect the waste oil.
- Position the vehicle on a horizontal surface, and remove the drain plug and o-ring.
- 3. After the oil is drained, reinstall the filling plug.

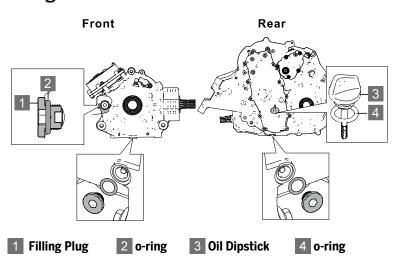
Torque to the required value.

Torque Discharge plug:

Torque Drain Plug: 16-20N.m

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

## Add gear oil



- Torque Filling Plug: 16-20N.m
- 2. Place the drain tray under the differential.

Position the vehicle on a horizontal plane.

- 3. Remove the drain plug. Allow the fluid to drain completely.
- 4. Clean and reinstall the drain plug.
- 5. Torque to desired value.
- 6. Remove fill plug
- 7. Add the recommended amount of oil.
- 8. Reinstall the fill plug
- 9. Torque to desired value.
- 10. Check for any leakage.
- 11. Dispose used oil properly.

#### **CVT** belt

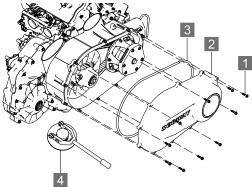
Replace the CVT drive belt according to the specified time listed in the vehicle maintenance schedule. If the belt is damaged, it should be replaced.

When replacing the belt, clean the CVT housing pipe, clutch and the engine compartment for debris.

#### **MARNING**

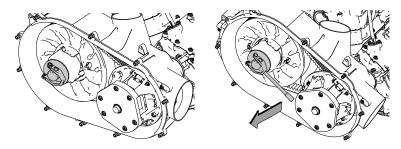
Failure to remove all debris when the belt is replaced can result in vehicle damage, loss of control and serious injury or death

Stop the engine before replacement and allow the vehicle to cool down.



- 1 CVT cover bolt
- 2 CVT cover
- 3 CVT cover seal
- 4 CVT belt replacement tool
- 1. Remove the CVT outer cover bolts, outer cover and the sealing ring.
- Remove the handle on the CVT belt replacement tool, and manually screw the CVT belt replacement tool into the thread of the CVT driven wheel.

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION



- 3. Insert the handle of the CVT belt replacement tool and pull the handle outward to open the CVT driven wheel.
- Remove the drive belt from the CVT driven wheel and driving wheel.

If there are debris in the engine CVT inner box, please remove all debris completely.

#### Install the drive belt

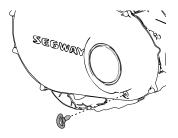
The installation steps are basically the reverse of the removal.

- 1. Wrap the drive belt around the CVT driving wheel.
- 2. Use the CVT belt replacement tool to open the CVT driven pulley, wind the drive belt into the CVT driven pulley.
- 3. Install the CVT sealing ring and the CVT outer cover, tighten the CVT outer cover.

Torque CVT cover bolt : 6 N.m

## **Drying the CVT**

In some cases, the water may soak into the CVT system and must be dried out it before driving.



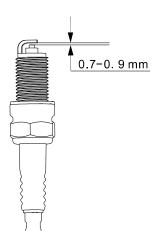
## MAINTENANCE, STORAGE AND TRANSPORTATION

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- 1. Remove the CVT clutch drain plug.
- 2. Wait for the water to drain out and reinstall the water drain plug.
- 2. Start the engine.
- 3. Increase the engine speed and maintain it for 10-15 seconds to remove the excess moisture and dry the belt and CVT. DO NOT fully open the throttle during this operation.
- 4. Shift gears to the low range and test for belt slippage.
- 5. If the belt still slips, repeat the process.
- Visit your Segway Powersports dealer if your vehicle needs service.

## **SPARK PLUG**

Refer to the specification below for the recommended spark plug type and clearance specifications.



#### **A** CAUTION

The use of anything but the recommended spark plug can cause serious engine damage. Always use the recommended spark plugs or their equivalents.

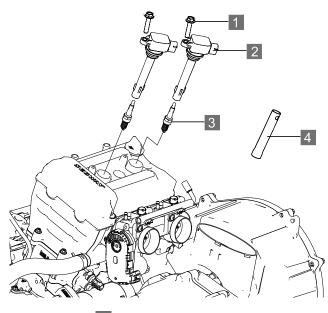
| Spark Plug        |                             |  |
|-------------------|-----------------------------|--|
| Model             | NGK CPR7EA /<br>TORCH B7RTC |  |
| Spark Plug Gap    | 0.7-0.9 mm                  |  |
| Spark Plug Torque | 8.8 ft. lbs. (12 N-m)       |  |

## **Spark Plug Inspection**

The spark plug condition indicates how the engine is running. Check or change the spark plugs within the maintenance time shown in the periodic maintenance schedule.

#### **A** CAUTION

Allow the engine to cool before attempting to remove the spark plug for inspection. Hot exhaust system and engine will cause burns.



- 1 Bolt
- 2 Ignition coil
- 3 Spark plug
- 4 Spark plug

## MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

The spark plug is located under the cargo box. Please refer to page 103 to open the cargo box. When replacing the spark plugs, please replace both spark plugs at the same time.

- 1. Remove the ignition coil fixing bolts.
- 2. Take out the ignition coil, The spark plug is located below the ignition coil.
- 3. Using the spark plug wrench provided in the took kit, remove the plugs by rotating them counterclockwise.
- 4. Reverse the procedure for spark plug installation. Torque to specification.

Normal spark plug: The electrode part is grayish white, grayish yellow or light brown, and the electrode gap is about 0.7-0.9mm.

If the spark plug shows electrode wear, carbon deposits or, clearance is too large replace the spark plugs.

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

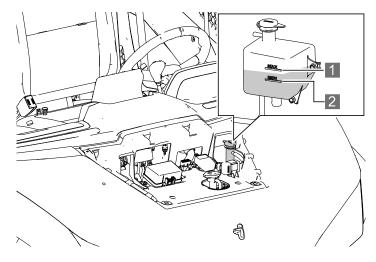
## **COOLANT**

The coolant circulates in the engine cooling system, taking away the excess heat generated during the engine operation and making the engine operate at normal operating temperature. Maintaining the coolant will allow the cooling system to work properly and prevent freezing, overheating, and corrosion. Therefore, the coolant should be frequently checked. The factory provides a 50/50 solution of antifreeze and water in this vehicle. This coolant solution is recommended for most operating temperatures and provides good corrosion protection.

## **Coolant bottle**

The coolant bottle is located under the front access cover.

- Check the liquid level of the coolant bottle from the lower left side of the front panel of the vehicle.
- If the liquid level is low, add the corresponding type of coolant.Coolant should be in the bottle remain level between minimum MIN and maximum mark MAX on the liquid (as the liquid cools).



- 1 MAX
- 2 MIN
- 3. Unscrew the lid and pour in the new coolant. Pay attention to the position of coolant when pouring. Do not exceed the maximum liquid level.
- 4. Reinstall the cover.
- Cover the front maintenance cover.

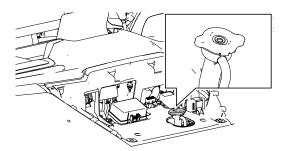
#### Radiator coolant

To ensure that the coolant maintains its ability to protect the engine, we recommend the system each five (5) years completely drained and new antifreeze 50/50 premix added.

#### **A** CAUTION

Steam escaping can cause burns.Do not disassemble pressure relief cap when there is temperature or heat in the engine.The engine must be allowed to cool down before the pressure cap is removed.

Use fresh antifreeze when any cooling system fluid is removed for maintenance or repair 50/50 premix to replace coolant. If the recycling bottle has dried up, check the radiator The liquid level. Add coolant as needed.



- 1. Remove the ventilation hood.
- 2. Remove the pressure cap.
- 3. Use a funnel and slowly add coolant through the radiator filling port.
- 4. Reinstall the pressure cap. The use of non-standard pressure caps will affect the normal operation of recovery system.

Your dealer can provide the correct replacement parts.

### **BRAKE SYSTEM**

The front and rear brakes are hydraulic disc brakes that are activated by pressing the brake pedal with your foot. These brakes are self-regulating. As the brake pads wears away, the brake fluid level will drop. Leakage in the system will also cause the fluid level to drop.

#### **▲ WARNING**

Brake fluid levels must be checked periodically.

Overfilling of the brake cylinder may cause brake resistance or brake locking, which may result in serious injury or death.

Keep the brake fluid at the recommended level and do not overfill.

Must check brake disc brake disc wear condition regularly.

The following inspection is recommended to keep the braking system in good working condition. If the brake is in heavy use during normal operation, check it frequently.

- 1. Always keep the brake fluid at an appropriate level. Please refer to master cylinder/brake fluid section for details (page 127).
- 2. Check the braking system for liquid any leakage.
- Check whether the brake travels pedal stroke feels too long or feels soft.
- 4. Check whether the friction gasket is worn, damaged or loose. When replacing the brake gasket, the brake pad must be replaced when the remaining limit thickness of the brake pad is not less than 1mm.
- 5. Check the safety and surface condition of the disc. Use the recommended brake cleaner to clean any grease. Do not use spray lubricants or other petroleum-based products. If any damage (crack, excessive corrosion, warping) is found, please check the dealer's service before operation with your Segway Powersports dealer befor further operation.

## SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

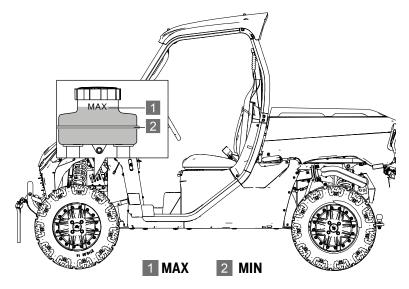
### **Brake Fluid**

Use the recommended brake fluid:

| Brake Oil | DOT4 |
|-----------|------|
|-----------|------|

No adjustment is required for the hydraulic assisted braking system. Check the brake oil level of the auxiliary braking system frequently. If the level is shown to be low, perform the following operations. The brake oil cup is located below the front panel.

- 1. The brake fluid cup is located at the lower left of the front panel
- 2. Observe the liquid level in the container:



3. The brake fluid level is most suitable between the Max and Min level indicators. If it is lower than the Min indicator, add

## MAINTENANCE, STORAGE AND TRANSPORTATION

SEGWAY

the recommended brake fluid and observe the fluid level.

4. Check whether the brake pads are worn.

#### **NOTICE**

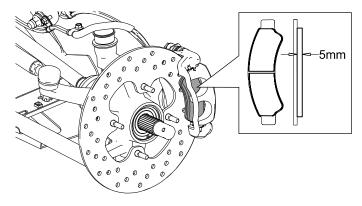
Brake fluid can damage plastic and painted surfaces and should be added with caution.

If the brake fluid comes into contact with the skin or eyes, flush with plenty of water immediately. If you feel sick, seek medical attention immediately.

#### **Brake Pads**

Brake pad wear will depend on the severity of the operator and operating conditions. Brake component will wear faster in wet and muddy conditions. Periodically inspect the brake component for wear according to the maintenance periodic table. If the brake pad thickness is less than or equal to minimum thickness of 1.00 mm, the brake component must be replaced.

| Brake components | Standard thickness | 5.0 mm |  |
|------------------|--------------------|--------|--|
| thickness        | Minimum thickness  | 1.5 mm |  |



#### **TIRE**

#### **Tire Pressure**

Driving a vehicle with the incorrect tire pressure may result in the following consequences:

- · Reduced fuel efficiency
- · Reduced driving comfort and shortened tire life
- · Reduction in safety reduction

When checking tire pressure, use the following instructions:

| Recommended    | Front wheels       | Rear wheels      |  |
|----------------|--------------------|------------------|--|
| tire pressures | 15.0 psi (103 kPa) | 16 psi (110 kPa) |  |

- · Allow the tire cools down before checking pressure.
- If the vehicle has been parked for at least 3 hours, or has not driven more than 1.5km, the check at this time can get an accurate reading of the cold tire inflation pressure.
- Tire appearance can sometimes be misleading. Even a few pounds less air in a tire can affect driving and handling performance.
- Increased tire pressure is normal after driving, do not reduce the tire pressure after driving.

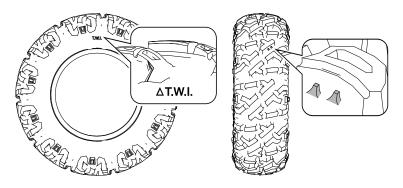
## **Tread Depth**

#### Inspection method 1:

Observe the tire wall to find the Tire Eear Indicator (TWI)
or "△", follow the triangle sign to see limit. When the tread
reaches the top of the indicator, it is time to replace the
tire(s).

#### Inspection method 2:

Check the wear condition of tire tread block. When the wear condition of tire tread block is at least 1.6mm higher than trad, replace the tire.



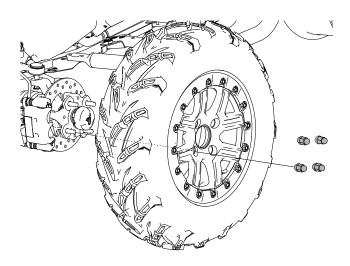
## When to Replace a tire:

- If tire is damaged, such as a cut, delamination, or a deep crack of the sidewall, or a bulge is all indications that the tire is damaged.
- Tires can have air leaks and cannot be normally repaired due to the size or position of the area of the leak. If you are not sure, consult your Segway Powersports dealer.

## **Replace the Tires**

When the tire tread wear has reached the replacement mark or the tire is damaged due to an external impact, the damaged tire should be replaced.

## **Wheel Removal**



## **Torque to Specification:**

- 1. Stop the engine.
- 2. Put the gear shifter in "P" position.
- 3. Lock parking brake.
- 4. Lift the side of the vehicle by placing a suitable jack under the frame.
- 5. Loosen the four hub mounting nuts.
- 6. Remove the wheel.

#### **A** CAUTION

The loose nut may cause the tire to fall off during operation, which may cause an accident or rollover. Always ensure that all nuts are tightened to the required value 100~120N·m . Do not use lubricating oil or grease on wheel bolts or wheel nuts. Lubricating oil or grease may cause excessive tightening of wheel nuts, resulting in damage to bolt or spoke wheels. In addition, lubricating oil or grease can cause wheel nuts to become loose and wheels may fall off, which can lead to accidents and serious injuries. Remove any lubricating oil or grease from wheel bolts or wheel nuts.

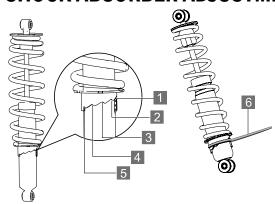
## **Tire Replacement Size**

#### WARNING

Do not use wheels of different sizes than recommended in the User's Manual as this can cause the vehicle to lose control.

| The recommended | The front wheel | The rear wheel |
|-----------------|-----------------|----------------|
|                 | 27×9.00-14      | 27×11.00-14    |
| size            | 27×9.00R14      | 27×11.00R14    |

## **SHOCK ABSORBER ADJUSTMENT**



The spring adjustment sleeve of the hydraulic shock absorber there are 5 adjustment positions, the spring can be adjusted according to different terrain and loading conditions, if you feel too soft and too hard, it can be adjusted by the spring table adjustment.

**Position** 1 : Standard position.

**D** ... 0 E

Position 2 ~ 5 : When vehicle load is heavy, it can be adjusted to this

position.

| Position | Spring       | Environment  | Load         | ierrain      | Speed    |
|----------|--------------|--------------|--------------|--------------|----------|
| 1        | Soft         | Soft         | Light        | Flat         | Low      |
| 2        | 1            | <b>↑</b>     | 1            | <b>↑</b>     | <b>↑</b> |
| 3        |              |              |              |              |          |
| 4        | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | ↓        |
| 5        | Hard         | Hard         | Heavy        | Bumpy        | High     |
|          | •            |              |              |              | •        |

Desire Organization and Least Transit Organi

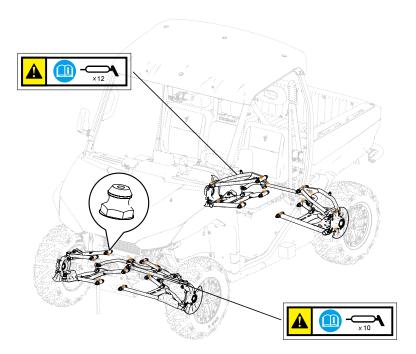
Use crescent wrench 6 to adjust the impact spring pressure.

#### **A** CAUTION

When adjusting the shock absorption position, always adjust the left and right shock absorption to the same position. Step up or down one position at a time during adjustment. Do not try to make large adjustments, which may damage the shock absorber.

## **LUBRICATION**

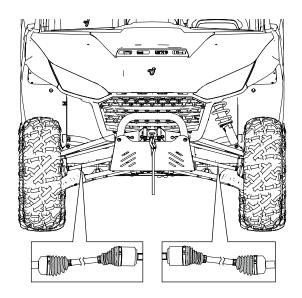
The vehicle's front suspension, rear suspension, drive shaft and balance parts are installed with grease fitting. If you see the label below, there is a grease spot nearby.



These parts on the vehicle need sufficient lubrication. Lubrication can reduce the wear of these parts, and increase the service life of the vehicle. Follow the periodic maintenance table to add appropriate grease at the right intervals.

## Front/Rear Drive Axle Dustcover

Check for cuts, damage or grease leakage in the front and rear drive axle dust boots. If you find an damage or grease leakage, please contact your Segway Powersports dealer for replacement.



## **AIR FILTER**

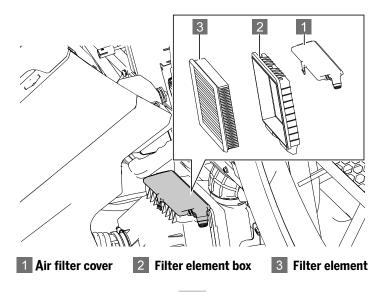
The vehicle utilizes a two-stage air filtration system. The air passes through the primary filter first and then the secondary air filter last. This two-stage air filtration system fully meets the needs of the engine.

The air filter core shall be replaced regularly according to the periodic maintenance table. The primary filter screen must be cleaned every bime the air filter core is replaced.

## **Replacing Air Filter element**

The air filter element needs to be changed after using for a period of time, as shown in the specific cycle

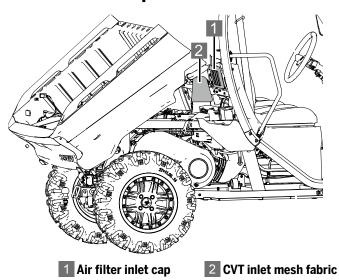
Maintenance Interval (page 97-99)



The air filter is located at the bottom right of the cargo box, turn the cargo box over to open.

- 1. Press the plastic buckle on the air filter cover, and pull out the air filter cover 1
- 2. Pull out the air filter box.
- 3. Take out the filter element 3 from the box, clean or replace the filter element according to the cleanliness of the filter element
- 4. Reinstall the filter element on the filter.
- 5. Reinstall the air filter cover.

### Air filter inlet cap and CVT inlet mesh fabric



Check the air filter inlet cap and CVT inlt mesh fabric every day.

#### MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

The air filter inlet cap and CVT inlt mesh fabric is located at the bottom right of the cargo box, turn the cargo box over to open. clean it if necessary, and replace it if damaged.

#### WARNING

When assembling the filter element, please make sure that the buckles of the filter element and the end cover are installed in place, otherwise it will cause the engine to malfunction or reduce the service life

When the vehicle is driving in a dusty environment, please shorten the time interval for checking the filter element

The air filter is soaked or the filter element is wet, please drain the water and replace the filter element

## LAMP

#### **A** CAUTION

Poor lighting can result in reduced visibility while driving. Please clean the headlamps frequently and replace non-working headlamps promptly.

To ensure optimum visibility and saftey, make sure the lights are properly adjusted.

### **Change the headlight**

#### **LED lights**

LED lights consist of multiple lights. If any LED burns out, please send the vehicle to the dealer for replacement.

#### **Halogen lamp**

If the halogen bulb is damaged, it can be replaced. You can replace the following lamps yourself. The ease of replacement varies according to the bulb types. Due to possible damage, we recommend that the parts are better to be replaced by the dealers.

In the following cases, contact your dealer for more information. It doesn't mean malfunction if condensed water appears inside the headlamp lens temporarily.

- · There are big beads of water inside the lens.
- Condensation of water inside the headlamp.

### **A** CAUTION

Hot ingredients can cause skin burns. Allow the lights to cool before doing maintenance.

DO NOT touch the headlight shade bulb glass. Fingerprints on the glass can to cause premature failure.

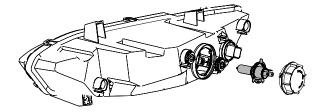
### **Execute the following procedure:**

1. Remove the headlamp shade expansion screw and remove the headlamp cover with the tool.



- 1 Expansion screw 2 Headlight guard
- 2. Twist clockwise and turn off the cover of the headlamp.
- 3. Remove the wire harness connector on lamp and take out the

broken bulb.



- 4. Reinstall the new light into the new bulb and turn on the headlight.
- 5. Test whether headlight is working properly.
- 6. Press the fixed spring on both sides to make the spring pop out of the slot.
- 7. Remove the broken light bulb

### **A** CAUTION

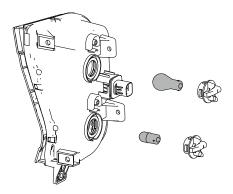
Please replace lamp with the recommended power.

Reinstall the new lamp into the new headlight assembly. The installation procedure is opposite to the disassembly procedure. After installation, turn on the headlight switch to test whether the lamp is working properly.

## Replace taillight/rear turn light

Procedures for changing taillights:

Remove rear light cover.



- 1. Unscrew the rear light holder.
- 2. Turn the bulb that needs to be replaced on the taillight seat from left to right. When the limit bead at the end of the bulb gets stuck in the limit slot of the lamp seat, the damaged bulb can be taken out and replaced with a new bulb with the same power.
- 3. Test whether the lamp works normally.

## High beam adjustment

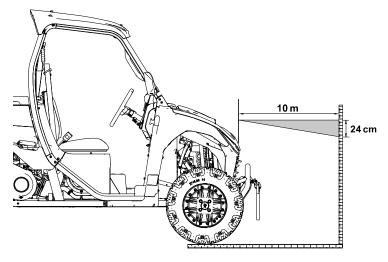
The headlight beam can be adjusted slightly up/down. Use the following procedure to make adjustments.

### **A** CAUTION

The following pictures are for reference only. Your model may be slightly different.

It is best for a Segway dealer to adjust if conditions permit.

1. Place the vehicle on a level surface with the headlight approximately 10 m from a wall.



- 2. Measure the distance from the floor to the center of the headlights and mark the walls at the same height.
- 3. Apply the brakes. Start the engine. Turn on the headlights.
- 4. Observe the headlight aim. The most intense part of the headlight beam should be aimed 24cm below the mark placed on the wall. Include the weight of a rider on the seat while performing this step.
- 5. If a headlight needs adjustment, locate the adjustment screw at the back of the headlight(see page 144).

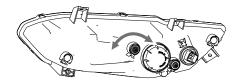
## MAINTENANCE, STORAGE AND TRANSPORTATION | S

SEGWAY

### Adjust the headlight beam upwards and downwards

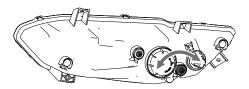
To raise the headlight beam, turn the headlight adjusting screw counterclockwise.

To lower the headlight beam, turn the headlight speed adjustment screw clockwise.



### Adjust the headlight beam left and right

The headlight beam can be adjusted from left or right.



To turn the headlight beam to the left, turn the headlight adjustment screw counterclockwise.

To turn the headlight beam to the right, turn the headlight speed adjustment screw clockwise.

### **SPARK ARRESTER**

Spark arrester prevents random sparks from entering other parts of the vehicle. Regular maintenance can prevent carbon accumulation, maintenance will reduce engine performance if the maintenance is not done.

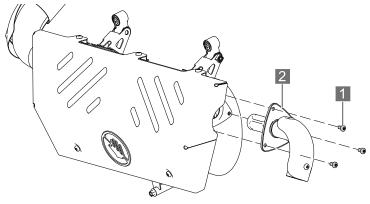
### **MARNING**

Make sure the exhaust pipes are cool.

Ensure that there are no combustible materials in the area when maintaining the vehicle.

Safety glasses are recommended in this procedure.

The exhaust pipe must be cleaned periodically of any accumulated carbon:



1 Pan head screwM6×16 2 Muffler spark suppressor

## MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

- 1. Remove the 3 fastening bolts 1 on the muffler spark suppressor 2.
- 2. Remove the muffler spark suppressor.
- 3. Use a non-synthetic brush to clean the arrester screen. A synthetic brush may melt if components are warm. If necessary, blow debris from the screen with compressed air.
- 4. Inspect the screen for wear and damage. Replace a worn or damaged screen.
- 5. Reinstall the muffler spark suppressor and fastening screws.

### **BATTERY**

Due to natural discharge and leakage effects of some electrical equipment, the 12V battery will discharge gradually even when the vehicle is not in use. If the vehicle is parked for a long time, the 12V battery may discharge and may not start. Please charge the battery slowly one time a month if not in use. This will maintain the battery life cycle.

#### WARNING

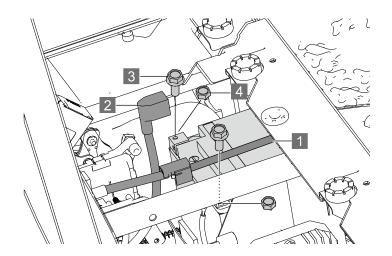
12V batteries contain toxic and corrosive sulfuric acid and may produce flammable explosive hydrogen gas. To reduce the risk of serious injury or death, the following precautions should be observed when handling 12V batteries or working near them:

- Do not smoke or light a match near a 12V battery.
- · Avoid splashing electrolyte on eyes, skin and clothes.
- · Wear safety goggles when working near 12V battery.
- · Keep children away from 12V batteries.
- Be sure to charge the 12V battery in an open area.Do not charge a 12V battery in a poorly ventilated garage or enclosed room.

### **Battery Removal**

### **NOTICE**

If the electrolyte overflows, immediately wash it off with a solution of 1 tablespoon baking soda and 1 cup water to prevent damage to the vehicle.



The battery is located under the middle of the seat. If you want to replace or maintain the battery, please remove the passenger seat and cover (see page 41 for details).

Turn the power off before removing battery.

- 2 Protective rubber sleeve 1 Battery pull strap
- 3 Positive and negative anchor bolts for cable
- 4 Positive and negative anchor nuts for cable

- 1. Remove the 2 battery pull straps
- 2. Turn up the Protective rubber sleeve.
- 3. Remove the battery negative pole screw and disconnect the black (negative) battery cable.
- 4. Remove the battery positive pole screw and disconnect the red (positive) battery cable.
- 5. Remove the battery.

### **Battery Charging**

#### **NOTICE**

When charging, the hydrogen produced by the 12V battery is combustible explosive gas. Please follow the following precautions before charging:

If charging the 12V battery is still installed in the vehicle, be sure to disconnect the ground cable.

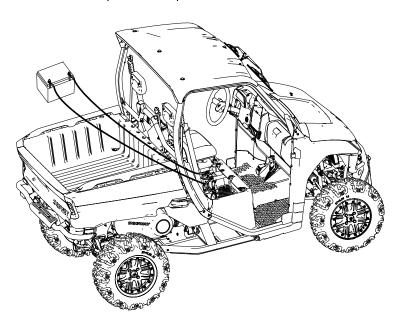
Make sure the power switch on the charger is off when connecting and disconnecting the charger cable to the 12V battery.

Only charge slowly (5A or less), if not the 12V battery may explode.

#### Measures to be taken in an emergency

- 1. Connect the clamp of the positive jumper cable to the special jumper starting terminal of the vehicle.
- 2. Connect the clamp on the other end of the positive cable to the positive (+) terminal of another vehicle.
- 3. Connect the negative cable clamp to the negative battery terminal of another vehicle.
- 4. As shown, connect the clamp on the other end of the negative

cable to a separate clamp.



## **Battery Installation**

#### **NOTICE**

To reduce the chance of sparks, disconnect the black (negative) cable first. When reinstalling the battery, install the black (negative) cable last.

Clean battery cables and terminals with a hard wire brush. Corrosion can be removed with a solution of 1 cup water and 1 tablespoon baking soda. Rinse well and dry thoroughly.

- 2. Put the battery in the tray.
- 3. Connect and tighten the red (positive) cable.
- 4. Connect and tighten the black (negative) cable.
- 5. Install the battery press plate.
- 6. Tighten the battery clamp bolt.
- 7. Verify that cables are properly wired.

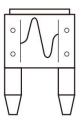
### **FUSE**

All circuits on the vehicle have fuses to protect electrical equipment from damage caused by high current (short circuit or overload).

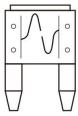
If any of the electrical parts do not work, the fuse may have blown. If this happens, check and replace the fuse if necessary. You can consider electrical faults, first check whether the fuse needs to be replaced, if it is found to have blown, replace the blown fuse. There is a spare fuse in the fuse box. Check all fuses for other possible causes. Replace all blown fuses and check the working condition of components. All fuses are concentrated in the fuse box. In the event of a system failure, see "Fuse Distribution and Ampere rating" for details of which fuses to check.

#### **NOTICE**

- Do not use a fuse above the rated ampere value or replace it with anything else.
- Please use the same product. Never use wires for fuses, even temporary replacements are not allowed.
- Do not modify fuses or fuse boxes.



Normal fuse



Blow fuse

### **Fuse Box**

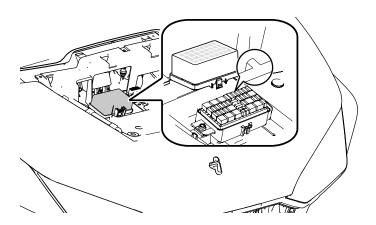
The fuse box is located under the front instrument panel. Remove the front panel repair cover as shown in page 101.

After the front panel repair cover has been removed, the fuse box is located at the bottom. Move the clasp on the left and right sides of the fuse box cover. Loosen the clasp and open the fuse box.

#### **NOTICE**

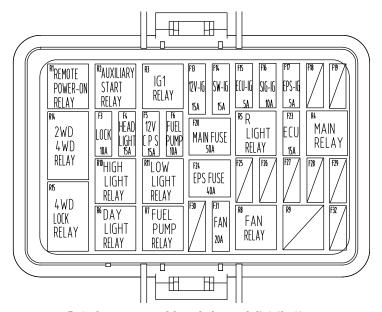
Pay attention to the direction of installation.

The label may be slightly different from the image below.



## **Fuse/Relay Distribution and Rated Amperage**

There is a. You can refer to the fuse distribution label on the top of the fuse box cover to find a fuse of the same power for replacement.



Rated amperage of fuse/relay and distribution

| No. | Fuse/Relay            | Power   |
|-----|-----------------------|---------|
| F3  | LOCK FUSE             | 10A     |
| F4  | HEAD LIGHT FUSE       | 15A     |
| F5  | 12V C P S FUSE        | 15A     |
| F6  | FUEL PUMP FUSE        | 10A     |
| F13 | 12V-IG FUSE           | 15A     |
| F14 | SW-IG FUSE            | 15A     |
| F15 | ECU-IG FUSE           | 5A      |
| F16 | SIG-IG FUSE           | 10A     |
| F17 | EPS-IG FUSE           | 5A      |
| F20 | MAIN FUSE             | 50A     |
| F23 | ECU FUSE              | 15A     |
| F24 | EPS FUSE              | 40A     |
| F31 | FAN FUSE              | 20A     |
| R1  | REMOTE POWER-ON RELAY | 12V 20A |
| R2  | AUXILIARY START RELAY | 12V 20A |
| R3  | IG1 RELAY             | 12V 20A |
| R4  | MAIN RELAY            | 12V 20A |
| R5  | R LIGHT RELAY         | 12V 20A |
| R6  | DAY LIGHT RELAY       | 12V 20A |
| R7  | FUEL PUMP RELAY       | 12V 20A |
| R8  | FAN RELAY             | 12V 20A |
| R10 | HIGH LIGHT RELAY      | 12V 20A |
| R11 | LOW LIGHT RELAY       | 12V 20A |
| R14 | 2WD 4WD RELAY         | 12V 20A |
| R15 | 4WD LOCK RELY         | 12V 20A |

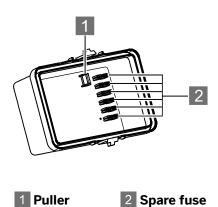
### **Fuse Box Replacement**

To prevent an accidental short circuit, turn the ignition switch to the (OFF) position and check or replace the fuse(s).

To check or replace the circuit fuse, pull out the old fuse with a puller.

The fuse box cover is equipped with a puller. Using this tool will help you take out the fuse.

The fuse box cover is fitted with a common fuse which can be replaced.



#### **NOTICE**

If a replacement fuse suitable for the circuit rating is not available, install a lower rated fuse.

### **APPEARANCE CARE**

### **Vehicle Washing**

High pressure water can damage parts and remove paint and decals.

- 1. Cover or plug the exhaust outlet prior to washing your vehicle.
- 2. Fill a bucket with water. Mix in a mild, neutral detergent, such as dish washing liquid or a product made especially for washing motorcycles or automobiles.
- 3. Wash your vehicle with a sponge or soft towel. As you wash, check for heavy grime. If necessary, use a mild cleaner/degreaser to remove the grime.
- 4. After washing, rinse your vehicle thoroughly with plenty of clean water to remove any residue. Detergent residue can corrode alloy parts.
- 5. Dry your vehicle with a chamois or a soft towel. Leaving water on the surface to air dry can cause dulling and water spots. As you dry, inspect for chips and scratches.
- 6. As a precaution, ride your vehicle at a slow speed and apply the brakes several times. This will help dry the brakes and restore normal braking performance.

### **Vehicle Storage**

When the vehicle is not used for a long time, it should be appropriately stored. The vehicle should be parked and cleaned. If there is no indoor storage conditions, covered outdoor storage is recommended.



# **SPECIFICATIONS**

| TECHNICAL PARAMETERS OF VEHICLE | 159 |
|---------------------------------|-----|
| VEHICLE IDENTIFICATION NUMBER   | 163 |
| The frame nameplate             | 165 |

# **TECHNICAL PARAMETERS OF VEHICLE**

|  | Parameters                               |  |
|--|--|--|
| ltem ltem                              | SGW1000F-U2                              |  |
| VEHICLE                                |  |  |
| Length×width×height                    | 3075 mm×1599 mm×2065 mm                  |  |
| Wheelbase                              | 2085 mm                                  |  |
| Front axle track                       | 1350mm                                   |  |
| Rear axle track                        | 1320 mm                                  |  |
| Curb weight                            | 750 kg                                   |  |
| Ground clearance                       | 320 mm                                   |  |
| Turning circle diameter                | 8500 mm                                  |  |
| Height of seat cushion from the ground | 500 mm                                   |  |
| Steering wheel diameter                | 350 mm                                   |  |
| Maximum weight capacity                | 680 kg                                   |  |
| EPS type                               | Electric (Optional)                      |  |
| Air filter type                        | Paper filter type                        |  |
| Muffler type                           | Impedance                                |  |
| Shift operation mode                   | Mechanical                               |  |
| Tank                                   | 45 L                                     |  |
| Coolant capacity                       | 6800 mL                                  |  |
| POWER/TRANSMISSION                     |  |  |
| Engine type                            | Double cylinder Liquid cooling 4 strokes |  |
| Engine model                           | 293MY-1                                  |  |
| Displacement                           | 1000 CC                                  |  |
| Compression ratio                      | 10.9 : 1                                 |  |
| Bore×Stroke                            | 93 mm×73.6 mm                            |  |

# **SPECIFICATIONS**

SEGWAY

| Starting method           |               | Electric start                                 |
|---------------------------|---------------|--|
| Ignition type             |               | Eletcricity(ECU)                               |
| Spark plug type           |               | NGK CPR7EA /TORCH B7RTC                        |
| Spark plug clearan        | ce            | 0.7-0.9 mm                                     |
| Lubrication method        |               | Liquid   |
| Cooling method            |               | Liquid   |
|                           | Engine        | SAE 5W-40/SN Or higher                         |
| Lubricating oil           | Gearbox       | SAE 75/80W-90 GL5                              |
|                           | Front Axle    | SAE 75/80W-90 GL5                              |
|                           | Engine        | 3000 mL  |
| Lubricating oil volume    | Gearbox       | 1400 mL  |
| Volumo                    | Front Axle    | 230 mL   |
| Generator power           |               | 580W   |
| Fuel label number         |               | 92#  |
| CVT transmission r        | atio          | 0.891~3.608                                    |
|                           |               | H: 1.2   |
| Primary transmission      | on ratio      | L: 2.15  |
|                           |               | R: 2.388                                       |
| Secondary transmi         | ssion ratio   | 1.8  |
| Three-stage transn        | nission ratio | 1.52   |
| Final transmission r      | atio          | To Fr. Bridge: 0.95                            |
| Power transmission method |               | Axle   |
| Fr. Bridge                |               | 3.67   |
| Rr. Bridge                |               | 3.3125   |
| TIRE                      |               | TIRE   |
| Rim type                  | Fr. Wheel     | Aluminum rim (14×6.5) or<br>Steel rim (14×6.0) |
| (Specification)           | Rr. Wheel     | Aluminum rim (14×7.0) or<br>Steel rim (14×7.5) |

## SEGWAY

# **SPECIFICATIONS**

| Tire type            | Fr. Wheel                | 27×9.00 - 14                           | 27×9.00-14  |
|----------------------|--------------------------|--|-------------|
| (Specification)      | Rr. Wheel                | 27×9.00R14                             | 27×11.00R14 |
| Tire preserve        | Fr. Wheel                | 15.0 PSI. (103 Kpa)                    |             |
| Tire pressure        | Rr. Wheel                | 16.0 PSI. (110 Kpa)                    |             |
|                      | Туре                     | Hydraulic/Disc                         |             |
| Driving brake        | Operation method         | Right feet                             |             |
|                      | Туре                     | Mechanic,<br>Automatic compens         | sation type |
| Parking brake        | Operation method         | Hand                                   |             |
|                      | SUSPENSION               |  |             |
| Fr. Suspension strok | Fr. Suspension stroke    |  |             |
| Rr. Suspension strol | ke                       | 270 mm                                 |             |
| Suspension type      | Fr.                      | Double-wishbone in<br>Suspension       | ndependent  |
| Suspension type      | Rr.                      | Double-wishbone independent suspension |             |
|                      | Fr.                      | Hydraulic spring                       |             |
| Shock absorber       | Rr.                      | Hydraulic spring                       |             |
| ELCTRIC              |                          |  |             |
|                      | Headlight                | 55W×2-32000cd (                        | H4)         |
|                      | Fr. Position light       | LED×2                                  |             |
| Headlight            | Daytime<br>Running Light | LED×2                                  |             |
| l L                  |                          |  |             |

# **SPECIFICATIONS**

SEGWAY

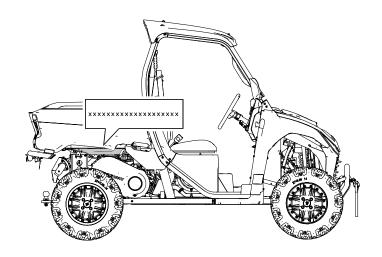
|                     | Rr.Brake light     | Red 21W (P21/5W)                         |
|---------------------|--------------------|--|
| Tail light          | Rr. Position light | Red 5W (P21/5W)                          |
| Tair light          | Rr.Winker          | Amber 10W(RY10W)                         |
| license plate light |                    | White 5W(W5W)/LED                        |
| Battery (Capacity)  |                    | Maintenance-free/lead acid<br>(12V 32Ah) |
| Dashboard           |                    | TFT screen(LCD screen,optional)          |
| Winch (lb/m)        |                    | 3500 (2500) (4500)                       |

SEGWAY

## **SPECIFICATIONS**

## **VEHICLE IDENTIFICATION NUMBER**

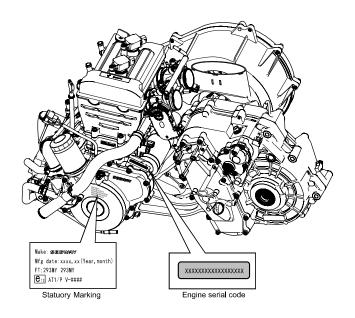
Record the frame identification code and engine serial code in the spaces provided for assistance when ordering spare parts from a dealer or for reference in case the vehicle is stolen.



Frame identification code

**SPECIFICATIONS** 

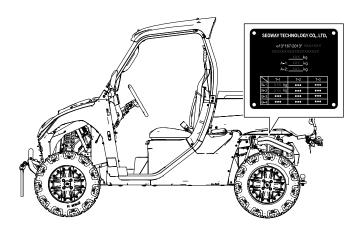
SEGWAY



Engine serial code

# The frame nameplate

The nameplate shows the basic characteristics information which include VIN code. It needs the VIN when the vehicle requires activate in the first time.





# **TROUBLESHOOTING**

| Drive belt and cover problems               | 167 |
|---|-----|
| Engine doesn't turn over                    | 169 |
| Engine pings or knocks                      | 169 |
| Engine stops or loses power                 | 170 |
| Engine turns over, fails to start           | 170 |
| Engine backfires                            | 171 |
| Engine runs irregularly, stalls or misfires | 172 |
| Engine runs irregularly, stalls or misfires | 173 |
| Engine stops or loses power                 | 174 |

### SEGWAY

## **TROUBLESHOOTING**

With all the challenges you cna encounter on-road, there's chance that sometime something may go wrong. This section gives practical advice to help you deal with a wide range of problems. Take time to read this section before you ride.

## **Drive belt and cover problems**

| Possible Cause   | Solution   |
|--|--|
| Driving the vehicle onto<br>a pickup or tall trailer in<br>high range        | Shift transmission to low range during loading of the vehicle to prevent belt burning  |
| Starting out going up a steep incline  | When starting out on an incline, use low range (see page 75)   |
| Driving at low RPM or low<br>ground speed<br>(at approximately 5-10<br>km/h) | Drive at a higher speed or use low range more frequently. The use of low range is highly recommended for cooler CVT operating temperatures and longer component life |
| Insufficient warm-up of vehicle exposed to low ambient temperatures          | Warm the engine before driving, the belt will become more flexible and prevent belt burning  |
| Slow and easy clutch engagement  | Use the throttle quickly and effectively for efficient engagement  |
| Towing/pushing at low RPM/low ground speed                                   | Use low range only   |
| Utility use/plowing snow, dirt, etc  | Use low range only   |

| Possible Cause   | Solution  |
|--|---|
| Stuck in mud or snow   | Shift the transmission to low range, and carefully use fast, aggressive throttle application to engage clutch. WARNING: Excessive throttle may cause loss of control and vehicle overturn |
| Climbing over large<br>objects from a<br>stopped position      | Shift the transmission to low range, and carefully use fast, brief, aggressive throttle application to engage clutch. Excessive throttle may cause loss of control and vehicle overturn   |
| Belt slippage from water or snow ingestion into the CVT system | Remove the CVT cover, drain the water from CVT  |
| Clutch malfunction   | Contact your dealer for inspection of clutch components   |

# Engine doesn't turn over

| Possible Cause             | Solution  |
|----------------------------|---|
| Poor engine performance    | Check for fouled plugs or foreign material in gas tank, fuel lines, or throttle. Contact your dealer for service. |
| Tripped circuit<br>breaker | Reset the breaker   |
| Low battery voltage        | Recharge battery to 12.5 VDC  |
| Loose battery connections  | Check all connections and tighten   |
| Loose solenoid connections | Check all connections and tighten   |

# **Engine pings or knocks**

| Possible Cause                         | Solution                          |
|--|-----------------------------------|
| Poor quality or low octane fuel        | Replace with recommended fuel     |
| Incorrect ignition timing              | See your dealer                   |
| Incorrect spark plug gap or heat range | Set gap to specs or replace plugs |

# **Engine stops or loses power**

| Possible Cause    | Solution   |
|-------------------|--|
| Overheated engine | Clean radiator screen and core if equipped Clean engine exterior See your dealer |

# Engine turns over, fails to start

| Possible Cause                      | Solution                                  |
|-------------------------------------|---|
| Out of Fuel                         | Refuel                                    |
| Clogged fuel valve or filter        | Inspect and clean or replace              |
| Water is present in fuel            | Drain the fuel system and refuel          |
| Fuel valve is out of use            | Replace                                   |
| Old or non-<br>recommended fuel     | Replace with new fuel                     |
| Fouled or defective spark plug(s)   | Inspect plug(s), replace if necessary     |
| No spark to spark plug              | Inspect plug(s), verify stop switch is on |
| Crankcase filled with water or fuel | Immediately see your dealer               |
| Overuse of choke                    | Inspect, clean and/or replace spark plugs |

# SEGWAY TROUBLESHOOTING

| Clogged fuel injector | Clean or replace new fuel injector |
|-----------------------|------------------------------------|
| Low battery voltage   | Recharge battery to 12.5 VDC       |
| Mechanical failure    | See your dealer                    |

# **Engine backfires**

| Possible Cause                         | Solution                                  |
|--|---|
| Weak spark from spark plugs            | Inspect, clean and/or replace spark plugs |
| Incorrect spark plug gap or heat range | Set gap to specs or replace plugs         |
| Old or non-<br>recommended fuel        | Replace with new fuel                     |
| Incorrectly installed spark plug wires | See your dealer                           |
| Incorrect ignition timing              | See your dealer                           |
| Mechanical failure                     | See your dealer                           |

# **Engine runs irregularly, stalls or misfires**

| Possible Cause                            | Solution                                  |
|---|---|
| Fouled or defective spark plugs           | Inspect, clean and/or replace spark plugs |
| Worn or defective spark plug wires        | See your dealer                           |
| Incorrect spark plug gap<br>or heat range | Set gap to specs or replace plugs         |
| Loose ignition connections                | Check all connections and tighten         |
| Water present in fuel                     | Replace with new fuel                     |
| Low battery voltage                       | Recharge battery to 12.5 VDC              |

# **Engine runs irregularly, stalls or misfires**

| Possible Cause                              | Solution                                  |
|---|---|
| Kinked or plugged fuel vent line            | Inspect and replace                       |
| Incorrect fuel                              | Replace with recommended fuel             |
| Clogged air filter                          | Inspect and clean or replace              |
| Reverse speed limiter malfunction           | See your dealer                           |
| Electronic throttle control malfunction     | See your dealer                           |
| Other mechanical failure                    | See your dealer                           |
| Possible Lean or Rich<br>Fuel Mixture Cause | Solution                                  |
| Low or contaminated fuel                    | Add or change fuel, clean the fuel system |
| Low octane fuel                             | Replace with recommended fuel             |
| Clogged fuel filter                         | Replace filter                            |
| Incorrect jetting                           | See your dealer                           |
| Overuse of choke                            | Inspect, clean and/or replace spark plugs |
| Fuel is very high octane                    | Replace with lower octane fuel            |

# **TROUBLESHOOTING**

# **Engine stops or loses power**

| Possible Cause                            | Solution                                  |
|---|---|
| Out of fuel                               | refuel                                    |
| Kinked or plugged fuel vent line          | Inspect and replace                       |
| Water present in fuel                     | Replace with new fuel                     |
| Overuse of choke                          | Inspect, clean and/or replace spark plugs |
| Fouled or defective spark plugs           | Inspect, clean and/or replace spark plugs |
| Worn or defective spark plug wires        | See your dealer                           |
| Incorrect spark plug gap<br>or heat range | Set gap to specs or replace plugs         |
| Loose ignition connections                | Check all connections and tighten         |
| Low battery voltage                       | Recharge battery to 12.5 VDC              |
| Clogged air filter                        | Inspect and clean or replace              |
| Reverse speed limiter malfunction         | See your dealer                           |
| Electronic throttle control malfunction   | See your dealer                           |
| Other mechanical failure                  | See your dealer                           |



# **EMISSION CONTROL SYSTEM**

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### **SOURCE OF EXHAUST EMISSIONS**

The combustion process produces carbon monoxide(CO),oxides of nitrogen(NOx)and hydrocarbons(HC).Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

## **EXHAUST EMISSION CONTROL SYSTEM**

The exhaust emission control system includes a PGM-F system and oxygen sensor.

No adjustments to this system should be made although periodic inspection of the components is recommended.

The exhaust emission control system is separate from the crankcase emission control system.

# CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blowby gas is returned to the combustion chamber through the air cleaner.

## **NOISE CONTROL SYSTEM**

Do not modify the engine, air intake or exhaust components, in order to meet local noise level requirements.

#### SEGWAY

## **EMISSION CONTROL SYSTEM**

#### **Declaration of Driver's exposure to noise level**

The undersigned: Zhu kun, General Manager

Company name and address of the manufacturer:

Segway Technology Co., Ltd.

No. 395, Xiacheng South Road, Wujin National High-tech Industrial Development Zone, Changzhou, Jiangsu, China

#### Hereby declares that:

For the following vehicle:

- 1.1. Make (trade name of the manufacturer): SEGWAY
- 1.2. Type: SGW1000F-U2
- 1.2.1. Variant(s): SGW1000F-U2
- 1.2.2. Version(s): A, B
- 1.2.3. Commercial name(s) (if available): Fugleman UT10, Fugleman UT10 E, Fugleman UT10 X, Fugleman 1000, Fugleman 1000 E, Fugleman 1000 X
- 1.3. Category, subcategory and speed index of the vehicle:

Variant/Version: SGW1000F-U2/A: T1a Variant/Version: SGW1000F-U2/B: T1b

The Driver's exposure to noise level result is Variant/Version: SGW1000F-U2/A: 85.9 dB(A), Variant/Version: SGW1000F-U2/B: 85.8 dB(A),

(Limit: 86 dB(A)) according to test method 2 in accordance with :section

3 of Annex XIII to EU 1322/2014.

Place: Changzhou, China Date: 09 July 2021

Signature: Thukun Name and position in the company: Zhu kun, General Manager

#### **Declaration of Vibration declaration**

The undersigned: Zhu kun, General Manager

Company name and address of the manufacturer:

Segway Technology Co., Ltd.

No. 395, Xiacheng South Road, Wujin National High-tech Industrial Development Zone, Changzhou, Jiangsu, China

Hereby declares that:

For the following vehicle:

- 1.4. Make (trade name of the manufacturer): SEGWAY
- 1.5. Type: SGW1000F-U2
- 1.2.1. Variant(s): SGW1000F-U2
- 1.2.2. Version(s): A, B
- 1.2.3. Commercial name(s) (if available): Fugleman UT10, Fugleman UT10 E, Fugleman UT10 X, Fugleman 1000, Fugleman 1000 E, Fugleman 1000 X
- 1.6. Category, subcategory and speed index of the vehicle:

Variant/Version: SGW1000F-U2/A: T1a Variant/Version: SGW1000F-U2/B: T1b

The value of the vibration level measured according to Annex XIV to EU 1322/2014 is

|        | Oriver mass     | a <sub>ws</sub> m/s <sup>2</sup> | a <sub>wB</sub> m/s <sup>2</sup> | a <sub>ws</sub> /a <sub>wb</sub> | Requirement                            |
|--------|-----------------|----------------------------------|----------------------------------|----------------------------------|--|
|        | Test run 1      | 0.68                             | 1.80                             |                                  |  |
| 59±1kg | Test run 2      | 0.69                             | 1.84                             |                                  | Deviation<10%                          |
|        | Arithmetic mean | 0.69                             | 1.82                             | 0.38                             | between test run 1/2                   |
|        | Test run 1      | 0.63                             | 1.72                             |                                  | and Arithmetic mean,                   |
| 98±5kg | Test run 2      | 0.66                             | 1.75                             |                                  | a <sub>ws</sub> <1.25 m/s <sup>2</sup> |
|        | Arithmetic mean | 0.65                             | 1.73                             | 0.38                             |  |

aws:rms value of the weighted seat vibration acceleration measured during a standard roadway test

Place: Changzhou, China Date: 09 July 2021

Signature: Thukun, Name and position in the company: Zhu kun, General Manager



# **WARRANTY**

| LIMITED WARRANTY                       | 180 |
|--|-----|
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#### LIMITED WARRANTY

**SEGWAY TECHNOLOGY CO., LTD** gives a LIMITED WARRANTY on components of your new SEGWAY vehicle against defects in parts or workmanship when properly set up and operated in accordance with the recommendations set forth in the SEGWAY Owner's Manual. SEGWAY gives a TWO (2) YEAR limited warranty for use of the vehicle. For commercial use, SEGWAY gives a SIX (6) MONTHS limited warranty. This warranty covers parts and labor charges for repair or replacement of defective parts and begins on the date of purchase by the original retail purchaser.

This warranty is transferable to another owner during the warranty period through a SEGWAY dealer, but any such transfer will not extend the original term of the warranty. The duration of this warranty may vary by international region based upon local laws and regulations.

### REGISTRATION

At the time of sale, the Warranty Registration Form must be completed by your dealer and submitted to SEGWAY within ten days of purchase. Upon receipt of this registration, SEGWAY will record the registration for warranty.

## **EXCLUSIONS-ARE NOT WARRANTED**

The following are not warranted under any circumstances:

- 1. Normal wear and tear.
- 2. Routine maintenance items, tune-ups, adjustments.

#### WARRANTY

#### SEGWAY

- 3. Damage caused by failure to provide proper maintenance and/or storage, as described in the Owner's Manual.
- 4. Damage resulting from removal of parts, improper repairs, service, maintenance, or use of parts not manufactured or approved by SEGWAY or resulting from repairs done by a person that is not an authorized servicing SEGWAY dealer.
- 5. Damage caused by abuse, abnormal use, neglect or operation of the product in a manner inconsistent with the recommended operation described in the Owner's Manual.
- 6. Damage resulting from accident, submersion, fire, theft, vandalism or any force majeure.
- 7. Operation with fuels, oils or lubricants which are not suitable for use with the product. (see the section" Technical parameters of vehicle "on Owner's Manual).
- Damages from rust, corrosion resulted from salty water or corrosive material.
- 9. Damage resulting from the racing or any other competitive activity.
- Damage resulting from the vehicle has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use.

# LIMITATIONS OF WARRANTIES AND REMEDIES

This limited warranty excludes any failures that are not caused by a defect in material or workmanship. This warranty provides no coverage for consumable components, general wear items, or any parts exposed to friction surfaces, stresses, environmental conditions and/or contamination for which they were not

designed or not intended, including but not limited to the following items:

| • | н. | 3 <b>†</b> † | or | ies |
|---|----|--------------|----|-----|
|   |    |              |    |     |

Bearings

Brake components

Bushings

• Throttle body components

Circuit breakers/fuses

Clutches components

Coolants

· Drive belts

· Electronic components

• Engine components

Filters

Finished/unfinished surfaces

Hydraulic components/fluids

Light bulbs/lamps

Lubricants

Sealants

Seat components

· Spark plugs

· Steering components

· Suspension components

· Wheels and tires

This warranty provides no coverage for personal loss or expense, including mileage, transportation costs, hotels, meals, shipping or handling fees, product pick-up or delivery, replacement rentals, loss of product use, loss of profits, or loss of vacation or personal time

THE EXCLUSIVE REMEDY FOR BREACH OF THIS WARRANTY SHALL BE, AT SEGWAY' OPTION, REPAIR OR REPLACEMENT OF ANY DEFECTIVE MATERIALS, COMPONENTS, OR PRODUCTS. THE REMEDIES SET FORTH IN THIS WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. SEGWAY SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE, OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND

## **WARRANTY**

#### SEGWAY

SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE. THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXCLUDED FROM THIS LIMITED WARRANTY. ALL OTHER IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY) ARE LIMITED IN DURATION TO THE ABOVE SIX MONTH WARRANTY PERIOD. SEGWAY DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. SOME STATES DO NOT PERMIT THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR ALLOW LIMITATIONS ON THE DURATION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU IF INCONSISTENT WITH CONTROLLING REGION LAW.

## **MAINTENANCE LOG**

Use the following chart to record periodic maintenance.

| VIN | Date | Miles(Km)or<br>Hours | Service<br>item |
|-----|------|----------------------|-----------------|
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |
|     |      |                      |                 |