

# OWNER'S MANUAL AT5 S AT5 L

T3b

# WELCOME

Thank you for buying this Segway vehicle. Segway off-road vehicles will bring you a completely new riding experience.

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

A careful reading of this manual will help you to quickly understand the vehicle and your riding.

Periodic maintenance procedures are included in this manual and are performed regularly to assist in your vehicle safety.

WARNING

Read, understand, and follow all of the instructions and safety precautions in this manual and all product labels.

Failure to follow the safety precautions could result in serious injury or death.

# **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 driving, abide by the local traffic regulations.

This manual applicable to the ATV 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.

All specifications provided in this manual are up to date at the time of printing. However, due to continuous product improvement, the contents of this manual will be updated at any time without prior notice. The descriptions and/or procedures in this publication are for informational purposes only. Take no responsibility for omissions or inaccuracies. Express prohibition or reuse of descriptions and/or programs contained in whole or in part.

If your vehicle needs any service and repair, please contact your authorized Segway Powersports dealer to provide service.

Login on http://powersports.segway.com to find the nearest Segway Powersports dealer or service locations.

# **TABLE OF CONTENTS**



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

- Read this 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 use helmet when driving this vehicle.

- 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 in 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 reviewed the owner's manual and all safety labels and has completed safety training.

### The meaning of these signs



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### 

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

#### **WARNING**

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

### 

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

### CAUTION

CAUTION, used without the safety alert symbol, is used to address practices not related to personal injury.

### NOTICE

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

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.

WARNING LABELS	3
GENERAL SAFETY PRECAUTIONS	8
IMPORTANT SAFETY INFORMATION	11
READING THE MANUAL	11
SAFE DRIVING AGE	12
USING ALCOHOL OR DRUGS	13
RIDING GEAR	14
VEHICLE MODIFICATIONS	16
PASSENGERS	17
EXHAUST GASES	18
UNAUTHORIZED USE OF THE VEHICLE	19
FUEL SAFETY	19
FAILURE TO INSPECT BEFORE OPERATING	20
IMPROPER TIRE CARE	20
OPERATING ON FROZEN BODIES OF WATER	21
OPERATING AT EXCESSIVE SPEEDS	21
HOT EXHAUST SYSTEM	
OPERATING A DAMAGED VEHICLE	22
SKIDDING AND SLIDING	22
OPERATING IN UNFAMILIAR TERRAIN	23
IMPROPER HILL CLIMBING	23
DESCENDING HILLS IMPROPERLY	23

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 ATV without proper instruction. An ATV behaves differently from other vehicles, such as motorcycles and automobiles. If proper precautions are not taken, a collision or roll-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.





4





#### SEGWAY

1

#### A WARNING

Improper ATV use can result in SEVERE IN JURY or DEATH.







NEVER USE WITH DRUGS OR ALCOHOL

NEVER operate:

- · Without proper training or instruction.
- At speeds too fast for your skills or the conditions.
- On public roads-a collision can occur with another vehicle.

#### ALWAYS:

- Use proper riding techniques to avoid vehicle overturns on hills and rough terrain and in turns.
- Avoid paved surfaces-pavement may seriously affect handling and control.

LOCATE AND READ OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS

#### 3



#### 2

#### 



Passengers under 12 are prohibited. Passenger should be well seated & hold tight the handgrip during public road operation.



Passenger seat could be used during public roads operation. Passenger seat shall not be used during field operation.



#### 🛦 WARNING

•DO NOT TOW FROM RACK OR BUMPER. Vehicle damage or tipover may result in severe injury or death. Tow only from tow hooks or hitch.

 Max Rack Loads: Front 88 lbs (40kg) Rear 132lbs (60kg)

5

#### 

- Step on the brake pedal each time the gear is changed.
- When the ATV is unmanned, the transmission must be placed in parking gear.

6

#### 

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



#### **A** WARNING

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

 Cold tire pressure: Front: 7.0psi (48.3kPa) Rear: 7.0psi (48.3kPa)

.....

10

8

#### 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.





### **GENERAL SAFETY PRECAUTIONS**

## 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. You should also wear eye protection (goggles or a face shield), gloves, over-the-ankle boots, long-sleeved shirt or jacket and long pants.
- Never consume alcohol or drugs before or when operating this vehicle.
- Never attempt jumps of 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 especially cautious on these kinds of terrain.
- Always follow the inspection and maintenance procedures and schedules described in this manual.
- Never operate on hills that are slippery or ones where you will not be able to see 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 on the handlebars when driving.

- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when driving the vehicle.
- 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 for it or for your abilities. 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 reduce 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 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.
- Always check for obstacles before operating in a new area.
- Do not brake abruptly when carrying loads.
- 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 load capacity. Cargo should be

distributed evenly between the front and rear rack. Be sure cargo is secured so that it cannot move around during operation. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Allow greater distance for braking.

- Brake discs can be over-heated after continuous braking. Allow brake disc to cool before servicing.
- Be aware of burn and fire risks related to contact with hot surfaces, including residual risks such as filling of oil or coolant, 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 riding through tall grass, weeds, brush, and other tall ground cover. Promptly remove any grass or debris clinging to the vehicle.

## IMPORTANT SAFETY INFORMATION

#### **READING THE MANUAL**



### SAFE DRIVING AGE

#### **WARNING**

The minimum recommended driving age for this vehicle is 16 years. Children under the age of 16 must not drive this vehicle. Training courses are required. Please ensure that each driver has read this manual and all product labels as well as has completed a safety training course.



#### 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.



#### **RIDING GEAR**

#### **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. ECE 22.05 and ECE 22.06 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 off-road motorcycle boots to help protect your feet, ankles, and lower legs.

On-road motorcycle gloves to help protect your hands.

Riding pants with knee and hip pads, a riding jersey with padded elbows, and a chest/ shoulder protector.

#### **WARNING**

Driving ATV 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.



### VEHICLE MODIFICATIONS

#### 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



### **EXHAUST GASES**

#### **WARNING**

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 or in a well-ventilated place.



#### UNAUTHORIZED USE OF THE VEHICLE

#### WARNING

If the key is left in the ignition, those people under the age of 16 or without a license, or without proper training can use the vehicle illegally. This could cause an accident or a rollover. Always remove the ignition key when the vehicle is not in use.

#### FUEL SAFETY

#### **WARNING**

Gasoline is very flammable under certain conditions.

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

#### FAILURE TO INSPECT BEFORE OPERATING

#### **WARNING**

- Failure to inspect and verify that the vehicle is in safe operating condition before operating increases the risk of an accident and death.
- Always perform the pre-ride inspection 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.

#### IMPROPER TIRE CARE

#### **WARNING**

- Operation this vehicle with improper tires or with improper or uneven tire pressure could cause loss of control or an accident.
- Always use the size and type of tires specified for your vehicle.
- Always maintain proper tire pressure as described in the owner's manual and on safety labels.

#### OPERATING ON FROZEN BODIES OF WATER

#### **WARNING**

- Severe injury or death can result if the vehicle and/or the operator fall through the ice. Never operate the vehicle on a frozen body of water unless you have first verified that the ice is sufficiently thick to support the weight and moving force of the vehicle, you and your cargo, together with any other vehicles in your party.
- Always check with local authorities and residents to confirm ice conditions and thickness over your entire route. Vehicle operators assume all risk associated with ice conditions on frozen bodies of water.

#### **OPERATING AT EXCESSIVE SPEEDS**

#### **WARNING**

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

#### HOT EXHAUST SYSTEM

#### **WARNING**

- 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.

#### OPERATING A DAMAGED VEHICLE

#### WARNING

Operating a damaged vehicle can result in an accident. After any rollover or other accident, have a qualified service dealer inspect the entire machine for possible damage, including but not limited to seat belts, rollover protection devices, brakes, throttle and steering systems.

#### SKIDDING AND SLIDING

#### WARNING

Failure to use extra caution when operating on excessively rough, slippery or loose terrain could cause loss of traction, loss of control, accident or rollover. Do not operate on excessively slippery surfaces. Always slow down and use additional caution when operating on slippery surfaces.

#### OPERATING IN UNFAMILIAR TERRAIN

#### **WARNING**

- Failure to use extra caution when operating on unfamiliar terrain could result in an accident or rollover.
- Unfamiliar terrain may contain hidden rocks, bumps, or holes that could cause loss of control or rollover.
- Ride slowly and use extra caution when operating in unfamiliar terrain. Always be alert to changing terrain conditions.

#### IMPROPER HILL CLIMBING

#### **WARNING**

Improper hill climbing could cause loss of control or rollover. Use extreme caution when operating on hills. Always follow proper procedures for hill climbing as described in this owner's manual. See the New Operator Driving Procedures section for details.

#### DESCENDING HILLS IMPROPERLY

#### WARNING

Improperly 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.

## **VEHICLE DEVICE**

VEHICLE ACTIVATION	26
VEHICLE UNLOCK	27
APP FUNCTION	27
CONTROLS	28
MAIN SWITCH / STEERING LOCK	29
LEFT HANDLEBAR SWITCH	30
WINCH SWITCH (IF EQUIPPED)	32
TWO OR FOUR-WHEEL DRIVE SWITCH (NO REAR	
DIFFERENTIAL)	32
TWO OR FOUR WHEEL DRIVE SWITCH (WITH REAR	
DIFFERENTIAL)	34
THROTTLE LEVER	36
LCD DISPLAY	37
INDICATOR LIGHTS/WARNING LIGHTS	38
INFORMATION DISPLAY AREA	40
DISPLAY FUNCTIONS SETTING	43
DIAGNOSTIC CODES DISPLAY AREA	44
GEAR SELECTOR OPERATION	45
MAIN BRAKE	46
AUXILIARY BRAKE	46
PARKING BRAKE	47
PARKING BRAKE LEVER FREE PLAY	48
FOOT BRAKE PEDAL ADJUSTMENT	49
EQUIPMENT & COMPONENTS	50
12V POWER OUTPUT	51
FUEL TANK CAP	52

## VEHICLE DEVICE

SEAT	53
SEAT INSTALLATION	53
BACKREST (2-UP)	54
DRIVER'S TOOL SET	54
PASSENGER HANDRAILS	55
FOOTRESTS	55
STORAGE BOX	56
RACKS	57
HANDLEBARS ADJUSTMENT	58

## **VEHICLE ACTIVATION**

This vehicle is equipped with T-BOX system for you. T-BOX is used to communicate with background systems and mobile APP, so as to obtain vehicle information and control the vehicle with mobile APP. This is an optional system. In order to make you quickly familiar with it and use the system, please read the user's manual carefully, understand the relevant operation and user information.

#### NOTICE

New vehicle must be activated via the APP for the first time if vehicle is equipped with T-BOX. Otherwise the engine will not start.

Please download the APP from the "Apple® App Store®" or "Google Play® store" to your mobile phone before you try to activate the vehicle by the APP in the first time. Please search "**Segway Powersports**" in the "Apple® App Store®" or "Google Play® store" in your mobile phone, then download the APP as usual.

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

1. Power on the vehicle with the mechanical key.

Input or scan vehicle VIN number according to APP prompts, and step on the foot brake at the same time. The VIN number is located under the seat. **Note:** If the VIN number may not be scanned by the phone due to the low light, you can try to enter the VIN number manually. The vehicle VIN number is either on the vehicle frame (see Page 147) or on the vehicle Identification plate (see Page 148).

- 2. Click the "**CONFIRM**" button to complete the vehicle binding operation.
- 3. Step on the brake pedal and press "START" to start the engine.

### VEHICLE UNLOCK

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 is covered by the network, you can use the remote unlock function in the APP to power the vehicle on.

3. APP Bluetooth unlock vehicle

When both the vehicle and the mobile phone are on and within effective reach distance of 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 switching off the vehicle with the key, it cannot be activated again by the phone. You need to disconnect the phone and reconnect it to the vehicle to activate.

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

## APP FUNCTION

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

Main features: Riding control analysis, vehicle data analysis, etc.

## **VEHICLE DEVICE**

SEGWAY

## **CONTROLS**



- 1 Ignition Switch
- 4 2WD/4WD Switch
  - 5 LCD display
- 6 Shift Level

- 7 Brake/Parking Lever
- 8 Brake Pedal

### MAIN SWITCH / STEERING LOCK



#### "ON": Power On "OFF": Power Off "LOCK": Steering Lock

The Main switch / Steering lock is located in the central zone of the handlebars.

Turn the key to position "LOCK": Steering will be locked and the handlebars are in a fixed position.

Turn the key to position "ON": Vehicle is powered on, the vehicle's electrical components can be used.

Turn the key to position "OFF": Vehicle is powered off. When the switch is in the Off position, the key can be removed from the main switch.
SEGWAY

# LEFT HANDLEBAR SWITCH



1 Engine start/stop switch

"()": Engine power on "": Engine stop "()": Engine start

#### Start the engine

- 1. Turn the ignition key to the "ON" position.
- 2. Tighten the foot brake.
- 3. Press the engine start-stop switch to the " $(\mathfrak{F})$  " position and release it, the engine will start, and the switch will automatically return to the " $\Omega$ " position. (Never hold the button for more than 5 seconds.)

#### Stop engine

Press the engine start-stop switch to the "X " position, the engine stops.

#### 2 Headlight switch

This switch is located in left handlebar switch and has three different modes.

**High beam** "**ID** ": Turn on the high beam and the "**ID** " sign on the instrument panel will be lit.

Low beam " **ID** ": Turn on the high beam and the "**ID** " sign on the instrument panel will be lit.

"OFF": Light off mode

Position light mode "DOL: Turn on the position light, and this sign on the LCD display is lit: 304

When the ignition lock is in the "ON" position, push the switch to the desired position. To turn the light OFF, slide the switch to the" OFF "position.



3 Left / right turn signal switch

🖛 Slide to the left, left turn signal is on. At this point, the " < " light on the meter is brightly punctuated.

Slide to the right, right turn signal is on. At this point, the " " light of the meter is brightly punctuated.

Turn off the turn signal in the central position.

### 4 Horn Switch "

### 5 "A" Emergency switch

Use this switch in emergency. Press the switch to start, and press again to stop. The vehicle position light flashes when the emergency switch is on.

- Temporary parking of vehicles.
- Failure of the vehicle.
- When the vehicle encounters other emergencies.

### 6 Force-multiplier switch

Increases the maximum speed limit of the vehicle in 4WD lock mode (speed limit 30 km/h). When the vehicle is in 4WD lock mode (LCD display shows 4WD locked symbol "", the vehicle speed is limited to 30 km/h. If the vehicle has insufficient power to get out of the troubled place, you can press and keep holding this switch. Vehicle will lift the speed limit and enhance the power, which can help you get out of trouble.

# WINCH SWITCH (if equipped)



- OUT: Release the winch wire rope
- IN: Retract the winch rope

The winch is used to drag the load. Understand the correct use of the winch steps and methods, pay attention to the use of safety matters, for the use of the winch instructions and precautions please refer to the relevant chapters.

# TWO OR FOUR-WHEEL DRIVE SWITCH

# (NO REAR DIFFERENTIAL) (T3b)



# NOTICE

#### The vehicle must be stopped to engage or disengage 2WD/4WD switch. Mechanical damage may occur if switch is engaged or disengaged when driving.

#### 2×4 Two-Wheel Drive Mode

Rotate the selector handle downwards (to Position 3) to engage two-wheel drive mode. The whole vehicle is only driven by the rear wheels now, and the front wheels have no power output. The drive symbol """ is displayed on the instrument panel.

#### 4×4 Four-Wheel Drive Mode

Rotate the selection handle upwards (to Position 4) to engage four-wheel drive mode. Front wheels have power output, and the rear wheels have power output. The four-wheel drive symbol " is displayed on the instrument panel. This mode is suitable for bad road conditions and muddy / hilly areas.

#### Front Axle Lock Mode

When selector handle is in 4x4 position, press the front axle lock switch. Front axle lock switch pops up and the front axle lock symbol " " " " will be displayed on the instrument panel. At this time is working 4-wheel drive lock mode. Front wheels have power output, and the rear wheels have power output. The tires on both sides rotate the same speed and with same power. When the 4WD is locked, the vehicle will be in the speed limit mode, the speed does not exceed 30 km/h. This mode is suitable for the vehicle to get out of trouble.

# TWO OR FOUR WHEEL DRIVE SWITCH (WITH REAR DIFFERENTIAL)



- 1 Drive mode selection handle2 Front differential lock button3 Two-wheel drive position4 Four-wheel drive position
- 5 Rear differential lock button

# NOTICE

The vehicle must be stopped to engage or disengage 2WD/4WD switch. Mechanical damage may occur if switch is engaged or disengaged when riding.

Button operation	Display indicator	Mode	Description
	Re	ar diffe	rential not locked
Rotate the selection handle to the " "T" <" position Rear axle differential lock button " press		2×4 two- wheel drive mode	The two-wheel drive mode is turned on, and the whole vehicle is driven by the rear wheels only, front wheels have no power output. This mode is suitable for driving on smooth roads.

Rotate the selection handle to the " ••• " position Rear axle differential lock button "••• " press		4×4 four- wheel drive mode	Four-wheel drive mode is turned on, front wheels have power output and the rear wheels have power output. This mode is suitable for bad road conditions such as muddy and mountainous areas.
Front axle differential lock button """""""""""""""""""""""""""""""""""		4×4 lock mode	The vehicle is working in 4WD Lock mode. Front wheels have power output, the rear wheels have power output, the front wheels of the left and right side rotate the same speed and with same power. Vehicle in 4WD lock mode will be in a speed-limited mode, the vehicle speed does not exceed 30 km/h. This mode is suitable for the vehicle to get out of trouble.
	Rear	r differe	ential lock mode
Rotate the selection handle to the "		2×4 two- wheel drive mode	Two-wheel drive mode is turned on and the whole vehicle is driven only by the rear wheels, front wheels have no power output. This mode is standard mode for driving on smooth roads.
Rotate the selection handle to the "" position "Rear axle differential lock button """""""""""""""""""""""""""""""""""		4×4 four- wheel drive mode	Four-wheel drive mode is turned on. Front wheels have power output and the rear wheels have power output. This mode is suitable for bad road conditions such as muddy and mountainous areas.
Front axle differential lock button """""""""""""""""""""""""""""""""""		4×4 rear axle lock mode	Vehicle works in 4-wheel drive lock mode. Front wheels have power output, the rear wheels have power output, and the tires on the left and right sides of the front and rear wheels rotate the same speed and with same power. The vehicle is in the speed limit mode when the 4-wheel drive is locked, and the speed does not exceed 30 km/h. This mode is suitable for the vehicle to get out of trouble.

# THROTTLE LEVER

The throttle lever controls the engine speed. To increase the engine speed, press the throttle lever with your thumb, to reduce the engine speed. Release the pressure of the throttle lever and when you release your thumb, the engine returns to idle.



**WARNING** 

Before riding, check if the throttle lever moves smoothly. If the throttle is stuck or the throttle is not working properly, it will cause an accident. Do not start or drive the vehicle if the throttle is stuck or is not operating properly.

# LCD DISPLAY

LCD display provides the operator with the vehicle information. The driver should understand the meaning of various indicators, warning lights and display content information on LCD display so as to immediately understand vehicle status.

### NOTICE

The LCD display may be damaged when using a high pressure washer. Do not clean the LCD display with alcohol or corrosive detergents. Corrosive liquids will damage the surface of the LCD display and cause internal damage to the LCD display.

## **INDICATOR LIGHTS / WARNING LIGHTS**

Indicator lights and warning lights on the LCD display indicate the status of the vehicle's systems. The figure below shows all the lights and warning lights to illustrate.



### Indicator light/Warning indication

ltem	Legend	Function
Left Turn Signal		This light is on when the left turn signal is turned on.
High Beam	ED	This lamp illuminates when the headlamp switch is set to High beam.
Lights	€DQ€	The front lights, taillights, license plate light and instrument panel light are on.
Check Engine		This indicator appears if an EFI- related fault occurs. Do not operate the vehicle if this warning appears. Serious engine damage could result.

Oil Pressure Warning	<b>Y</b>	This light is on when oil pressure is too low.
Fuel level	Pj	The lamp lights up when the fuel level is too low.
Warning for leave	OPC	This light is on after leaving the seat and the buzzer will beep when OPC is on.
Right Turn Signal		This light is on when the right turn signal is turned on.
Neutral	N	This light is on when the gear shifter is in neutral (green).
Parking	$(\mathbf{P})$	This light is on after parking brake is applied.
Brake		Low brake fluid level
warning light		• The braking system is faulty
Electric steering warning light		Indicates a failure in EPS system (if equipped).
Coolant temperature warning lamp		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.

## INFORMATION DISPLAY AREA



No.	Meaning	Function
1	Time	Display current time
2	Bluetooth	When mobile Bluetooth and T-BOX are connected successfully and the light will be on.
3	Remote access to electricity	When power on the ATV via the APP in the mobile phone, dick the "Remote power on" button and the light will be on. (The premise is that T-BOX networking is successful)
4	Segway Logo	This logo lights up after power on.
5	Speed	Displays the actual vehicle speed. The speedometer shows a speed in MPH (mile) or km/h (km/h).

6	Gear positions	Displays the actual gear L -Low speed H -High speed R -Reverse P -Parking
7	Engine speed	Displays actual engine rpm
8	Four-wheel drive full differential lock	<ul> <li>2 x 4 patterns</li> <li>4 x 4 patterns</li> <li>4×4 locking mode</li> <li>2 x 4 patterns (with differential)</li> <li>4 x 4 patterns (with differential)</li> <li>4×4 locking mode (with differential)</li> </ul>
9	Coolant temperature indicator	Displays actual coolant temperature H –High temperature C –Low temperature
10	Battery voltage	Displays current voltage of the vehicle battery
11	Subtotal mileage	Single trip mileage

12	Fault code display	When ECU, EPS, T-BOX fails, the fault code is displayed in this area. See page 157 for detailed description of the fault codes.
13	Engine running time	Displays engine running time
14	Total mileage	Displays the total mileage ridden by the vehicle
15	EPS On (only brushless EPS is supported)	<ul> <li>M - Normal mode, power normal</li> <li>H - Comfort mode, power light</li> <li>L - Motion mode, booster weight</li> </ul>
16	Fuel meter	Displays actual amount of fuel F – Full fuel tank E - Low fuel

# DISPLAY FUNCTIONS SETTING



Function	Left button	Right button	Display
Brightness adjustment	Short press		Adjust backlight brightness (default: brightest)
Subtotal Clear	Long press		Zero subtotal mileage
EPS mode switching		Short press	Switches the EPS mode (L, M, H) (if vehicle is equipped with power steering)
Metric or imperial units		Long press	Metric or imperial units switching
	Long press	Long press	Clock hour flashing
	Short press		Hour +1
Clock settings		Long press	Hours continuous+1
CIOCK SELLINGS	Short press		Clock minute flashing
		Short press	Minute +1
		Long press	Minute continuous +1

# DIAGNOSTIC CODES DISPLAY AREA

This area displays the code information when the vehicle electrical components, wiring and other malfunctions or abnormalities, through the code to understand the corresponding abnormalities, so as to seek ways to solve the problem, the code interpretation is described in "Diagnostic codes definitions", see page 157.



### **GEAR SELECTOR OPERATION**

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 position description:



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

### NOTICE

You need to step on the brake pedal and stop the vehicle when you want to change the gear position.

If you change the gear with the engine in rpm HIGHER than idle speed, or the vehicle is moving, it can cause transmission damage. Please place the transmission in parking gear and lock the parking brake when nobody drives the ATV.

SEGWAY

### MAIN BRAKE



The foot brake is the main brake system of the vehicle. The main brake is located on the right footrest of the vehicle. When you need to slow down or stop, step on the foot brake slowly. Emergency braking can cause the vehicle to skid or roll over, so do not use emergency braking unless necessary.

AUXILIARY BRAKE



Auxiliary braking system is considered as the backup device to the main braking system. If the main brake system fails, use the auxiliary brake.

The auxiliary hydraulic brake is located on the right handlebar. Use the auxiliary brake to brake all wheels.

If the rear wheels slide when using the auxiliary brake, reduce the brake lever pressure to prevent the rear wheels from slipping when braking.

## **WARNING**

Use auxiliary brake with caution when riding downhill. Improper use of the auxiliary brake may result in skid and slide sideways, causing loss of control, which could result in serious injury or death.

# PARKING BRAKE

The parking brake on the left handlebar side.



1 Parking brake lever 2 Parking brake lock

#### Using the parking brake:

Place the shifter in "P" and squeeze the parking brake lever and hold. Squeeze the parking brake lever and hold it, then rotate the parking brake lock forwards (away from you). Parking is completed when you hear a "click".

Release the parking brake lever:

Squeeze the parking brake lever, parking brake is released when you hear a "click".

## PARKING BRAKE LEVER FREE PLAY

Parking brake lever free play



- 1. Squeeze the parking brake lever with force, squeeze and release, repeat several times. Parking brake lever should not be stuck.
- 2. Measure the distance the parking brake lever moves before the parking brake starts to hold. Free travel (measure the tip atf the end of the brake lever) (A) should be: (25-30mm)
- 3. As the brake pads wear, the travel of the brake lever will increase. Therefore, brake pads need to be checked for wear from time to time and must be replaced when the wear limit is reached.

## FOOT BRAKE PEDAL ADJUSTMENT



The foot brake pedal adjusting nut is located at the bottom of the vehicle near the foot brake lever. The stroke height of the foot brake pedal can be adjusted by turning the foot brake pedal nut.

- Turn the nut clockwise to adjust foot brake pedal down.
- Turn the nut counterclockwise to adjust foot brake pedal up.

# **EQUIPMENT & COMPONENTS**



# **12V POWER OUTPUT**

Power sockets are available for 12V accessories with operating current less than 10A.

The vehicle is equipped with two 12V DC ports.

Output power: 12V

USB port and DC port



Open the lid Service conditions of power sockets: Place the ignition key to "ON" position.

## FUEL TANK CAP

## **WARNING**

Always fill the fuel type specified by the vehicle. Do not smoke when filling the fuel or it may ignite the fuel and cause a fire disaster.

Do not touch other persons or objects with static electricity, which may cause static electricity and ignite the fuel. Do not overfill the fuel.



- 1. Unscrew the fuel cap clockwise.
- 2. Refuel the vehicle (don't overfill).
- 3. Tighten the fuel tank cap.

Recommended Fuel: 95 octane, unleaded gasoline

# SEAT

#### Seat removal

The seat is a snap-on quick release part.

- 1. Hook the seat hook with your fingers and move it upward.
- 2. Lift the seat upward after it springs open.
- 3. Remove the seat.



## NOTICE

There is a cable connection under the seat, please be careful when removing the seat and moving it upwards.

# SEAT INSTALLATION

Insert the lug on the front of the seat into the center of the Ubracket welded to the frame, push the seat forward firmly and press the seat down to lock it.



After the seat is installed, double-check that the seat is secure.

# BACKREST (2-UP)

#### Backrest removal

The backrest can be removed after the three bolts and nuts fixing the backrest are removed.



#### **Backrest installation**

Place the backrest mounting holes into the corresponding mounting holes of the backrest mounting bracket and fasten with 3 hexagonal flange bolts M8×16 and M8 nuts.

### **DRIVER'S TOOL SET**

The driver's tool set is located in the storage box under the seat. The tool set is equipped with tools for basic maintenance.

# PASSENGER HANDRAILS

Passenger handrails are located on the left and right sides of the passenger seat.



WARNING

Passengers must hold onto the passenger handrail at all times while riding the vehicle and must keep their feet firmly on the foot.

# FOOTRESTS

Serrations are located on the vehicle's footrests.



WARNING

During the operation of the vehicle, both driver and the passenger must keep both feet on the footrests at all times.

SEGWAY

# STORAGE BOX

This ATV is equipped with 2 storage boxes.

#### Front storage box

Located on the front right side of the vehicle.



#### Central storage box

Located under the seat, the driver's tool set is placed in this storage box, and the tool contains tools for basic maintenance.



# 

Always lock the storage boxes before riding and never place any fragile, flammable or heavy items in the storage box.

# RACKS

Racks are used to carry equipment and various other loads, and should never be used to carry people.



# **WARNING**

- Do not carry passengers on racks.
- Cargo must not interfere with the driver's view.
- The weight of the load must not exceed the maximum load capacity of the rack.

# HANDLEBARS ADJUSTMENT

The handlebars can be adjusted to suit the rider's preferred position.

# WARNING

Improper adjustment of the handlebars or improper tightening bolts can result in loose handlebars and lost of steering. Loss of control can result in severe injury or death. Always follow the adjustment procedure, or check out the services at your dealer.



Torque to specifications.

### Torque

Handlebars bolts: 35 Nm

- 1. Loosen the four handlebar bolts.
- 2. Adjust the position of the handlebars according to the rider needs.
- 3. Tighten the two front bolts and then tighten the two rear bolts. Leave a gap of 3 mm at the back of the clamp block.
- 4. Tighten the fastening bolts to specifications.

# **OPERATION**

PRE-RIDE INSPECTION	61
INSPECTION ITEMS	62
BASIC DRIVING GUIDE	63
TRAIL ETIQUETTE	63
KNOW YOUR RIDING AREA	63
VEHICLE BREAK-IN PERIOD	63
BREAK-IN PROCEDURE FOR BRAKE SYSTEM	63
CLUTCH/BELT BREAK-IN	64
NEW OPERATOR DRIVING PROCEDURES	64
STARTING THE VEHICLE	64
PARK THE VEHICLE	65
TURNING THE VEHICLE	65
DRIVING IN REVERSE	66
TURNING AROUND ON A HILL (K-TURN)	66
DRIVING ON SLIPPERY SURFACES	67
DRIVING THROUGH WATER	67
DRIVING OVER OBSTACLES	68
DRIVING UPHILL	69
DRIVING DOWNHILL	70
DRIVING ON A SIDEHILL	71
PARKING ON AN INCLINE	72
BRAKING	73
PARKING THE VEHICLE	73
VEHICLE BREAK-IN	74
LOAD LIMITS & GUIDELINES	75

# **OPERATION**

76	MAXIMUM LOADING CAPAC
	LOADING GUIDELINES
	TOWING A TRAILER
79	WINCH OPERATION

This section provides basic operating instructions, including how to start and stop the vehicle, driving tips and considerations when riding on different roads.

Even if you have ridden other scooters, you must take the time to familiarize yourself with how the vehicle operates. Practice in a flat, wide area until you are familiar with the ATV.

### 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-riding Inspection outlined in the Operation chapter before use of your vehicle to make sure it's in safe operating conditions. Always follow the inspection and maintenance procedures and schedules described in this owner's manual. See the Periodic Maintenance section in the Maintenance chapter.

# **PRE-RIDE INSPECTION**

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

Repair any problem that you discover to reduce the risk of a breakdown or crash.

# PRE-RIDE INSPECTION ITEMS

Project	Explanation	Page
Brake system / Lever stroke	Ensure correct operation	46~49
Brake Fluid	Ensure proper level	110~111
Auxiliary brake	Ensure correct operation	46
Front suspension	Check, lubricate if necessary	120
Rear suspension	Check, lubricate if necessary	119~120
Tires	Check status and air pressure	113~114
Wheel/Lug Nuts	Check, ensure tightening, air tightness	115
Fuel Level	Ensure proper level	52
Coolant	Ensure proper level	106
Indicator light	Ensure display status	38~42
Switches	Ensure operation	30~33
Engine start/stop switch	Ensure correct operation	30
Headlights	Check operation	30
Brake light/tail light	Check operation	-
Riding gear	Wear approved helmet and protective clothing	14~15
Trailer (optional equipment)	Check cable and interchanger	

# **BASIC DRIVING GUIDE**

# TRAIL ETIQUETTE

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

### KNOW YOUR RIDING AREA

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 driving 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 run-in period is the **first 300 km** of operation. It is important for you to ride in single person and to perform proper run-in period. Careful running-in of the new engine and drive train components will improve the performance and service life of these components. Follow these steps carefully.

### BREAK-IN PROCEDURE FOR BRAKE SYSTEM

In order to achieve the best brake performance of the new vehicle, the brakes must be broken-in properly. The brake system needs **200 km** run-in period.

# CLUTCH / BELT BREAK-IN

Proper run-in of the clutch and driving belt will ensure longer service life and better performance. Run the run-in clutch and belt at low speeds for the recommended run-in time by only pulling light loads. Avoid violent acceleration and high speed running during run-in period. 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.

### NEW OPERATOR DRIVING PROCEDURES

- 1. Wear protective riding gear. See the Safe Riding Gear section.
- 2. Perform the pre-ride inspection.
- 3. Place the transmission in Parking gear.
- 4. Mount the vehicle from the left side.
- 5. Sit upright with both feet on the footrests and both hands on the handlebars.
- 6. Start the engine to warm up.
- 7. Ride slowly. Practice maneuver and use the throttle and brakes on level surfaces.

# STARTING THE VEHICLE

- 1. Turn the ignition switch key to the "ON" position.
- 2. Step forcefully on the foot brake or press forcefully the brake lever, and place the transmission in neutral "N" gear.
- 3. Move the engine start/stop switch to the " $(\mathfrak{F})$ " position, then release it to start the engine.
- 4. The engine is started. Step forcefully on the foot brake and place the transmission to required gear.

## PARKING THE VEHICLE

- 1. Step on the foot brake and place the transmission in "P" gear.
- 2. Press the engine start/stop switch to the " 🕅 " position to stop the engine.
- 3. Turn the key to the "OFF" position, and the key can be removed from the switch.
- 4. Lock the handle parking brake lever. Step on the foot brake and set the shifter to the "P" position.

## TURNING THE VEHICLE

Both rear wheels drive equally at all times. This means that the outside wheel must travel a greater distance than the inside wheel when turning.

- 1. Slow down.
- 2. Steer in the direction of the turn.
- 3. Keep both feet on the footrests.
- 4. Lean your upper body to the inside of the turn while supporting your weight on the outer footrest. This technique alters the balance of traction between the rear wheels, allowing the turn to be made smoothly. The same leaning technique should be used for turning in reverse.
- 5. Practice making turns at slow speeds before attempting to turn at a faster speed.

## **WARNING**

Turning improperly can result in vehicle overturn. Never turn abruptly or at sharp angles. Never turn at high speeds.
# DRIVING IN REVERSE

If you need to ride in reverse, make sure the area behind you is clear and only operate the ATV at low speed.

Do not use the override switch unless additional wheel speed is required for vehicle movement. Use the override with caution as rearward vehicle speed is greatly increased. Do not operate at wide open throttle. Operate the throttle just enough to maintain a desired speed.

To reverse, follow this procedure:

- 1. Always check for obstacles or people behind the vehicle, be sure there are no obstacles or people in the way.
- 2. Press the brake to change the shifter to "R".

# TURNING AROUND ON A HILL (K-TURN)

If the vehicle stalls when climbing a hill, never back it down the hill! Use the K- turn to turn your ATV around.

- 1. Stop and lock the parking brake while keeping body weight uphill.
- 2. Leave the transmission in forward and shut off the engine.
- 3. Dismount on the uphill side of the vehicle or on the left if the vehicle is pointing straight uphill. Staying uphill of the vehicle, turn the handlebars full left.
- 4. When holding the brake lever, release the parking brake lock and slowly allow the vehicle to roll around to your right until it's pointing across the hill or slightly downwards.
- 5. Lock the parking brake. Remount the vehicle from the uphill side, keeping body weight uphill. Start the engine with the transmission still in forward.
- 6. Keep the transmission in forward and start the engine.
- 7. Release the parking brake and proceed slowly, control speed with the brake lever until the vehicle is on flat ground.

# DRIVING ON SLIPPERY SURFACES

Whenever driving on slippery surfaces such as wet trails, 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 drivetrain may occur if 4x4 is engaged when wheels are still spinning. Allow the rear wheels to stop 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.
- 5. Never apply the brakes during a skid. Correct a skid by turning the handlebars in the direction of the skid,

# DRIVING THROUGH WATER

Your ATV can operate through water with a maximum recommended depth equal to the **bottom of the footrests**. Follow these procedures when operating through water:



# 

Major engine damage can result if the vehicle is not thoroughly inspected after operation in water. Perform the services outlined in the Periodic Maintenance Chart. The following areas need special attention: engine oil, transmission oil, differential / gearcase oil and all grease fittings. If the vehicle tips over or overturns in water, or if the engine stops during or after operating in water, service is required before starting the engine. Ask your dealer to perform 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.
- 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:
  - Proceed slowly. Avoid rocks and obstacles.
  - Balance your weight carefully. Avoid sudden movements.
  - Maintain a steady rate of speed. Do not make sudden turns or stops. Do not make sudden throttle changes.

# 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. Drive straight uphill.
- 2. Avoid steep hills.

Maximum incline is:

- No passenger: 25°
- With passenger: 15°

# **OPERATION**



No passenger: 25°

With passenger: 15°

SEGWA

- 3. Always check the terrain carefully before ascending any hill.
- 4. Never climb hills with excessively slippery or loose surfaces.
- 5. Keep both feet on the footrests.
- 6. Shift body weight uphill. A passenger should also shift body weight uphill.
- Proceed at a steady rate of speed and throttle opening. Opening the throttle suddenly could cause the ATV to flip over backwards.

## DRIVING DOWNHILL

When driving downhill, follow these precautions:

1. Avoid steep hills.

#### Maximum incline is:

- No passenger: 25°
- With passenger: 15°



No passenger: 25°



- 2. Always check the terrain carefully before descending a hill.
- 3. Always descend a hill with the transmission in forward gear. Do not descend a hill with the transmission in neutral.
- 4. Slow down. Never travel down a hill at high speed.
- 5. Drive straight downhill. Avoid traveling down a hill at an angle, which would cause the vehicle to lean sharply to one side.
- 6. Shift body weight uphill. A passenger should also shift body weight uphill.
- 7. Apply the brakes slightly to aid in slowing. Applying the brakes too firmly may cause the rear wheels to lock, which could result in loss of control.

# **DRIVING ON A SIDEHILL**

Riding 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. Avoid crossing the side of a steep hill.

3. Lean into the hill, transferring your upper body weight toward the hill while keeping your feet on the footrests.



 If the vehicle begins to tip, quickly turn the front wheel downhill, if possible, or dismount on the uphill side immediately!

# 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.

## BRAKING

- 1. Release the throttle lever completely. (When the throttle lever 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. 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 structures, 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.

# VEHICLE BREAK-IN

The engine needs a **300 km** run-in period.

During run-in:

- Avoid full throttle operation.
- Avoid pressing the throttle lever for more than 3/4 stroke.
- Avoid continuous acceleration.

The brake system needs **200 km** run-in period.

New brakes will not operate at their maximum efficiency until the run-in period is over. Brake performance may be compromised, so be careful.

# NOTICE

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

# LOAD LIMITS & GUIDELINES

The front and rear shelves of your vehicle are capable of carrying goods, and the towing device behind the vehicle can also carry the load.

Any load carried by the vehicle will affect the vehicle's operation, stability and braking distance. Do not exceed the vehicle load limit, including driver, passenger, cargo, components weight, and traction rod weight. It is important to be aware that the cargo may slip or fall to cause an accident

#### **WARNING**

- Strictly follow the instructions outlined in the owner's manual of the mounted or trailed machinery or trailer, and not to operate the combination tractor-machine or tractor-trailer unless all instructions have been followed.
- Stay clear from the area between the vehicle and trailer.
- Reduce speed and allow greater braking distance when carrying loads.
- The lower the height of the load on the rack, the better. Too much cargo on the racks can destabilize the vehicle's center of gravity and reduce riding stability.
- Carefully fix all items before ride. Unstable cargo can create unstable riding conditions which can make the vehicle to lose control.
- Heavy loading causes braking and control problems. Take extra care when using the brakes with a loaded vehicle. Avoid terrain or conditions that may recede downhill.

# **OPERATION**

## **WARNING**

- Take extra care when carrying loads beyond the edges of the rack. Stability and mobility may be affected, causing the vehicle to tip over.
- Do not block the headlight beam when loading the front rack.
- Don't drive faster than recommended speed. Vehicle should not exceed 15 km/h when carrying load on a flat ground. When towing load, turning, climbing or descending over rough terrain must not exceed speed of 8 km/h.

### MAXIMUM LOADING CAPACITY

Model	AT5 S	AT5 L	
Front rack	40 kg	40 kg	
Rear rack	60 kg	60 kg	
Maximum unbraked towing mass	300 kg	300 kg	
Maximum unbraked tongue mass	100 kg	100 kg	
Maximum braked towing mass	600 kg	600 kg	
Maximum braked tongue mass	100 kg	100 kg	

Don't go beyond the maximum loading capacity.

# LOADING GUIDELINES

When transporting cargo, follow these instructions:

- 1. Do not exceed the weight specified on the rack's warning labels and in this manual.
- 2. Never ride with a passenger on the front or rear racks.
- 3. Always load the cargo on the rack as low as possible. Ensure that the items on the rack are firmly secured before ride. Incorrectly secured cargo will cause unexpected behavior.

- SEGWAY
- 4. Make sure all cargo is secured before riding.
- 5. Avoid riding on steep slopes when carrying cargo or pulling a trailer.
- 6. Use low gear " L " when hauling heavy cargo.
- 7. When handling cargo, operate the vehicle with caution.

# **TOWING A TRAILER**

The towing device is a detachable part. It can be removed from the ATV if you are not using a trailer. If you need to tow a load, be aware that the towing weight does not include the weight of the tow hitch.

- The combination of the weight of the rear rack and the traction rack shall not exceed the capacity of the rear rack.
- 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 tow bar:

Either:

Or:

Pass the cable through the attachment point and clip it back on itself. Attach the clip directly to the attachment point; this alterative must be specially permitted by the trailer manufacturer since the clip may not be strong enough for use it this way.





# OPERATION





### NOTICE

The speed must be less than 15 km/h when towing.

Use of improper hitch or exceeding maximum towing capacity may cause serious damage to your vehicle. In this case, your ATV will not be covered by warranty.

Do not install trailer hooks larger than 10 cm. Never install automotive accessories on the ATV. Always install accessories approved (or equivalent) designed for ATV use.

# WINCH OPERATION

If your vehicle is equipped with a winch, please read this manual before installation and 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 operation manual. If the instructions or warnings are not followed, serious property damage or personal injury may occur.

- It is strictly prohibited for people under 16 years old to use this equipment.
- The user must read and understand the operating instructions and warnings of this operating manual. If the instructions or warnings are not followed, serious property damage or personal injury may occur.
- 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 meet the maximum rope pull force rating. We recommend using an optional pulley block, double rope using a pulley block double rope to reduce the load on the winch, rope and battery. When double rope, the rated value of the pulley block should be two times the rope pull of the winch.
- Under heavy load, do not try to pull for a long time. Electric winches are only designed for intermittent use, should not be used under constant load. Do not pull for more than one minute or close to the rated load. If the winch motor feels very hot, stop winch and let it cool for a few minutes.

# OPERATION

- The rope end cannot bear the full load, and the rope must rotate around the drum at least 5 laps.
- Avoid pulling from extreme angles, as this will cause the rope to be rolled on one end of the barrel and damage the rope.
- Note that the rope-drawing capacity of the winch is the maximum rope-drawing capacity of the first layer, only the first the layer can only be pulled, do not operate the winch with overload capacity.
- Never hook the rope back to itself, otherwise the rope will be 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 wire rope to prevent kinks and uneven wire layers. The slack rope must be properly tightened under a weight of about 50kg.
- When pulling the load, be sure to lay a blanket or protective layer on the wire rope near the hook end. This will prevent the possibility of breaking the wire rope and help prevent serious injuries and damage.
- Do not move the winch to assist in hauling heavy objects. It is easy to overload and cause damage to the wire rope.
- Pay attention to the dangerous areas and stay away from them during the operation. Dangerous areas are winch drum, fairlead, wire rope, pulley block, hook and motor.
- When the winch is under load, do not approach or cross the rope.
- When using the hoist to move the load, place the vehicle transmission in neutral and apply brake of the vehicle and plug all wheels with wedges. When the hoist is working, the vehicle engine should be operated to fully charge the battery. Never use the hoist with insufficient voltage.

- Never disconnect the power supply when there is a load on the winch.
- After the operation, please release the load immediately, and do not tighten the cable.
- Always stay away from ropes, hooks and winches.
- Check winches, ropes, hooks, and broken strands of worn wires regularly. When handling the steel wire rope, please wear thick leather gloves. Do not let the steel wire rope slip over your hands. Check the steel rope before use. Crushed, pinched, worn or kinked rope has seriously reduced carrying capacity. The damaged steel wire rope should be replaced. It must be re-wound under a load of about 50 kg.
- The clutch should be disconnected first, and then the wire rope should be pulled by the hook of the protective lever. Do not pull the wire rope directly through the hook with your fingers.
- Maintain the specified tension so that the cable 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. In operation, be vigilant during the process. 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 your hair tightly under the work cap and remove all jewelry.
- Do not mechanically process or melt any part of the winch.
- When the winch is in use, be sure to start the engine and set the gear position to "N" to make sure battery is charging.
- When the winch is working, the current is large, so you must start the vehicle and give throttle lightly to avoid damage to the battery.

- The winch rope and the vehicle should be in a straight line. Too big an angle will change, the direction of the pulling force, thereby damaging the rope.
- If severe noise or vibrations occur 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 overrolled 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.



PERIODIC MAINTENANCE	86
MAINTENANCE CHART KEY	87
LIFTING AND SUPPORTING THE VEHICLE	91
AIR FILTER COVER	92
FRONT MAINTENANCE COVER REMOVAL	93
LUBRICATION	94
ENGINE OIL	95
OIL RECOMMENDATION	95
ENGINE OIL LEVEL CHECK	96
CHANGING ENGINE OIL AND OIL FILTER	98
OIL STRAINER CLEAN	99
ADDING ENGINE OIL	100
FRONT/REAR GEAR BOX OIL	101
FRONT/REAR AXLE GEAR OIL CHECK	101
CVT DRIVE BELT	102
BELT REPLACEMENT/DEBRIS REMOVAL	102
INSTALLING DRIVE BELT	103
CVT DRYING	104
COOLANT	105
RADIATOR INSPECTION	105
COOLANT LEVEL CHECK/ADD	106
REPLACE ENGINE COOLANT	

AIR FILTER	107
CVT AIR INTAKE FILTER	108
CVT INTAKE FILTER CHECK	108
BRAKE SYSTEM	109
BRAKE FLUID	110
FRONT BRAKE FLUID	111
BRAKE PADS	111
TIRES	113
TIRE PRESSURE	113
TREAD DEPTH OF TIRE	114
REPLACING THE TIRES	114
WHEEL REMOVAL	115
TIRE SIZE	116
SUSPENSION ADJUSTMENT	117
OIL SHOCK ABSORBER	117
ADJUSTABLE AIR SHOCK ABSORBER	118
SUSPENSION LUBRICATION	119
FRONT / REAR DRIVE SHAFT AXLE BOOTS	120
LED LIGHTS	121
HEADLIGHT/TAILLIGHT REPLACEMENT	121
HIGH BEAM ADJUSTMENT	122
SPARK PLUG	124
SPARK PLUG INSPECTION	125
SPARK ARRESTOR	127
BATTERY	129
ELECTRONIC POWER STEERING (EPS)	130

BATTERY REMOVAL	131
BATTERY INSTALLATION	132
BATTERY CHARGING	133
EMERGENCY JUMP START	134
FUSES	135
FUSE BOX	136
FUSE/RELAY DISTRIBUTION AND AMPERE RATING	137
FUSE BOX REPLACEMENT	139
APPEARANCE CARE	140
VEHICLE WASHING	140
CLEANING TIPS	140
VEHICLE STORAGE	141
TRANSPORTING THE ATV	141

# PERIODIC MAINTENANCE

Careful 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 inspection reveals the need for replacement parts, use genuine parts available from your authorized dealer.

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

Maintenance intervals in the following chart are based upon average riding conditions. Vehicles subjected to severe use 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 idle

# MAINTENANCE CHART

#### MAINTENANCE CHART KEY

SYMBOL	DESCRIPTION
•	Perform these procedures more often for vehicles subjected to severe use.
D	Have an authorized dealer or other qualified person perform these services.

## **WARNING**

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

Perform all services at whichever maintenance interval is reached first.

#### **PRE-RIDE INSPECTION**

ITEM		MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)			Remarks
		HOURS	CALENDAR	KM	Remarks
	Steering		Pre-ride		
	Front suspension		Pre-ride		
	Rear suspension		Pre-ride		Visually inspect, test,
	Tires/ Wheels/ fasteners		Pre-ride		or check components. Make adjustments and/ or schedule repairs when required
	Brake fluid level		Pre-ride		
	Brake system		Pre-ride		
	Throttle		Pre-ride		
	Engine oil level		Pre-ride		
	Air filter, pre-filter		Daily		Inspect. Clean often. Replace as needed
	Coolant		Daily		Check level
	Power steering unit (if equipped)		Daily		Inspect daily. Clean often.
	Headlight/ Taillight/ Work light		Daily		Check operation. Apply dielectric grease if replacing lamps

#### **BREAK-IN MAINTENANCE**

ITEM		MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)			REMARKS
		HOURS	CALENDAR	KM	
	Fuel System	25 h	1 M	320	Break-in check: cycle key to pressurize fuel pump; check lines and fittings for leaks and abrasion
	Engine oil change	25 h	1 M	1000	Break-in check: oil and filter change
	Front gearcase oil	25 h	1 M	320	Break-in check: oil level check
	Rear gearcase oil	25 h	1 M	320	Break-in check: oil level check

#### PERIODIC MAINTENANCE

Make sure to perform proper maintenance at recommended intervals as indicated in the tables. Some items of the maintenance schedule must be performed in function of the calendar, regardless of the distance or time of operation.

ITEM		MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)			REMARKS
		HOURS	CALENDAR	КМ	
	Brake pad wear	10 h	Monthly	160	Inspect periodically; replace as needed
	Battery	20 h	Monthly	320	Check terminals; clean; test
►	Air filter, main element	50h		800	Inspect; replace as needed; inspect frequently if subjected to severe use
►	General lubrication	50 h	3 M	800	Lubricate all fittings, pivots, cables, etc.
	Throttle body intake duct	50 h	6 M	800	Inspect duct for proper sealing/air leaks
	Drive belt	50 h	6 M	800	Inspect; adjust; replace as needed
	Cooling system	100 h	12 M	1600	Inspect coolant strength seasonally; pressure test system yearly
►	Engine oil change	100 h	12 M	1600	Change the oil and filter

#### PERIODIC MAINTENANCE

ITEM		MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)			REMARKS
		HOURS	CALENDAR	KM	
٨	Oil lines and fasteners	100 h	12 M	1600	Inspect for leaks and loose fittings
	Front gearcase oil	100 h	12 M	1600	Change fluid;
	Rear gearcase oil	100 h	12 M	1600	Change fluid
D	Fuel system/filter	100 h	12 M	1600	Cycle key to pressurize fuel pump; check for leaks at fill cap, fuel lines/rail and fuel pump; replace lines every two years
٨	Radiator (if applicable)	100 h	12 M	1600	Inspect; clean external surfaces
٨	Cooling hoses (if applicable)	100 h	12 M	1600	Inspect for leaks
•	Engine mounts	100 h	12 M	1600	Inspect
	Exhaust muffler/ pipe / Joints	100 h	12 M	1600	Inspect; clean; replace worn parts
D	Spark plug	100 h	12 M	1600	Inspect; replace as needed
D	Clutches (drive and driven)	100 h	12 M	1600	Inspect; clean; replace worn parts
D	Front wheel bearings	100 h	12 M	1600	Inspect; replace as needed
D	Brake fluid	200 h	24 M	3200	Change every 2 years
	Spark arrestor	300 h	36 M	4800	Clean
٨	Coolant		60 M		Replace coolant
D	Valve clearance	500 h		8000	Inspect; adjust
	Idle speed				Adjust as needed
D	Toe adjustment				Inspect periodically; adjust when parts are replaced
	Headlight aim				Adjust as needed

#### LIFTING AND SUPPORTING THE VEHICLE

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

When lifting the front or rear of the vehicle, place the jack under the centre of the front or rear frame in the position shown in the image:



Places of jack support position

# MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

# AIR FILTER COVER

The engine oil filling port and spark plug are located under the air filter cover.



- 1. Remove the seat.
- 2. Remove the two hex screws behind the air filter cover.
- 3. Remove the air filter cover.

### FRONT MAINTENANCE COVER REMOVAL

Coolant filler, fuse box, brake fluid cap, etc. are located under the service cover.



To remove the front service cover, do the following: Remove the fasteners from the front rack and remove the quickrelease front maintenance cover.

# LUBRICATION

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 wais 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.

Item	Recommended type	Capacity	Note
Engine oil	SAE 10W-40 SN or higher	2.2 L	Maintain level in safe range on the oil dipstick
Front axle gear oil	SAE 80W-90 GL-5	190 ml	
Rear axle	SAE 80W-90	140 ml (No differential) Every 2000 km	
gear oil	GL-5	260 ml (With differential)	
Coolant		3000 ml	Maintain level between the fill lines.
Brake fluid	DOT4		Maintain level between the fill lines.
Suspension stabilizer (sway bar) grease			Grease fittings (3 pumps max) every 800 km.

# **ENGINE OIL**

Be sure to check and change the oil at the time required by the regular maintenance chart. Be sure to use recommended engine oil. The oil filter must be changed every time the oil is changed. Pay special 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 dealer can assist.

### **WARNING**

Vehicle operation with insufficient, degraded or contaminated engine oil will cause accelerated wear and tear, and may result in engine seizure, accident and injury. Always perform maintenance procedures according to periodic maintenance chart.

# OIL RECOMMENDATION

Oil filter must be changed every time the oil is changed. It is recommended to use SAE 10W-40 SN four-stroke oil or similar for this engine. Follow the manufacturer's recommendations for ambient temperature operation. Please refer to the lubricant guide section for fluid recommendations, capacity and blocking torque.

Recommended engine oil: Maxima ATV PREMIUM4 10W-40

# 

Mixing brands or using non-recommended oils may cause serious engine damage. Always use the recommended oil only. Never replace or mix oil brands.



# ENGINE OIL LEVEL CHECK

# NOTICE

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

- 1. Park the vehicle on a level ground. Wait at least 5 minutes to allow the oil to flow back to the bottom of the engine.
- 2. Put a piece of cotton cloth under the oil dipstick, and then screw the oil dipstick out.
- 3. Wipe the oil dipstick clean.
- 4. Reinsert the oil dipstick, screwing it completely in.
- Put a piece of cotton cloth under the dipstick, then unscrew the oil dipstick and check the oil level.
  Oil level should be between the upper and the lower marks. Below the lower mark means the oil is too little, above the upper mark means too much oil in the engine. Too little or too much oil is not acceptable.



- 6. After cleaning the oil dipstick, fully insert it again.
- If the oil level is near or below the lower level mark, remove the seat. Remove the oil fill cap from the front right crankcase cover and add the specified oil into the fill cap hole up to the upper level mark on the dipstick.
- 8. Reinstall the oil fill cap and oil dipstick.
- 9. Install the tank cover assembly.
- 10. Install the seat.

#### NOTICE

Hot oil may burn the skin. Do not let the oil contact skin.

## CHANGING ENGINE OIL AND OIL FILTER

Have the engine oil changed by an authorized Segway Powersports service. This procedure requires certain mechanical skills, specialized tools (torque wrenches), and systems for handling the used fluids. When replacing oil, Segway Powesports service will also clean oil strainer and replace your oil filter.

### NOTICE

Whenever changing oil, change the oil filter too.

## **WARNING**

- Used engine oil contains potentially hazardous pollutants which can cause skin diseases such as dermatitis and skin cancer, so take care to avoid prolonged and repeated exposure to such oils. Wash the skin thoroughly with soap and water to remove used engine oil.
- Used oil and oil filter must be scrapped in a safe way compliant with environmental regulations. Do not dispose of used oil and filters in domestic garbage, sewers or on the ground. For information on oil recycling or scrapping, please consult your Segway dealer.
- Do not put used engine oil in a place where children can reach.

# **OIL STRAINER CLEAN**

The oil filtration on this engine is a two-stage filtration system. The oil strainer (pre-filter) is designed to trap large foreign objects. Replace the oil according to the Maintenance Schedule. Also use Segway approved oil that is designed for 4-stroke engines.



- 1 Bolt M6x25 (4x)
- 4 Strainer spring
- 3 O-ring seal
- 5 Oil strainer

The oil filter can be checked after the oil is discharged. If cleaning is needed, please take the following steps:

- Remove 4 bolts. 1.
- Remove the strainer cover, O-ring seal and strainer spring in 2. turn.
- 3. Take out the oil strainer for cleaning.
- 4. Strainer installation is reverse of the removal.

# ADDING ENGINE OIL



1 Upper level 2 Lower level 3 Oil fill hole

The oil dipstick can be used to add oil.

- Pull out the oil dipstick. 1.
- Add the appropriate amount of recommended engine oil. Do 2. not overfill. The oil level should be between the upper and lower marks.
- 3. Tighten the oil dipstick again.
- Put the shifter in park gear and lock the parking brake. 4.
- Start the engine and let it idle for 1 to 2 minutes. 5.
- 6. Stop the engine.
- Check for leaks. 7.
- 8. Check the oil level and add oil as needed so that the oil level reaches the mark on the dipstick.

Recommended engine oil: Maxima ATV PREMIUM4 10W-40

# FRONT/REAR GEARBOX OIL

Check and replace the recommended gearbox oil at intervals listed in the periodic maintenance chart.

### NOTICE

If the front gearbox makes excessive noise during 4WD operation, please change the gearbox fluid. If the noise continues, please ask Segway Powersports dealers for vehicle inspection and service.

Use recommended oil. The use of other oils may cause improper operation of parts.

# FRONT/REAR AXLE GEAR OIL CHECK

The oil level of the front and rear axle should reach the bottom of the thread of the filling hole, as shown in the figure below:



- 1. Position the vehicle on a horizontal surface and remove the filling plug.
- 2. Check the oil level in the front and rear gearbox.
- 3. If the oil level is below correct level, the appropriate amount of recommended oil should be added.
- 4. Reinstall the filling plug and check for leaks.

#### Recommended oil: Maxima ATV PREMIUM4 10W-40
# **CVT DRIVE BELT**

Check CVT drive belt in intervals specified in the maintenance chart. If CVT belt is damaged, it should be replaced.

### BELT REPLACEMENT/DEBRIS REMOVAL

When replacing drive belt, remove debris from pipes and clutches.

### WARNING

Failure to remove all debris when replacing belts may result in vehicle damage, loss of control and serious injury or death.





#### Removing drive belt

Stop vehicle engine before replacement and allow vehicle to cool fully.

1. First remove the right cover of the vehicle.

2. Remove the CVT anti-ironing board on the CVT.

3. Remove the CVT cover bolt and remove the CVT cover and CVT cover sealing ring.





4. With the kit-out pin for driven pulley(special tool) against the driven wheel as shown in the figure of the hole, make the driven wheel open.

## WARNING

Before removing the drive belt, please note the direction of the marks on the drive belt (such as manufacturer name, arrow mark, etc.) so that the drive belt can be reinstalled on the pulley in the original direction.

5. Take out the drive belt to be replaced and clean up the debris in the CVT compartment.

## **INSTALLING DRIVE BELT**

## 

Ensure that the new belt direction is consistent with the original belt installation direction.

- The installation procedure is basically the opposite of the disassembly.
- Wrap the drive belt around the CVT drive wheel and drive wheel.
- Pull out the kick-out pin from the drive wheel and tighten the CVT driven wheel.
- Install the CVT seal ring and tighten the CVT cover.

CVT outer cover bolt: 10 Nm

## **CVT DRYING**

In some cases, water may inadvertently soak into the CVT system, so let it dry before riding.



- 1. Remove the clutch drain plug.
- 2. After the water drains out, reinstall the water drain plug.
- 3. Put the transmission in "P" and pull up the parking handle.
- 4. Start the engine.
- 5. Use different throttles for 10-15 seconds to drain moisture and air, dry the belt and CVT. Do not leave the full throttle for more than 10 seconds.
- 6. Allow the engine speed to remain at idle. Use the brakes. Shift the transmission to the lowest available range.
- 7. Belt slip test. If the belt slips, repeat the process.
- 8. If your vehicle needs service, visit Segway Powersports dealer.

# COOLANT

Control or maintain engine coolant levels through a recovery system. The recovery system components are the auxiliary tank, radiator, radiator pressure cap and connection hose.

As the operating temperature of the coolant increases, the expanded (heated) excess coolant is forced out of the engine, through the pressure cap, and into the recovery bottle. When the engine coolant temperature drops, the contracted (cooled) coolant is drawn out of the bottle, passes through the pressure cap, and enters the radiator.

It is normal for coolant level to drop on a new vehicle because the system is draining air. Check coolant level and add coolant to recovery bottle as recommended.

### **RADIATOR INSPECTION**

Check radiator and hoses for leaks or damage. Check the heat sink. The heat sink must be kept clean. Often clean the heat sink in the dirt, and any deposits that hinder the normal cooling of the radiator.

### 

Never clean the radiator when its hot.

## COOLANT LEVEL CHECK / ADD

The recovery bottle is located on the left side of the vehicle.



- 1. Observe the coolant level in the bottle
- If the coolant level is low, remove the cap and add coolant. Maintain the coolant level between the Minimum 2 and Maximum 1 marks on the bottle (when the coolant is cool).
- 3. Remove the front maintenance cover in the front upper part of the vehicle.
- Unscrew the lid and pour in new coolant. Pay attention to the position of the coolant when pouring in. and do not exceed the maximum coolant level.
- 5. Tighten the lid of the cooling bottle.
- 6. Reinstall the instrument cover and confirm whether the instrument cover is installed.

## REPLACE ENGINE COOLANT

To ensure that the coolant maintains its ability to protect the engine, we recommend that the system be completely emptied every five years to add a new coolant, which requires expertise and can be replaced by taking the vehicle to a Segway dealer.

# AIR FILTER

The air filter element is a paper air filter type. Air filter needs to be cleaned or replaced after a period of use, as described in the periodic maintenance table.

First remove the filter element to check. If air filter element is soaked with oil or serious dust, air filter element should not be cleaned, but directly replaced with a new air filter element.

If there is no oil immersion or serious dust, clean the air filter intake side down and lightly knock on the ground. Most of the dust will fall off after tapping. If you have air pump, you can use compressed air from the filter inner side to blow out (not from the intake side), to blow the dust off to clean the air filter.

#### Removing the air filter cover



1 Air filter cover

- 2 Air box cover clamp
- 3 Air filter element
- 4 Air filter plug

The air filter element is located under the air filter cover in front of the seat. Replacement steps are as follows:

- 1. Press and remove the air box cover clamp.
- 2. Pull up the air filter cover.
- 3. Take out the old air filter element.
- 4. Clean the air filter element.
- 5. Install a new filter element if necessary.
- 6. Make sure the air filter is securely fixed.

# CVT AIR INTAKE FILTER

The frequency of inspections and cleaning of the CVT air intake filter should be adjusted according to your riding conditions.

## CVT INTAKE FILTER CHECK

Regularly check the CVT intake filter according to the following procedures: there are two CVT air intakes, both located under the seat.



1 Air inlet filter 1 2 Air inlet filter 2

Clean the CVT air inlet filter and replace it with a new air inlet filter if necessary.

# BRAKE SYSTEM

The front and rear brakes are hydraulic disc brakes that are activated by stepping on brake pedal or moving brake lever towards the handlebars. The brakes are self-regulating. As the brake pads/disc wears away, the brake fluid level will drop. Also, leakage in the system will cause the brake fluid level to drop.

## **WARNING**

Brake fluid levels must be checked periodically: overfilling of the brake reservoir may cause brake resistance or brake locking, which may result in serious injury or death. Keep brake fluid at the recommended level and do not overfill. Check brake pads and brake disc wear regularly: if brake disc or pad is worn, must be replaced.

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 more frequently.

- 1. Always keep the brake fluid at an appropriate level. Refer to pages 110 111 for details.
- 2. Check the brake system for brake fluid leakage.
- 3. Check whether the brake travel is 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 1.5 mm.
- Check the safety and surface condition of the disc. Use quality brake cleaner to clean any grease. Do not use spray lubricants or other petroleum-based products on brake components. If any damage (crack, excessive corrosion, warping) is found, ask Segway Powesports service for repair before operation.

### BRAKE FLUID

Use only the recommended brake fluid:

Brake fluid	DOT4
-------------	------

No adjustment is required for the hydraulic braking system. Check the brake fluid level of the auxiliary braking system frequently. If the level is low, perform the following steps. The brake fluid reservoir is located below the front maintenance cover.

1. Remove the front rack and the maintenance cover. See page 93 for the removal procedure. Observe the brake fluid level in the reservoir:



- 3. The brake fluid level should be between the upper level and the lower level. If it is below lower level, add the recommended brake fluid and observe the brake 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 unwell, seek medical advice immediately.

## FRONT BRAKE FI UID

Check whether the front brake fluid level is below the minimum brake fluid level mark on the right handlebar. When the brake fluid level is below the minimum brake fluid level, perform the following operation.



LOWER LEVEL

- Replenish brake fluid. 1.
- 2. Check whether the brake pads are worn.

## BRAKE PADS

Brake pads consumption will depend on the severity of operating and operating conditions. The brake pads consumes faster in wet and muddy conditions. Periodically inspect brake pads for consumption according to the maintenance periodic table. If the brake pad thickness is less than

or equal to minimum thickness of 1.5 mm, the brake pads must be replaced.

	STANDARD	5 mm
Brake pads thickness	Minimum	1,5 mm
Draka dias thiskness	STANDARD	5 mm
brake disc thickness	Minimum	4 mm



# TIRES

### TIRE PRESSURE

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

- Reduce fuel efficiency
- Reduced riding comfort and shortened tire life
- Safety reduction

When checking tire pressure, follow the below instructions:

Recommended tire pressure	Front	Rear
	48 kPa	48 kPa

- Inspection can only be carried out after the tire cools down.
- If the vehicle has been parked for at least 3 hours, or has not driven more than 1.5 km. Rechecking at this time can get an accurate reading of the cold tire inflation pressure.
- Do use ATV tire pressure gauges. Tire appearance can sometimes be misleading. In addition, even a few pounds less air in a tire can affect riding and handling performance.
- Don't reduce the tire pressure after driving. Increased tire pressure is normal after driving.

## TREAD DEPTH OF TIRE

Observe the tire shoulder to find the Tread wear indicator "T.W.I". When the tire tread block wears to the wear limit mark, exchange the tire. Otherwise the tire can fail underway due to insufficient strength.



#### When to change a tire:

- If you find that the tire is damaged. If tire has cuts, delamination, deep cracks or bulging, tire replacement is needed.
- Tire has often air leaks and cannot be normally repaired due to the size or position of incisions or other defects. If you are not sure, consult your dealer.

## **REPLACING THE TIRES**

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

## WHEEL REMOVAL



Torque to specification:

Torque	Lug nuts: 70-80 Nm
Torque	Lug nuts: 70-80 Nm

- 1. Stop the engine.
- 2. Put the shift lever in the "P" position.
- 3. Lock the parking brake.
- 4. Loosen the four hub mounting nuts, but do not remove them.
- 5. Lift the side of the vehicle by placing a suitable bracket under the tripod frame.
- 6. Loosen the four hub mounting nuts completely.
- 7. Remove the wheel.

## 

Loose lug nuts may cause the wheel to fall off during operation which may cause an accident or rollover. Always ensure that all lug nuts are tightened to the required torque 70~80 Nm. 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 the wheels. In addition, lubricating oil or grease can cause wheel nuts to become loose and wheels may fall off, which can lead to accident and serious injury. Remove any lubricating oil or grease from wheel bolts or wheel nuts.

### TIRE SIZE

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

	Front	Rear
Recommended tire size	25×8.00-12	25×10.00-12

# SUSPENSION ADJUSTMENT

There are different types of shock absorbers fitted in ATVs, depending on configurations. Adjust the shock absorber according the actual type fitted in your ATV.

## **OIL SHOCK ABSORBER**



- 1. There are 5 spring preload positions, which are suitable for different loads or riding conditions.
- **Position** 1 For light load or flat terrain.
- **Position** 2 STANDARD position.
- **Position** 3 ~ 5 When ATV load is heavy, adjust spring adjuster to this position.
- 2. Use hook wrench 6 to adjust the spring preload.

### 

When adjusting spring preload, always adjust the left and right shock absorbers 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.

## ADJUSTABLE AIR SHOCK ABSORBER





- 1 Compression damping adjustment knob
  - Turn the knob clockwise to increase compression damping, or counterclockwise to decrease compression damping.

#### 2 Rebound damping adjusting valve

Use flat screwdriver to adjust the valve.

- Turn in the "H" direction to increase rebound damping.
- Turn in the "S" direction to decrease rebound damping.

3 Spring preload adjuster. Adjust spring preload with a special tool.

- Adjust shock preload by rotating the adjuster nut downward (dockwise) to increase spring preload or upward (counterclockwise to decrease spring preload.
- Tighten the lock nut against the adjuster nut.

4 Rebound damping adjusting knob

• Turn the knob (4) in "S" direction to increase rebound damping or in direction "F" to decrease rebound damping.

# SUSPENSION LUBRICATION

Grease nipples are reserved for the rear suspension and stabilizer (sway bar) parts of the vehicle. These parts need to be often lubricated when the vehicle is operating. Add suitable grease and lubricate according to the intervals specified in the Maintenance chart to reduce wear of these parts and increase service life.

Grease filling label:



# FRONT / REAR DRIVE SHAFT AXLE BOOTS



Check the front and rear drive shaft boots for cuts, cracks, damage or grease leaks. If so, contact your Segway dealer for a replacement.

# LED LIGHTS

## 

Poor lighting can result in reduced visibility when driving. If the headlight and taillight lenses get dirty, please clean the headlamps frequently and replace burnt headlamps promptly. To ensure optimum visibility, make sure the lights are properly adjusted.

## HEADLIGHT/TAILLIGHT REPLACEMENT

LED lights are composed of multiple LED segments. If LED headlight or taillight is damaged, take the vehicle to a authorized Segway dealer for replacement headlight components.

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

- there are big beads of water inside the lens.
- condensation of water inside the headlamp.

## 

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

## HIGH BEAM ADJUSTMENT

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



1. Place the vehicle on a horizontal floor with a headlight position of about 10 m from the wall.



- 2. Measure the distance from the floor to the center of the headlights and mark the line on the wall at the same height.
- 3. Start the engine. Switch headlights to high beam.
- 4. Watch the headlights aim at the wall. The strongest part of the headlight beam should be 5 cm below the mark on the wall. Measurement must include weight of the driver on the seat.

#### Headlight beam adjustment up and down

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

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



1 Light adjusting screw

Left and right adjustment of the headlight beam

Headlight beam can be adjusted slightly to the left or right.



1 Light adjusting screw

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 PLUG

Refer to the recommended spark plug type, clearance specifications and spark plug tightening torque:

## 

Using non-recommended spark plugs can cause serious engine damage. Always use the recommended spark plugs or their equivalents.

Coords of the	Туре	Spark Plug Gap
Spark plug	CPR7EA / B7RTC	0.6-0.8 mm



## SPARK PLUG INSPECTION

Spark plug condition indicates a well running engine. Check or change the spark plugs with reference to the maintenance time of the periodic maintenance schedule.

## 

Wear protective gloves when removing the spark plug for inspection. A hot exhaust system and engine will cause burns.





2 Ignition coil4 Spark plug sleeve

The spark plug is located under the seat. Please refer to page 53 for removing the seat.

- 1. Remove the ignition coil fixing bolts.
- 2. Take out the ignition coil.
- 3. The spark plug is located below the ignition coil. Use tool to turn the spark plug cap 1/4 and remove it from the spark plug.
- 4. Rotate the spark plug counterclockwise and remove it.
- 5. Inspect the spark plug.

Spark plug normal status: The electrode part is grayish white, grayish yellow or light brown, and the electrode gap is 0.6-0.8mm.

Spark plug to be replaced: The spark plug appears electrode ablation, carbon deposition, clearance is too large. At this time the spark plug should be replaced.

# SPARK ARRESTOR

Spark arrestor prevents random sparks from entering other vehicles parts. The following warnings can cause serious injury or death if not followed. Regular maintenance can prevent carbon accumulation, whereas delayed maintenance will reduce engine performance.

### WARNING

Make sure the exhaust pipes are cool and the engine has just stopped running. Let pipes completely cool down to avoid getting burned.

To reduce fire hazards, ensure that there are no combustible materials in the area when removing spark arrestor.

Safety glasses are recommended in this procedure.

The exhaust pipe must be cleaned of accumulated carbon deposits periodically as follows:



- 1. Remove three M6x16 bolts, spring washers and flat washers.
- 2. Start the engine and increase its speed about 20 times, and at the same time block the end of the muffler with a towel, and instantly generate the air pressure of the exhaust system.
- 3. Allow the exhaust pipe to cool.
- 4. Use a soft brush to remove carbon deposits from the spark arrestor mesh.
- 5. Reinstall the spark arrestor in reverse order and tighten fixing screws.

# BATTERY

This ATV is equipped with maintenance-free (MF) battery. The battery is filled with electrolyte in factory. Never pry the battery caps off or add any fluid to this 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 for at least within 30 days. This will maintain the battery life.

## WARNING

12V batteries contain toxic and corrosive sulfuric acid which 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 glasses 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 closed room.

### ELECTRONIC POWER STEERING (EPS) (if equipped)

When the engine is started, the Electronic Power Steering (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. Refer to page 42.

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 after the engine has started, it means that the EPS system has failed. Please contact your Segway Powersports dealer.

## BATTERY REMOVAL

The battery is located below the seat. Cut off the power before removing battery.



1Bolt M8x12 (2x)2Battery holder3Protective rubber sleeve4Cable anchor bolt (x2)5Cable anchor nuts (x2)

- 1. Use a tool to remove the battery holder bolt  $M8 \times 12$ .
- 2. Remove the battery holder.
- 3. Turn up the positive and negative protective rubber sleeves.
- 4. Remove the battery negative screw and nut and disconnect the black (negative) battery cable.
- 5. Remove battery positive screw and nut and disconnect red (positive) battery cable.
- 6. Remove the battery from the ATV.

## BATTERY INSTALLATION

### NOTICE

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

- 1. Clean battery terminals with a soft wire brush and contact cleaner, such as Maxima Electrical Contact / Brake Cleaner. Finally coat the terminals and bolts with dielectric grease.
- 2. Insert the battery into the tray.
- 3. Connect and tighten the red (positive) cable.
- 4. Connect and tighten the black (negative) cable.
- 5. Install a clear battery vent from the vehicle to the battery vent. (For conventional batteries only).
- 6. Install the battery holder.
- 7. Tighten the battery clamp bolt.
- 8. Verify that cables are properly wired.

## BATTERY CHARGING

### NOTICE

When charging, hydrogen produced by the 12V battery is highly explosive gas. Please follow these precautions when charging:

If charging the 12V battery 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 clamps to the 12V battery.

Only charge slowly (5A or less). If charge quickly, the 12V battery may explode.

Read all instructions before the installation and charging this battery.

The battery is already filled with electrolyte in factory. Never pry the battery caps off or add any fluid to this battery.

The most important thing when maintaining the battery is to keep it fully charged.

When using an automatic charger, refer to the charger manufacturer's instructions for recharging. After charging, apply Dielectric Grease to the terminal bolts and terminals.

#### Recommended battery charger:

For battery charging use Shark CN-4000 or CI-4000 automatic charger.

### EMERGENCY JUMP START

Jump starting is not recommended. Its always better to charge the vehicle's battery. If you have to jump-start your vehicle, make sure you follow this procedure:

- 2. Connect the clamp of the positive jumper cable to the special jumper starting terminal of the vehicle.
- 3. Connect the clamp on the other end of the positive cable to the positive (+) terminal of another vehicle.
- 4. Connect the negative cable clamp to the negative battery terminal of another vehicle.
- 5. As shown, connect the clamp on the other end of the negative cable to a separate clamp.
- 6. Connect jumper cable terminals firmly to unpainted solid metal.



# FUSES

All circuits on the ATV 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 found in the fuse box. In the event of a system failure, see "Fuse/Relay 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 as temporary replacements its not allowed.
- Do not modify fuses or fuse boxes.

## FUSE BOX

The fuse box is located under the vehicle's front access cover.

Remove the front rack, and then take off the maintenance cover, you can see the fuse box at the bottom, move the buckles on the left and right sides of the fuse box cover to the outside, release the buckles, and open the fuse box.

### NOTICE

The cover of the fuse box has a limited card slot, pay attention to the installation direction when installing.





### FUSE/RELAY DISTRIBUTION AND AMPERE RATING

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



Ampere rating and distribution of fuse/relay
### SEGWAY MAINTENANCE, STORAGE AND TRANSPORTATION

No.	Fuse/Relay	Power	No.	Fuse/Relay	Power
F3	MAIN SWITCH	15A	R1	REMOTE POWER-ON RELAY	12V 20A
F4	HEAD LIGHTS	20A	R2	AUXILIARY STARTER RELAY	12V 20A
F5	DASHBOARD/ ECU/OBD/T-BOX	15A	R3	IG1 RELAY	12V 20A
F6	FUEL PUMP	15A	R4	MAIN RELAY	12V 20A
F13	12V-IG	15A	R6	DAYTIME RUNNING LIGHT RELAY	12V 20A
F14	LIGHT/BRAKE/2- 4 DRIVE SWITCH	15A	R7	FUEL PUMP RELAY	12V 20A
F15	ECU-IG	5A	R8	FAN RELAY	12V 20A
F16	ON-METER/BOX/ VEHICLE SPEED	10A	R10	HIGH LIGHT RELAY	12V 20A
F17	EPS-IG	5A	R11	LOW LIGHT RELAY	12V 20A
F18	POSITION LIGHT	7.5A	R12	BRAKE LAMP T RELAY	12V 20A
F20	MAIN FUSE	50A	R14	2WD 4WD RELAY	12V 20A
F23	ECU FUSE	15A	R15	4WD LOCK RELAY	12V 20A
F24	EPS FUSE	40A			
F31	FAN	20A			

#### NOTICE

Due to the continuous upgrading of our products, the fuses may have slight changes. All functional positions and specifications in the fuse box are subject to the actual product.

#### FUSE REPLACEMENT

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

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 washer can damage vehicle parts and remove paint and decals.

- 1. Cover or plug the exhaust outlet prior to washing your Vehicle.
- 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.
- 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.
- 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 brakes several times. This will help dry the brakes and restore normal braking performance.

#### **CLEANING TIPS**

Avoid using automotive products, some of which may scratch your vehicle. Clean and polish regularly with a clean cloth and mat. Old or reused cloth and mats can contain dirt particles that can scratch the finish. MAINTENANCE, STORAGE AND TRANSPORTATION SEGWAY

## 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, covered outdoor storage is recommended.

### TRANSPORTING THE ATV

Follow these procedures when transporting the vehicle:

- 1. Stop the engine.
- 2. Place the transmission in PARK.
- 3. Lock the parking brake.
- 4. Secure the fuel cap, oil cap and seats.
- 5. Always tie the frame of the ATV to the transporting unit securely with suitable straps or rope. Do not attach tie straps to the front A-arm bolt pockets, racks or handlebars.
- 6. Remove the key to prevent loss during transporting.

# SPECIFICATIONS

TECHNICAL PARAMETERS	143
VEHICLE IDENTIFICATION NUMBER - VIN	147
VEHICLE IDENTIFICATION PLATE	148

### **TECHNICAL PARAMETERS**

	Model	
	AT5 S	AT5 L
Length	2160mm	2300mm
Width	1180mm	1180mm
Height	1230mm	1350mm
Wheel base	1300mm	1450mm
Ground clearance	250	)mm
Turning diameter	5900mm	6400mm
Curb weight	372kg	389kg
Front rack load	40kg	
Rear rack load	60kg	
Maximum unbraked towing mass	300kg	
Engine	193MR	
Engine type	Four stroke, single c vertical, DOHC	ylinder, water cooled,
Bore × stroke	99×73.6 mm	
Engine displacement	500 ccm	
Compression ratio	10.6:1	
Idle speed	1350±100 r/min	
Maximum power	28 kW / 7000 r/min	
Maximum torque	44 Nm / 6000 r/min	

	Model	
	AT5 S	AT5 L
Starting system	Electric start	
Lubrication system	Wet Sump	
Engine oil type	SAE 10W-40 SN or h	igher
Engine oil capacity	2.2L	
Front axle gear oil type	SAE 80W-90 GL-5	
Quantity	190ml	
Rear axle gear oil	SAE 80W-90 GL-5	
Quantity	140ml (non-differer 260ml (differential)	ntial)
Air filter	Paper filter element	
Fuel tank type	Barrier type plastic f	uel tank
Fuel tank capacity	18 L	
Fuel type	95 octane, unleaded	1
Throttle type	D42	
Spark plug type	CPR7EA / B7RTC	
Spark plug gap	0.6~0.8mm	
Variable transmission	CVT	
Shifting sequence	L-H-N-R-P	
Variable speed ratio	0.6-2.97	
L Transmission ratio	11.8-58.3	
H Transmission ratio	6.8-33.6	
Reverse gear ratio	9.7-48	

	Model	
	AT5 S	AT5 L
Tire type	Tubeless	
Front tire	25x8.00-12	
Rear tire	25x10.00-12	
Front tire pressure	48.3 kPa	
Rear tire pressure	48.3 kPa	
Brake type	Front double disc bra brake (Brake shaft) Front double disc b brake	ike, rear single disc / rake, rear double
Foot brake pedal	Right-foot operation	
Front braking lever	Right-hand operatior	ו
Brake fluid	DOT4	
Front suspension	Double A-arm	
Rear suspension	Double A-arm	
Front shock absorber	Spring + oil Spring + air	
Rear shock absorber	Spring + oil Spring + air	
Front wheel travel	200 mm	
Rear wheel travel	200 mm	
Ignition	ECU	
Charging system	450W / 5500 rpm	
Battery	12V 32Ah	

	Model	
	AT5 S	AT5 L
	Low Beam 9.5 W	
	High Beam 17 W 32000cd	
Headlamp	Day Running Light 20 W	
	Turn Signal 10 W	
	Front Position Light	2.7 W
Rear taillight - position	0.2 W ×2	
light		
Rear taillight - Brake	29W/x2	
lights		
Turn signal lamp	1.9 W ×2	

### **VEHICLE IDENTIFICATION NUMBER - VIN**

Record the Vehicle Identification Number (VIN) and engine serial number in the spaces provided for assistance when ordering spare parts from an authorized Segway Powersports dealer or for reference in case the vehicle is stolen.

The Vehicle Identification Number is located on the frame under the seat.



Vehicle identification number Engine serial number

VIN Number

Engine Serial Number

## VEHICLE IDENTIFICATION PLATE

The frame identification plate is located on the right rear wheel frame of the vehicle and displays basic vehicle information including the VIN number. The VIN number is required when the vehicle is activated for the first time.



# TROUBLESHOOTING

DRIVE BELT AND COVER PROBLEMS	150
ENGINE DOESN'T TURN OVER	152
ENGINE PINGS OR KNOCKS	152
ENGINE STOPS OR LOSES POWER	153
ENGINE TURNS OVER, FAILS TO START	153
ENGINE BACKFIRES	154
ENGINE RUNS IRREGULARLY, STALLS OR MISFIRES	154
ENGINE RUNS IRREGULARLY, STALLS OR MISFIRES	155
ENGINE STOPS OR LOSES POWER	156
DIAGNOSTIC CODES DEFINITIONS	157

With all the challenges you can 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
Riding the ATV onto a pickup or tall trailer in high range	Shift transmission to low range during loading of the ATV to prevent belt burning.
Starting out going up a steep incline	When starting out on an incline, use low range or dismount the ATV (after first applying the park brake) and perform the K-turn as described on page 66.
Riding at low RPM or low speed (at approx. 5-10 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 ATVs exposed to low ambient temperatures	Warm the engine before riding. The belt will become more flexible and prevent belt burning.
Slow and easy clutch engagement	Use the throttle quickly and effectively for efficient clutch engagement.
Towing/pushing at low RPM/low speeds	Use low range only.
Utility use/plowing snow, dirt, etc	Use low range only.

# TROUBLESHOOTING

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 objects from a stop	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 and drain the water from CVT.
Clutch malfunction	Contact your Segway Powersports 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 fuel tank, fuel lines, or throttle. Contact your Segway Powersports dealer for service.
Tripped circuit breaker	Reset the breaker.
Low battery voltage	Charge the battery to 12.5 V.
Loose battery connections	Check and tighten all connections
Loose solenoid connections	Check and tighten all connections

### **ENGINE PINGS OR KNOCKS**

Possible Cause	Solution	
Poor quality or low octane fuel	Replace with recommended fuel	
Incorrect ignition timing	Contact your Segway Powersports 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. Visit your Segway Powersports dealer.

### ENGINE TURNS OVER, FAILS TO START

Possible Cause	Solution
Out of fuel	Refuel
Clogged fuel valve or filter	Inspect, clean or replace
Water is present in fuel	Drain the fuel system and refuel
Old or non- recommended fuel	Replace with new fuel
Fouled or defective spark plug(s)	Inspect plug(s), replace if necessary
No spark	Inspect plug(s), verify that stop switch is On
Crankcase filled with water or fuel	Immediately visit your Segway Powersports dealer
Clogged fuel injector	Clean or replace fuel injector
Low battery voltage	Charge battery to 12.5 V
Mechanical failure	Visit your Segway Powersports 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- recommended fuel	Replace with new fuel
Incorrectly installed spark plug wires	Contact your Segway Powersports dealer
Incorrect ignition timing	Contact your Segway Powersports dealer
Mechanical failure	Contact your Segway Powersports 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	Contact your Segway Powersports dealer
Incorrect spark plug gap or heat range	Set gap to specs or replace plugs
Loose ignition connections	Check and tighten all connections
Water present in fuel	Replace with new fuel
Low battery voltage	Recharge battery to 12.5 V

### 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	Contact your Segway Powersports dealer
Electronic throttle control malfunction	Contact your Segway Powersports dealer
Other mechanical failure	Contact your Segway Powersports dealer
Possible Lean or Rich Fuel Mixture Cause	Contact your Segway Powersports dealer
Low or contaminated fuel	Add or change fuel, and clean the fuel system
Low octane fuel	Replace with recommended fuel
Clogged fuel filter	Contact your Segway Powersports dealer
Incorrect jetting	Contact your Segway Powersports dealer
Overuse of choke	Inspect, clean and/or replace spark plugs
Fuel is very high octane	Replace with lower octane fuel

#### 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	Contact your Segway Powersports dealer
Incorrect spark plug gap 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 V
Clogged air filter	Inspect and clean or replace
Reverse speed limiter malfunction	Contact your Segway Powersports dealer
Electronic throttle control malfunction	Contact your Segway Powersports dealer
Other mechanical failure	Contact your Segway Powersports dealer

### DIAGNOSTIC CODES DEFINITIONS

System	Failure Code	Failure Description		
	P0262	Cylinder 1 Injector Circuit High		
	P0261	Cylinder 1 Injector Circuit Low		
P0201 Injector Circuit/Open – P0629 Fuel Pump "A" Control C		Injector Circuit/Open – Cylinder 1		
		Fuel Pump "A" Control Circuit High		
	P0628	Fuel Pump "A" Control Circuit Low		
	P0627	Fuel Pump "A" Control Circuit /Open		
	P0511	Stepper motor open circuit or unreasonable		
	P0509	Stepper motor short circuit to 12V power supply		
P0508 Stepper motor short circuit to   P2300 Ignition coil short circuit to gr   ECU P0108 Manifold Absolute Pressure, Barometric Pressure Circuit H		Stepper motor short circuit to ground		
		Ignition coil short circuit to ground fault		
		Manifold Absolute Pressure/ Barometric Pressure Circuit High		
	P0107	Manifold Absolute Pressure/ Barometric Pressure Circuit Low		
	P0322	Ign./Distributor Eng.Speed Inp.Circ. No Signal		
	P0113	Intake Air Temperature Sensor 1 Circuit Low		
	P0112	Intake Air Temperature Sensor 1 Circuit High		
P0118 Engine Coolant Temperature		Engine Coolant Temperature Sensor 1 Circuit Low		
	P0117	Engine Coolant Temperature Sensor 1 Circuit High		
P0563 System Voltage High		System Voltage High		
	P0562	System Voltage Low		
	P0560	System Voltage not plausible		

## TROUBLESHOOTING

	P0501	Vehicle Speed Sensor "A" Range/Performance			
	P0123	Throttle position sensor High Voltage			
	P0122	Throttle position sensor Low Voltage			
	P0032	O2 Sensor Heater Control Circuit High Bank 1 Sensor 1			
	P0031	O2 Sensor Heater Control Circuit Low Bank 1 Sensor 1			
	P0030	O2 Sensor Heater Control Circuit Bank 1 Sensor 1			
	P0132	O2 Sensor Circuit High Voltage Bank 1 Sensor 1			
	P0131	O2 Sensor Circuit Low Voltage Bank 1 Sensor 1			
ECU	P0130	O2 Sensor Circuit No Activity Detected Bank 1 Sensor 1			
	P0134	O2 Sensor Circuit Bank 1 Sensor 1			
	P0692	Fan 1 Control Circuit High			
	P0691	Fan 1 Control Circuit Low			
	P0480	Fan 1 Control Circuit			
	P0459	Evaporative Emission System Purge Control Valve Circuit High			
	P0458	Evaporative Emission System Purge Control Valve Circuit Low			
	P0444	Evaporative Emission System Purge Control Valve Circuit Open			
	E0001	No midpoint of torque is written			
	E0002	No end point of rotor angle is written			
EDC	E0003	Memory read write failure			
LFJ	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			
	E0012	Abnormal busbar electric current			
	E0013	CAN communication abnormal (abnormal Output)			
	E0014	Rotor Angle jump			
EPS	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			
	T0001	GPS module failure			
	T0002	4G module failure			
TROY	T0003	Bluetooth module failure			
I-DUX	T0004	Sensor failure			
	T0005	Power CAN failure			
	T0006	Body CAN failure			

# EMISSION CONTROL SYSTEM

SOURCE OF EXHAUST EMISSIONS	161
EXHAUST EMISSION CONTROL SYSTEM	161
CRANKCASE EMISSION CONTROL SYSTEM	161
NOISE CONTROL SYSTEM	161
DECLARATION OF DRIVER'S EXPOSURE TO NOISE LEVEL	
(SGW500F-A5)	162
DECLARATION OF VIBRATION DECLARATION (SGW500F-A5)	163
DECLARATION OF DRIVER'S EXPOSURE TO NOISE LEVEL	
(SGW500F-A6)	164
DECLARATION OF VIBRATION (SGW500F-A6)	165

### SOURCE OF EXHAUST EMISSIONS

The combustion process produces carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>)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.

### DECLARATION OF DRIVER'S EXPOSURE TO NOISE LEVEL(SGW500F-A5)

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: SGW500F-A5
- 1.2.1. Variant(s): SGW500F-A5
- 1.2.2. Version(s): A, B
- Commercial name(s) (if available): SEGWAY AT5, SEGWAY AT5 S, SEGWAY AT5 S STANDARD, SEGWAY AT5 S EPS STANDARD, SEGWAY AT5 S DELUXE, SEGWAY AT5 S PREMIUM
- 1.3. category, subcategory and speed index of the vehicle: Variant/Version: SGW500F-A5/A: T3a

Variant/Version: SGW500F-A5/B: T3b

The Driver's exposure to noise level result is

Variant/Version: SGW500F-A5/A: 85.9 dB(A),

Variant/Version: SGW500F-A5/B: 86.0 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 2023

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

### EMISSION CONTROL SYSTEM

#### DECLARATION OF VIBRATION DECLARATION (SGW500F-A5)

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: SGW500F-A5
- 1.2.1. Variant(s): SGW500F-A5
- 1.2.2. Version(s): A, B
- 1.2.3. commercial name(s) (if available): SEGWAY AT5, SEGWAY AT5 S, SEGWAY AT5 S STANDARD, SEGWAY AT5 S EPS STANDARD, SEGWAY AT5 S DELUXE, SEGWAY AT5 S PREMIUM
- 1.6. category, subcategory and speed index of the vehicle: Variant/Version: SGW500F-A5/A: T3a Variant/Version: SGW500F-A5/B: T3b

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

Driver 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	0.62	1.40		Deviation<10%
59±1kg	Test run 2	0.63	1.38		
	Arithmetic mean	0.63	1.39	0.45	between test run
	Test run 1	0.52	1.38		1/2 and Arithmetic
98±5kg	Test run 2	0.53	1.40		
	Arithmetic mean	0.53	1.39	0.38	mean, a <sub>ws</sub> <1.25 m/s <sup>2</sup>

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

Place: Changzhou, China Date: 09 July 2023

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

### DECLARATION OF DRIVER'S EXPOSURE TO NOISE LEVEL (SGW500F-A6)

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: SGW500F-A6
- 1.2.1. Variant(s): SGW500F-A6
- 1.2.2. Version(s): A, B
- 1.2.3. Commercial name(s) (if available): SEGWAY AT5, SEGWAY AT5 L, SEGWAY AT5 L STANDARD, SEGWAY AT5 L EPS STANDARD, SEGWAY AT5 L DELUXE, SEGWAY AT5 L PREMIUM
- 1.3. Category, subcategory and speed index of the vehicle: Variant/Version: SGW500F-A6/A: T3a

Variant/Version: SGW500F-A6/B: T3b

The Driver's exposure to noise level result is

Variant/Version: SGW500F-A6/A: 85.8 dB(A),

Variant/Version: SGW500F-A6/B: 86.0 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 2023

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

### EMISSION CONTROL SYSTEM

### DECLARATION OF VIBRATIONS (SGW500F-A6)

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: SGW500F-A6
- 1.2.1. Variant(s): SGW500F-A6
- 1.2.2. Version(s): A, B
- 1.2.3. Commercial name(s) (if available): SEGWAY AT5, SEGWAY AT5 L, SEGWAY AT5 L STANDARD, SEGWAY AT5 L EPS STANDARD, SEGWAY

AT5 L DELUXE, SEGWAY AT5 L PREMIUM

1.6. Category, subcategory and speed index of the vehicle: Variant/Version: SGW500F-A6/A: T3a Variant/Version: SGW500F-A6/B: T3b

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

Driver 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	0.62	1.40		Deviation<10%
59±1kg	Test run 2	0.63	1.38		
	Arithmetic mean	0.63	1.39	0.45	between test run
	Test run 1	0.52	1.38		1/2 and Arithmetic
98±5kg	Test run 2	0.53	1.40		
	Arithmetic mean	0.53	1.39	0.38	mean, a <sub>ws</sub> <1.25 m/s <sup>2</sup>

 $a_{wS:}$ rms value of the weighted seat vibration acceleration measured during a STANDARD roadway test

Place: Changzhou, China Date: 09 July 2023

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



#### SEGWAY TECHNOLOGY CO., LTD.

powersports.segway.com

#### **DISTRIBUTED BY:**

Segway Powersports s.r.o. Staroplzenecka 290, 326 00, Letkov Czech Republic +420 378 21 21 21

> info@segwaypowersports.cz www.segwaypowersports.cz

Segway reserves the right to make any technical changes to the construction and design without prior notice. If in doubt, please contact your dealer, or Segway Powersports s.r.o directly.

#### © Copyright Segway Powersports s.r.o. 2023

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, some depictions, information and specifications may differ from those 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.

SEGWAY TECHNOLOGY CO., LTD.

powersports.segway.com

SEGWAY

SEGWAY

Ę

Version: 20230716 A10-L200002-LEN-00