Freego®

Freego®

2-Wheel Self-balancing Scooter

User Manual

Congratulations on becoming a proud owner of an Freego

Over the time, you will not only save money as you don't have to pay for petrol to operate this machine, you will also help in creating a better and greener environment.

You may find that some functions introduced in this manual have never before been seen in other types of vehicles you have ever purchased before. The content and technical specifications in this manual are valid when sent to print. Our company has the right to alter and change technical specification or design without prior notice.

To ensure that the Freego brings you the best driving experience, we advise for users to read the manual carefully and you will learn how to drive this future transporter. Please keep the user manual safe, for future references.

Reading the user manual carefully is important in order to know your responsibilities. Maintain the Freego according to the user manual to keep the scooter in the best condition.

We sincerely wish you a happy driving experience.

Safety Instructions

⚠ For adults use only!
⚠ Please abide by your local traffic regulations!
⚠ Please wear a helmet, knee and elbow guards for safety purposes.
⚠ Please read the relevant driving guidelines in this manual!

It is hard for us to list all associated dangers when driving and maintaining Freego, therefore, please be careful and pay attention to the safety of yourself and others when riding.

The user manual contains important safety information.
Please read carefully.

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CHAPTER I

Introduction

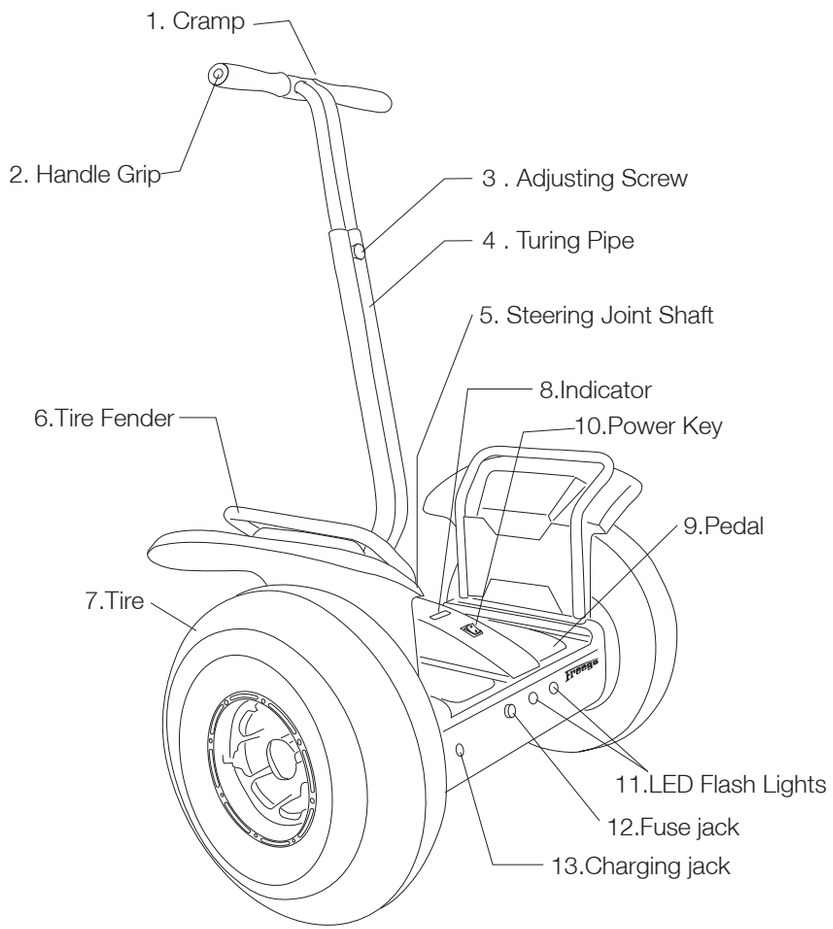
The working principle of the two wheeled scooter is based on the basic principle called “dynamic stability” which is the automatic balance ability of the vehicle itself. After judging body posture position with a built-in precision solid gyroscope, the vehicles electronic brain works out proper instructions through a sophisticated and high-speed central microprocessor, the 36V-36Ah battery drives the motor to balance the vehicle.

As a new transporter, Freego is difficult to classify in the traditional way, some people think that Freego should be a kind of double-wheeled unicycle, while other people think it should be classed as a power stand-up scooter. With its uniaxle double design which is different from the traditional biaxle double scooter, for official road regulations, this transporter is called Electric Personal Assistive Mobility Device (EPAMD)

The vehicle is equipped with dual wheel and is as wide as a normal adults’ shoulder. It weighs 56 kg and is battery-operated. It is not necessary to have a brake or throttle when driving. When the drivers lean their body forward, Freego will run forward and when the body is upright, it will stop. It uses the dynamic balance principle, as the body moves to change the center of gravity so as to keep balance. Just as the human body stands and leans forwards it can lose balance, but the body’s natural instinct will maintain balance, the dynamic stability replicates this. Freego uses the wheels to replace the function of the feet, reproducing the high precision balance action of a human, it is also inexpensive and convenient to use. The energy comes from two repeat charging BTM batteries, which are free from maintenance. If sufficient power is supplied to your battery, the full charge capacity will last continuous for 5 hours driving. the driving range depends on the way you drive and ground conditions, driving on grass and slopes will consume more driving power.

CHAPTER II

Parts Explanation



1. Handle Bar/Turning Pipe

(1) Used to control and make the Freego turn left or right, turn around, rotate 360 degrees. It also has support function and can play a subsidiary role in keeping body balance.

(2) The height is adjustable. The driver can adjust it according to his or her own height to make the handle bar comfortable.

(3) Lock the steering rod after adjustment, then turn the handle bar to confirm that it has had been locked.

(4) Above adjustment of the handle bar/ turning pipe should be locked in position before driving.

(5) The turning pipe can be taken apart easily for carrying of storage.

2. Power Key

(1) The power switch is used to turn on and off the power, when the power switch is on the Freego will finish the initialization-settings.

(2) It is dangerous to stand on Freego without turning on the power.

3. Pedal Switch (SAFE switch)

(1) The pedal can be active up or down, it has a built in safety switch. Freego can check whether someone on scooter by pedal switch.

(2) The pedal switch has a safety feature, which if the driver leaves the Freego; the pedal switch will reset and then will stop after 2 seconds.

CHAPTER III

Getting Started

1. The Right Starting Operation

Hold the turning pipe/handle bar with one hand, keeping the pedal upright, turn on the power making the green light stay on continuous, indicating starting is successful (refer to picture 2,3,4). Then after hold the handlebar firmly with two hands (refer to picture 5). Make sure the pedal is placed upright and then turn on the power switch. Because Freego will considers the current pedal position as its original position setting. This is a very important step. If the original position is not set correctly, it will upset the vehicle's balance during driving

2. The Wrong Starting Operation (refer to picture 6 & 7)

Freego will consider the current pedal's position as its original position setting, so it is hard for driver to stand on Freego if the pedal is not vertical. The original position can be reset after repeated power on and off. For example, you can turn off Freego and put the pedal vertical, then turn it on and test it, try this adjustment until it is in best state.

Picture 6

Picture 7

3. Correct Example As Follows (refer to picture 8)

(Must keep Freego before powering on)

Picture 8

CHAPTER IV

Driving

Driving the Freego 2-wheel self-balance vehicle is totally different from anything you may have driven before. Freego does not have brakes, accelerator or gear system. Please read the user manual or get instruction from an experienced person before your first ride.

Freego is very addictive once you enjoy the fun of driving, you can't help yourself driving it whenever you get the chance, following these instructions will be beneficial for your enjoyment.

1. Standing on Freego

After switching on, hold the handlebar with your left hand while stepping onto the pedal with your right foot (refer to picture 9); or hold the handlebar with your right hand, while stepping onto the pedal with left foot. When you press down the pedal switch, Freego will start computer balance, and you will feel very secure. The order is the left hand is to the right foot or the right hand is to the left foot. By this time you will have stood on the balanced scooter. Stand upright without any action, just relax and keep your balance, Freego will maintain stop in its original place (refer to picture 10)

Picture 9

Picture 10

2. Driving straight forward

Lean your body forward slowly using the centre of gravity, this will make the Freego move forward (refer to picture 11). The driving speed is controlled by the leaning angle of your body the more you lean the faster you will go, the less the slower. For stable driving, we suggest leaning forward slowly. It is dangerous to lean forward suddenly; this is just like sudden acceleration when driving a car.

3. Breaking and Driving Backward

Driving backward is not recommended for the driver's safety, because it is hard for you to see behind when driving. Freego turning radius is zero, which you can easily achieve in a continuous spin around 360 degrees on the spot. When you drive forward in a straight line and you want to slow down or stop, you can lean backward or squat down (the center of gravity backward). Lean slowly or smoothly backward is helpful for slowing down and stopping safely (refer to picture 12).

Tip: Driving forward in a straight line you just simply push the handle forward, then backward to slow down or stop.

Picture 11

Picture 12

4. Turning at Original Place, Turn Around and Rotate 360

It is easy to turn the Freego when driving. keep the turn pipe / handle bar left-forward or right-forward to the end, at the same time keep your body corresponding, left-forwarded or right-forwarded as the trend of Freego (refer to picture 13 and 14). Thus you can easily achieve various turns. When the Freego faces the right position, you only need return the pipe to the original position and stand straight Freego will stop.

Picture 13

Picture 14

5. Turning in Driving Degrees

The Freego's turning range is calculated automatically according to the driving speed, when the speed is faster, the turn range will be less to ensure safety of the driver, it is stopped by the turning pipe and body's cooperation. To turn left, the turning pipe should be swung smoothly to the left at the same time as your body leans left. The angle of Freego's turning is decided by both the swinging angle of the turning pipe and the leaning of your body.

Tip: The actual turning is finished by the above combination of actions, driving the Freego is like a combination of riding horses and skiing. Freego is also called a thinking car. Which means the driver can drive Freego according to his/her thoughts.

6. Driving in Bad Weather

Freego is not waterproof please do not drive Freego on rainy days. The motherboard and the motor are easily damaged if water gets into the electric elements. Freego cannot be driven in the snow. Freego does not have night lights, so please do not drive Freego in the dark. In Australia, Freego is hard to define, so please don't drive on public roads used for motor vehicles. When driving on the sidewalk, single driveway or public places, please comply with local traffic regulations and the local by laws.

CHAPTER VI

Charging

When the orange lamp and red indicator is continuously on ,it shows the battery needs to be charged, First, turn off the power switch and use the specialized 36 V battery charger, Insert the plug into Freego's charge jack, Then connect the power. When charger is connected the Red light will glow continuously, showing Freego is in charge mode.

The charger has two indicators; the red light means on charge and the green light means fully charged, stop charging. The input voltage of charger is 110-240v, Output voltage is 37-39v, AC electric current is 1.2-1.5 A, The charger takes 8-10 hours to fully charge. When fully charged the green light will be on continuously.

The charging electric current will then decrease output. The charger will become warm when charging, so please keep in suitable place.

Picture 15

Please keep power switch of Freego off when on charge, otherwise, Freego will cause power consumption, which is bad for charging.

CHAPTER V

Maintenance

All other items that are not mentioned below should be done by a professional person or technician

1. The Maintenace of Battery

Freego use BTM free maintenance battery. When you find the orange lamp and red lamp light are continuously on. Please charge. Keep the charging time to no more than 15 hours. If you are not using Freego for long periods, keep it charged, excessive discharge and re-charge is bad for the battery's life and can even lead to having to scrap the battery. (Suggestion: please keep it charged every month even you don't drive it)

2. When not driving Freego

Please turn off the power switch then lock the switch, in case of accidental starting.

3. Replacing Fuse

The fuse of the Freego is 50A car fuse. The fuse may burn after an overload or when crashed. After switching on and there is no action, and the indicator is off, check fuse if it is burnt. Open the fuse cover at the back of the body with a screwdriver, take out the fuse using clamp and replace with a new fuse.

4. Fastening Nut of Tire

Pay attention to the screws on wheels, regularly check, if it is loose tighten with a 18mm spanner to 108 torque.

5. Maintenance of Tire

Normal air pressure is basic to guarantee safe driving. The standard tire Pressure is 100 kpa = 1.0 bar = 1.02kg/cm2, (as recommended), It is necessary to check the tire pressure regularly, under inflation and excessive inflation will cause unequal tire wear, which influences comfort and mileage and shorten the life of tire, under-inflated tires also influence power saving. Also check for cuts and splits which could cause

the tire to deflate at a rapid rate, which could cause injury to the rider

6. Appearance Cleaning

It is necessary to keep the pedal and body of Freego clean. Please clean any gravel, solid and mud off after driving. Do not use any corrosive chemical

i.e. petrol to clean Freego. Clean Freego by using a soft cloth and brush and do not wash Freego with water.

CHAPTER VI

Notice

1. keep Pedal of Freego Horizontal

Freego will consider the current pedal position as its original position setting when power on. Pedal must not be horizontal after the power is switched on; it is hard for the driver to stand on Freego if the pedal is not vertical. The position of pedal may have change when gyroscope has not warmed up. If the position of pedal is in the wrong position when started, adjust by repeated power on-off.

2. Balance Output of Freego

Computer balance will start immediately after you press the pedal switch of Freego. If you keep pressing the pedal switch, the computer balance will always start, the computer will keep balance even if the pedal switch is restored (the pedal switch is pulled up) when at a low speed. In case driver needs leave and push the Freego. Please pay attention, Freego will have a tendency to move forward even if without load, the Freego will keep computer balance. Therefore do not leave Freego without a driver on the road, Freego will run automatically by itself until it falls down. It is normal.

3. Freego Standing

When you want to make Freego stand after driving, you can turn off power and put bracket down

1. Accidental Submersion
2. Lock Switch

   Lock Freego to prevent running by accident. Power off then lock, when you power on again and press the pedal switch, there will be no action, it means your Freego is locked.

CHAPTER VII

Sound Alarm

1. Please remember, pedal switch must be in right position (the pedal switch is pressed down), or Freego will switch off power and the rider will lose balance.

2. Sound alarm 4 times

Pedal problem also can lead alarm 4 times, you can press pedal switch several times by using your hand to make pedal restore (the pedal switch is pressed down), then power on Freego if alarm still on, please contact us.

3. Sound alarm 3 or 2 times

The vehicle may have a problem when you see the following situation after the power is turned on. Sound alarm 2 times: problem with gyroscope. Sound alarm 2 times: problem with accelerometer. In above two situations, it means that the transducer is experiencing a problem. Please turn off power and stop driving, then contact us.

4. Sound alarm

LCD displayer shows the battery power is no more than 30 % ; battery power run out and must be charged immediately.

Always keep battery charged before it fully runs out. It can cause damage to battery and will reduce battery life.

CHAPTER IX

Technical Data

Net Weight	56 kg
Dimension	48*60*88 cm
Max cruise speed	18km/h
Max load	125 kg
Max. Mileage (after full charging)	30-35km
Max climb capability	30 degree
Min turning radius	0
Charging time	8h -10h
Battery	PB,36V,42Ah
Power	Two imported DC Motor, DC servo drives
Voltage	100V-240V
Max Power	1000 watts *2motors
Lifetime of battery	1-3 years
Tire	19 in / 48 cm vacuum smooth
Wheel	12 in / 26 cm silver Aluminum Rim
Height of handle	80-110 cm adjustable
Height of footplate	10in/26cm
Specification of footplate	11.5x25 in / 16 x 40 cm
Max. Height above ground	13 cm
Standard Pressure	100 kpa
Certificates	CE & ROHS & FCC

CHAPTER X

Warranty

If you have any issues with your Freego please send us an email to to our distributor in your country

Note that we provide a 12 months parts only warranty for faults derived from natural causes.

Faults derived due to accidents are not covered by the warranty. We can still service the Freego but there will be charges applied.

Manual for Remote Switch

Diagram for Remote Controller for
F3 Freego Scooter Off-road

Each Freego comes with a remote switch in its package, which has following functions when Freego was powered on:

Lock: You can lock Freego by pressing this button before you power off Freego.

Unlock & enable & disable towing: If you power the Freego F3 on correctly and found no action after you pressed the pedal switch, your Freego may be locked, you can press this button to unlock it. Then press again to enable towing mode when you have to pull Freego through, same button to cancel.

Speed setting: you can set speed limit by this button, 3 beeping means 18km/h, 2 means 12km/h, 1 means 8 km/h.

LED flash lights switch: You can turn on and off the front and rear LED flash lights by press this button.

Please keep the remote switch carefully to avoid lost, if you lost it, please send an email or call up our distributor in your country to get a new one and learn to match code.