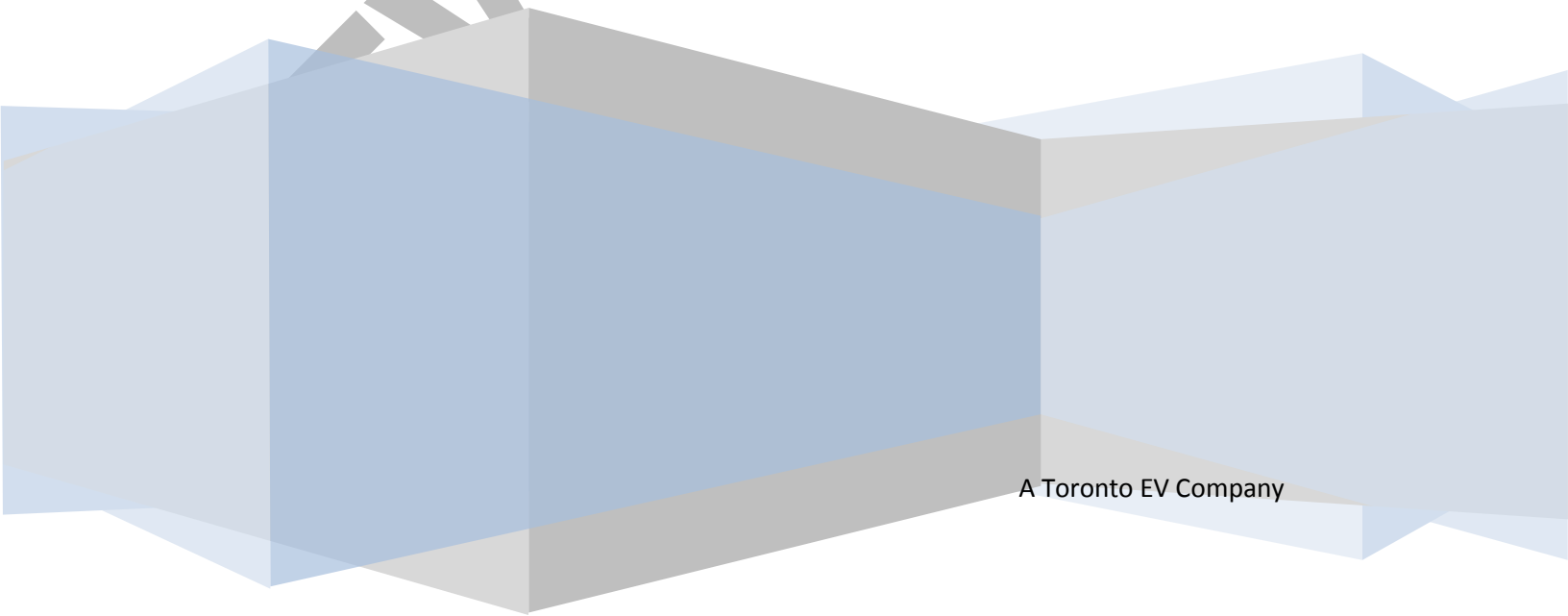
TEV BIKES

Toronto EV, True EV

User Manual



A Toronto EV Company

1) Front illuminating light

2) Front turning light

3) Rear view mirror

4) Saddle

5) Saddle lock (on other side)

6) Rear carriage

7) Tail light

8) Front wheel

9) Feet rest

10) Double stand

11) Rear wheel

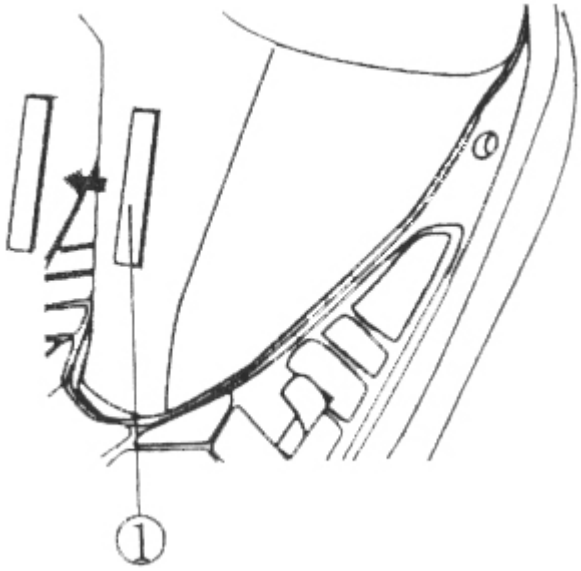
12) Electrical motor

13) Rear fender

Locations of vehicle serial numbers

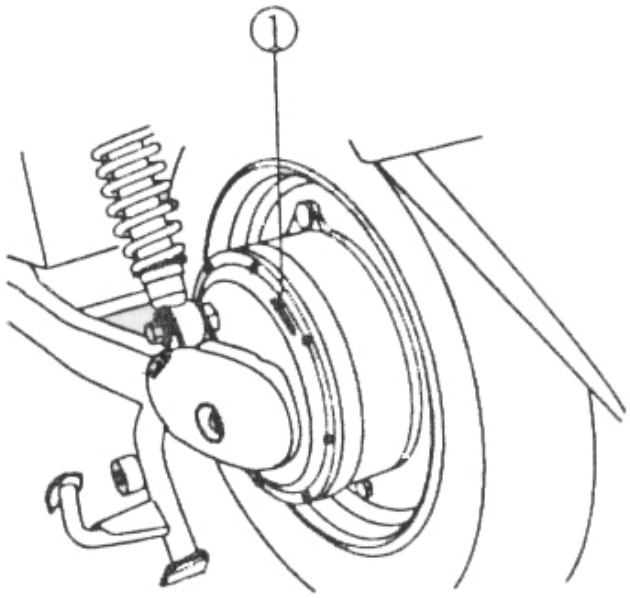
The vehicle serial number and electrical motor number are for registration of the vehicle.

The vehicle number ① is stamped on the frame. By opening the small plastic hood below the front carriage box you will see it, as shown in the



figure

The electrical motor number ① is stamped on the edge of right side, as shown in the figure.



Please write these numbers below for check-up in future:

Vehicle ID number: _____

Electrical motor number: _____

The operating parts of the electrical Scooter

Ignition switch

The switch has three positions as shown in the figure:

(on) position

Ignition circuit is closed and ready for starting the motor, keep the key in.

(off) position

All circuits are opened, motor not to be stared, take the key off.

(locked) position

Turn the handle all the way home, set the key to and then press down and go on turning to the lock position and take off the key. To unlock, just reverse the above procedure.

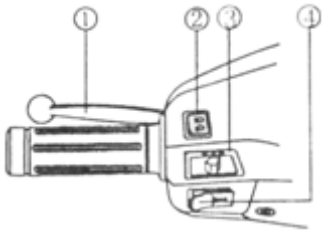
Note:

With the handle locked, it will be very hard to move the vehicle. So unlock the handle if you want to move the vehicle

The instrumentation assembly

1) speedometer: it shows the speed in km/h of the current riding
2) turning indicator: when turning light switch is set to left, the "⇦" is on; when turning light indicator is pushed to right the "⇨"is on
3) power meter: when voltage shortage light is on, the battery needs recharging
4) power indicator: when power indicator is on, the vehicle's electrical circuit is closed.

Left handle



rear brake handle: grip this handle and the rear brake is applied and power cut off, while the vehicle slows down

① dimmer switch: turn on the light switch at first, then the dimmer switch can activate

≡D	High Beam
≡D	Low Beam

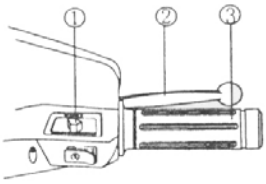
③ turning light switch

⇦	Left turning signal flashing
⇨	Right turning signal flashing
Press down	Turning light is off

warning
● when riding, remember to turn on the turning lights in advance when it comes to changing lane, making turns, or stopping so as to let others know ● the signals cannot be turn off automatically. Please turn off at once after using it to prevent misunderstanding by other persons and causing accidents.

④ horn button：press this button to honk the horn

The right handle



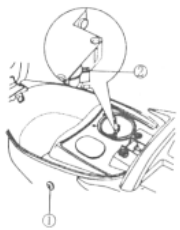
① light switch: it has three positions

●	Refers to front headlamp, instrument light, and tail light all being turned off
	Refers to position light, instrument light and tail light all being on
	Refers front headlamp, instrument light and tail light all being on

② front brake handle: grip this handle to put the brake on the front wheel, also cut power and slow down

③ Throttle handle: accelerator/ speed handle is for controlling the motor rpm.

Turning towards yourself means to accelerate, turning away from yourself means to slow down

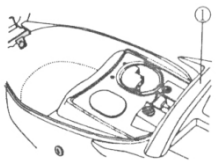


Note: Power cut off switch

1. Insert the key into the seat lock keyhole ① and turn it rightward

2. Lift the seat from the rear to open, you will see the power cutoff switch ②

- Lift the saddle to check if its locked
- Remember not to leave the key in because that will make it very hard to get your key out again
- In the case of short circuit, the power OFF switch will automatically cut off power.
- In the case of serous overload to motor, it is also possible the power is cut off
- When there is short circuit it will be very hard to close the cut off switch, there being great impedance. Do not force it to close. Check the circuit to remove the trouble first.



The rear carriage

The rear carriage is in the rear of the saddle

① you may tie your cargo directly to the carriage or fit a rear cargo box on it (rear carriage may vary on each models. Please visit TEVBikes.ca for more information).

Warning
● Be sure to tie up the cargo fast and securely so that it may not fall off when riding ● Cargo on the rear carriage must not exceed 3 kg ● Rear box must be locked timely so that your belongings do not get stolen

Kick stands

The vehicle has the central and side supports

Double stand: to rest the vehicle on the double stand, you will grip the handle with your left hand and step down the pedal bar of the double stand, at the same time pull up the rear carriage with your right hand.

Kick stand: use the side kick stand when you park your vehicle temporarily

Warning
Be sure to retract the side-stand before starting the vehicle in order to prevent possible danger.

Check-up before riding

It is a must to carefully check-up your vehicle before using it and make necessary adjustments. The items below take only a few minutes of your time yet they can ensure your safety when riding:

Item	Content of check-up
Brakes	Whether or not operation is smooth, free play of brake handle is correct and braking performance is ok
Tires, both front and rear	Whether or not pressure is ok, the tire veins depth ok, and no cracks or other damage
Rotation throttle handle	Whether or not the turning is smooth, the resetting function is ok
Operating switches	Whether or not the functions are normal
Handle bar steering	No gaps, no loosening, and flexible
Battery	Connections secure, no loosening

The correct operating procedure

Starting of the electrical motor:

● Make sure that the battery is fully charged, the horn, turning light and headlight are all working normally

● Retract the side and/or central stand

● Grip the rear brake handle and be sure that you sit tight.

1. Insert the power switch key in the keyhole and turn it to ON position, now the instrument light is on, showing that power is connected.

2. Check to see that vehicle lock is open and supports are retracted and the entire vehicle is in working condition.

3. Grip the handle bar with both hands, turn the handle in right hand slowly in the counter clock wise direction. Now the motorcycle is electrically started and begins to move slowly and smoothly.

4. The vehicle has the function of power off when brakes are applied. When riding either applying right hand/left hand brake or it will cut off power in order to protect the motor and ensure safety.

5. Once the voltage indicator in the instrument board at the vehicle head shows inadequate voltage be sure to stop riding and have the battery charged.

6. When riding uphill the applied current will be comparatively higher, this may have a shock to the motor and battery. Therefore, to prolong the lifespan of the motor and the battery it is recommended that you don't push it too hard when going uphill.

7. Turn off power after stopping and take off the key to be safe.

8. After starting go slow with accelerating as sudden acceleration may waste power and may damage electrical elements.

9. Under the condition that safety must have number one consideration, try and avoid constant application of brakes or re-starting when riding, in order to save power.

10. When riding be sure to avoid keeping the speed handle turned-in while applying brakes in order to avoid instant start causing overload to motor and damaging other elements.

11. Max load of the vehicle is 150 kg(including the rider). Refrain from overloading your vehicle.

Recommendation

● Before starting take a look round and turn on your turning light to warn others where you are going. Star moving only after you are sure everything around is safe.

Braking and parking

Braking

1. In normal conditions apply both front and rear brakes simultaneously.

Note: Slow down by gently applying the brakes, as that is the way of braking.

Warning
● Applying either the front or rear brake only may reduce braking effect and cause the vehicle side slipping or overturn ● To prevent side slipping, loss of control, please be sure to cut speed and to apply brakes when making a turn ● When riding on wet, rainy and frozen roads with very smooth surface, the braking distance is longer. Please keep in that in mind. ● Avoid sudden application of brakes and sharp turns to prevent loss of control

Parking

1. Have the speed handle reset quickly

2. Apply simultaneously the front and rear brakes(now the brake light is on)

3. Turn on the turning light to indicate the vehicle pull over and slowly go sidewise

4. When the vehicle is fully stopped, turn off the turning light

5. Set the ignition switch to position and turn off power

6. Choose a flat place not in the way for traffic and erect the central stand

● Grip the handle bar with left hand, hold the rear carriage with right hand, step down on the pedal bar of central stand forcedly, at the same time, elevate it with the right hand.

Recommendation:

● Do not park the vehicle on soft surface or sloping place to prevent overturn off power, which will prevent unintentional turning of the speed handle, causing sudden start and resulting in accidents.

● Refrain from constantly using the speed handle to start the vehicle in order to ensure normal working life of the battery, motor and other electrical elements.

7. Lock the handle bar: to prevent your vehicle from being stolen, please lock your handlebar when leaving and take off the key and keep it well.

The battery and the charger maintenance

The connection to the charger is located below the saddle. You will see it when opening the saddle.

1. Be sure to fully charge the battery when you have bought a new vehicle

2. For normal use be sure to charge the battery as often as possible to keep it constantly fully charged, that can prolong its working life.

3. When the battery has to idle for long period of time, charge it fully before storing and charge it once a month.

4. It is forbidden to charge the battery when it is set upside down, as that can seriously reduce its service life

5. When charging, plug in the charger's output plug (48V round hole/3 pins) into the charging socket of the battery box and then plug in the charger's input plug(AC110V/3 pins) in the household power out let socket (110V). Power indicator and working status indicator are both red, indicating power is on and charging is proceeding. After charging for 2-8 hours the working status indicator turns to green showing the battery is basically full. Now the charger is in "gentle charging" state with micro current. After charging is finished take out both plugs of the charger.

6. For detailed instruction about the charge please read the manual of the charger

Note:

● Before charging, set the charger and battery in a safe place where children have no access

● It is not allowed to use the battery before it is fully charged, as that will affect the battery's working life.

● Do not use other Brand of charger, nor charge other brands of battery with TEV branded charger.

● The charger has in it high voltage circuit ,please do not dissemble it by yourself.

● Make sure no liquid or metal particles come into the charger either when it is in use or in storage and prevent it from any impact as that can damage the charger.

● When charging, never cover it with anything

● This charger is for use indoors, please use it in dry and well ventilated place.

● If you smell abnormal smell in the course of charging or find the charger unusually hot, please stop charging immediately and have the charger sent to the retailer's or service station for repairs.

Service and maintenance

Maintenance cycle table

If you often have to use the vehicle in tough condition such as stand storm, or ride on bumping, muddy or dusty roads you will have to make special maintenance after use to ensure its reliable performance. You also have to shorten the maintenance cycle and do the maintenance more often.

Proceed with the before-use check-up and maintenance

I: check-up, and when necessary clean, lubricate, replenish, adjust or replace

A: adjustment

T: tightening

*this item is done by the service station, if you have the right tools and skills you may do it by yourself

**for the sake of safety this item must be done at service station

Recommendation:

Choose a flat and spacious place for maintenance and have the central stand erected.

Cycle item	Mileage(km)			
	500	1000	2000	3000
* brake light switch	I	I	I	I
* headlight	I	I	I	I
* wheels	I	I	I	I
* bearing in the fore fork steering		I	I	I

Brake device	A	I	A	I
* nuts/bolts/fasteners	I	I	I	I
Lubrication of all pulling wires			I	I

Locations for lubrication

Proper lubrication is of key importance to the safe riding and working life of the vehicle. After long time use or riding in rainy weather and after cleaning up it is a must to apply lubricant to important locations as shown in the sketch:

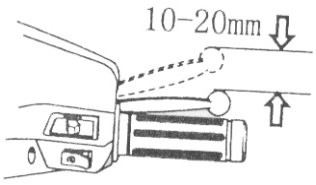
0 - electrical Scooter lubricant G - grease

①rear axis ⑤ (N/A)

②rear brake pulling wire front wheel axis ⑥front wheel axis

③central support rotary shaft ⑦front brake pulling wire

④side support rotary shaft ⑧(N/A)

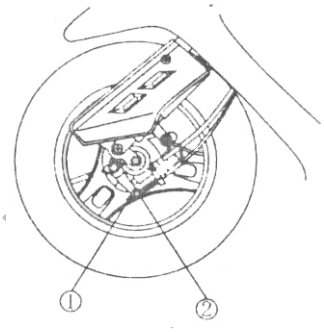


Bakes:

they are relate to your safety and so need constant check-up and adjustment

The front brake: grip firmly the front brake handle with the right hand and front wheel is engaged. The free play of front brake handle refers to the distance the handle moves from its initial position to the braking position. The free play distance is to be kept at 10-20mm.

Adjustment to the front brake



1. When free play distance is not in the range of 10-20mm use the front brake adjusting nut ① for adjustment

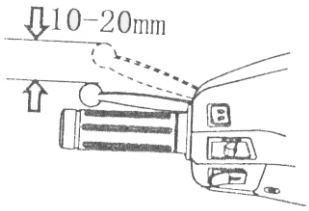
Turning clockwise	Reduce play
Turning counter clockwise	Increase play

Note: *this step only apply to Wasaga model. For Muskoka, Montreal and other models, please contact our tech support.*

2. Adjustment done, try the front brake handle for a couple of time to check if its braking performance is ok, if the wheel can turn freely.

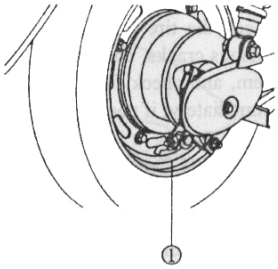
3. After free play is adjusted, be sure to make the arc-form groove of the adjustment nut engaged with the columniform surface of brake arm pin ②.

The rear brake



Grip firmly the front brake handle with the left hand the rear wheels is engaged. The free play of front brake handle refers to the distance the handle moves from its initial position to the braking position. The play distance is to be kept at 10-20mm.

Adjustment to the rear brake:

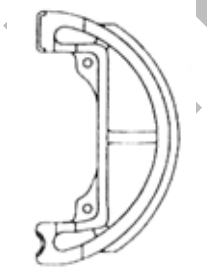


1. When free play distance is not in the range of 10-20mm turn the adjustment nut on the rear brake arm ① for adjustment

Turning clockwise	Reduce play
Turning counter clockwise	Increase play

2. Other steps are identical with 2 and 3 for front brake adjustment

The brake shoe friction pad



To check the wearing of the pad of the brake shoe proceed as follows:

1. operate the front and rear brakes

2. feeling they not so effective, remove the brake drums

3. check the friction pad on the outside of brake shoe for its thickness, if it is less than 2 mm please replace it at once

4. finding the pad stuck with grease of dust be sure to clean them up immediately as they may seriously affect the braking performance

The tire

Air pressure in the tires

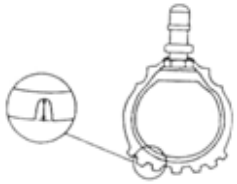
1. check the pressure when the tire is “cool”

2. observe where the tire is in contact with the ground

3. check the air pressure of the tire to see if it is ok according to tire pressure PSI mark on the tire.

Cracks, damages , alien matter and unusual wearing

Check the tire for its side in contact with the ground and the side surface for obvious cracks, check the veins for things like nails and gravels that have got into them, and check for unusual wearing. On finding such things be sure to remove immediately, if necessary replace the tire.



Depth of the tire veins

Check the depth of the tire veins. Replace the tire if it is less than 1.6mm for the front tire and less than 2.0mm for the rear tire.

Note:

It is dangerous to use excessively worn tires, as it will reduce stability and cause loss of control of the vehicle

Bulbs of illumination light

When replacing bulb be sure to use the ones of the same rated power. Use of the bulb with excess of rated power may cause overload to the entire electrical system and lead to early scrapping the bulbs.

Note:

- before replacing bulb set the ignition switch to position
- replacing is to be done after the bulb is fully cooled down
- the replacement must be new and free of dust
- after replacing check the illumination to see it is ok

Servicing of the battery

This vehicle has a service-free lead acid battery as its source of power. The lifespan of the battery is directly related to the way it is used. The user will please understand the following for the normal use of battery:

1. when going uphill, pushing manually is needed

2. try to charge it as soon as you have used it if it is possible

3. to lay it idle for long period of time, please charge it fully and charge it once every month when not in-use

4. when accelerating, turn the speed handle slowly rather than quickly

5. refrain from riding with voltage return

Breaker switch

It is often happens that the breaker is blown the likely cause will be short circuit or overload. In that case please have service station to check up your vehicle.

Note:

● before checking on the breaker or replacing it be sure to turn of the ignition switch to prevent sudden short circuit

● do not use breaker other than the specified or damage will be likely to the electrical system, even a fire

Cleaning of the vehicle

You will please clean up your electrical Scooter at regular intervals to protect its paint coating and check for damage/wearing to its important parts/components.

1. use clean water to rinse the vehicle after cleaning to prevent residue detergent causing rust of erosion to the alloyed parts

2. When cleaning the plastic parts, use soft cloth or sponge sipped in mild detergent solution. Rub gently where it is soiled and after it is clean, ring it in clean water repeatedly and remove water drop with a piece of dry cloth

3. be sure to dry the vehicle thoroughly

4. start the motor and left it run for a few minutes

5. After cleaning up, the vehicle may have its braking performance affected somewhat for a while. To prevent any possible accident, it will be necessary to adjust the brakes. Ride the vehicle only after the braking performance comes back to normal.

6. after cleaning up and dry up, be sure to lubricate the vehicle in time.

Note:

● Never use high pressure water jetting for cleaning purpose as that may wet the electronic elements and the circuits thereby causing hidden danger

● Use neutral detergent in cleaning the plastic parts

● Never apply lubricant to brake either front or rear, wheel hub or tires

The storage of the vehicle

If your vehicle is to be stored up for a long period of time, for instance during the winter time, you will take proper measures for its keeping. Besides, necessary repairs and maintenance should be done to prevent deterioration of parts or damage to them.

1. service the parts where lubrication is necessary according to the maintenance cycle front axis, central axis and rear axis and other moving parts should be applied with right quantity of lubricant machine oil, the front, central and rear axles will need grease for lubrication, (see details in “parts to be lubricated” of the manual

2. check up and adjust the braking devices according to the routine maintenance procedure

3. remove particles of glass, stone etc that have got into the tire surface

4. pressurize the tires to the correct pressure value

5. remove the battery and have it fully charged and store it in a cool and dry spot (charge it monthly afterwards as is specified by the battery maintenance procedure)

6. Keep the vehicle in a cool, dry spot where temperature difference is not big. Cover it with a piece of cloth.

Re-use after storage

1. take off the covering and wipe the vehicle clean

2. charge the battery, proceed as per “Battery and charging ” of the manual

3. check up and adjust the vehicle where it is needed according to the sector “Check-up before riding”.

4. before normal use of the vehicle, try it in a spacious place with little traffic to be sure that the vehicle is all-ok.

Technical specifications:

Each models at TEVBikes has different specifications, please visit www.TEVBikes.ca for details technical information.

Thank you for choosing TEV Bikes.

Our commitment is to provide you with the best in Clean transportation.