iTango

USER MANUAL

Please read this manual carefully before using.
Please keep this manual properly.

doohan-ev.com

Dear iTango users, please detail read the user manual carefully in order to ensure safety of you and others, to ensure high performance and stable driving of iTango before driving.

1.Instructions

- Please comply with the city traffic laws and regulations, you are not allowed to carry people; Driving slowly on rain and snow days, slow down on slippery road; to increase the brake distance in order to ensure safety when braking.
- Do not disassemble spare parts by yourself. Otherwise, our company is not responsible for any loss caused thereby.

2.Technical parameters:

Dimension				
Length	1650mm	Width	740mm	
Height	1110mm	Wheelbase	1150mm	
Front track	460mm			
Main performance				
Weight	74kg(not including battery)	Top speed	DH-05-10	25km/h;
			DH-05-12	45km/h

Rated voltage	48V			
Max loading weight	200kg	Braking distance(Dry ground)	≤2m(20km/h) ≤3.5m(30km/h)	
Capacity	2 people			
Braking distance(wet ground)	≤3m(20km/h) ≤4m(30km/h)			

Frame	
Front shock absorber	Sleeve, oil damping
Rear shock absorber	Sleeve, oil damping

Front Tyre		70/90-12×2
Rear Tyre		90/70-12
Front tire pressure		225±10
Rear tire pressure		225±10
Rim type(Aluminum)		Front:1.4-12 Aluminum rim
Rear Motor		2.15-12 BOSCH motor
Rated Power	DH-05-10	0.98kW
	DH-05-12	1.190kW
Brake mode		Disc brake
Minimum ground clearance		142mm

Seat Height		740mm
Max tilt angle		≤30°
Maximum steering angle		≤32°
Turning radius		2.50m
Maximum drop height of front wheel		180mm
Battery		
Battery type		18650 lithium battery
Voltage		48V
capacity	DH-05-10	20AH
	DH-05-12	26AH

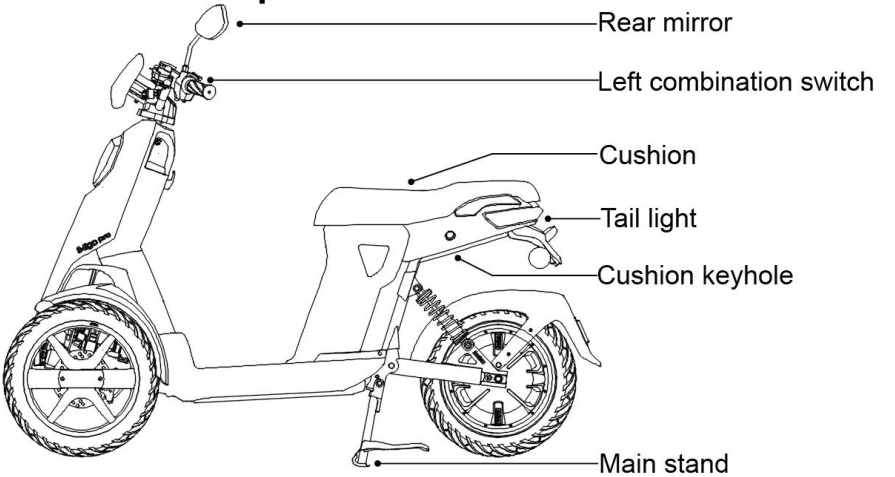
Charge input voltage		AC 220V or 110V(optional)
Charge output voltage		58V
Standard charge current		3A （DH-05-10） 5A (DH-05-12)
Standard charge time		6H
Max range	DH-05-10	45KM
	DH-05-12	50KM
Battery weight		8KG
Battery charge and discharge times		500 times
Ambient temperature		-20℃ to 60℃

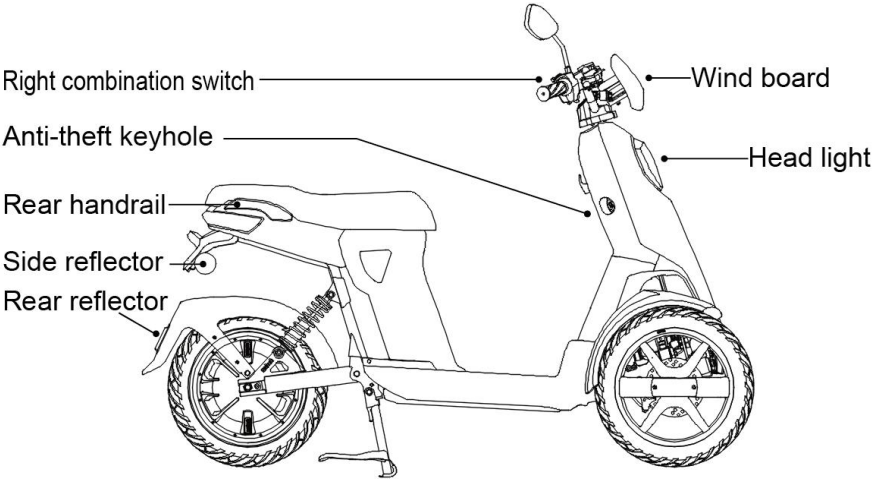
range, battery using	
Ambient temperature range, battery storage	-20℃ to 60℃
Ambient temperature range, battery charging	0℃ to 45℃
Battery protection system	Over discharge protection, short-circuit protection, temperature protection, overcharge protection, over current protection, balance protection of battery
Others	
USB charge	5V、1A
Speed meter	LCD

Fuse specifications(A)	5A
Headlamp specification	12V LED
Front position lamp specification	12V LED
Front steering lamp specification	12V LED
Rear steering lamp specification	12V LED
Tail lamp specification	12V LED
Licence plate lamp specification	12V LED
Rear Mirror	Non-circular paint mirror, M8 mirror rod

G.W	84Kg(including 1 battery)

3. Parts Description

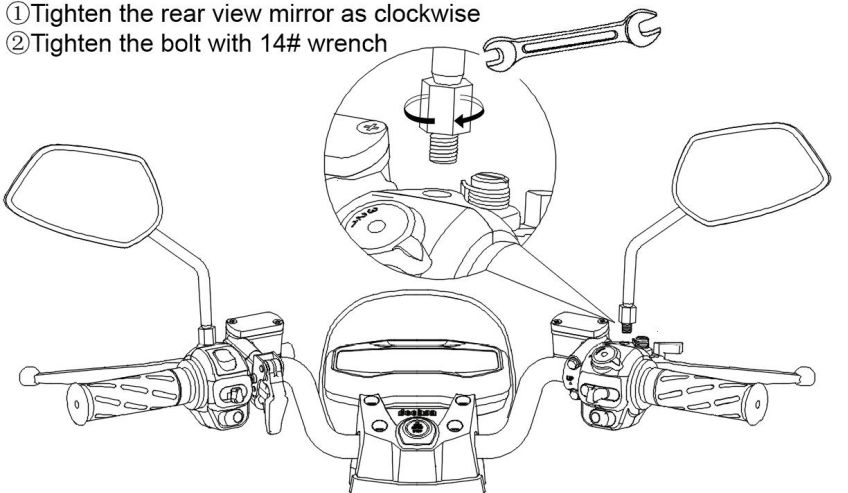



Right combination switch
Wind board
Anti-theft keyhole
Head light
Rear handrail
Side reflector
Rear reflector

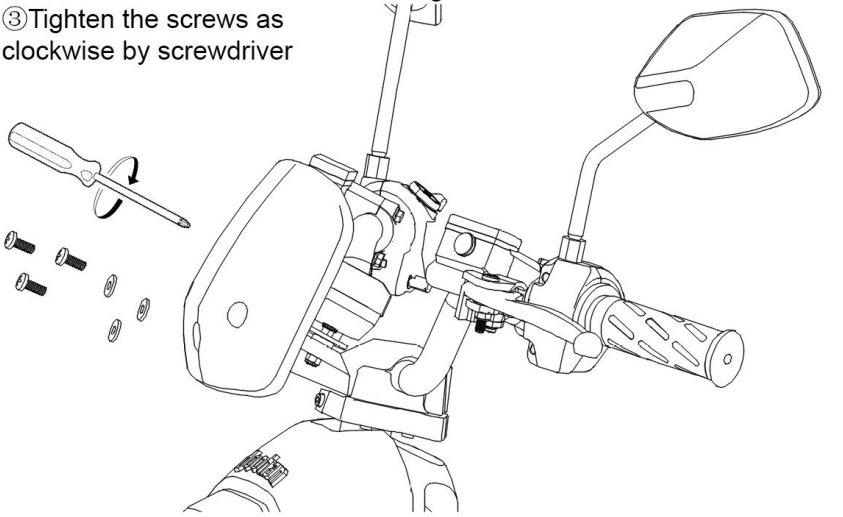
4.Rear mirror& wind board installation

①Tighten the rear view mirror as clockwise

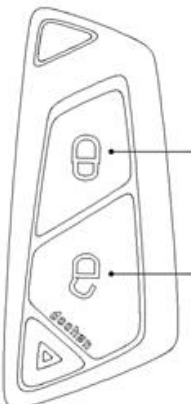
②Tighten the bolt with 14# wrench



①Install the wind board
②Put the screws into the rubber flat gasket
③Tighten the screws as
clockwise by screwdriver



5. Remote control and keyless start button



Locking button

①When you stop driving. Press the keyless start button, the vehicle is locked, and iTango will automatically enter into the primary mode of anti-theft;

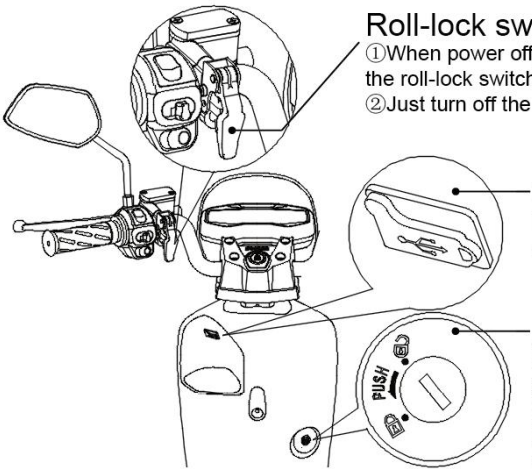
②Press the locking button again, and iTango goes into the advanced mode of anti-theft.

Locking button

①When you press the unlocking button, turning light is flashing and remind that vehicles has been started with voice prompts;

②Press the keyless start button to start iTango.

6.Roll-lock and anti-theft lock



Roll-lock switch

①When power off, the vehicle will not fall after turn on the roll-lock switch upward;
②Just turn off the roll-lock switch to normal operation.

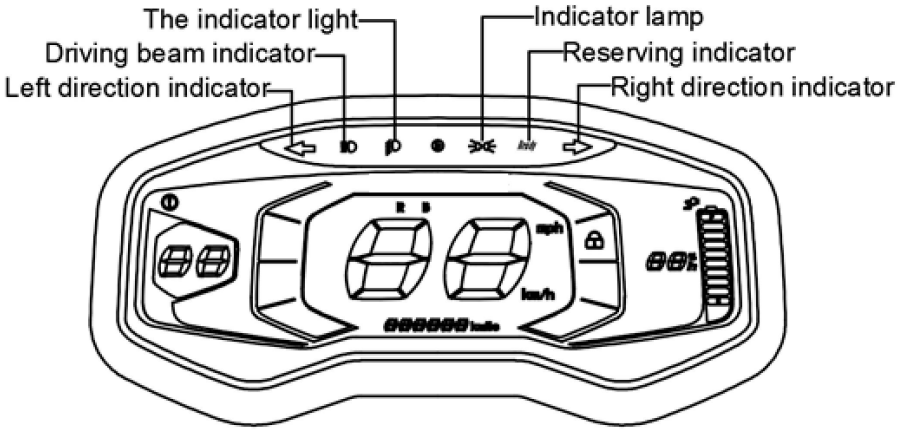
USB charging port

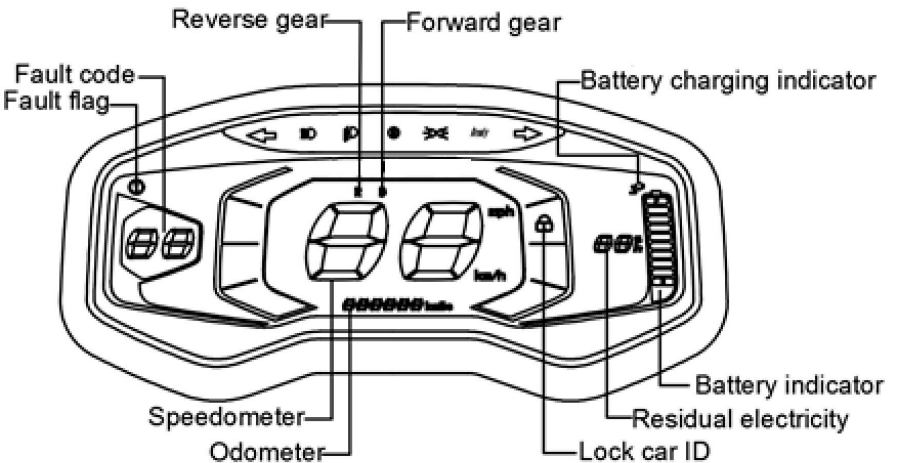
It can provide 5V power supply for charging mobile phones.

Anti-theft lock

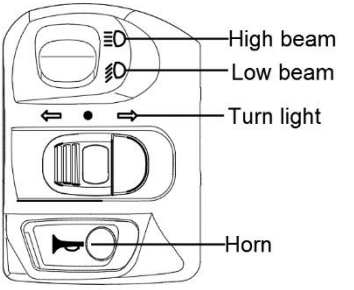
①Turn the handlebar to the left, then press the key to the bottom, turn left, and lock the handlebar;
②Reverse operation can unlock the anti-theft device.

7.Dashboard and combination switch


The indicator light
Driving beam indicator
Left direction indicator
Indicator lamp
Reserving indicator
Right direction indicator
mph
km/h


Reverse gear
Forward gear
Fault code
Fault flag
Battery charging indicator
Battery indicator
Residual electricity
Speedometer
Odometer
Lock car ID

Left combination switch:



① headlamp light switch:

Press the “≣D”button, high beam;

Press the “≣D”button, low beam.

② Passing light switch:

Press this button, passing light is on-state.

③ Turn signal light switch:

Push to “⇦”, the left turning light: on,

Push to “⇨”, the right turning light: on,

Push switch to the middle position and press, the turn signal light: off,

④ Horn switch button:

Press this button, whistle warning to the other vehicles.

Right combination switch:

① gear switch:

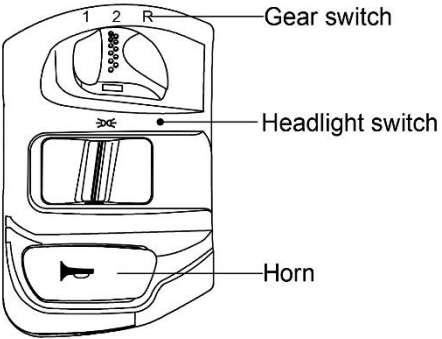
Smooth to functions interchange for Gear 1, 2 and reverse gear.

② headlight switch:

There are three positions in the headlight switch:

：On this position, turn on the position lights,Taillights and instrument lights.

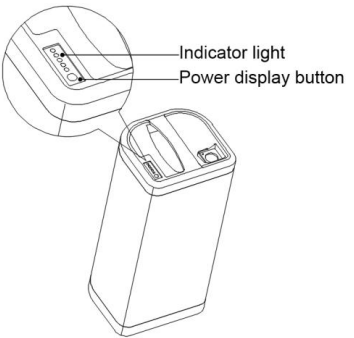
○： On this position, turn off the headlamp, Taillights, position lights and instrument lights .

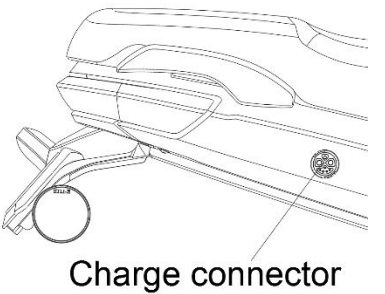


③ Horn switch button:

Press this button, whistle warning to the other vehicles.

8.Battery using instruction





Battery power indicator light：

1.Charging state, the indicator light flashes and shows current power level

All lights on and no longer flash if full charging.

2.Uncharged state, press the button of power display:

- The indicator light shows the battery power, one green light means 25% power.
- The indicator light is red, it indicates low power.
- If all the indicators are on or off, it indicates battery malfunction.
- Please use the corresponding battery capacity according to the standard configuration of vehicles.

Vehicle charging mode

●Rotate and open the charging connector of vehicles, first insert the charger plug into the charging connector of vehicles, when you hear "ka ", it means that the charger plug is connected with the connector.

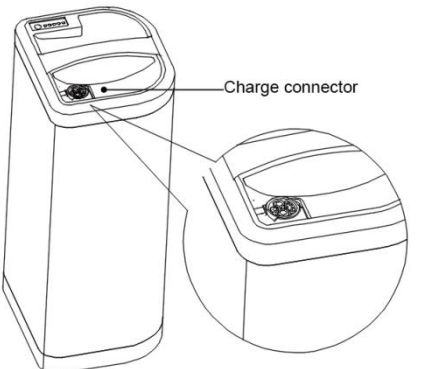
●Then connect the charger plug with power socket of room, it begins charging when the indicator light turns green to red.

●When the charger indicator light changed from red to green, it means charging finished.

●When you turn on the key switch, the dashboard will display the current power level.

External charging mode

- Lift the battery from the vehicle body and handle it carefully.
- Insert the charging plug into the battery charging connector for external charging



Battery service environment

- Please use battery under ambient temperature between -10 and 45 degrees centigrade
- Please avoid water, beverage and corrosive liquid into the battery
- Please avoid the battery near the heat source, open flame, flammable and explosive gas, liquid.
- Please avoid metal foreign matter into the battery box
- If the battery has peculiar smell, heat and deformation, please stop using it immediately

※This may cause battery leakage, heat, smoke, fire or explosion.

Battery charging environment

- Please battery charging at the ambient temperature between 0 degrees to 35 degrees centigrade.
- Please do not exceed 10 hours in Charging time, overcharge will shorten the service life of battery.
- Do not put other articles covered on the charger or battery box for ventilation and heat dissipation when charging.
- Do not disassemble the charger. If you need to change it, please replace it in our authorized service points.

※Attention ：

①Battery is prohibited to maintain by users. Otherwise, Lead to leakage, heating, smoking, fire or explosion if disassemble battery or

maintain it personally

②When the ambient temperature is below 0 degrees centigrade, the charging function is turned off. Please battery charging above 0 degrees centigrade

③Lead to leakage, heat, smoking, fire or explosion if didn't use the genuine charger.

④If not full charged more than 10 hours, Please stop charging and contact the after-sales department.

⑤To maximize extend the battery life, keep battery power between 20%-80% if possible for cycle use.

⑥Do not store the battery in the environment if temperature is higher

than 40 degrees Celsius, otherwise it will cause irreversible capacity fading of the battery.

⑦At low temperatures, the capacity of lithium batteries will capacity fading in varying degrees: the available capacity for reference: -10 ℃ is 70%, 0℃ is 85%, and 25 ℃ is 100%.

⑧The most suitable storage capacity of the battery is 50%., long-term storage will lead to irreversible capacity fading of the battery if less than 10% or higher than 90% of the power,If long-term storage of batteries, please keep the battery at -10 ℃~ to 30℃, and to minimize capacity fading of the battery inventory with fully charge and discharge in every 2 month.

⑨don’t keep the battery in the risk place of falling avoid to battery falling. Lead to leakage, heat, smoking, fire or explosion if battery falling.

9.Troubleshooting

Troubleshooting list		
Fault phenomenon	fault cause	Solutions
Turn on the power supply, but no power output	1.the battery plug is not well connected 2.Dead Battery battery damaged 3.Fuse blow	1.Battery charge 2.Replace battery 3.Replace fuse
Turn the power on	1.Battery voltage is too low	1.Battery charge 2.Do not hold the brake

and twist the accelerator , engine is not start	2.Half grip the brake handle lead to start the power-off switch 3.Vehicle unstart 4.Accelerator handle is not restoration 5.Dashboard fault indicator flashing	handle when starting 3.Randle restoration 4.According to the fault code of APP to solve
Slow speed or short range	1.low battery. 2.tire pressure is not enough. 3.Frequent brake to start, 4.Aging or normal decay of batteries	1.Charger damage 2.check tire pressure before use 3.develop good driving habits 4.replace the battery

	5.The ambient temperature is too low, and the charge-discharge of the battery capacity is weaken	5.It's normal phenomenon
The battery is not charged	The charger plug is not well connect with the battery socket, and the charger is damaged	Check whether the plug is loose, and replace the charger
Stop during driving	Run out of battery	battery charging

Fault code show on the Dashboard

fault reminding, to the service point for professional maintenance.

10.Maintenance and repair

In order to extend the service life of iTango, to safe and comfortable driving. Please regularly checking and maintenance the vehicle. If the vehicles disused with long time, also need to regular checking.

Daily inspection and adjustment

Routine check the iTango before driving in every day, don’t ignore the importance of routine check. In order to ensure that the performance and safety driving, so, the following checking items must be completed before driving.

Checking Items	Check points
Handlebar	①stable ②smooth turning ③No axial float and loosening
Braking system	10-20mm travel for brake handle.
Tyre	①normal tire pressure ② tyre wear ③ no cracks or wound

Electric Quantity	Enough electric quantity to support your driving based on travel planning.
Lamps	Operate all lamps: High beam, low beam, brake light, turn light
Horn	Checking whether the horn is normal working.

Regular maintenance

The first maintenance should be implemented after one month or 500km based on sales date .After that, complete inspection and maintenance should be implemented with every six months or 3000km in order to keep your vehicles in the best security state and ensure safety of driver.

Regular maintenance and inspection items			
Routine safety and performance checking	Brake	Structural inspection	Wheel bearings
	Lamp		Shock absorbers
	Horn		Main stander
	Electric parts		Steering bearings
	Fuse	Important parts	Battery
	Tyre		Main harness
Structural inspection	lubrication		Control system

11. Vehicles Storage

Short period storage:

1) Store the vehicle in the flat and stable position where it is a well-ventilated and dry location;
2) The battery should charge to 50% when storage in order to ensure the battery life;
3) Try to avoid vehicles exposed to sun and rain in order to avoid parts damage or aging;
4) After long-term storage, please fully charge the battery before use;
5) When the battery is installed and store in the room, the exhibition hall, the warehouse and other safe place, or transport with the freight vehicle in short distance, please turn off and pull out the key, then pull

out the battery plug in order to eliminate electrical troubles.

Long-term storage:

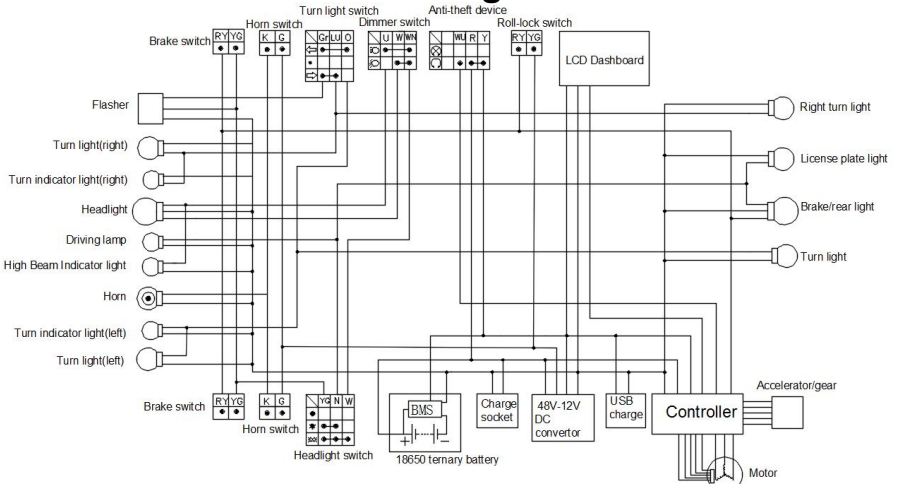
1) For long-term storage, please turn off and pull out the key, and then pull out the battery plug, disconnect the battery power supply circuit to prevent the battery over discharge;

2) For long-term storage, the battery should do a complete charge and discharge cycle every two months, and charge the battery to 50% electric quantity to ensure the battery life;

3) After long-term storage, please fully charge the battery before using.

4) Before driving, please check the all parts, if any abnormal, please return to the dealer for maintenance or repair.

12.Electrical schematic diagram

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