

CE ORIGINAL MANUAL



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ELECTRIC (FOLDING) BIKES FROM THE NETHERLANDS
INTELLIGENT, RELIABLE AND COMFORTABLE

CE ORIGINAL MANUAL
(TRANSLATION OF THE ORIGINAL INSTRUCTIONS)

LACROS TROTTER T200/T400 (XL)

ELECTRIC FOLDING BIKE

For your safety

Your safety is very important, so read the following safety advices carefully. More safety tips are listed further in the manual:

1. The LACROS Electric bike is equipped with an electromotor. It is very important that you are familiar with the bike as soon as possible. We advise you to choose the first "practice rides" for easy roads with little traffic and a smooth road surface.
2. When you want to ride, do not stand on the pedal, but first sit on the saddle and then start pedaling.
3. Ride the first rides preferably without electrical support to get familiar with your bike. After this you can start with a low setting (motor support).
4. The LACROS bicycles have been tested by our employees. If you have any doubts about the bicycle and/or the electrical installation of the bicycle, please contact us immediately.
5. Never expose the battery and the charger directly in the sun or heat surfaces. The battery is protected against heat, but heating is better avoided.
6. Never use a charger other than the one supplied by Shinga B.V. It is very important for your safety to always use the original charger.
7. The brakes are equipped with an "ABS" protection. As a result, the support stops when you use the brakes.
8. We recommend wearing a helmet while cycling.

The LACROS bicycles are delivered in accordance with the most recent European guidelines (page 3), if you have any questions or comments, do not hesitate to contact us.

We are always available for users of LACROS bicycles:

E-mail: service@lacros.nl

Phone: +31 73 203 2487

Thank you for your trust,



Ton van den Oetelaar

Director Shinga BV

Quality standard

Your product is an electric folding bike. The bicycle can be folded at 2 locations, on the handlebar stem and halfway at the frame. The bike is equipped with a pedal support system which is powered by an external battery. The battery can be in different locations, such as on the luggage carrier or in the frame. The battery is charged via an external charger. This external charger is a separate product and is already provided with a CE mark (for example, the Low Voltage Directive and the EMC Directive).

The input voltage of the battery is 36V, the motor has a power capacity of 250W and the maximum speed of the bike is 25 km/h.

Guidelines:

Based on the above product description, the following guidelines apply:

- EMC-directive: 2014/30/EU
- Machine directive: 2006/42/EG

The Low Voltage Directive does not apply because the input voltage is only 36V. The charger of the battery is separately marked with a CE mark.

Based on the above guidelines, a number of (corresponding) standards apply.

The following relevant documents must be mentioned in this context and are also used as input for all other documentation:

- NEN-EN 15194:2015 Cycles (Electrically power assisted cycles - EPAC Bicycles)
- NEN-EN-ISO 4210-1:2014 and
- EN ISO 12100:2010

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1. Unfolding the bicycle

Magnetic lock

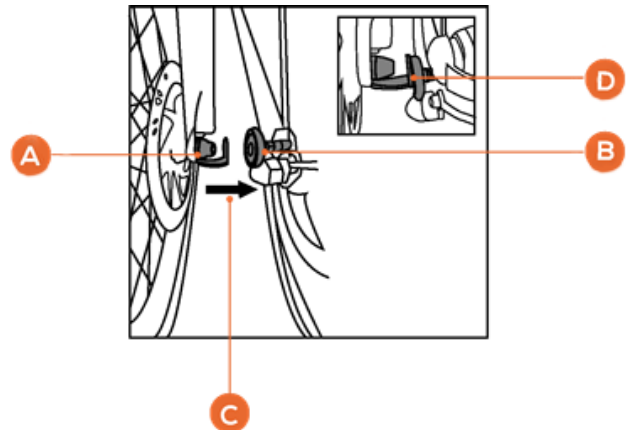
Push the wheels apart to remove them from their magnetic lock.

A = Metal locking plate

B = Magnet

C = Direction in which you can lock

D = Locked position

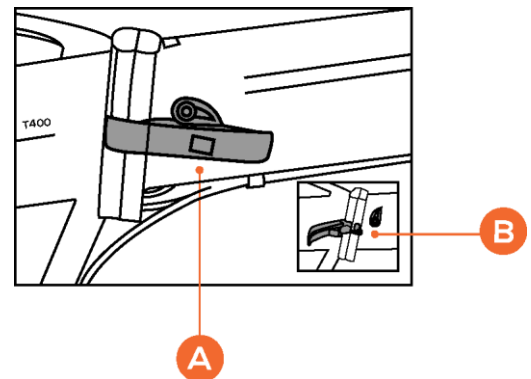


Unfolding the frame

To unfold the frame, slide the wheels apart until the frame is in a straight position. It is easy to stand on the left side of the bike.

Secure the frame clamp

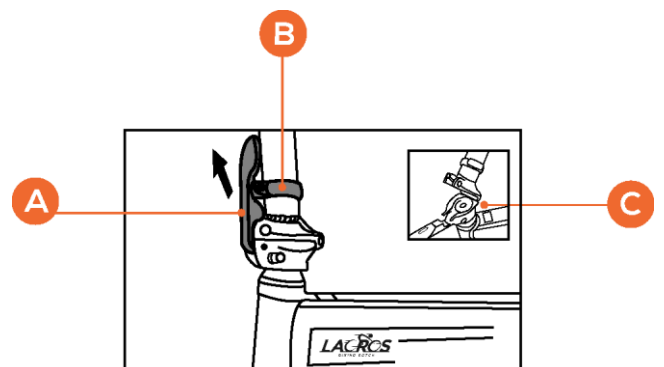
Secure the frame clamp (A + B) (middle hinge mounting on the right side of the frame tube) by first securing the latch with the frame and then locking the clamp by pushing the clamp against the frame. Secure the lock with the locking clip (located just above the frame clamp) on the frame clamp.



Unfolding the steering wheel and securing

Pull the handlebar (C) up and secure it with the handlebar clamp (A). Make sure that the Pin fits properly in the handlebar clamp.

Secure the clamp with the locking ring (B) by rotating towards the clamp (located on the steering column near the clamp).



Unfold pedals

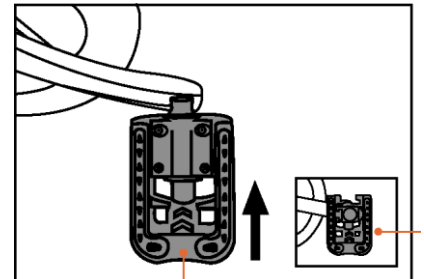
Unfold the pedals by pulling the pedal to its horizontal position. The pedal will automatically return to its correct position.

2. Folding the bicycle

Folding the pedals

Fold down the bicycle's stand and fold the pedals in by pushing the entire pedal towards the bike and then folding it up or down.

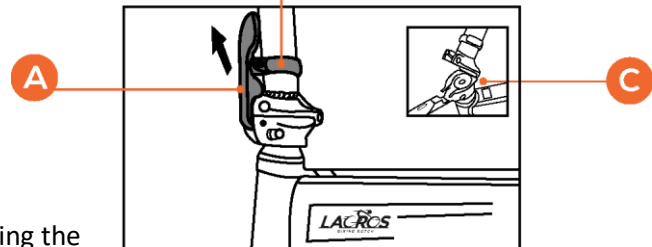
Note: Position the pedals horizontally with the left pedal forward, so that it will not get in the way when the frame is folded.



B

Handlebar clamp

Release the steering, first by rotating the locking ring (B) away from the clamp. Open the clamp (A) so you can fold the steering.



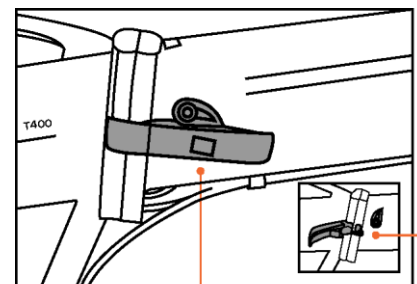
A

C

Frame clamp

Open the middle hinge mounting (right on the frame tube) by moving the locking clip upwards. Pull the clamp (A) outwards so that it comes loose. The frame is now open and ready to fold.

Note: Do not use excessive force to release the clamp.



A

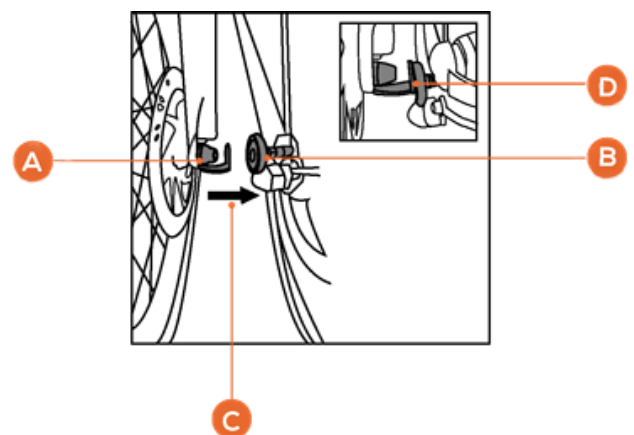
B

Folding the Frame

Stand to the left of the bike and fold the front wheel to the rear wheel so that the wheels are close together. Under the bottom bracket there is a triangular support on which the bicycle can rest when folded.

Securing the wheels

Secure the bicycle by placing the wheels against each other so that the magnets (A + B + D) connect each other (C). It is advisable to provide the handlebar and frame with protection during transport by means of, for example a blanket.



A

B

D

C

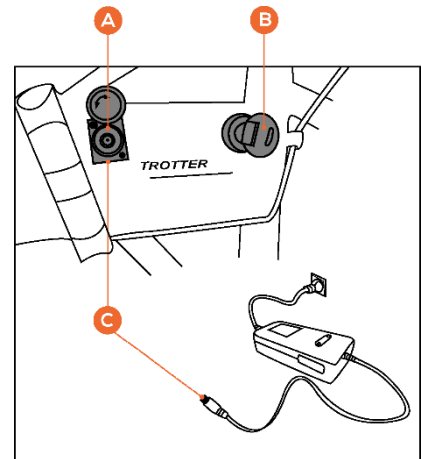
3. How to operate the bicycle

Switch on the battery

The battery is located in the frame with the Trotter. Switch on the electrical system with the key switch (B) on the left side of the frame.

Note: You only have the battery activated, the display is still off.

- A = Charging point
- B = On/off key switch
- C = Connection point

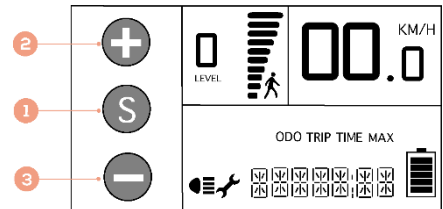


▪ SAMA-Display

Turn on the display

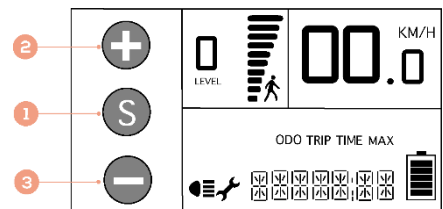
Press (1) to turn on the bicycle electrical circuit. A menu now appears on the display, the electric circuit is switched on.

- 1 = On/Off button
- 2 = motor support up/light
- 3 = motor support down



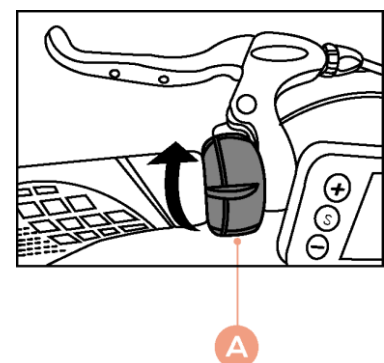
Switch bicycle LED lights on and off

Press (2) for ± 2 seconds to turn the lights on. A light-symbol will appear on the display. Press (2) for 2 seconds to turn off lights.



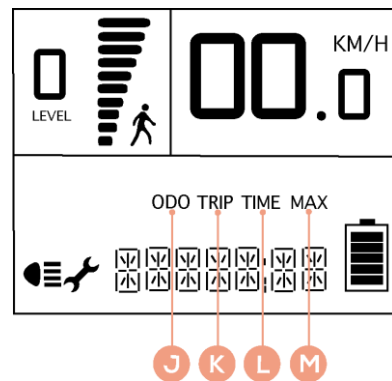
Thumb lever walk assist

By pushing the thumb lever (A) forward when stationary, you activate the walk assist which provides support from 0 km/h to 6 km/h. By using the thumb lever while cycling, the electrical support goes directly to its maximum (25 km/h).



Switch between the 9 levels of motor support

The electrical motor support has 9 levels. The active setting is displayed on the top left of the display. You can increase or decrease the support by using the (+) and (-) buttons.

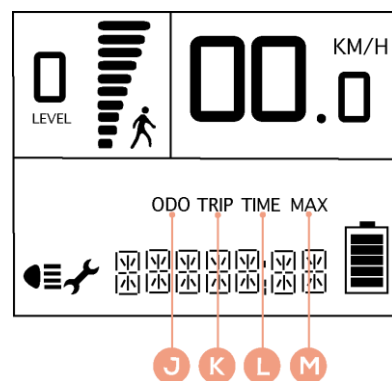


Additional options of the display

By pressing the (S) button briefly in succession, you can scroll through various data:

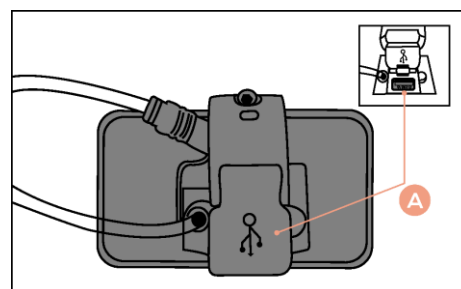
- (J) = Total Km / Miles reading (ODO)
- (K) = Trip reading (TRIP)
- (L) = Cycle time (TIME)
- (M) = Maximum speed (MAX)

Reset Trip, Time and Maximum speed data by pressing the (S) and the (-) buttons together for 2 seconds.



USB-input display

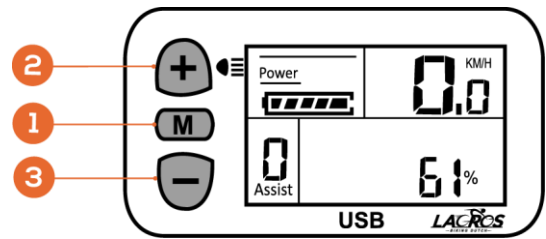
Below the display you will find a USB port (A) where for example your phone or navigation device can be charged while cycling. This charging only works when the display is turned on.



▪ Bigstone-display

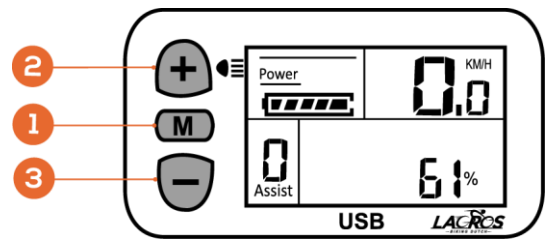
Turn on the display

Press the "M" button (1) on the left of the display to activate the bicycle's electrical circuit. (Note that the battery is already turned on) A menu will now appear on the display, the electrical circuit is switched on.



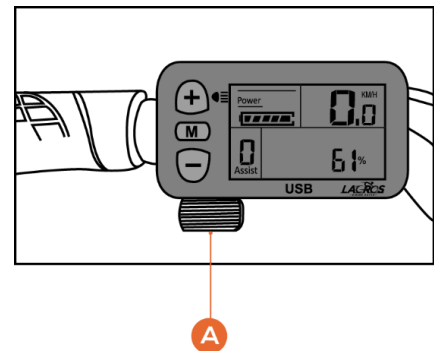
Switch bicycle LED lights on and off

Press the "+" button (2) for ± 2 seconds to turn on the bicycle lights. A Light symbol appears in the display. Press the "+" button (2) again for 2 seconds to switch off the bicycle lights.



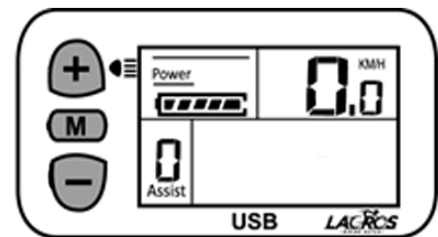
Thumb lever Walk Assist

By pushing the thumb lever (A) down when stationary, you activate the walking mode which provides support from 0 km/h to 6 km/h. Note: The walking position using the thumb lever does not work when the bicycle is in support position "0". By using the thumb lever while cycling, the electric support goes directly to its maximum (25 km/h).



Switch between the 9 levels of motor support

The electrical motor support has 9 levels. The active setting is displayed at the bottom left of the display. You can increase or decrease the support by using the (+) and (-) buttons.

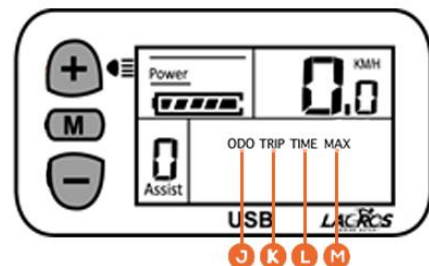


Additional options of the display

Briefly pressing the "M" key successively scrolls through various data at the bottom of the display:

- (J) = Total Km/Miles reading (ODO)
- (K) = Trip reading (TRIP)
- (L) = Cycling time (TIME)
- (M) = Maximum speed (MAX)

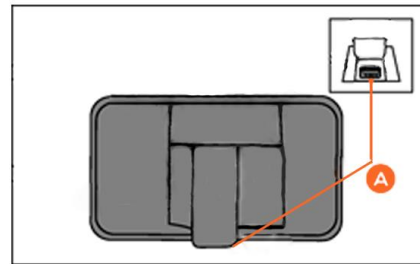
Reset Trip, Time and Maximum speed data by pressing the (-) button for 2 seconds.



USB-input display

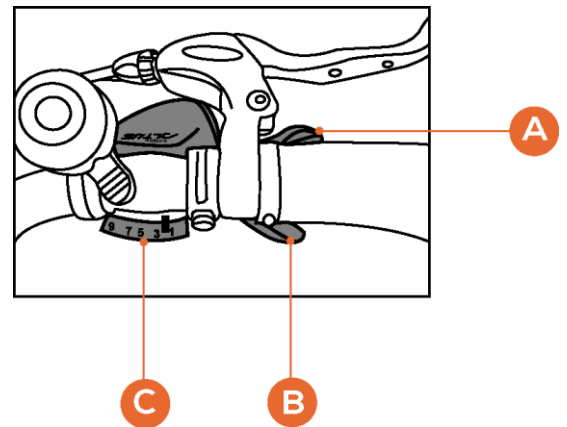
Below the display you will find a USB-port (A) where you can, for example, charge your telephone or navigation while cycling. This charging only works when the display is on.

Press the "M" key and the "+" for 2 seconds to activate the USB.



The Shifter (1)

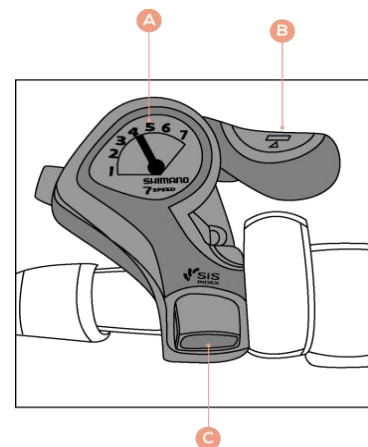
The shift mechanism of the derailleur is located on the steering wheel, which has a (A) and (B) Finger control. By pressing (B) you switch up, by pushing (A) you switch down.



Note: You must keep pedaling while switching gears. However, it is better for the gears that you do not put excessive force on the pedals during the shift.

The Shifter (2)

The shift mechanism of the derailleur is located on the steering wheel, which has a (B) and (C) thumb control. By pressing (B) you switch up, by pushing (C) you switch down.



How the electrical support work

The bicycle use PAS (pedal support) through a magnet-rotation sensor. This means that the electrical support starts the moment the pedals go around. In addition, there is a thumb lever on the left side of the handlebar to activate the maximum support quickly and easily (which is independent of the motor support 1 to 9). As long as you continue to hold this thumb lever forward (while pedaling), the motor will give the maximum support, similar to support position 9 on the display.

Support is interrupted when:

- You stop pedaling.
- The brakes are used.
- Release the thumb lever if you use it.

4. Battery and Charge

General

- The battery can be recharged both in and out of the bike.
- When replacing the battery, make sure that the contact points of the battery and the contact points of the battery compartment match properly.

Charge recommendation

- Always recharge the battery with the Lacros charger supplied with the bike. Do not use any other charger.
- **The first 2 recharges of a new bicycle must be more than 60%. To realize this, wait the first 2 times before recharging, until the battery indicator on the display has fallen below 40%.**
- **Recharging will stop automatically when the battery is fully charged.** Only when the red indicator light on the charger is lit, the battery will be recharged.
- After 2 full charges (first 2 charges), the battery does not have to run to a minimum of 40% before you start recharging again. **After 2 full recharges, the battery can be recharged at all times, even after short rides.**
- **The battery remains in good condition when you recharge the bike after every use (regardless of the distance). So keep the battery as full as possible.**
- **The warranty on the battery expires if a deep discharge is detected** (this can only happen if you leave the battery on and leave it for a long time without recharging.)
- **In the case of long-term storage: fully recharge the battery, disconnect the battery from the charger and the bicycle and switch off the battery. Charge the battery at least once every three months.**
- The battery performs less well below 10 °C, you will have less battery capacity.

Warning

Read the warnings below carefully.

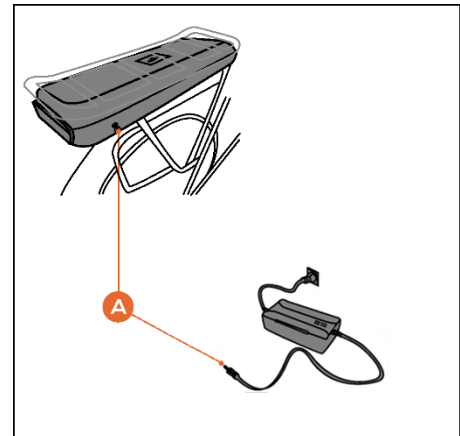
- Do not expose the battery to fire or heat. Never put the battery in fire.
- Do not drop the battery or damage it.
- Do not immerse the battery in water or any other liquid.
- Keep the battery out of the reach of children
- Never open the battery without permission from Shinga B.V. The battery is provided with a seal. **Breaking the seal will void the warranty**, unless Shinga B.V. gives permission.
- Do not put liquids or metal in the charger.
- Do not connect the charger to the battery with wet hands.
- Do not touch the charger in case of lightning.
- Do not use the charger in a very humid environment.
- Do not use the charger for purposes other than charging the corresponding battery.
- Ensure good ventilation at the location of the battery and charger during charging.
- Do not connect the charger to the power socket if the charger is not being used.
- Do not charge the battery in full sun.

How to charge the battery

The battery has one charging point (A) on the right side of the battery. It is recommended to first connect the charger to the battery and then plug the 220V plug into the socket. It is better for the battery to connect it to the charger after every cycle. The charger will stop charging as soon as the battery is full. When the battery is full (when the light on the charger is green) the charger can be disconnected.

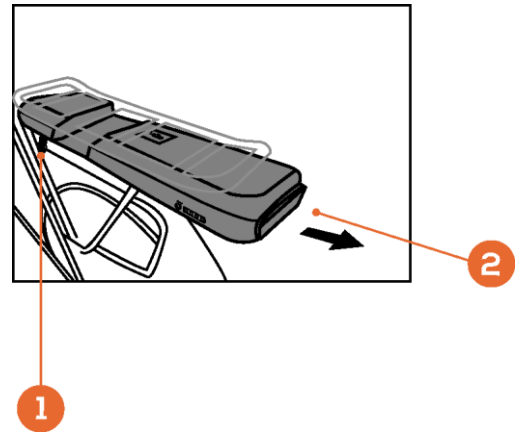
Red (Power on/Charging)

Green (Power off/fully charged)



Removing the battery

The battery can be removed from the battery box by first turning the key almost (1) 180 degrees to the left, and then carefully pull the battery back. Ensure that the battery is always locked when you place it back. The battery may otherwise vibrate when cycling.



5. Range

The range represents the distance in kilometers that can be covered with a fully charged battery. The range is influenced by various factors:

- Capacity (Ah) and voltage (V) of the battery
- Level of electrical assistance used
- The carrying weight on the bicycle
- Amount of pedaling force delivered by the rider
- Ambient temperature (battery capacity decreases below 10 ° C)
- Wind force
- Tire pressure (3,5 bar/50,7 psi)
- Condition of the road surface

The range decreases as the battery ages.

6. Safety rules

- Read carefully the manual supplied with your bicycle before using it for the first time.
- Strictly adhere to the traffic rules.
- Never disassemble the bicycle yourself. If replacement of a part is necessary, contact your dealer or Shinga B.V. for the relevant part.
- Do not lend your bicycle to persons with little experience on an electric bicycle.
- Do not ride under the influence of drugs or alcohol.
- Never load the bicycle beyond its maximum capacity.
- Do not modify anything on your bicycle yourself. As a result, the warranty and liability will expire.
- The maximum speed of the vehicle is 25 Km/h.
- If the front fork, steering column or handlebars are bent after an accident, they must under no circumstances be bent back to its original position to avoid breakage. Contact your Shinga dealer or Shinga B.V. directly to have the damaged parts replaced.



Figure 1: STEER-/ SEAT PIN

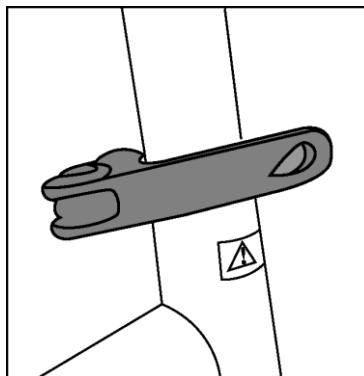


Figure 2: STEER-/ SEAT CLAMP

- **STEER-/ SEAT PIN:** See figure 1. A rib line is engraved in the seat post and stem. This is the minimum length that must remain in the frame (with the seat post) or in the steering column (at the stem).
- **STEER-/ SEAT CLAMP:** See figure 2. By means of these clamps allow you to adjust the saddle and handlebars to the correct height. Make sure these clamps are tight.

7. Legal requirements

According to European legislation, the vehicle described is a bicycle because the vehicle complies with the following rules:

- From 6 Km/h, the support is only active when the user is pedaling.
- The support is active up to a maximum of 25 Km/h.
- The power supplied is a maximum of 250 watts.

According to Dutch law, the vehicle described is a bicycle because the vehicle has the following components:

- Two independent, functioning brakes.
- Headlight with white or yellow light & rear light with red light and a reflector.
- Wheel reflector and/or reflective tires and/or reflective rims.
- Pedals with yellow reflectors.

Environment

In accordance with the environmental regulations for the collection and processing of batteries of the Ministry of Housing, Spatial Planning and the Environment, we recommend that you always return the battery to your dealer or Shinga B.V. The latter is obliged to take in the battery and is responsible for further processing of the battery.

Periodic maintenance and malfunctions

Your e-bike needs regular maintenance. Shinga B.V. or your dealer can advise you on the optimal use and maintenance of your e-bike. If you have any questions or problems with your e-bike, please contact your dealer or Shinga B.V.

8. Technical specifications

• Dimensions unfolded (L x W x H):	160x66x113cm	165x60x108cm
• Dimensions folded (L x W x H):	92x40x69cm	100x45x78cm
• Frame:	Aluminum	
• Motor type:	Rear wheel motor	
• Motor voltage:	36V	
• Motor power:	250W	
• Sensor:	Magnet rotation	
• Battery type:	Lithium-Ion polymer (heat-resistant cells)	
• Battery specifications:	36V 10.4Ah 13.6Ah	
• Action radius:	30-90 km	
• Motor support:	9 levels	
• Gears:	Shimano 7 derailleur	
• Maximum carrying load:	140 kg	
• Gross weight:	23 kg (20")	24,5 kg (24")
• Net weight (excl. battery and saddle):	19.5 kg (20")	21 kg (24")
• Wheel diameter:	20 inch	24 inch
• Maximum speed:	25 Km/h	25 Km/h

Maintenance

We recommend the first service of your bicycle after 1000 km. After this we recommend every 2500 Km or once per year. To extend the life of your bike, we recommend that you keep the chain and the derailleur clean and lubricate your chain with chain oil once every 3 months.

The valves

The tires are equipped with a Blitz valve (formerly Dunlop valve) which can be inflated with a standard bicycle pump. A reducer fits on this valve to go from a bicycle valve to a car valve.

Frame number

The frame number is located at the front of the frame. This is stamped in the paint just above the front fork suspension.

9. EC declaration

Supplier:	Technical Files:	Manufacturer:
SHINGA B.V. NIEUWE EERDSEBAAN 16 5482 VS SCHIJNDEL THE NETHERLANDS	VAN DEN OETELAAR (SHINGA B.V.) NIEUWE EERDSEBAAN 16 5482 VS SCHIJNDEL THE NETHERLANDS	SHINGA B.V. NIEUWE EERDSEBAAN 16 5482 VS SCHIJNDEL THE NETHERLANDS

Product: Electric folding bike

Model: JSL 039B

Name: Lacros Trotter T200/T400 (XL)

THIS E-BIKE IS MANUFACTURED ACCORDING AND IN APPLIANCE WITH EUROPEAN UNION GUIDELINES AND REGULATIONS CONCERNING ELECTRIC BIKES WITH A MAXIMUM SPEED OF 25 KM/HOUR AND A MAXIMUM MOTOR OUTPUT OF 250W

THE FOLLOWING "EN" (ISO) STANDARDS APPLY:

EN ISO 12100:2010; EN 15194:2009; EN 14764:2005; EN 349:1993+A1:2008; EN 953:1997+A1:2009; EN 13857:2008

EU GUIDELINES APPROVAL:

2006/42/EC MACHINERY DIRECTIVE; 2006/95/EC LOW VOLTAGE DIRECTIVE; 2004/108/EC ELECTROMAGNETIC COMPATIBILITY DIRECTIVE

ELECTROMAGNETIC COMPATIBILITY DIRECTIVE (2014/30/EU), MACHINE DIRECTIVE (2006/42/EC)

EC EXECUTIVE BODY CERTIFICATION: ENTE CERTIFICAZIONE MACHINE S.R.L., VIA MINCIO 386, 41056 SAVIGNANO, ITALY; NOTIFIED BODY EC TYPE OF RESEARCH NUMBER: 1282

CERTIFICATE NUMBER: 111123/ZJV845

CERTIFICATE DATE: NOVEMBER 2011