

Manual Vässla Bike

How to repair and fix unusual issues Service guide

Electrical parts

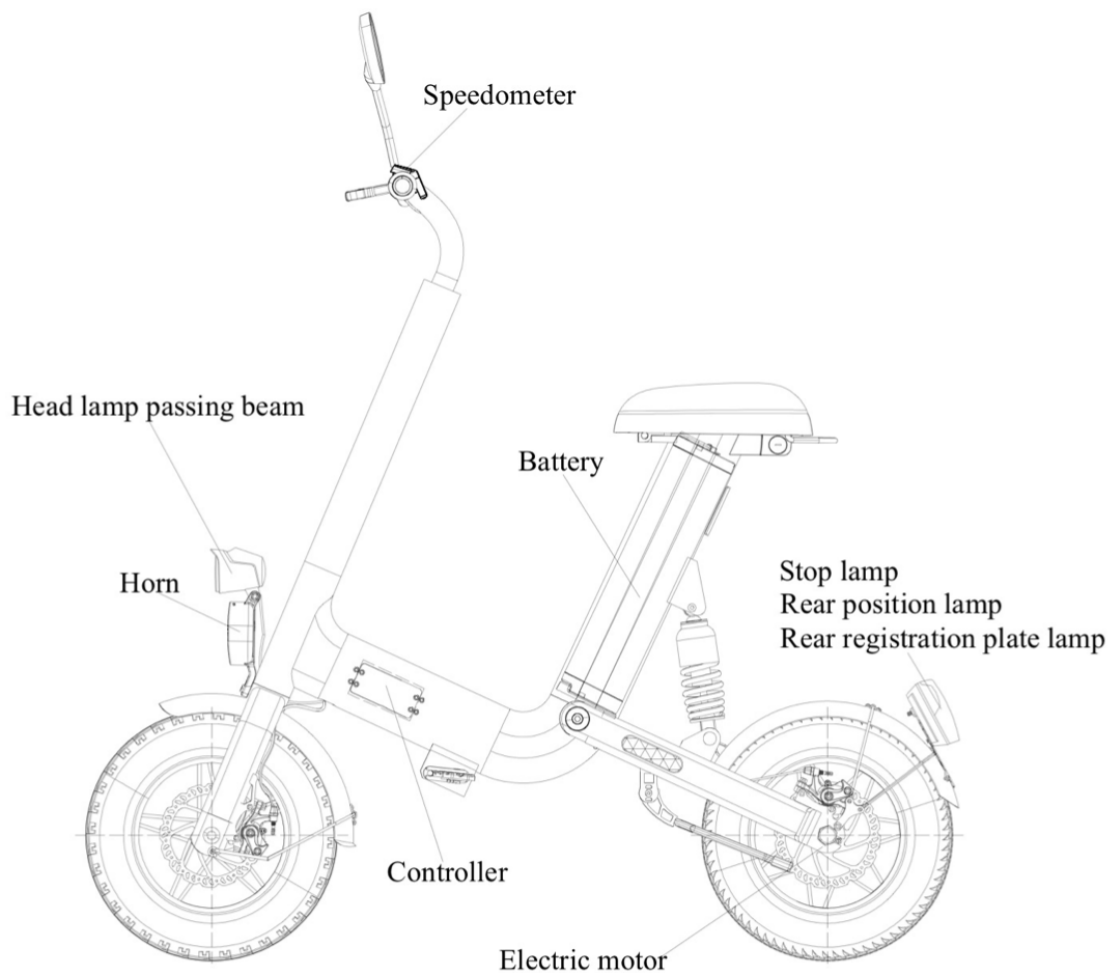


Table of Contents

Page 3-5 : How to mount the Brakes correctly

Page 6-8 : How to align the wheel

Page 9-12 : How to change the display

Page 13-14 : How to adjust or change the throttle

Page 15-20 : How to change the lock or saddle cover

Page 21-22 : How to check if there is no electricity coming to the Vässla Bike

Page 23- 27 : How to unmount the rear fender to deal with cables underneath the fenders


Page 28 : Error codes

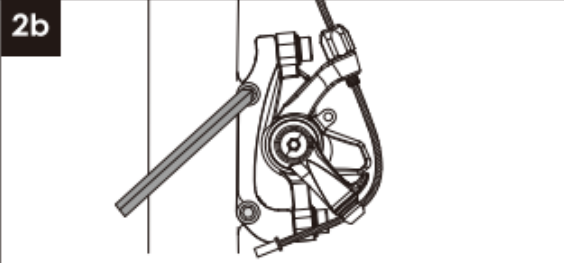
Page 29-31 : Spare Parts

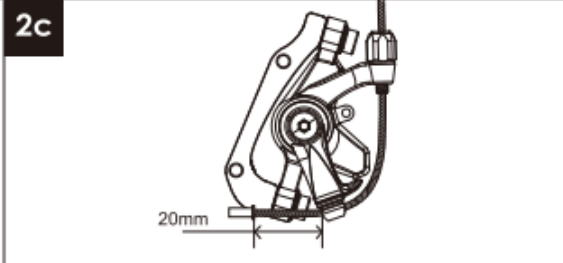
Page 31 : Other Inquiries

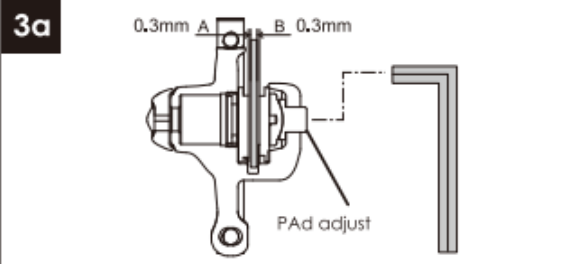
How to mount the brakes Correctly

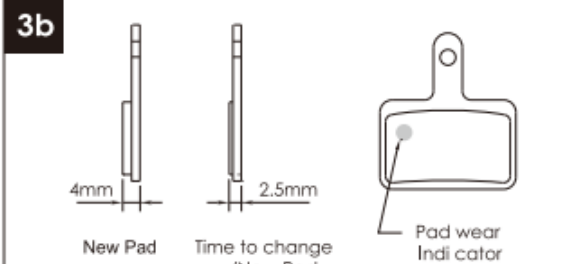
INSTALLATION & ADJUSTMENT

2a  **Fig.2a** Rotor must rotate same direction as wheel set
Tight rotor screw by 25 Torx® wrench

2b  **Fig.2b** Adapter assembly

2c  **Fig.2c** Cable end can not be over then 20mm

3a  **Fig.3a** 0.3mm clearance between pad & rotor

3b  **Fig.3b** New Pad 4mm, Time to change w/New Pad 2.5mm, Pad wear Indicator

SECTION 3 Removing the pads

■ Adjusting the pads and caliper (See3a)

When pads are worn, make sure to adjust both clearances between rotor and pad to be equal in 0.3mm. If adjust only one side will cause braking fail.

- (1) Use 5mm Allen wrench to adjust the stationary caliper adjusting bolt at the back (hub) side of caliper. (A side)
- (2) Adjust cable barrel adjustment for B side.

WARNING -

- Do not only adjust cable tension for compensate pad wear.
- After replace with new pads, check if rotor and pad contact with each other, if so, need to adjust step 1 & 2 again.

■ Pad should be replaced when total thickness is less than 2.5mm (friction material & metal plate (See3b))

CAUTION -

The pads and rotor must be kept clean and free from oil or grease-based contamination. If the pads become contaminated you must discard them and replace them with a new set. A contaminated rotor should be cleaned with a detergent solution, rinsed thoroughly and dried. Holding the pad end-tab, insert it into the caliper slot with its metal backing towards the piston.

Process:

Step 1:

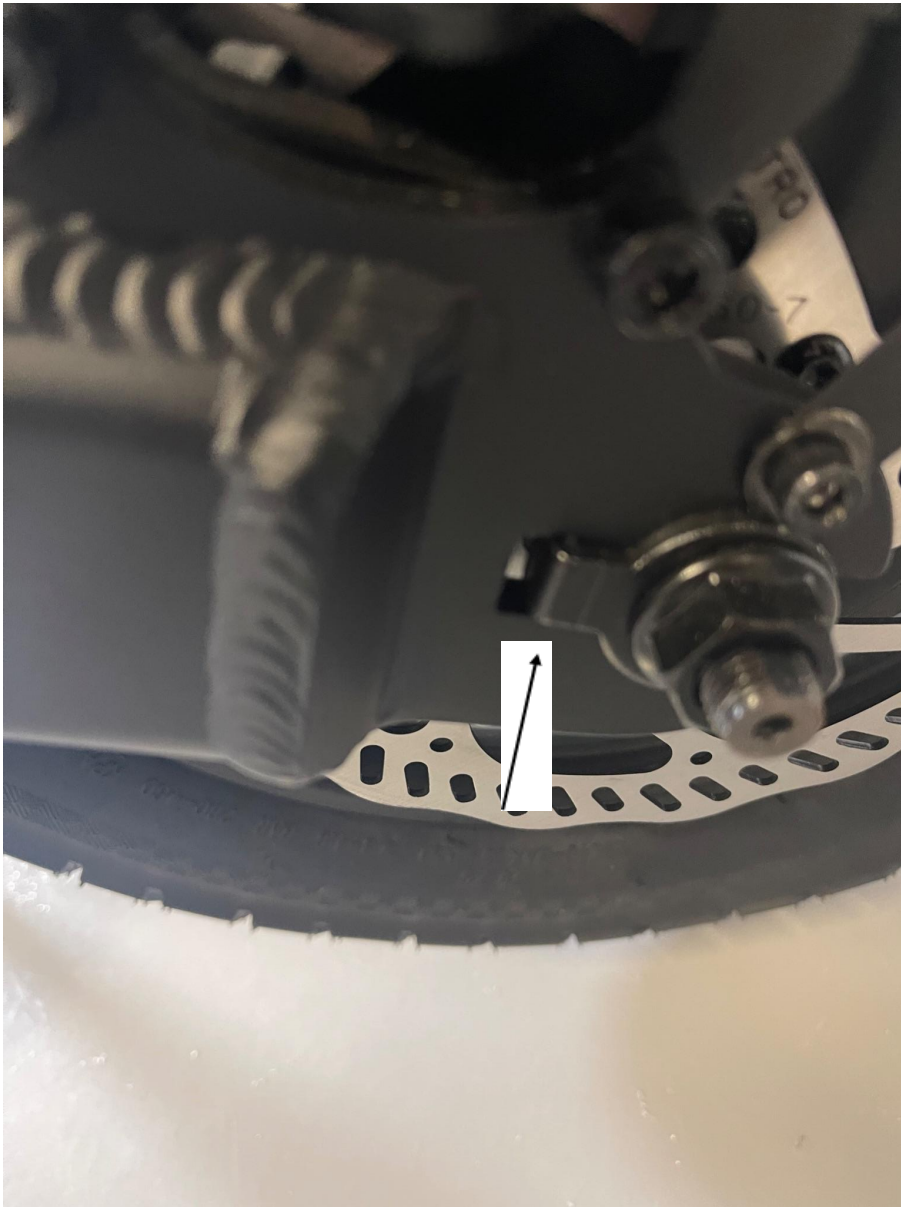
When you get the bike in for repair. If there are extra spacers between the braking bracket and the brake caliper. Remove 3 of the completely flat ones each side (sometimes there is 2) as shown in picture 1.



Picture 1. The spacers between the Brake bracket and the brake caliper.

Step 2:

To get maximum brake efficiency with the bike it's really important to mount the rear wheel so that the wheel is pulled backwards completely before tightening the rear wheel bolts on either side as you can see in picture 2.



Picture 2. The rear wheel alignment.

Alignment of the Wheel

Small misalignment:

If the wheel alignment is a little off from the handlebar you can loosen these 2 lower bolts and align the handlebar and wheel and then screw in the nuts again. (you can use a big straight ruler or some other straight stick/tool and hold it against the fork to easier see the alignment of the handlebar and the fork)



Picture 3. The 2 screws on the top of the steering tube.

Big misalignment:

If it's a big misalignment you need to loosen the lower 4 screws at the bottom (2 in the front and the 2 on picture 4).

You need to lift the steering pole up 50-55mm and then unscrewing the 4 bolts you see in picture 5, then you can tighten them again when it is aligned (you can use a big straight ruler or some other straight stick/tool and hold it against the fork to easier see the alignment of the handlebar and the fork) and then tighten them and lower the steering pole back in position again and tighten the 4 nuts in picture 4. (beware the cables)



Picture 4. The 2 screws on the bottom rear steering tube.



Picture 5. the 4 bolts that you need to unscrew to turn the handlebar alignment with the fork.

How to Change the display

Firstly start with unmounting the bolt that holds the display as shown in picture 6. Then proceed to unmount the 2 screws as shown in picture 3.

After that you can gently pull up the handlebar with its attachment as shown in picture 7.

To make it easier for you to handle the cables you want to unscrew and remove the bolt in picture 7. You want to pull the handlebar and its attachment so far up as you can make what we do in picture 8.

It may be helpful if you unmount the brake wire front and back as there might be some tension occurring there.

When you have it as in Picture 8, we have chosen to tape the ends to prevent chafing of the framerub. The green ends indicate it is the display cable as shown in picture 9. From there you just unplug it, and pull out the display cable and then push down the new cable in the tube and plug it in, and then do everything in reverse order.



Picture 6. How to unscrew the display.



Picture 7. easier to pull on cables if this is unscrewed.



Picture 8. Tape to prevent frame chafing.



Picture 9. Green Display cable

How to adjust or change the throttle

Adjusting the handle if it doesn't go back after giving throttle:

Unscrew the handle and move it out just a couple of mm and then mount it again. The issue might be that it's too hard mounted.

Changing:

Unmount the screw as shown in picture 10. Then proceed to unmount the 2 screws as shown in picture 3.

After that you can gently pull up the handlebar with its attachment as shown in picture 7.

To make it easier for you to handle the cables you want to unscrew and remove the bolt in picture 7. You want to pull the handlebar and its attachment so far up as you can make what we do in picture 8.

It may be helpful if you unmount the brake wire front and back as there might be some tension occurring there.

When you have it as in Picture 8, we have chosen to tape the ends to prevent chafing of the frame. The red ends indicate it is the Throttle cable as shown in picture 11. From there you just unplug it, and pull out the throttle cable and then push down the new cable in the tube and plug it in, and then do everything in reverse order.



picture 10. How to unscrew the throttle.



Picture 11. Red Throttle cable.

How to Change the lock or saddle cover:

Start with opening the saddle. (if you need to drill it due to lost keys, look at picture 18 and 19) Then what you want to do is unscrew all the screws except the ones holding the hinge system in place. Look at picture 13. You still want to unscrew the middle one of the hinge screws since that is also one that is holding the saddle in place. If you have unscrewed all the screws it should end up looking as in Picture 14. This is a great time to change the saddle cover if it's broken or has scratches on it due to a fall or crash.

You are left with the locking mechanism and the metal base plate for the saddle. On the top side of the metal plate there is a silver nut. This is a safety lock nut to prevent theft of the locking mechanism/lock. Clearly visible in picture 16. If you unscrew that nut and the 2 on the inside the complete locking mechanism will come off. This is where you would switch out the locking mechanism for a new one. Then to mount everything again just follow the steps in reverse. Don't forget the saddle grip to the right in picture 14.



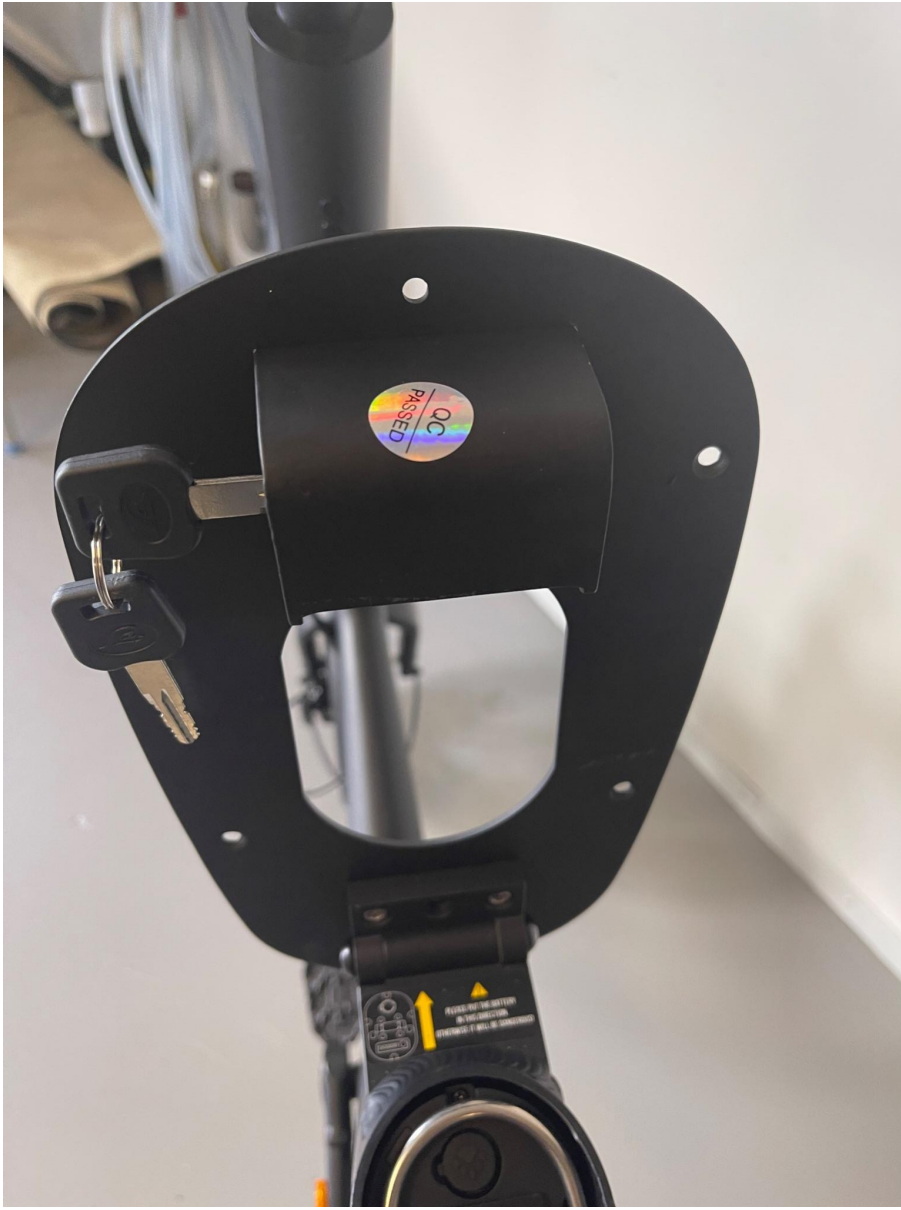
Picture 12 The saddle



Picture 13. Unscrewing the screws holding the saddle. Don't forget the lowest middle one.



Picture 14. Totally unmounted saddle



Picture 15. The locking mechanism.



Picture 16. The safety screw for the lock.



Picture 17. The complete Locking mechanism.

What to check if there is no electricity coming to the Vässla Bike and the 05 error message.

Vässla bike uses a Rosenberg contact. That means a magnetic contact. that is held together using magnets for better and more stable rides. During certain bumpy rides there might come a moment where the battery jumps out of place. (shouldn't happen due to the pressing block for the battery as seen in picture 14 in the middle of the saddle) However that might give the display the 05 error message. Solution is then just to turn the bike off and on again.

There can be one more problem if the bike doesn't get any electricity. Due to the bottom of the battery being magnetic (picture 19) it can easily pick up small metal parts that latch on to the Rosenberger connector. In the case that something has latched on to the Rosenberger connector it's really important to keep the area clean between the female and male connectors. Make sure nothing is in between these parts as that might be the solution to it not going through any current between the battery and the bike.



Picture 18. Inside the seatpost. Female Rosenberger connector.



Picture 19. Underneath the battery pack. Male Rosenberger connector.

How to unmount the rear and front fender to deal with cables underneath the fenders.

Start off with unmounting the wheel via the nuts seen on picture 2. Mind the motor cable. Then continue to unmount the fender via the screw in picture 20 on both sides. There is also another screw you need to unscrew that's on the inside of the fender. After that you will have it loose. However there are also the rear light cables you have to mind. To put them in place you have to attach the clips as in picture 24. Follow picture 23-24 to attach them. Then to mount everything back, do every step in reverse order.



Picture 20. How to unmount the rear wheel.

Picture 21. The Clip





Picture 22. The clip in position.



Picture 23. Gently push the clip in position. Mind the wires.



Picture 24. The clip in final position

Error Codes

Error code information table:

| Error code | Error description | Suggest operation |
|---------------------|---|--|
| "04" shown at speed | throttle doesn't turn back to zero position (stay on the high position) | Check if the throttle turned back |
| "05" shown at speed | throttle failure | Check throttle |
| "07" shown at speed | overvoltage protection | Check battery voltage |
| "08" shown at speed | failure of motor's hall signal wire | Check motor |
| "09" shown at speed | failure of motor's phase wire | Check motor |
| "11" shown at speed | failure of the motor's temperature sensor | Check controller |
| "12" shown at speed | failure of the current sensor | Check controller |
| "13" shown at speed | failure of the temperature of the battery | Check battery |
| "14" shown at speed | Controller temperature is too high, and reaches the protection point | Check motor |
| "21" shown at speed | failure of the speed sensor | Check the install position of the speed sensor |
| "22" shown at speed | Failure of BMS communication | Change battery |
| "30" shown at speed | communication failure | Check connector to controller |

Spare Parts

| Item Code | Item | Descriptions |
|-------------------------|------|---|
| Electrical parts | | |
| 01 | 1 | Battery pack 10S4P 48Xcells 19.2AH |
| 01 | 2 | customized controller & Cover & mount plate |
| 01 | 3 | DISPLAY WITH BLUETOOTH |
| 01 | 4 | 42V4A charger |
| 01 | 5 | Rosenbeger connectors set (M&F) + discharge connectors 2PCS |
| 01 | 9 | Customized 450W engine+cable+connector |
| 01 | 10 | DC adaptor 12 V 3A (horn and light) |
| 01 | 32 | Front light + plate |
| 01 | 33 | horn + case by EEC standard |
| 01 | 34 | Rear light included braking light |
| 01 | 43 | SWITCH BUTTON/main switch |
| 01 | 70 | Rear brake sensor + wire 2 PCS (left and right) |
| Mechanical parts | | |
| 02 | 39 | Foot pedal & base plate 4pcs. |
| 02 | 44 | Lock mechanism (the complete locking mechanism with keys) |
| 02 | 45 | Lock cylinder |
| 02 | 54 | Damper tap with locking pin |
| 02 | 68 | Brake bracket (front) |
| 02 | 69 | Brake bracket (rear) |
| Wear and tear | | |
| 03 | 11 | Seat -1 Foam & leather & plastic |
| 03 | 20 | Rim & tyre (air tire with rim) (front wheel) with brake disc (complete) |
| 03 | 22 | Handlebar grips |
| 03 | 23 | Steering pole inside bearings |
| 03 | 26 | Brake levers & disc (front & back)cable harness |
| 03 | 27 | Throttle & power cable harness |

| | | |
|--------------|----|--------------------------------------|
| 03 | 30 | Cover for bearings (2pcs) |
| 03 | 40 | Rear view mirror 2pcs |
| 03 | 41 | Main stand with 2 legs |
| 03 | 46 | Tyre |
| 03 | 47 | Tube with angled inflating valve |
| 03 | 48 | Horn button (plastic only) |
| 03 | 49 | Brake lever, right |
| 03 | 50 | Brake lever, left |
| 03 | 51 | Brake pads Tektro A10.11 B19K5640 |
| 03 | 52 | Brake cable harness, front |
| 03 | 53 | Brake cable harness, rear |
| 03 | 57 | Kable clip under rear fender |
| 03 | 71 | Weather cap for handlebar joint |
| <u>Other</u> | | |
| | | |
| | | |
| | | |
| 04 | 12 | Seat -2 steel basic plate |
| 04 | 13 | Seat -3 stainless steel handle bar |
| 04 | 14 | Seat -4 press block for battery pack |
| 04 | 15 | Seat -5 folding hinge system (set) |
| 04 | 16 | Seat-6 Anti stolen screw |
| 04 | 17 | Seat -7 lock enclose(set) |
| 04 | 18 | Seat-8 manual lock |
| 04 | 19 | Battery pack insert in the frame |
| 04 | 21 | Straight Hand bar |
| 04 | 24 | Hand bar bended tube |
| 04 | 25 | Front fork |
| 04 | 28 | Damper |
| 04 | 29 | Swing arms axle with 2 bush |
| 04 | 31 | Aluminium fender 2PCS |
| 04 | 36 | Customized license plate |

| | | |
|----|----|--|
| 04 | 37 | Side reflectors 4PCS |
| 04 | 38 | Cellphone holder with LOGO |
| 04 | 42 | Repair tools |
| 04 | 58 | Screws for steer head joint |
| 04 | 59 | Screws for fenders |
| 04 | 60 | Screws for brake calipers |
| 04 | 61 | Screws for brake caliper adapter plate |
| 04 | 62 | Screws for front light |
| 04 | 63 | Screws for rear light |
| 04 | 64 | Screws for horn |
| 04 | 65 | Screws under saddle |
| 04 | 66 | red rear reflex |
| 04 | 67 | Cable harness protection |

Other Inquiries:

Please contact Magnus.lindahl@vassla.com or August.fagerlund@vassla.com