Pasion e Bike E-Bike
Conversion Kits
Installation Manual
Rear Wheel
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Part One: Getting started

Open the carton, take out all the parts.
Check the parts according to the list.

Parts List:

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hub Motor</td>
<td>Wheel with Tire and Tube, with 7-speed</td>
</tr>
<tr>
<td>Controller</td>
<td></td>
</tr>
<tr>
<td>LCD Control Panel</td>
<td></td>
</tr>
<tr>
<td>Twist Throttle with Key</td>
<td></td>
</tr>
<tr>
<td>Brake lever (left and right)</td>
<td></td>
</tr>
<tr>
<td>Pedal Assistant Sensor</td>
<td></td>
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</tbody>
</table>

Note: Please check for any damage on the items. Take out the items, put them on the floor and start to build your own E-Bike through following pages.
Part Two: Tools needed

Which Tool do you need for installing

List:
A). Adjustable Wrench
B). Phillips Screwdriver
C,D,E,F). 4 pcs Socket Head Wrench with diameters 3.0mm, 4.0mm, 5.0mm, 8.0mm
G). Diagonal Cutting Nipper
H). Puller
I). Socket Wrench
Part Three: Removing and installation of the wheel

1) Remove the original rear wheel.
2) Install the new one, fasten nuts on both axles.

Install your own disc brake rotor on motor wheel (if your ebike use disc brake)
Put the motorized wheel in rear fork, please note motor cable shall come out from left side, motor axle must be put inside the socket of rear fork. Please make sure the spring is at axle end to protect cable.
Please try the disc brake rotor position, If the distance between rotor and rear fork is less than 15mm, then please put a washer between motor axle and fork to adjust the distance. Fasten all nuts.

Part Four: LCD Control Panel Installation

LCD Control Panel has 2 parts: LCD Display with operation keyboard, Installation Bracket

Installation Guide:
Wind several layers of Glue tape on handlebar so that the LCD clipper just fit it.
Install operation Key at left side(or right side)
Clip LCD on handlebar
Fasten two nuts
Part Five: Brake Levers Installation

Brake Levers has 2 parts: Left Brake Lever, Right Brake Lever

Installation Guide:
Remove original brake levers and install this new one
Put brake levers into both sides of the handlebar. Hold the hand lever to find a comfortable position then fix it with 5.0mm socket head wrench.

Part Six: Twist Throttle Installation

Twist Throttle has 4 parts: Half-bar Twist Throttle, Left Side Grip, Right Side Grip, Key

Installation Guide:
Install left side grip, install right side throttle and fasten with 3.0mm Socket Head Wrench, install right side grip.
Part Seven: PAS Installation

PAS has two parts: PAS Sensor, Magnetic Ring

PAS (Pedal Assistance Sensor), also known as pedelec system, is a necessary component of an electric bike in European countries. PAS controls the power supplied to the motor through the angular velocity pedal. (i.e. the faster the pedal turns, the faster the motor runs.)

Removing your bike rightside chainwheel, put the PAS signal receiver ring into the axle and fasten it by ring washer and then put the outer magnetic ring next to the ring washer. Make sure they do not contact each other by using washers and with less than 5mm distance, please also check the magnetic ring was installed with correct rotation direction (you will see the rotation arrow on it), now you can install the chainwheel and fasten it.

Installation Guide:
Remove left and right sides cranks
Remove chainwheel
Remove Bottom Bracket
Install PAS Sensor at right side
Install Bottom Bracket
Install plastic magnetic ring, please make sure rotation direction is correct and distance to PAS sensor is less than 5mm.
Intall Chainwheel and cranks
Part Eight: Speed Sensor Installation

Speed Sensor has two parts: Speed Sensor, Magnetic body

Installation Guide:
Install Speed Sensor on rear fork where is closest to spoke (you may need to insert some
pads under it to get close enough distance to magnetic body.
Install magnetic body on spoke and choose best position where it just face to sensor and make sure distance is less than 5mm.

If you also accept imitation speed display (a kind of speed calculation according to motor specification), you can also don't install speed sensor and just change some setting from LCD to get speed display (P1=46,P2=0,P3=1,P4=P5=0, P5=12 , C1=2 C2=0 C3=8 C4=4 C5=8 C6=3 C7=0 C8=0 C9=0 C10=n C11=0 C12=4 C13=0 C14=2).

**Part Nine: Controller Connection**

Please find suitable position to put controller on your ebike.
A: Red/Black: Power Input/Power Supply (Yellow XT60 Connector)
B: Blue/Green/Yellow: 3-Phase of Motor
C: Red/Black/Yellow/Green/Blue: 5-Hall Sensor of Motor
D: Red/Blue/Black/Green/Yellow: LCD Control Panel
E: Yellow/Black, Yellow/Black: Brake Levers
F: Red/Pink: Electric Lock on Throttle
G: Red/Black/Blue: Speed Control on Throttle
H: Brown/Black/Yellow: PAS
I: Red/White/Black: Speed Sensor
J: Blue/Black: Cruise Function (connect to active Cruise Function)
K: Black/Yellow (Black Connector): Light Control (by LCD Control Panel)
L: Black/Yellow (White Connector): Light Control (by separate switch)

Following picture shows how to connect each parts to controller:

1) **Wires connection for Power Input of Controller (Controller and Battery):**

![Wires connection for Power Input of Controller](image)

2) **Wires connection for Controller and Motor (3-Phase and 5-Hall Sensor):**

![Wires connection for Controller and Motor](image)
3) Wires connection for Controller and LCD Control Panel:

If you don’t want to use LCD control Panel, please just shortcircuit connectors as follow photo (Red and Blue, Yellow and Black):

4) Wires connection for Controller and Brake:
5) Wires connection for Controller and Throttle:
Red/Pink: Electric Lock
Blue/Black/Red: Speed Control (Blue is signal)

If your throttle doesn’t have Electric Lock, then please just shortcircuit controller electric lock wires as follow photo
6) Wires connection for Controller and PAS:

7) Wires connection for Controller and Speed Sensor:

8) Cruise Function:
Blue/Black Connector: Connected together to activate cruise function (when you keep one speed several seconds, will activate cruise function, then any operation will deactivate it)

9) eBike Light Control:
Black/Yellow (Black Connector): 36V or 48V Light Control (by LCD Control Panel)
Black/Yellow (White Connector): 36V or 48V Light Control (by separate switch)
Part Ten: Operation Manual of LCD Control Panel

Please kindly see the LCD Manual we sent you

3) Checking List

Checking list: (Turn off the battery)
1) Wheel is secured in place.
2) Back wheel is vertically aligned with front wheel.
3) Wheel has no loose parts.
4) All components on the handlebar have been secured tightly.
5) The position for throttles and brake levers etc. is comfortable.
6) The steering bar can rotate freely.
7) The brakes work properly.
8) **Make sure that the battery poles are correctly connected.**

If there are no problems, turn on the battery and go for a test riding.
Congratulations!

You have completed your own DIY eBike!!!

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