PRODUCT - MD 250 POWERTRAIN (36V, 250W)
REPORT - SYSTEM INSTALLATION PROCEDURE
MOUNTING TYPE - BOTTOM BRACKET(68mm)

PRODUCT OVERVIEW:

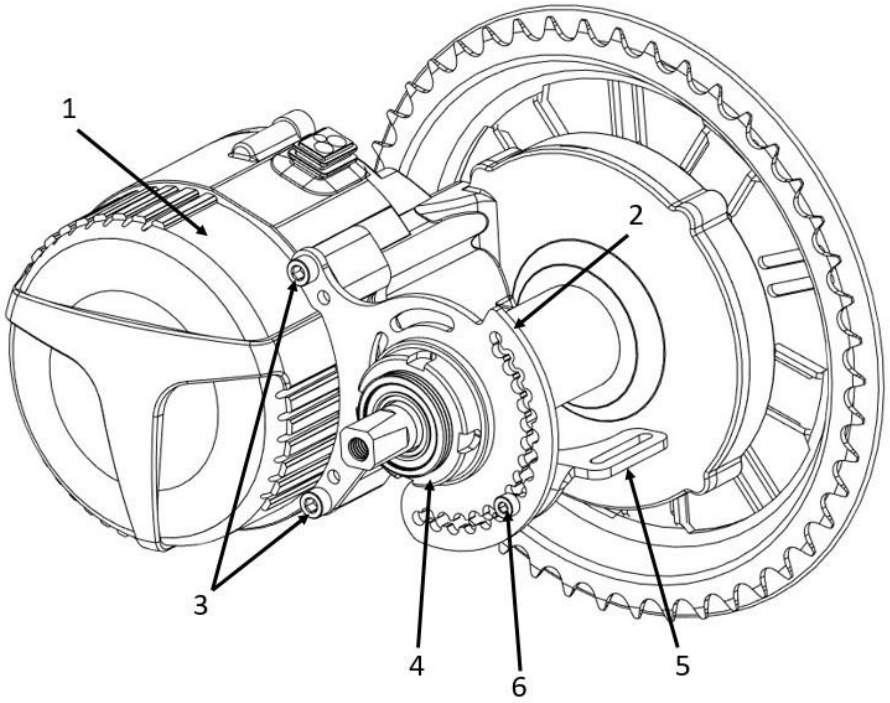


Fig 1

Fig 1 shows the overall outlook of the product.

Assembly Steps:

Refer, the below mentioned components list and steps for proper assembly,

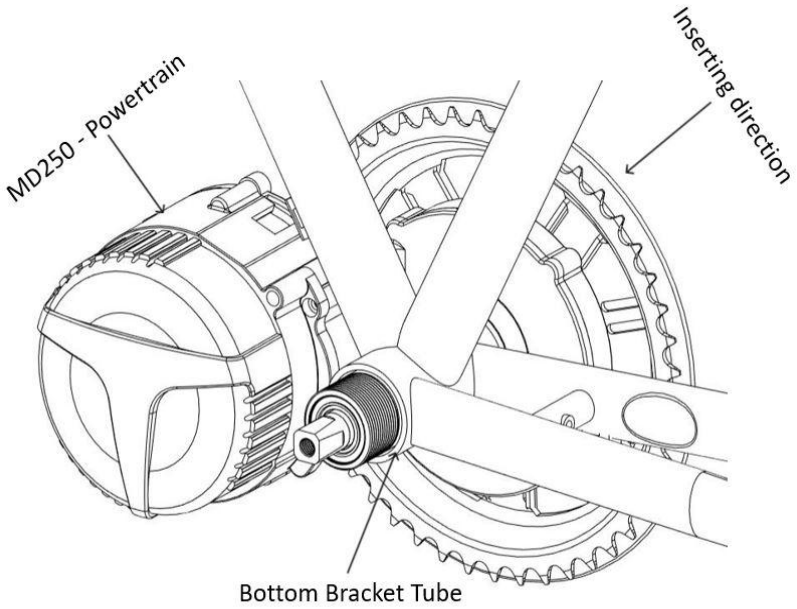
List of components to be assembled with the powertrain:

1. MD250 - Powertrain
2. Clamp adapter
3. M5 screws
4. Locknut
5. L-Stopper clamp
6. M4 screw, washers and nut (1 pair).

List of tools to be used:

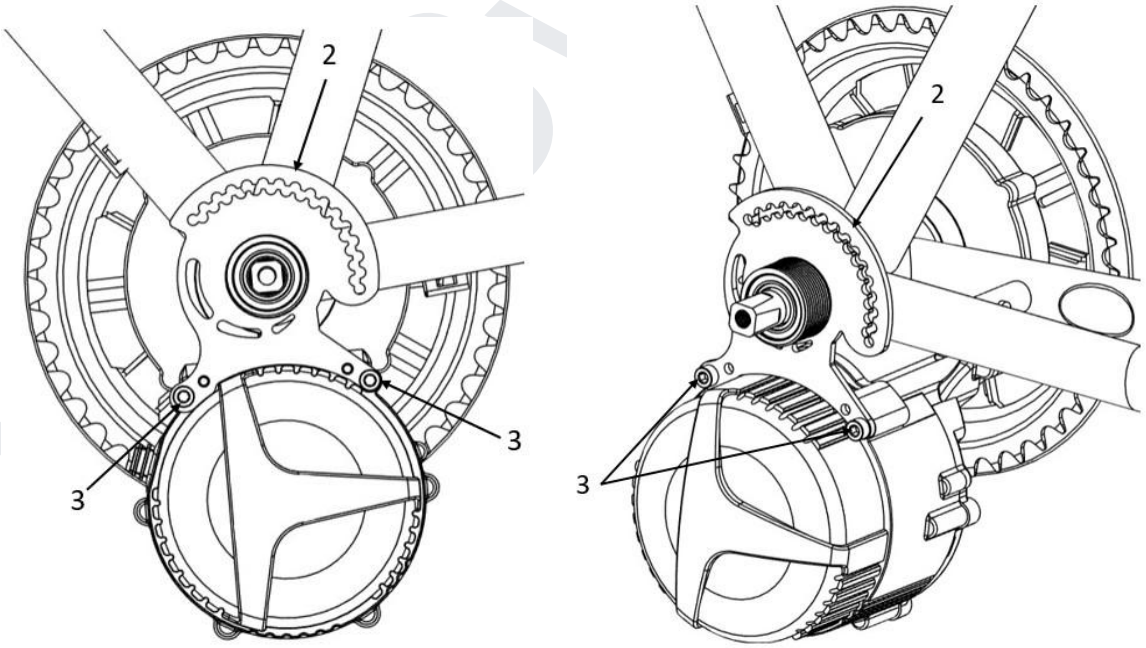
1. Lock nut tightening tool
2. Internal Hexagonal wrench / Allen key
3. Nose plier / Spanner.

Step 1:



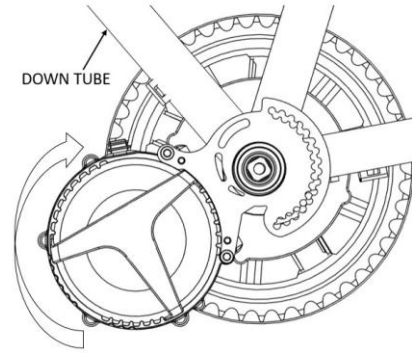
1. Gently insert the powertrain into the frame's bottom bracket tube from rider's right to left, as shown.

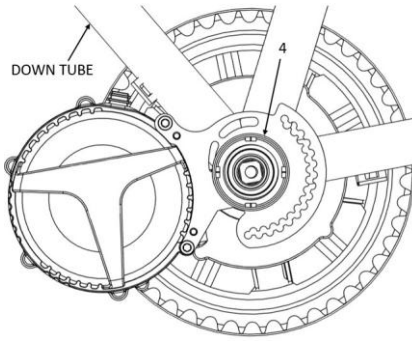
Step 2:

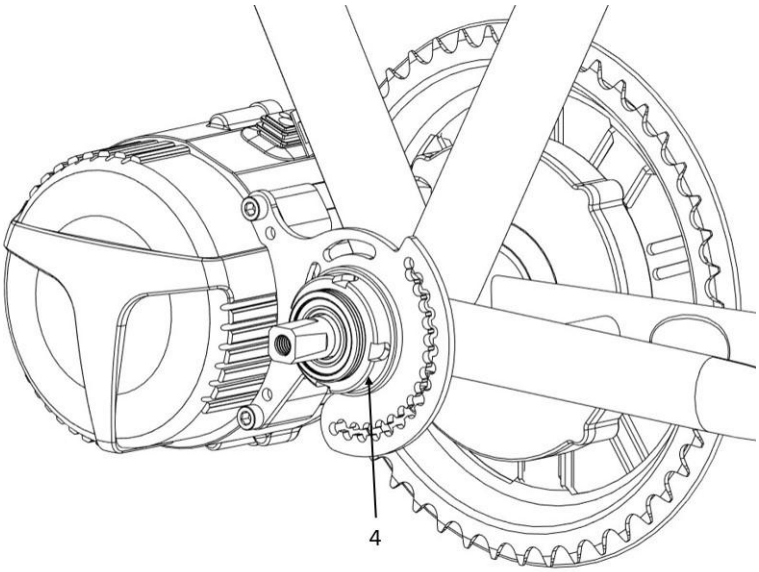


1. After inserting the 'MD250 - Powertrain' into the bottom bracket tube, insert the clamp adapter from rider's left to right over the locking thread.
2. Now partially fasten the M5 screws over the clearance holes on the top & bottom or right & left of the clamp adapter.

Step 3:

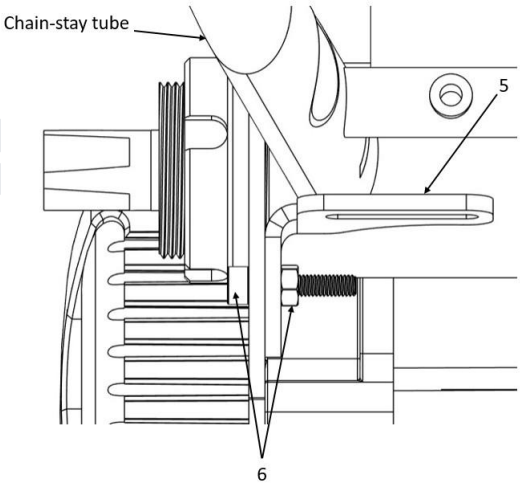


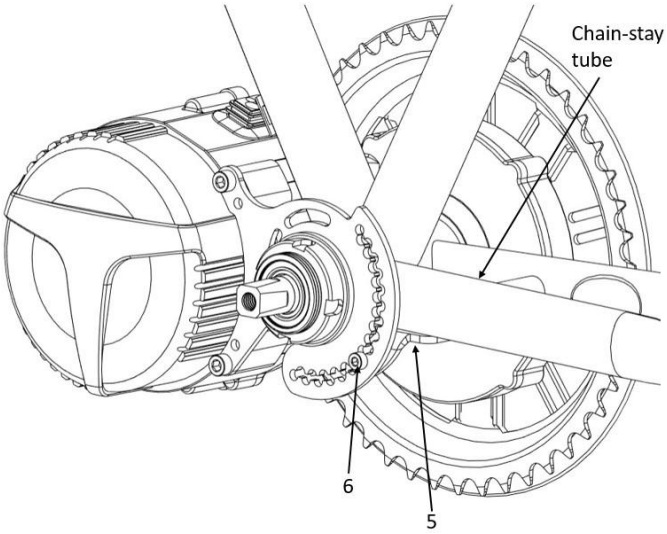




1. After tightening the clamp adapter with the powertrain, position it closely against the downtube without any gap.
2. Insert the locknut over the M33 thread and tighten it until it butts against the clamp adapter. Then use the locknut tool to tighten it to 50 Nm of torque.
3. Tighten the partially fastened M5 screws to maximum hand tight.

Step 4:





1. Position the L-stopper clamp closely to the left side chain-stay tube and align the slot holes with the clamp adapter slot holes (any one hole will match). Then, use the M4 fasteners to tighten the clamps.

Do’s & Don’ts:

Do's:

- Follow Sequence: Assemble the components in the order specified in the instructions to ensure proper alignment and functionality.
- Use Proper Tools: Use the appropriate tools recommended by the manufacturer to avoid damaging components and ensure secure assembly.
- Check for Compatibility: Ensure that all components are compatible with each other and with the frame to prevent issues during assembly or operation.
- Tighten Securely: Tighten all bolts and nuts securely according to the recommended torque specifications to prevent loosening during use.
- Test Functionality: After assembly, test the functionality of the powertrain to ensure it operates smoothly and without any abnormal noises or vibrations.

Don'ts:

- Over-tighten Bolts: Avoid over-tightening bolts and nuts as it can lead to damage or deformation of components, affecting performance and safety.
- Force Components: Do not force / hammer components into place. If something doesn't fit properly, double-check the assembly instructions and make sure you are using the correct parts.
- Neglect Maintenance: Once assembled, do not neglect regular maintenance of the powertrain, including cleaning, lubrication, and inspection for wear and tear.

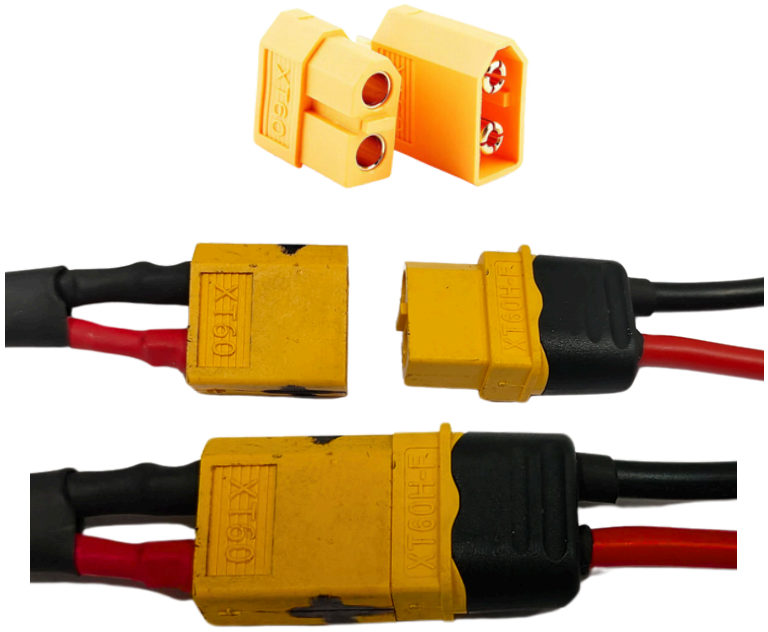
INSTALLATION MANUAL - MD250 POWERTRAIN

INSTALLATION STEPS - BATTERY CABLE

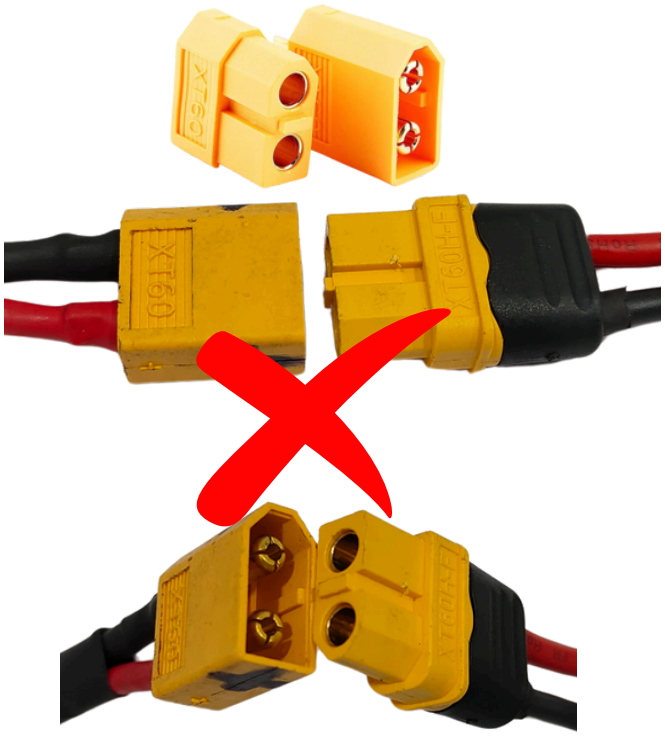
TAV SYSTEMS

DO'S

DON'TS



Match the shape of the male and female connector



Shape mismatch will lead to Motor failure.

SCAN ME FOR VIDEO ASSISTANCE

Match the Arrows

Arrow mismatch will lead to Motor failure.

These Installation errors will not be covered under warranty

INSTALLATION STEPS - MOTOR INSTALLATION

TAV SYSTEMS

DO'S

DON'TS

If you see any screws inside the BB Shell, kindly remove before the installation. Then the motor can easily slides into the BB shell.

Remove the screw inside the BB shell. Otherwise, the motor will hit in the screw.

Gently Slide the motor till it touches the BB Shell

SCAN ME FOR VIDEO ASSISTANCE

Strictly avoid hitting by the hammer or other tools. This will cause the motor failure.

These Installation errors will not be covered under warranty

LED DISPLAY – USER GUIDE

PRODUCT - LED INSTRUMENT CLUSTER
REPORT - USER GUIDE

PRODUCT OVERVIEW:

The above picture shows the front view of the product.

Functional Summary:

Display provides a wide range of functions and indicators. The indicated contents are as following.

1. Battery Indicator
2. Pedal Assist System (PAS)
3. Walk Assist
4. Headlight On/Off
5. Error Indication

Button Definition:

Display has three buttons. They are M + − . In the following introduction, M is named as **"MODE".** + is named as **"UP"** and − is named as **"DOWN".**

Operation Cautions:

Be care of the safety use. Don't attempt to release the connector when battery is on power.

Try to avoid hitting.

Don't split the waterproof sticker to avoid affecting the waterproof performance.

Don't modify system parameters to avoid parameters disorder.

Make the display repaired when error code appears.

Installation Instructions:

Fix the display onto the handlebar and adjust to an appropriate visual angle. Tighten all the connectors.

Power On/Off:

Hold the **Mode button for 2 seconds** to turn on/off the display.

When parking e-bike for more than 5 minutes, the display shut down automatically.

Battery Indicator:

The 5 LEDs represent the capacity of the battery. Each LED can represent the level of the battery percentage. Please refer the below picture representation to find the status of the battery. When the battery is in low voltage, first LED will blink to notice that the battery needs to be recharged immediately.

Battery Level 5,
Charge – 100%

Battery Level 4,
Charge – 80%

Battery Level 3,
Charge – 60%

Battery Level 2,
Charge – 40%

Battery Level 1,
Charge – 20%

Battery Level 0,
No Charge, LED Blinking

PAS Level Selection:

Press **UP** or **DOWN** to change the Pedal assist modes. The power ranges from level 1 to level 5. Level 1 is the minimum power. Level 5 is the maximum power. The default value is level 1. Each PAS level can represent by unique colour code. They are representing below.

Level 0 – white

Level 1 – Green

Level 2 – Orange

Level 3 – Blue

Level 4 – Pink

Level 5 – Red

Walk Assist:

Hold **DOWN** for 2 seconds to enter the mode of power assistant walk. The e-bike will go on at a uniform speed of **5 Km/h.**

"Walk Assist" function can only be used as pushing the e-bike by hands. Please don't use this function when riding.

Turn On/Off Headlight:

Hold **UP** button for 2 seconds to turn on the headlight, Simultaneously the brightness of the LED will decrease. Hold **UP** button for 2 seconds again, headlight will turn off.

When Headlight is Off

When Headlight is On

Error Pattern Information:

If there is something wrong with the electronic control system, the error pattern will appear automatically. Here is the detail information of the error code is attached on below.

Motor Controller's Connection Failure

Over Current Error

Throttle Error

Hall Sensor Failure

Thermal Error

DZ41 DISPLAY – USER GUIDE

PRODUCT - DZ41 INSTRUMENT CLUSTER
REPORT - USER GUIDE

PRODUCT OVERVIEW:

The above picture shows the front view of the product.

Functional Summary:

1. Four keys, easy to operate
2. Metric/Imperial switching selection
3. Mileage display: subtotal mileage (TRIP), total mileage (ODO)
4. Display: real-time SPEED (speed), MAXimum speed (max) and average speed (AVG)
5. Pedal Assist control: 1-5 Mode and No-PAS support on 0 Mode
6. Level 6 power indicator: 1-5 power levels, and under-voltage prompt.
7. Headlight indication: Headlight switch status indication
8. 5km/h boost implementation function for Walk Assist
9. Fault code indication

Operation Cautions:

Be care of the safety use. Don't attempt to release the connector when battery is on power.

Try to avoid hitting.

Don't split the waterproof sticker to avoid affecting the waterproof performance.

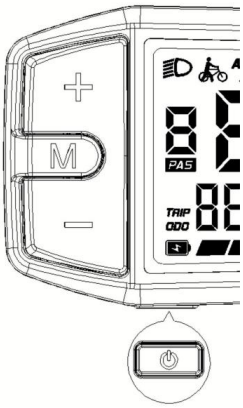
Don't modify system parameters to avoid parameters disorder.

Make the display repaired when error code appears.

Installation Instructions:

Fix the display onto the handlebar and adjust to an appropriate visual angle. Tighten all the connectors.

Button Definition:



Display has four buttons. They are     . In the following introduction,  is names as **"POWER",** is  named as **"MODE",** is  named as **"UP"** and is  named as **"DOWN".**

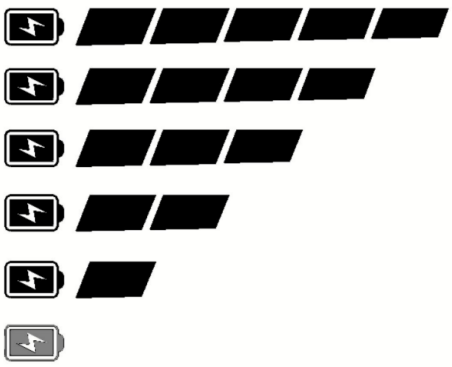
Power On/Off:

Hold the  **Power button for 2 seconds** to turn on/off the display.

When parking e-bike for more than 5 minutes, the display shut down automatically.

Battery Indicator:

When the battery charge is normal, the 5-segment LED of the battery displays the charge according to the time and the outer frame lights up. When the battery runs out of power, the 5-segment LED of the battery completely goes out and the battery logo flashes, so it needs to be charged immediately. The battery charge is shown in the following figure:

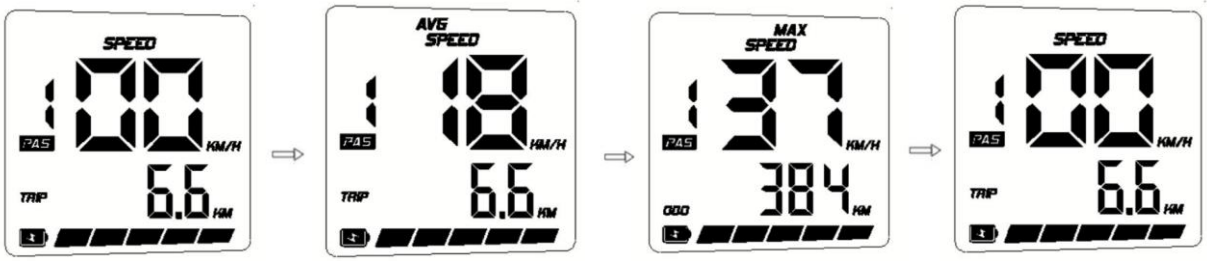


Battery charge (C) displays the corresponding table (the charge indication can be adjusted according to the demand).

Serial number	On the display (SOC)	Display on the meter	Battery voltage (36V)
One	C≤5%	Battery outer frame flashing	U≤33
Two	5%<C<15%	One-grid quantity	33<U<34.7
Three	15%≤C<35%	Two-grid quantity	34.7≤U<35.8
Four	35%≤C<55%	Three-grid quantity	35.8≤U<36.7
Five	55%≤C<75%	Four-grid power	36.7≤U<38.5
Six	C≥75%	Five grid quantity	U≥38.5

Display Information Switching:

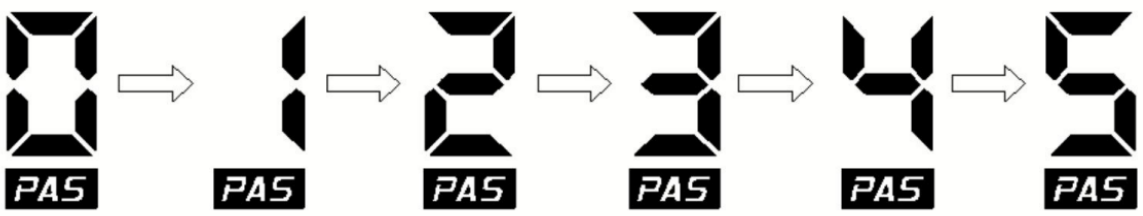
Short press in the boot state. You can switch the display information of subtotal mileage, average speed, MAXimum speed and total mileage, and display it circularly: current speed/subtotal mileage (TRIP)- > average speed (AVG), total mileage (ODO)- > maximum riding speed(max), subtotal mileage (TRIP)- > current speed/subtotal mileage (TRIP). The mode switching interface is as follows:



Speed and Trip meter | Average Speed | Max Speed | Home Screen

PAS Level Selection:

Press + or − to switch the power-assisted gear and change the power-assisted mode. (Default)There are six modes: 0/1/2/3/4/5. (Number of gears that can be opened) When the display is turned on, the default gear is 0, and when it is displayed, it is no power-assisted gear. (The power gear selection interface is shown below)



Walk Assist:

Hold **DOWN** for 2 seconds to enter the mode of power assistant walk. The e-bike will go on at a uniform speed of **5 Km/h.**

"Walk Assist" function can only be used as pushing the e-bike by hands. Please don't use this function when riding.

Turn On/Off Headlight:

Hold **UP** button for 2 seconds to turn on the headlight, Simultaneously the brightness of the LED will decrease. Hold **UP** button for 2 seconds again, headlight will turn off.

Error Pattern Information:

If there is something wrong with the electronic control system, the error pattern will appear automatically. Here is the detailed information of the error code is attached on below.

Error Code	Error Information
Error 30	Display - MCU disconnection
Error 24	Hall sensor failure
Error 22	Throttle failure information
Error 25	Thermal Error
Error 21	Phase current abnormal