



# **ONTIME**

**DEFENDER  
EBIKE**

**USER MANUAL**

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## **⚠️ WARNING**

Read, understand, and follow all of the instructions and safety precautions in this manual and on all product labels. Failure to follow the safety precautions could result in serious injury or death.

# 1. INTRODUCTION

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## WELCOME TO THE ONTIME FAMILY

Thank you for choosing an ONTIME Electric Bike. As a leader in electric bike design and distribution in United State, we are passionate about our customers riding their bikes more and driving their cars less. We are focused on ensuring that you have a safe and enjoyable riding experience for years to come. At ONTIME, we are committed to developing sustainable zero emission mobility systems and work hard to maintain the satisfaction of our customers. Please stay connected and share anything that can help us improve our products and service.

### 1.1. USE OF MANUAL

For safe and enjoyable operation and installation of all ONTIME Drive Systems products please carefully read and follow the recommendations outlined in this manual. It is critical that you clearly understand all general operations of various parts of your ebike.

Please pay extra attention to any information marked with a caution or warning symbol:

**⚠️ WARNING**

**⚠️ CAUTION**

## 2. SERVICE & TECHNICAL SUPPORT

Please contact us regarding any technical issues that you encounter, we are here to help. Give us a call, visit our help centre at [www.ontimebike.com](http://www.ontimebike.com), or refer to the tutorial videos on our website. This manual is not intended to be an extensive service guide. If you are in need of in-depth immediate service contact your local bike shop.

## 3. ILLUSTRATIONS

The illustrations in this manual may not be perfect representations of your ebike, and some of the components may differ. The models illustrated are for instructional purposes only.

## 2. SAFETY & GENERAL TIPS

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### 1. STREET LEGALITY

- Electric bikes or conversion kits considered street legal under Canadian and US Federal Electric Bike Regulations are viewed as bicycles, not motorized vehicles and do not require an insurance license plate or driver's license. It is important to check your province/state, county, and local laws to ensure that your ebike complies with local regulation provisions
- ONTIME ebikes general settings comply with 28mph max assisted speed, 750W max mechanical power, equipped with brake cut-off switches and options to control assist power while riding. These provisions suffice all United State federal and provincial regulations. Parks and other privately managed properties might have different rules. ONTIME ebikes are considered ebike Class III in the US
- Please note street legal does not mean cyclists can ride an electric bike or trike on bicycle pathways and trails that restrict the use of electric assist bikes
- There may be components such as throttle that have a different legal definition depending on the province/state you are located in. Because of this we have provided controller settings that can adapt to a variety of specifications
- By modifying an electric bike or conversion kit's settings, upgrading a component's capacity, such as the controller or motor, the product may lose its street legality even if modifications are done by a professional. If at any point ONTIME Drive Systems is asked to implement upgrades, we will notify you if the modifications exceed street legal limits
- ONTIME is not liable for the legality of use of products in various locations

### CAUTION

**Your insurance policy may not provide coverage for accidents related to the use of an ebike. Make sure to contact your insurance company to know about your coverage.**

## 2.2. RULES OF THE ROAD

### **WARNING**

**Failure to follow recommendations outlined in this section may cause damage to property, injury, or even death.**

- Always obey all the traffic rules, regulations, signs, and signals
- Always wear a bicycle helmet that meets or exceeds safety standards
- Ride in a single file on the right side of the road
- Avoid drain grates, soft road edges, gravel, sand, potholes, and uneven paving
- When crossing the railroad track, pay extra attention as you may lose control
- Avoid unsafe actions when riding the ebike
- Do not carry a payload that shifts your balance, hinder your vision, or affect your hearing
- Always have both of your hands on the handlebar
- Do not tow or push the product
- Replace broken parts immediately
- If any ebike component is not functioning properly, end the ride immediately

## 2.3. BEFORE YOUR FIRST RIDE

- If you have an impairment or disability such as visual impairment, hearing impairment, physical impairment, cognitive impairment, and/or a seizure disorder, consult your physician before riding any ONTIME Drive Systems product
- Before going on your first ebike adventure, take time to get familiar with your ebike
- Make sure everything on the bike is secured and tight, the battery is locked, and there is no play in any screws or bearings
- Check if you are able to turn the handlebar while the wheel is held in place
- Check if the handle bar is secured to the stem by trying to twist the bars forward and backward
- Ride around a quiet area at the lowest PAS (Pedal Assist TFT) setting, get familiar with your brakes and settings
- Be sure to bed in the brakes. Failure to do so will result in lower than optimum braking performance and can lead to squealing

## 2.4. BATTERY & CHARGER SAFETY

- Please keep the battery away from excessive heat and moisture, do not spray with high pressure water, and do not store outdoors in freezing temperatures below 0°C
- Always store your battery in a well ventilated, cool, dry room at room temperature
- Keep away from children and pets
- If you notice any SMOKING OR SPARKING while charging immediately disconnect the battery
- Disconnect the battery from the charger once the charger light is green. And disconnect the charger from the wall plug
- Always fully charge the battery before storage and continue to check up on and charge every 2 months. Failure to do so can result in a loss of capacity to the battery and may even permanently damage the battery cells, which will void the warranty
- Always unplug the charger when not in use
- Take care of the pins. Always be gentle when pulling the charging pin out. Rough use of the pins can cause irreversible damage to the pins and battery
- Always use the charger provided by ONTIME for the battery
- Make sure you always seal the USB port when not in use (If USB port is applicable)
- Port is only designed for charging low voltage electronics.
- Always unplug the charger when not in use
- To minimize chances of sparking, first gently plug the charger into the battery and then plug the charger into the wall
- The charger may get hot while charging. Make sure charger's surrounding is open for natural heat dissipation

### **WARNING**

**NEVER** disassemble the battery, there is significant risk of shock and damage to the battery. Doing so will also void the warranty. **DO NOT** puncture or crush the battery, or expose to server vibrations and impacts.

## **⚠️ WARNING**

Do not puncture or crush the battery. Do not expose the battery to severe vibrations or impacts. Failure to properly use, charge, and store your battery as instructed will void the warranty and could cause a hazardous situation.

## **⚠️ CAUTION**

Do not use the ONTIME battery charger for any purpose other than charging your ebike. Do not use the ONTIME battery as a power source for any other devices than your ONTIME ebike. If you do so the warranty will not be applicable, and ONTIME Drive Systems will not be liable for any damage to the system or in ury to the persons.

### **2.5. FIRST CHARGE**

- When you first receive your battery it will have about 50-70% of charge
- Before your first ride, charge your battery up to 7-9hrs, but no longer than that
- This may require you to leave the battery in charge even when the charger light is green. Doing so ensures that each cell is charged to its full capacity
- The full voltage of the battery pack should be slightly under 42V, and can be checked in the TFT display

## **⚠️ WARNING**

Do not drop the battery. Damaged batteries can cause fire and may explode which can lead to damaged property, injury or even death.



## 2.6. CHARGING YOUR BATTERY

- Never store the battery in a discharged state. After every ride, charge the battery as soon as it has reached room temperature. This is to ensure battery health
- When it comes to charging the battery, there are two options you can either charge the battery while it is on the bike, or you may take it with you and charge it in your home or office
- For safety, always turn off your battery before charging
- If you choose to take the battery with you to charge, there is a charging port near the battery's bottom
- Always charge the battery in a well ventilated, cool room. Do not leave the battery unattended for an extended period
- You can check the charge of the battery by pressing and holding the power button
- If all the lights are green, you can be assured that the battery is charged above 75% (this function is only activated when the battery is switched on)

### IMPORTANT NOTE:

As your battery ages, it will gradually lose capacity. With proper care and maintenance, your lithium ion battery will retain up to 70% of its capacity for about 500 full discharge/recharge cycles. As capacity diminishes, you will notice a gradual drop off in max range capability. When range falls to an unacceptable level, contact your local ONTIME dealer to purchase a new battery.

## CAUTION

Please make sure you are gentle anytime you are inserting or removing the port's charging cable. Failure to do so can result in damaged pins and poor connections.

## 2.7. BATTERY TRANSPORT

- Lithium-ion batteries are subject to many regulations and are often considered dangerous or hazardous materials by carriers. Be sure to check for relevant laws and ask the carrier for approval prior to shipping a Lithium-ion battery or transporting it by air

## 2.8. BATTERY DISPOSAL

- Be a friend to the environment. Recycle your old batteries at a local battery recycle centre
- Batteries should never be thrown in the garbage
- Contact ONTIME for more information about how to recycle your batteries

### **WARNING**

**Disposing of Lithium-Ion batteries incorrectly can allow moisture and oxygen to enter the battery. This can lead to the oxidation of lithium components and which can cause a heat reaction that may include fire or explosion. In addition overcharging, overheating, shock from dropping, or crushing can lead to a heat reaction. Batteries must always be recycled. They should not be thrown in the garbage.**

## 2.9. LOCAL REGULATIONS

Generally, the regulations for ebikes throughout North America follow the same guidelines; however, there may be local differences such as where you can ride, minimum rider age, or required equipment and registration. Please follow the specific regulations for the use of an electric bicycle in your local municipality. It is the rider's responsibility to know the local regulations that apply to an electric bicycle and to obey them.

## 2.10. GENERAL RIDING TIPS

### **⚠️ WARNING**

Read, understand, and follow all of the instructions and safety precautions in this manual. Electric Bikes can be dangerous to use. The user or consumer assumes all risk of personal injuries, damage, or failure of the bicycle or system and all other losses or damages to themselves and others and to any property, arising out of or as a result of using the bicycle. As with all mechanical components, your bicycle is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of coloring in highly stressed areas indicate the life of the component has been reached and should be replaced.

### **⚠️ WARNING**

The pedal assist is activated as soon as you spin the pedals or stimulate the throttle, make sure you are firmly seated on the bike and have at least one brake engaged prior to engaging the motor. Failure to do so may result in injury or even death.

### **⚠️ WARNING**

Electric bikes, like any other vehicle, require regular maintenance by mechanically inclined persons to guarantee safety of use. Screws and nuts are subject to become loose due to road vibration, especially within the first few kilometers of use. Make sure you inspect your bike often and have it serviced by a professional regularly.

### **⚠️ WARNING**

Failure to wear a helmet and other recommended safety gear when riding an ebike can lead to serious injury or death.

- Always ride at a speed that's appropriate for the conditions. Higher speed means higher risk
- Ensure brakes and motor cut off switch are working prior to every ride
- Ensure nothing is loose (ie bolts, battery, wheels, pedals, and handlebar) and everything is secured on the bike prior to every ride
- Always keep both hands on the handlebars and both feet on the pedals
- Do not operate if you are sleepy, sedated or while under the influence of drugs and/or alcohol
- If motor speed is noticeably dropping while climbing a hill, assist the motor by pedaling
- Do not pedal around a corner as you may gain too much speed and lose control
- Always keep the brakes covered, and be prepared to stop in case of emergency
- Apply both brakes simultaneously and smoothly
- Make sure you clearly understand that it is very difficult for any vehicle to notice your presence, ALWAYS assume that you cannot be seen and dress in bright colours, reflective gear and use bright lights
- Ebikes are silent and move faster than people and traffic expect them to. Ensure those around you are aware you are approaching by ringing your bell and verbally address pedestrians when passing by, or when riding in areas where wildlife are located
- Wet weather impairs traction, braking and visibility, both for the cyclist and for other vehicles sharing the road. The risk of an accident is dramatically increased in wet conditions
- Reflectors are not a substitute for required lights. Riding at dawn, at dusk, at night or at other times of poor visibility without adequate bicycle lighting systems and without reflectors is dangerous and may result in serious injury
- Ensure your wheels are TRUED before each ride. Spin each wheel and check for brake clearance and side to side wobble. If a wheel wobbles side to side even slightly or rubs against or hits the brake pads, take the bike to a qualified bike shop to have the wheel trued
- Never ride with headphones. They mask traffic sounds and emergency vehicles sirens, distract you from concentrating on what is going on around you. Headphone wires can tangle in the moving parts of the bicycle, causing you to lose control
- Wear proper attire, including bright clothing, protective glasses, and sturdy shoes. Never wear a loose-fitting dress or long dress when riding as it can get caught in the moving parts of the bike and cause serious injury or even death
- Always wear an approved helmet and ensure it fits according to the manufacturers' instructions. Ensure your helmet meets the latest certification standards and is appropriate for the type of riding you do and if there are any special requirements for riding an electric bike

- At temperatures below -10 C the motor grease might be too stiff for sudden throttle, high speed and high-power rides. Give the motor some low speed and low power spins and warm up the gears before going full power
- Avoid changing gears very rapidly from first gear to the last gear, or vice versa. If you change multiple gears too quickly, the chain may come off the front sprocket
- Never pedal backwards while shifting, this could jam the chain and cause serious damage
- Never shift gears under heavy loads, this may break the chain. You must only apply just enough force so that the gear can shift

## **2. 1 1. BIKE FIT**

- It is important to ensure your ebike is a suitable size for you. Not only for your safety but also for your comfort. Incorrect sizing, seat height, and reach can lead to various ailments, such as knee pain, back pain, and groin pain. We recommend seeking professional help when choosing and setting up the right bike for yourself
- This is a general sizing chart that you can use to know what sizes are suitable for you

### **2. 1 1 . 1. ONTIME DEFENDER**

- Standover Height is the basic element of bike fit; it is the distance from the ground to the top of the bicycle frame, or the level your pelvic area reaches when straddling the bike
- Your bike should have a minimum standover height clearance of two inches (5cm)
- To check for correct standover height, straddle the bike while wearing the shoes you plan to wear while riding, and bounce vigorously on your heels. If your pelvic area touches the frame, the bike is too big for you and is therefore unsafe to ride

## **2. 12. SAFE OPERATING CONDITIONS**

### **CARRYING CARGO**

- Always ensure that any luggage or child seat is securely attached to the bike and there are no loose cables. Carrying a load requires getting accustomed to. Practice maneuvering and braking on a flat, hazard and traffic free street with and without a load before going out into the road. Carrying a seated passenger or heavy load involves risks, foremost of which can be decreased braking power and increased stopping distance. The maximum weight capacity is 286lb shared between the rider and cargo

### **WEIGHT CAPACITY**

- ONTIME DEFENDER eBike is designed with a maximum weight capacity of 270LB. Exceeding the maximum weight capacity can result in damage to the bike, which can lead to serious injury or death

### **UNSAFE USE**

- This bike is not designed for any purpose other than commuting and cruising in a relaxed, safe manner. Do not use this bike to jump over curbs, or ride on technical mountain/off-road trails

# 3. PRODUCT DESCRIPTION

## 3.1. DEFENDER COMPONENTS



1	Rear Breaks	16	Rear Derailleurs
2	Front Breaks	17	Kick Stand
3	LED Head Lamp	18	Rear LED Brake Light (*Option)
4	Front Forks	19	Leather Seat
5	Front Wheel		
6	Spokes		
7	Brake cables, shifter cables and electric wires		
8	Disc Brake Caliper		
9	TFT Color Display		
10	Battery Release Key Fob		
11	Battery Pack		
12	Pedal		
13	Crank Arm		
14	Chain		
15	Rear Wheel		

## 3. 2. ONTIME DEFENDER SPECIFICATIONS

**Model:** ONTIME DEFENDER

**Frame:** 6061 Aluminum Alloy

**Fork:** 6061 Aluminum Alloy

**Rear derailleur:** 8 Speed

**Brake Set:** Mechanical Disc Brakes, 10mm

**Crankset:** 170MM w/38T

**Set:** 1/2"×38T×170mm×9/16", alloy crank with single chain ring cover, PROWHEEL PRO-748P BB sets: sealed B.B sets, B908

**Pedal:** Alloy Platform, 9/16"

**Chain:** 8 speed

**Tire:** 27.5" X 2.8" Ebike rated

**Rim:** Aluminum Alloy 36h Front and Rear

**Speed:** Up to 20MPH on Pedal Assist

**Saddle** Padded with Black PU

**Shift Lever** 8 Speed Trigger

**Rear Light** battery light RL13

**Spokes** Black Stainless 13 Gauge

**Motor** 2 8 0 W brush hub motor,

**Battery** Lithium-ion 36V, 7.8Ah (280wh)

**Hubs** 36H Disc Nutted Rear

**Sensor** Speed Sensor

**Display** TFT Smart Easy Read Display with Backlight, Colorful Screen

**Stem** E: 75MM, H:40MM

**Seat Post** Aluminum Alloy, 27.2mm X 350mm

**Weight** 74LB Gross Weight With Front and Rear Fender and Rear Rack

**Seat Clamp** Quick Release



# 4. ASSEMBLY INSTRUCTIONS

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## 4. 1. GENERAL REQUIREMENTS

Products listed in your order need to be installed professionally, as they require fine-tuning and adjustment after installation. It is highly recommended to get help from an experienced mechanic, refer to your local dealers, or book an appointment with us for an Installation session. If you choose to do it yourself, with your own responsibility, please make sure you refer to our available online guides as this is a safety concern.

### CAUTION

Some Bicycle accessories may present a choking hazard and other hazards to small children. Keep any bike parts accessories, tools away from small children.

## 4. 2. UNBOXING

- Open the box from the top side
- Please be careful when pulling the frame out, it is the heaviest part of the bike, and the handlebar is attached. You must be careful to protect the cables from getting tangled
- Two people are recommended for the unboxing procedure

## 4. 3. UNPACKING

- Cut all the zip ties and separate the wheel
- Do not damage the battery as it is mounted on the bike frame
- Remove all packaging wrap

### CAUTION

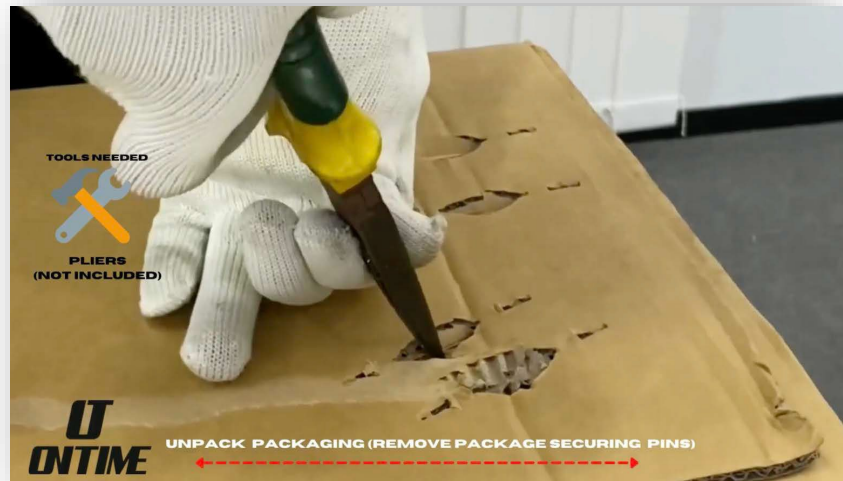
While cutting zip ties be careful not to scratch or damage your bike, be extra cautious while cutting zip ties around wire connections and cable housings. Do not damage the battery when removing it the frame from the box.

## 4. 4. TOOLS REQUIRED

- Allen key set (included), Wrench (not-included)

# ⚠ CAUTION

While cutting zip ties be careful not to scratch or damage your bike, be extra cautious while cutting zip ties around wire connections and cable housings. Do not damage the battery when removing it the frame from the box.



Remove Package Securing Pins



Remove Packaging - Wraps / Bike / Accessories From Box

## 4.5. INSTALLING HANDLE BAR Use the Hexagon Screw (Found Inside The Hex Key Set)



Loosen the four handle bar mount screws



Place the handlebar onto the handlebar mount

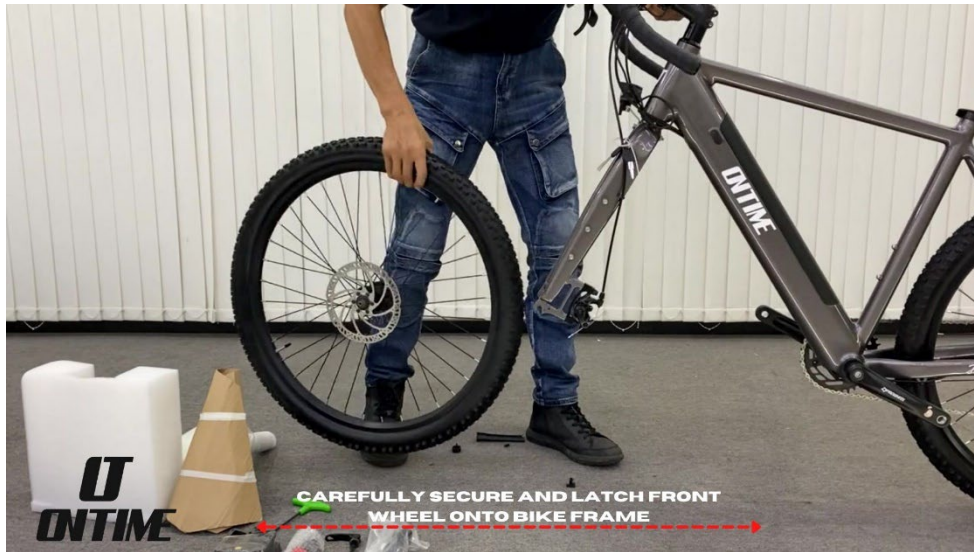


Secure the handlebar mount cover with the four screws



## 4. 6. INSTALLING FRONT WHEEL

Use the Hexagon Screw (Found Inside The Hex Key Set)



Carefully latch the front wheel onto front forks



Secure both side front wheel bolts

## 4.7. INSTALLING BIKE PEDALS Use a Wrench (Not Included)



Prepare bike pedals for installation



Align bike pedals with bike pedal threads



tightening bike pedals [Right Pedal – Clockwise / Left Pedal – Counter-Clockwise]



## 4. 8. INSTALLING BIKE SEAT & ASSEMBLY COMPLETE



Flip the bike over and secure the kick stand



Mount seat cushion



Installation complete

# 5. OPERATING YOUR PRODUCT

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## 5.1. TFT LCD MONITOR OPERATION

### CAUTION

Never sit on your ebike when it is resting on its kickstand. This may cause the ebike to tip over.

### CAUTION

Please make sure you keep the TFT LCD Display in a safe place (in a closed environment) and away from children. The display has a small battery inside, which has to be charged fully. If by accident someone applies throttle, the motor may get activated. ONTIME drives will not be liable for any consequences.

### WARNING

Make sure you are seated on the bike and have both of your hands on the handle before turning on throttle control. Failure to do so may result in loss of control and may cause serious injury or even death.

## 5.2. ACTIVATING SYSTEM LIGHTS

- To turn LCD lights ON and OFF, simply press and hold the UP arrow on the LCD display for about one seconds until you see the front light on

**\*The motor does not work when the battery voltage is low, Display still can keep the headlight on for a while when E-bike is in riding.**

## 5.3. LCD METER PROGRAMMING AND USE

### Product name and model

Name: Intelligent colored LCD display APT TFT500C for E-bike

### Specifications

24V/36V/48V Power Supply Rated working current: 40mA

The maximum working current: 40mA Off-state leakage current: <1μA

Operating temperature: -20°C~ 70°C Storage temperature: -30°C~ 80°C

### Appearance and Size

Display appearance and dimensional drawing (host/L79mm\*W40mm\*H18mm)

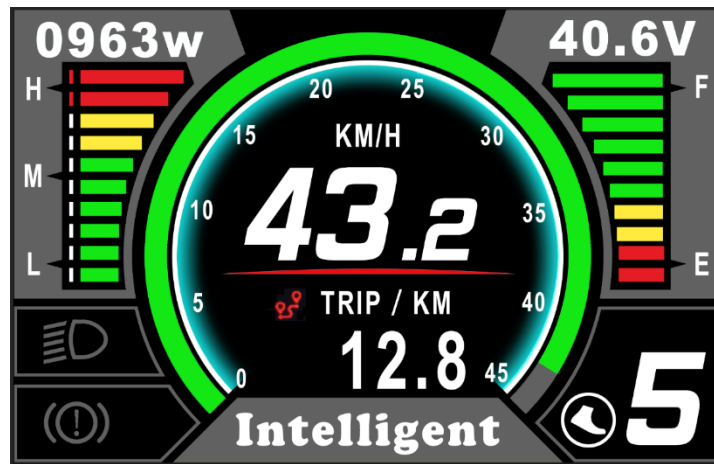


### Features

- ◇ Suitable for low temperature, Max -20°C.
- ◇ High-contrast 2.2inch IPS colorful matrix screen.
- ◇ Ergonomic external button design, easy to operate.
- ◇ **Speed display** : AVG SPEED, MAX SPEED, SPEED(Real-time).
- ◇ **Kilometer / Mile** : Can be set according to customers' habits.
- ◇ **Smart battery indicator** : Provide a reliable battery indicator.
- ◇ **9-level Assist** : 3-level/5-level/9-level optional.
- ◇ **Mileage indicator** : Odometer/Trip distance/Riding time.
- ◇ **Power indicator** : real time power indicator, digital or analog.
- ◇ **Speed limit value indicator**
- ◇ **Error code indicator.**
- ◇ **Software upgraded** : Software can be upgraded through UART.



# TFT SCREEN INSTRUCTIONS



## Functional Description



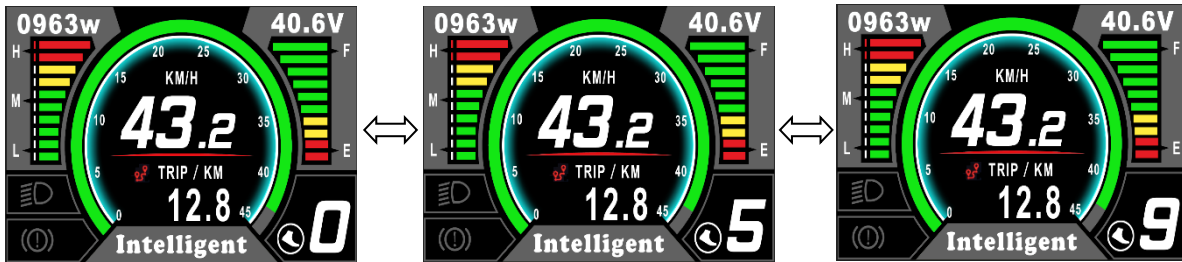
### Power On/Off

Press and hold Power button for 1 second can turn on/off the display. The Display can automatically shut down when there is no operate & ride for X minutes (X could be 0~9) .

**\*If the display has been set password power on, you need to input the right password before start.**

## Assist level operating

Short press UP/DOWN button can change the assist level. Top assist level is 9, 0 for neutral. Level quantities can be adjusted according to the customer requirements.



## Speed & Mileage mode switch

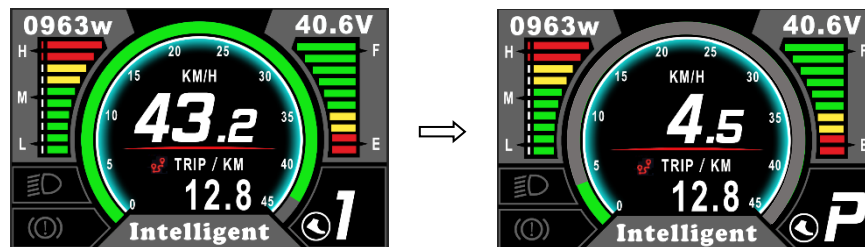
Short press POWER button can change the speed and mileage mode, TRIP→TIME →ODO→AVG SPEED→MAX SPEED.



**\*\*If there is no operation for 5 seconds, display will return Speed (Real-Time) display automatically.**

## Walking mode (6km)

Press and hold DOWN button for 2 second can get into walking mode, out of the mode when release the button.



## Data cleanup

Press and hold UP & DOWN buttons together for 1 second can reset several temporary data, temporary data include **AVG Speed / MAX Speed / Trip / Time**.

**\* These temporary data can't be erased by power off.**

## Parameter setting

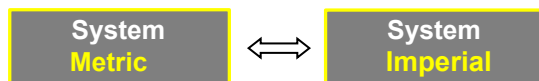
Press M button (press no less than 2second) can get into setting menus, press UP/DOWN buttons to change the parameter setting, press M button can switch to next item. Press M (press no less than 2second) button will exit from menu.

- \* Display will automatically quit menu when there is no operation for 30 seconds.
- \* For safety reasons, display can't get into MENU when riding.
- \* Display will quit MENU when start riding.

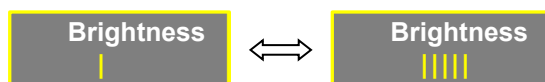
The order of parameters are as follow.

MENU	
System Metric	Brightness 
Auto off 5 min	Battery 36 V
Battery Ind Voltage	More >

**System** : Press Up / Down button to switch between Metric / Imperial.



**Brightness** : Press Up / Down button to change the brightness of the backlight, I is darkness, ||||| is brightness



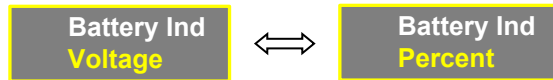
**Auto off** : Press UP/DOWN button to change the auto power off time, from 1 to 9/OFF, the number represent time (minutes) to shutdown, OFF means disable auto off function, default value is 5 minutes.



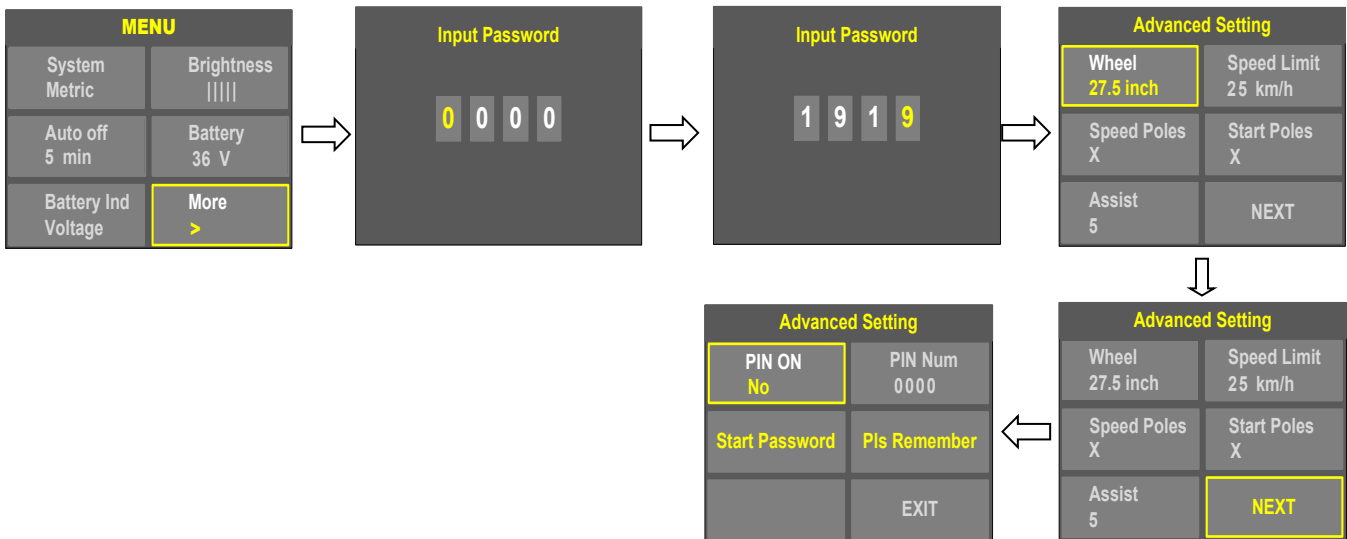
**Battery** : Press UP/DOWN will change battery voltage setting, optional value is 24V/36V/48V.



**Battery Ind** : Press UP/DOWN button to change the battery indicator, Voltage / Percentage / OFF.



**Advance setting** : Press M button can get into the advance setting menu, default password is '1919'.



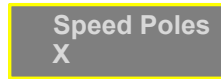
**Wheel** : Press UP/DOWN can change the wheel setting, optional wheel diameter is 12/14/16/18/20/22/24/26/27/27.5/28/29/30/31 inch.



**Speed limit** : Press UP/DOWN will change speed limit, range 10km/h~99km/h. Default value is 25km/h.



**Speed poles** : This item is invalid.



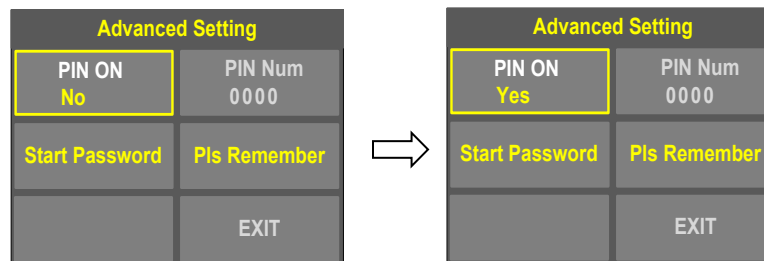
**Start poles** : This item is invalid.



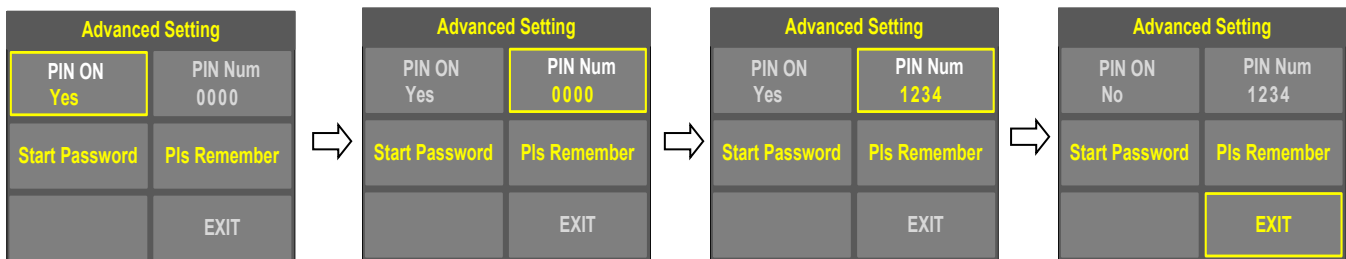
**Assist levels** : This parameter can customize assist levels, options are 3/5/9.



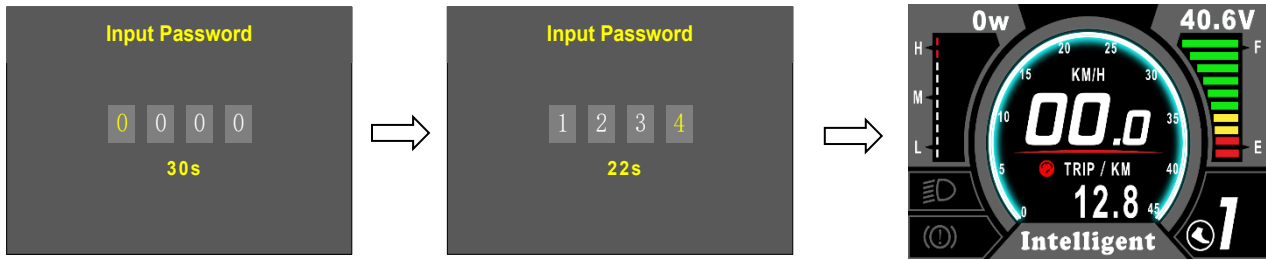
**PIN ON** : This parameter can set Start input, options are No/Yes, If you had set Start input **Yes**, you must input right password before power on, password is accorded to your setting.




**PIN Num** : This parameter can set password number you need.



You need to input the right password before start with 30 seconds, display will power off automatically if the password was wrong.



## Error Code define

500C can show warning message,  icon shows on the screen, and show error code at the bottom of the screen, error code is from 04H~30H, definition see the table below.

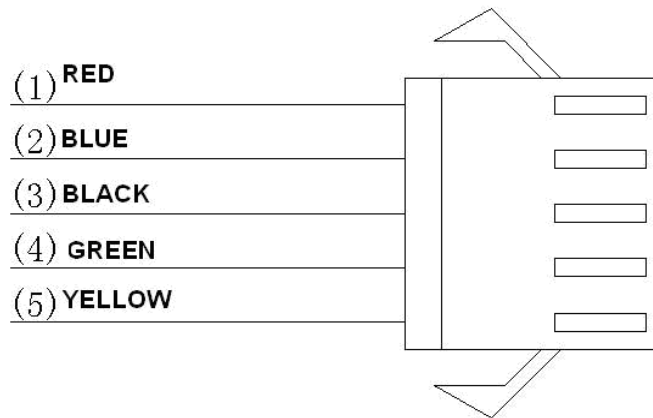
Error Code	Error description	Error display
0x01	Normal	No error
0x03	Brake signal	No error
0x04	Throttle on high position	Display 04H on LOGO position
0x05	Throttle error	Display 05H on LOGO position
0x06	Low voltage protection	Display 06H on LOGO position
0x07	High voltage protection	Display 07H on LOGO position
0x08	Motor's hall sensor error	Display 08H on LOGO position
0x09	Phase line of motor error	Display 09H on LOGO position
0x10	Controller over temperature	Display 10H on LOGO position
0x11	Motor over temperature	Display 11H on LOGO position
0x12	Current sensor error	Display 12H on LOGO position
0x13	Battery's temperature sensor	Display 13H on LOGO position
0x14	Motor's temperature sensor error	Display 14H on LOGO position
0x15	Controller's temperature sensor error	Display 15H on LOGO position
0x21	Speed sensor error	Display 21H on LOGO position
0x22	BMS communication error	Display 22H on LOGO position
0x23	Head light error	Display 23H on LOGO position
0x24	Head light sensor error	Display 24H on LOGO position
0x25	Torque sensor error-Torque	Display 25H on LOGO position
0x26	Torque sensor error-speed	Display 26H on LOGO position
0x30	Communication error	Display 30H on LOGO position

## Assembly instructions



Please pay attention to the screw's torque value, damaged caused by excessive torque is not within the scope of the warranty.

## Connector descriptions



1. Red wire : Anode(24v/36v/48V)
2. Blue wire : Power cord to the controller
3. Black wire : GND
4. Green wire : RxD (controller -> display)
5. Yellow wire : TxD (display -> controller)

# Assist level instructions

Assist level can be customized, the highest level is 9, common used assist level see the table below:

3 level	5 level	9 level	
0	0	0	No power assist
	1	1	
		2	
1	2	3	
		4	
	3	5	
2		6	
	4	7	
		8	
3	5	9	

## Certification

CE / IP65 (water proof) / ROHS.

## WARNINGS

Use the display with caution. Don't attempt to release or link the connector when battery is on.

Try to avoid hitting the display.

Don't modify system parameters to avoid parameter disorder. Make the display repaired when error code appears.



## 5. 10. OPERATING RANGE

Expect a range of about 70 km with medium motor use, flat ground, light wind and for an average weight person.

This can vary greatly and are heavily dependent on these factors:

- Battery age
- Rider and luggage weight
- Road conditions (gravel or smooth)
- Tire condition and PSI
- Wind speed and direction
- Bike usage (heavy acceleration and high speeds will drain the battery faster)
- Road slopes or hills
- Pedaling power and gear selection
- Weather and temperature

## 5. 11. MAXIMIZE YOUR RANGE

- Fully charge your battery before each ride
- Ride in pedal-assist mode as much as you feel comfortable- the more you assist the motor, the longer it will assist you
- Service your bike periodically, ensuring bearings run smoothly and the brakes do not rub the rotors or rims
- Minimize the weight you carry
- Lubricate the chain every few rides, more so if riding in the rain
- Clean the drivetrain as often as you can and at least thoroughly clean it once a month
- Avoid sudden starts and stops
- Minimize use of the throttle
- Check and adjust tire pressure

## PRE-RIDE CHECKLIST

- Check if all the fasteners are tightened and not loose
- Check that brakes are functioning properly and that brake pads are positioned correctly
- Check alignment of handlebar and wheel
- Check tires are inflated with the correct pressure (3-4 bars)
- Check that tires have a good tread and no excessive wear
- Check that wheel spokes are not damaged or loose
- Check that handlebar and stem are aligned
- Check that bearings are lubricated and run freely without any grinding
- Check that pedals are tightened to the cranks
- Check that chain is clean, lubricated, and runs smoothly
- Check that frame is not bent or damaged
- Check that the hub motor is functioning smoothly and in good condition
- Check that battery has enough charging left on it
- Lock the battery and remove the key
- Check seat height
- Check lights and reflectors

## 6. TRANSPORTATION & STORAGE

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### 6. 1. TRANSPORTATION

- Please remove the battery and turn it off before transporting the bike. Batteries are not designed to be on the bike while being transported
- Store the battery in a secure location
- Misuse of vehicle racks could result in a potentially hazardous situation resulting in injury or even death
- Always remove the battery before using a rack

### 6. 2. STORAGE

- Always fully charge the battery before storage
- Always switch the battery off before storage or when not in use
- If you are storing the battery long term, check and charge the battery every 2 months
- Always store the bike somewhere where it is protected from rain, snow, or sunlight
- Store the battery in a cool, well-ventilated room at room temperature
- You may also seal the terminals with tape to protect against any short circuit
- Make sure the charging port is covered

## 7. GENERAL TERMS & WARRANTY

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### 7. 1. WARRANTY

- All products including ebikes and conversion kits, as well as components purchased including motor, controller, display, battery, charger, throttle, PAS sensor, brake sensors are covered by 12 months FREE warranty unless otherwise specified. You can purchase an extended warranty up to 24 months where offered
- Although our warranty is designed to ensure you receive a perfect product at the time of purchase your product will still require maintenance by the user

- Replacement mechanical parts such as chain, brake, tire, gear adjustment or loose screws or connectors are not covered under the warranty. The warranty is for intrinsic parts defects only
- We do not offer bicycle service and tune up as a part of warranty service
- The warranty supports you if you have intrinsically defective parts such as a cracked frame weld seam or controller circuit failure. It does not include labour or delivery
- Delivery of the defective products or parts for repair or replacement to our service shop is the customer's responsibility
- An ebike is a vehicle that functions in real working conditions and is exposed to unwanted impacts, shocks, vibrations, heat and cold, accidents, water penetration, salt splash etc. which may cause damage. These damages are not covered under the warranty
- If you find a defective product or part within the eligibility period, we supply will supply a free replacement part for you. You might be billed for the cost of delivery or installation fee
- If the problem is caused by an accident, wrong or careless installation by the customer, wire stretch, bad storage or not following the instruction manual, the customer will pay the cost of the part and replacement. The cause of the failure and warranty eligibility should be verified by the head of our technical department
- Our warranty terms and conditions apply to all customers purchasing our products through dealers, 3rd party or second hand
- If a warranty extension is offered for any of our products, you can pay the fee and get covered for the extension through the same terms and conditions. You may apply up to 1 day before the regular warranty period expires

### **IMPORTANT NOTE**

**ONTIME does not offer tune-up and bike mechanical services beyond limited installation or repairs of electrical system. Changing settings on the controller from the default manufacturer suggestion settings may cause damage the ebike components. That will void the warranty.**

## 7. 2. REGISTERING YOUR PRODUCT WARRANTY

Please register your ONTIME Drive Systems product by submitting filling out our product warranty registration form at [WWW.ONTIMEBIKE.COM](http://WWW.ONTIMEBIKE.COM)

### IMPORTANT NOTE

You must register your electric bike with ONTIME Drive Systems within 30 days of purchase for warranty to be valid.

## 7. 3. EXCLUSIONS

ONTIME is released and discharged of any liability for any damages, injuries or claims occurring as a result of neglect, the owner is responsible for the maintenance and safety of all structural and mechanical components of their ebike such as brakes, headset, forks, etc.

## 7. 4. SATISFACTION GUARANTEED

We offer guaranteed satisfaction on all our products and services. We provide in-depth free technical sales support to ensure you choose the product that best suits your needs.

## 7. 5. CUSTOMER SERVICE

Our highest priority is to provide the best customer service possible and cultivate a long lasting relationship with each client built on trust and respect. Our customer service is not passive; we are available to actively support you through all ordering or service procedures. We are happy to have in depth conversations with our customers about their requirements or problems. Our personal connection with each client is what differentiates us from common “No-Question” customer service models offered by Amazon or department stores. At ONTIME we are real hardworking people trying to bring great products and services to you in a way no one else does.

## 7. 6. TROUBLESHOOTING, REPAIRS & TECHNICAL SERVICE

- We have a dedicated Help Center including a troubleshooting guide and user manuals to help customers maintain and fix their system in case of errors or failure. You are required to go through the guides and if the solution is not achieved contact our customer service through our ticketing system, providing all observations for our technicians to help figure out the issue
- 90% of cases can get to a solution at this stage by knowing the problem even without need for sending any replacement parts

- In case the issue is not diagnosed by standard ways; for our hub motor kits, ONTIME ebikes, and other house brand products, since the electrical system is modular and has easy access. We would be able to easily send you replacement parts such as a controller to swap and test and return the defective one. You may be required to purchase the parts initially and pay for the shipping costs. You can return the unused parts for full refund later on
- Customers are required to have a level of technical knowledge with tools to recover their system remotely and safely without our assistance
- If at any stage of the diagnostics or even after parts replacement, it turns out to be a part intrinsic defect within the warranty criteria; we will refund the cost of the purchased component as accepted by warranty validated by the head of technical debt

# CONTACT

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 **LIVE CHAT HOURS**

Monday to Friday: 9am-5pm PST

 **PHONE**

1-888-925-6668

 **WEBSITE**

[www.ontimebike.com](http://www.ontimebike.com)