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TOMOFREE



FG20 User Manual

We strongly recommend that you read this entire manual before using your electric bike

Greetings and Cautions

Thank you for choosing Tomofree.

Before you use Tomofree it is important that you read this manual carefully. If there is anything you do not understand completely, please contact us.

Please observe traffic regulations, and do not lend your bike to anyone who is unfamiliar with it.

We recommend your electric bike only be used by a person aged fourteen years or older, always supervise children until they are competent riders.

When using any bike, it is important that you stay within safe limits; if you feel as if you are travelling too quickly, you probably are.

Always test your brakes prior to using the bike, and remember the bike will not stop as quickly in the wet as it would in the dry!

Always be careful of using the front brake when turning or on slippery surfaces as locking of the front wheel can be dangerous and result in falling off.

Before you use the bike for the first time, please make absolutely certain that it has been correctly assembled. In particular, you must make sure that the pedals, saddle, handle bars and any self assembled items have been fitted correctly and tightened.

Avoid consuming alcohol before you ride your electric bike. The use of alcohol greatly reduces reflexes and limits your ability to ride safely. The legal limit and penalties for operating a motor vehicle apply to cyclists.

If you need to replace your battery, please dispose of it properly.

Above all, enjoy your Tomofree journey, happy cycling!

Package Check

Bike



Tool Kit



Charger



Please carefully check whether the items in the packing box are complete and intact. If there is any problem such as missing or damaged, please contact online customer service.

Learn to Drive

On/Off

- Use **Key** and turn on/off the **Battery Power**.
- Take key out when not in use.
- Press and hold "**M**" on the Display to turn on/off power.

Lights

- Press and Hold " ↑ " to **turn on/off lights**.

PAS Change and Cruise Control

- " ↑ " to increase pedal assist.
- " ↓ " to decrease pedal assist.
- Press and hold " ↓ " to start "**walk mode**" at **6KM/H** until a brake lever is pulled or you start pedalling, useful for walking beside the bike.

Battery and Charging

- Turn off the bike before connecting the battery charger.
- You can take the battery out from the frame to get it charged.
- Recharge your battery after every use if possible.
- Recharge your battery every month even if you are not using the bike.

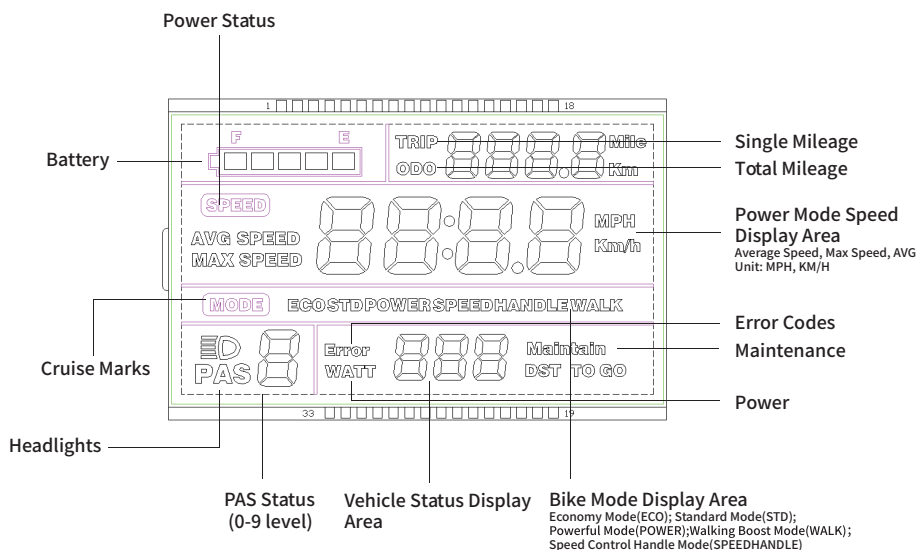
***More Maintenance on Battery, please go to the section of Maintenance.

Display and P Setting

***There is **no back to factory setting function**, please mark down the factory setting before changing any P settings.

- Press and Hold " ↑ " and " ↓ " together to enter/quit P setting
- Press "**M**" to switch channel, " ↑ " and " ↓ " to change digit

Display Indication



Error Code Indication

E02 Brake

E03 Pedal Assist Sensor

E04 6KM/H Cruise

E05 Real Time Mileage

E06 Battery Voltage

E07 Motor

E08 Throttle

E09 Controller

E10 Signal Receiver

E11 Signal Sent Out

E12 BMS

E13 Headlight

P01 Panel Brightness: 1 as darkest, 2 as medium, 3 as brightest

P02 KM or Mile: 0 as KM, 1 as Mile

P03 Voltage: 24V, 36V, 48V

P04 Sleeping Mode: 0-60

0 never sleep, other numbers stand for the sleep time (1-60 min)

P05 Pedal Assist System (PAS): the smaller the number is, the less assistance.

0, 3 Grades Mode: 1 Grade 2V, 2 Grade 3V, 3 Grade 4V

1, 5 Grades Mode: 1 Grade 2V, 2 Grade 2.5V, 3 Grade 3V, 4 Grade 3.5V, 5 Grade 4V

P06 Wheel Diameter: Unit/inch, Precision/0.1

P07 Speed Measuring Magnet: 1-100

P08 Speed Limit: 0-50 (km/h) These data are based on KM. When changing KM to Mile, the speed value on the screen would convert to correct Miles automatically, but if you do not change the setting of speed limit from KM to Mile.

Warning: 50 means no speed limit, if you set the speed limit to 50, please be careful when riding.

P9 "0" Start: 0 as Zero Start, 1 as non-Zero Start

P10 Drive Method: 0: driven by PAS. Throttle is useless at this time;

1: driven by Throttle. PAS is useless at this time.

2: driven by PAS & Throttle. Throttle is useless at Zero Start status.

P11 PAS Sensitivity: 1-24

P12 PAS Start Power: 0-5

P13 PAS magnet type: 5, 8, and 12.

P14 Controller Amp: 1-20A. 12A as default.

P16 ODOmeter Reset: press and hold "+" for 5 seconds to reset 0 of the meter.

P17 Cruise Control: 0 no cruise control; 1 cruise control capable (only on Agreement2).

P18 Display Speed Scope: 50%-150%

P20 Agreement: 0 as Agreement 2; 1 as 5S Agreement; 2 backup; 3 back up

Others you need to know

Pedal Assist System (PAS)

- You can find the assist buttons (marked with ↑ and ↓) on the LCD Display Panel.

Each time the ↑ and ↓ button is pressed, the LCD will move between 1 and 5 levels and the corresponding power level increases in increments of 25%. Setting 5 provides 100% power.

- The default level is set to 1 when the bike is first turned on. We recommend that you only turn on the bike after you have mounted the bike so the motor is deactivated. Once on the bike, press the on button for three seconds and the assistance will be turned on. You can start off in any level, if you are on a hill for instance you may want to start in level 2,3,4 or even 5.

- Setting 5 is generally used when you need the maximum amount of assistance from the motor, but this will drain the battery the fastest. Lower settings are used when you do not need the assistance at 100% power. In high traffic situations or poor conditions such as ice and snow, instant full power could be dangerous. Power settings can be changed when the bike is stationary or when on the move.

Battery Capacity Meter, Riding Style and Affect on Range

- The range of the bike (distance covered between recharging of the battery) is greatly influenced by the level of assist selected, the amount of pedal assistance provided by the rider and the use of the throttle.

If a high level of assist is selected, then the range of the bike will be reduced compared to using a lower level of assist.

- The sensor system detects the speed the pedal cranks are turning and this information is fed into the on board computer (controller) to give the rider the most natural riding experience possible.

- The battery capacity indicator is provided to give an approximation of battery capacity remaining. However, this indicator relies on sensing battery voltage that will rise and fall depending on the amount of power being demanded at any given time, ambient temperatures etc, hence the meter should only be used for indication purposes.

- Under heavy power situations (full throttle or high levels of assist) the battery voltage will temporarily dip resulting in the capacity meter showing a lower level of charge. When the heavy power usage is reduced, the capacity meter will rise again as the battery naturally recovers its voltage.

Maintenance

IMPORTANT! Do not attempt to open the casings of the battery, motor or controller. It could be dangerous and all warranties will become void. If you experience a problem, contact our service department or your Tomofree retailer.

Lubrication

- Lubricate all pivot points on the derailleur (if there is) and chain with light oil or chain lube on a regular basis. Do not over oil, excess oil can get on tires or brake surfaces. Every 2 years, re-grease the headset bearings, front wheel bearings and pedal bearings.

Brakes

- **Brake levers** should lock the wheels when compressed half way between their open position and touching the handle bars.

- Regularly **inspect the brake pads for wear**. If the brake pads have reached the wear limit of 1mm, replace them immediately. Steps: remove the caliper from the fork leg, complete with the mount adapter by removing the Allen caliper fixing screws. The pads can then be removed by removing the split pin (which passes through the tabs of the brake pads) Then lift the pads complete with the spring out of the rotor slot in the caliper body.

Warning! Do not loosen any other screws on the caliper. To refit the pads, hold the pads complete with spring as an assembly and insert into the caliper slot with the metal backing towards the pistons. Refit the pad retaining split pin ensuring it passes through the holes in the pad tabs and through the hole in the spring and bend one side of the split pin to secure it in place. Refit the caliper loosely using the Allen screws, apply the brake lever and tighten securely whilst continuing to apply the brake lever.

Warning! If you are unsure about any part of the brake installation process you should seek advice from a qualified mechanic.

Caution! The pads and rotor must be kept clean and free from oil. If the pads become contaminated, you must discard them and replace them with a new set. A contaminated disc should be cleaned with a proprietary brake cleaning solution.

- **Hydraulic brakes** are fitted to wheels, you need to check the brake oil level and add mineral oil sometime

Rims and spokes

- It is essential to have your spokes checked and tightened after 500 km. Just tap them with a pen or pencil you will quickly tell if any are loose. Handlebar and saddle tubes should never be raised beyond the maximum permissible, indicated by a safety line around the tubes.

Battery Maintenance

IMPORTANT! All lithium batteries need to be looked after to ensure years of full use. Following these easy steps will ensure the long life of your battery. If your battery is damaged due to being left discharged, or not recharging when advised as per this manual your battery is not covered by our warranty.

Battery Endurance

- You do not have to "condition" your battery by charging and discharging before it's first use. This was the case with old lithium ion technology but is not necessary on modern batteries.
- Recharge your battery after every use if possible. Keeping your battery charged extends its life and your bike is always ready to go.
- Never leave your battery completely discharged for more than 24 hours. Voltage dropping below minimum for any length of time will cause serious damage to your battery cells.
- Recharge your battery every month even if you are not using the bike. Most lithium batteries will continue to discharge even when the bike and battery are turned off. If your battery falls below minimum Voltage, it may not be recoverable.
- For best results, always recharge and store the battery at room temperature.

Battery safety

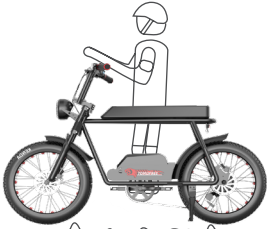
- Never leave a battery connected to the charger or mains power over-night.
- When leaving your bike during hot weather, always leave in a shaded well ventilated area.
- Do not recharge in damp conditions or in temperatures less than 0 °C (32 °F) and never expose the bike or battery pack to fire, heat sources, acid or alkaline substances.
- Never open a battery case, try and fix the battery. or use other brands battery for self update is not supported (You should be responsible for that).
- If a battery is, or appears to be damaged or overheating for any reason, do not use the battery any more.

Recharging your battery

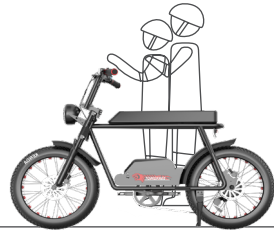
- Before charging, make sure the battery lock is turned off and connect your battery to the charger at the charging socket. Plug the charger into a mains socket and turn on the mains socket.
- A red lamp will light up on the charger indicate the battery is charging. When the red light turns green, the battery is fully charged. To optimize battery life, leave the charger connected for a further hour and then turn off the charger.

- Do not leave the charger connected to the mains when not in use.
- Before disconnecting the charger from the battery, disconnect the charger from the mains first.
- It is possible that the battery will take up to six hours to charge on the first three charges.

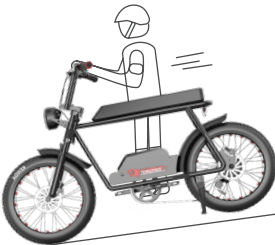
Safety Instructions



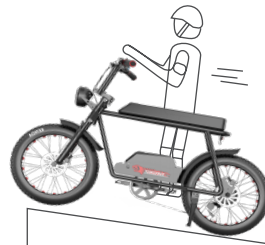
⚠ When encountering deceleration belts, potholes and other unusual roads, do not pass at high speed. Bend your knees slightly to better adapt the above complex pavement.



⚠ It may be forbidden for more than one person to drive an electric bike at the same time or with children, please obey the state law and rules.



⚠ Do not accelerate when going downhill, and brake in time to slow down when you encounter a steep slope, you need to get out of the car and push through. Do not ride at risk.



⚠ If you encounter a steep slope when going uphill, do not speed up get off and push through, and do not ride at risk.

Warranty

Part Name	Service Term	Scope of Warranty	Handling Method
Motor	12 months	Quality issues & Performance Failure	Free replacement
Battery	12 months	1-Month Quality Issues	Free replacement *
Controller	12 months	Performance Failure	Free replacement *
Frame	12 months	Quality issues	Repair / Free replacement
Charger	6 months	Performance Failure	Free replacement
Meter/Screen	3 months	Performance Failure	Free replacement
Tires	3 months	Quality issues	Free replacement
Front Shock	3 months	Quality issues	Free replacement
Rear Shock	3 months	Quality issues	Free replacement
Others	1 month	Quality issues	Free replacement

*Please be aware that if you update the product by yourself, like removing speed limit or changing the controller factory setting, we are not responsible for the warranty. Please follow the battery maintenance guidance, otherwise the battery performance would be compromised.

****Please contact the seller from where you purchased our Tomofree product (Amazon/eBay/Other Platform reseller) directly for the warranty.**

If you want us as the brand to help you follow up the case, please message the seller/reseller first and send (support@tomofree.com) the screenshot of your order (with store name, order number and order time), store URL link of your purchase and shoot a video narrating your situations and please be rest assured that we as the brand are there with you connected till we get this.