



## VINFAST TRADING AND PRODUCTION JOINT STOCK COMPANY

Document name: VF DrgnFly Quick User Manual

Version : V0.1

### Revision record

Version	Page	Change Description	Applied date
V0.1	All	Release new version	26.June.2024



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# 1. Summary



## VF DrgnFly

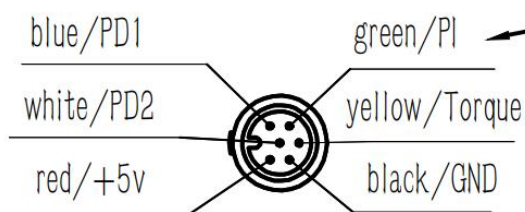
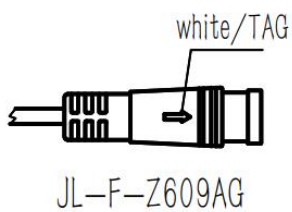
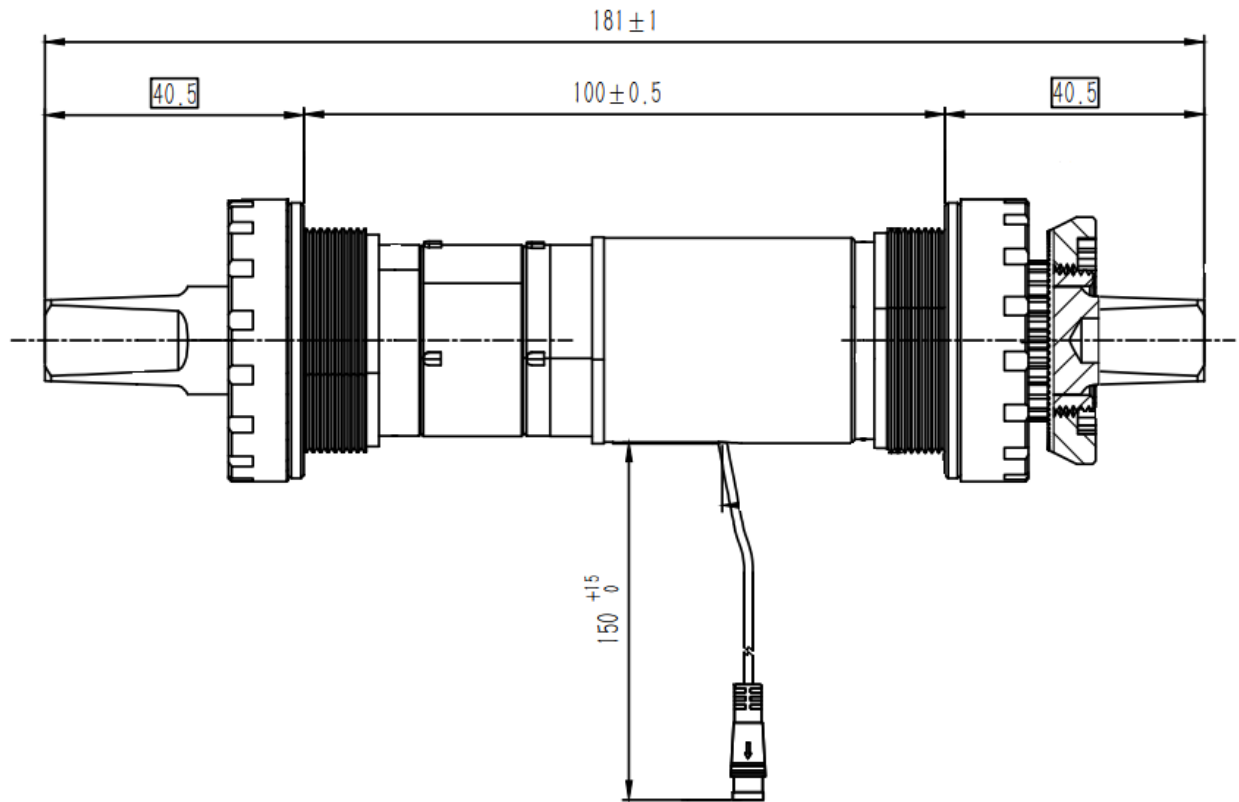
Items	Detail
Product	VF DrgnFly
Overall dimension (LxWxH)	68.1 x 28.3 x 41.5 Inch
Vehicle weight including battery	70.5 lbs
Total weight carried	286.6 lbs
Continuous power	750 W
Assisted sensor	Torque sensor
Battery Type	Lithium ion
Battery Capacity	47.2 V 13.6 Ah 640 Wh
Frame	Aluminum frame
Suspension - Front	Air spring suspension fork: 100mm
Front/rear brake	Tektro hydraulic disc brake
Headlight	YES
Taillight	YES
Screen	YES



### Torque sensor specification

Items	Detail
Product	Torque sensor
Model	VF-EB24U
Input voltage range	4.5-5.1 VDC
Power input	< 0.22W
Torque output analog voltage	0.75~3.32V
Number of speed signal pulses	24
Duty cycle of speed signal	50%
Slop of sensor signal	35mV/N.m
Measurement range	0~70N.m
Headset thread gauge	BS(C) 1.375x24
Protection class	IP66
Operating temperature	-20~55°C
Dimension	Length: 181±1mm Wire length: 150 (0; +15) mm
Operation environmental temperature	-20°C ~ +65°C
Bluetooth	5.0

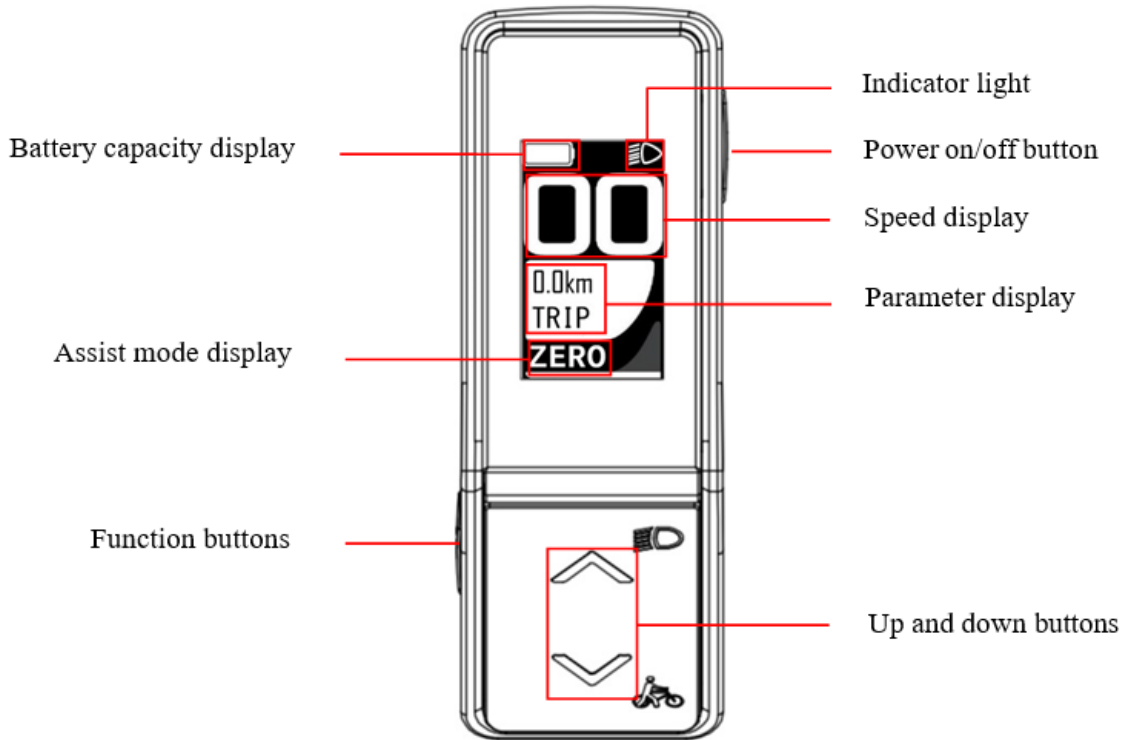
## 2. Wiring for Torque sensor





Remarks: the supporting driver  
neede to be GND

### 3. User case

#### 3.1. Multi-Function Display Screen (HMI)

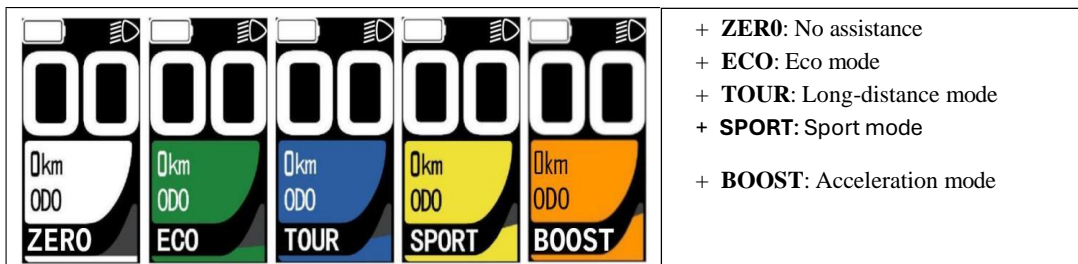


#### 3.2. Battery Capacity Bar

The capacity bar  is displayed at the top of the HMI screen. The capacity bar provides information about the remaining battery capacity. When the battery loses connection with the system, the capacity bar will flash red. 

#### 3.3. Assist Mode Display

After pressing button  to start the screen, press the  or  to change the



assistance modes. There are 5 modes: **ZERO/ECO/TOUR/SPORT/BOOST**.

The level of assistance increases gradually in the following order **ECO > TOUR > SPORT > BOOST**, with **ZERO** mode providing no assistance. Additionally, within each assistance mode, the level of assistance depends on the speed and force applied to the pedal by the rider.

## 3.4. Mobile application

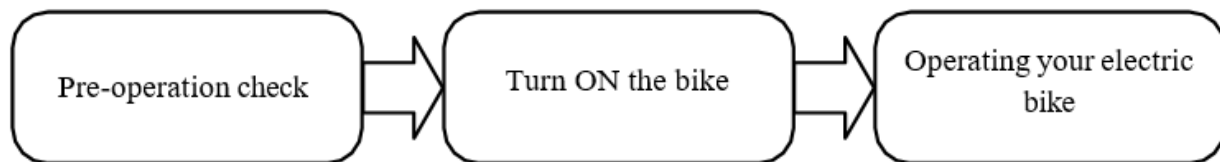
The mobile app supports users in connecting with the bike and performing advanced tasks.

The mobile app is always available on the App Store and Google Play Store, and you can download and install it for free to explore additional premium features.

## 3.5. Startup and Operation

### 3.5.1. Basic Operation


The basic operations when operating your electric bike are briefly described in the diagram below. Please proceed to the detailed instructions for each part as per the guide to learn more details. *elevation reception, which can be determined by turning the equipment off and on, the user is encoura*



### 3.5.2. Operating Your E-Bike

#### 3.5.2.1. Walking Mode

Electric bikes are designed to be heavier than regular bicycles. Therefore, your bike is equipped with a walking mode to assist the rider when walking the bike.

Press and hold button  on the HMI screen to activate walking mode. The bike's speed will be limited to a range of 3-6 km/h. Release the button to turn off walking mode.

#### 3.5.2.2. Zero Assist Mode

In this mode, users pedal the bike like a regular bike. The electric motor is not active.

#### 3.5.2.3. Assist Mode



The assist mode utilizes the electric motor's energy to support and reduce fatigue for the rider, increasing travel time and distance. Riders can set the driving modes ECO/TOUR/SPORT/BOOST through the HMI screen. The level of assistance increases gradually in the following operating modes: ECO > TOUR > SPORT > BOOST.

Additionally, within each assist mode, the level of assistance depends on the speed and the force applied to the pedals.

### 3.6. Torque sensor

The Torque sensor consists of two parts: an inner cylinder and an outer cylinder, which can rotate relative to each other.

Cause the inner cylinder is in motion and it is not electrically connected to the outer cylinder. Therefore, the communication between the two parts will receive and send the data through a Bluetooth wireless module.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.