

User Guide



ARKONA

HORN



geobike
electric bikes

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Introduction

Dear Customer,

Congratulations on your purchase of this Geobike.

This guide is to introduce the electric bicycle to you. We therefore strongly recommend that you read this manual very carefully. This will allow you to enjoy your Geobike as long as possible.

This Manual provides basic tips about the Geobike with assistance, operation and maintenance.

If after reading this manual you have any questions and/or comments, please contact the local bicycle shop from where you purchased your Geobike.

We hope that you enjoy many miles of cycling on your new Geobike.

Geobike

Description of bike components

1. Lithium-ion battery.
2. Handlebar with Bigstone C600E display.
3. Seatpost lockout.
4. VELO saddle with cushioning.
5. Aluminum trunk integrated with backlight.
6. Rear wheel.
7. Front wheel.
8. Crankset.
9. Bafang 250 W motor integrated with rear hub.
10. Shimano Acera rear derailleur.
11. ZOOM front hydraulic disc brake.
12. ZOOM rear hydraulic disc brake.
13. SUNTOUR front suspension fork.
14. Headlight.



* This is an illustrative photo. GEOBIKE can change the set and location of bicycle equipment details according to your own design.

Model	ARKONA / HORN
Type	pedelec
General	
Unladen weight as follows if equipped	about 24 kg
Allowable total weight	max. 130 kg
Allowable load for carrier	max. 25 kg
Dimensions (L x W x H) mm	1875 x 675 x 1030
Maximum speed	25 km/h as a pedelec
Bike structure	
Frame	Alloy trekking frame 20" x 50 mm
Suspension	SUNTOUR
Seat height	920 - 1145 mm
Tires (front & rear)	700CC x 40C KENDA with reflective strip
Rims (front & rear)	700 x 36 AlexRimm
Front brake	ZOOM hydraulic disc brake
Rear brake	ZOOM hydraulic disc brake
Drive system	
Cassete	SHIMANO
Chain	KMC
Pedal drive	VELO
Shifting system	rear SHIMANO Acera 9 speed
Electric system	
Lighting	Spanninga
Display	BigStone C600E
Operation	5 modes with speed limit (max speed at about 25 km/h), walk assistance (6 km/h)
Motor	Bafang 250 W in rear hub
Rated voltage	36 Volt
Rated power	250 W
Power transmission	from the rear hub
Battery	Panasonic Lithium-Ion, mounted in the frame
Voltage	36 Volt
Peak current	16 A
Rated capacity	optional 10 Ah / 13 Ah / 14,5 Ah
Weight	2,5 - 3 kg
Range	50 - 120 km
Recommended tire pressure	3.5 bar
Charging time	about 4-6 hours

10 TIPS for your GEOBIKE

To optimize your Geobike experience and to achieve the maximum range of an electric bike, we recommend that you follow these tips:

1. Make sure that the battery is fully charged before use for the first time. The battery will retain its best capacity once it has been completely charged and discharged several times. This is known as battery conditioning.
2. The Lithium battery has a long life. The battery does not have to be fully charged in order to run the bicycle. Using the battery partially charged will not affect the life of the battery.
3. The range of the Geobike can vary through many factors. The tires must be correctly inflated. When you do not have correctly inflated tires, it can significantly affect the range.
4. If the brakes are correctly adjusted since this can prevent unwanted resistance. Unwanted resistance will lower the range. The ability for the wheels to rotate freely is therefore critical to maximizing the range.
5. GEOBIKE Arkona / Horn has 5 levels of power assistance. How these levels are selected has a great influence on the range. If you need to use the highest level of power assistance, the achievable range will be considerably lower than using a lower level of power assistance.
6. When you pull away from a standing start, select a low gear. This allows you to safely pull away and also saves energy in your battery.
7. Always ensure that the bicycle is powered off (the switch on the rear rack is off) BEFORE inserting or removing the battery.
8. Please use the proper battery charger. Please don't use the charger which does not match with the battery.
9. When you are charging the battery, please ensure that the Geobike is powered off.
10. Although the Geobike is water resistant, please do not use high pressure hoses on the bike as this will cause permanent damage to it. Excessive heavy rain may also give the same result.

Riding on your Geobike

Riding on your Geobike is done in the same way as riding any other bike. You can use the Shimano gear handle to decide which gear you wish to select whilst riding. To do this you just click to the selected gear and the hub will simultaneously select this gear. The Shimano Acera 9-speed provides a high riding efficiency. Changing gear is a very smooth experience.

It is highly advised not to select a high gear when starting from a standing position. If the power assistance is selected this will adversely affect the range. The effect is similar to that of a car pulling away in 3rd gear. The engine must then work harder and use more fuel to get you started. This is exactly the same as with your Geobike. If you want to pull away in a high gear then more energy must be taken from your battery to get you started. The optimal method is to select gear 1 or 2 with the pedal assist mode in either mode low or mode medium. When you are up to speed, choose the pedal assist mode that you require.

TIP!

Make sure you are in a low gear when you are stationary, at a traffic light for example!


DISPLAY AND FUNCTION

Display BigStone C600E



BUTTON DEFINITION

Display BigStone C600E has four buttons including:

ON/OFF (names to )

SET (names to „SET“)

UP (names to “+”)

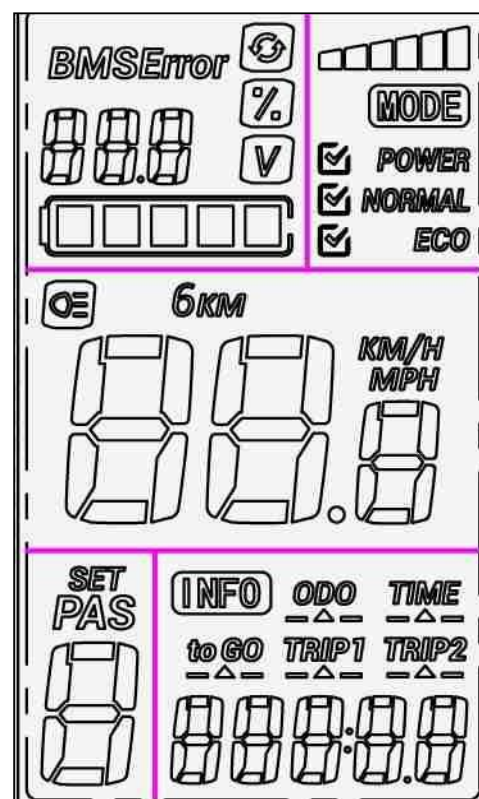
DOWN (names to “-”)

FUNCTION SUMMARY

BigStone C600E provides a wide range of functions and indicators to fit the users' needs. The indicated contents are as below.

1. ON/OFF
2. Current display.
3. Riding mode selection.
4. Speed display.
5. Speed units (KM/H & MPH)
6. Backlight indicator.
7. 6 KM/H work.
8. PAS level selection.
9. Error code indicator.
10. SET operation.
11. Distance indicator.
 - 11.1 Total distance (ODO)
 - 11.2 Trip 1 (current distance)
 - 11.3 Trip 2
 - 11.4 Remaining distance (without this function by default).
12. Trip time indicator.
13. Battery indicator.
 - 13.1 Battery residual capacity indicator.
 - 13.2 Battery voltage.
 - 13.3 Battery capacity percentage (without this function by default).
 - 13.4 Battery charging and discharging times (without this function by default).
14. Auto sleep after 5 minutes.

FULL VIEW AREA

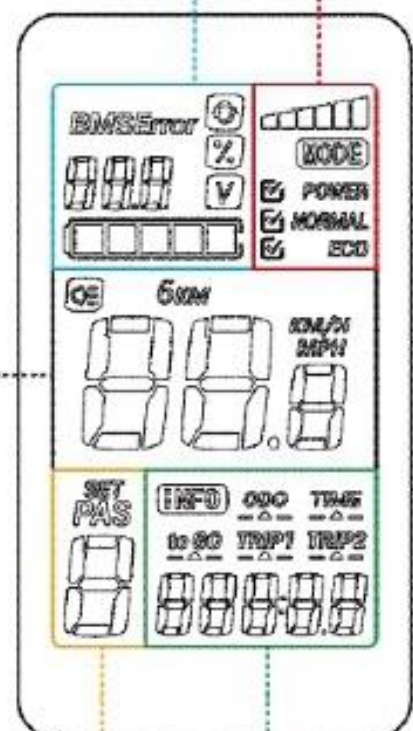


3. Riding mode selection

- 9. Error code indicator
- 13. Battery indicator
 - 13.1 Battery residual capacity indicator
 - 13.2 Battery voltage
 - 13.3 Battery capacity percentage
 - 13.4 Battery charging and discharging times
- 14. Auto sleep after 5 minutes

- 4. Speed display
- 5. KM/H & MPH
- 6. Backlight indicator
- 7. 6KM/H work

UP
ON/OFF
SET
DOWN



- 8. PAS level selection
- 10. SET operation

- 11. distance indicator
 - 11.1 Total distance (ODO)
 - 11.2 Trip 1
 - 11.3 Trip 2
 - 11.4 Remaining distance (to GO)
- 12. Trip time indicator

NORMAL OPERATION

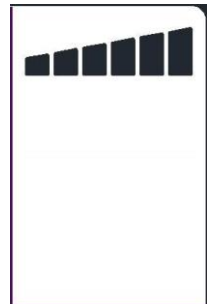
1. ON/OFF

Hold **ON/OFF** and start the display. The display will provide power for the controller. Hold **ON/OFF** again to open the backlight. With display on, press **ON/OFF** for 3 seconds to turn off the power. With the display off, there is no battery consumption. The leakage current is no more than 2μA.

※ The panel will go to sleep when the speed is 0 km/h for 5 minutes.

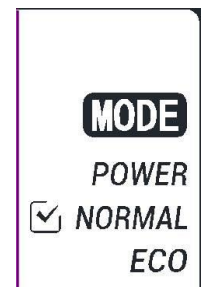
2. CURRENT DISPLAY

That represents the discharging current of the controller currently, each mark is 2A, six segments is $\geq 12A$.



3. RIDING MODE SELECTION

There are three modes for riding with arrow selection, including **POWER**, **NORMAL** and **ECO**. The default option is **NORMAL**.



4. SPEED DISPLAY

The speed is as below. User can select speed units (**KM/H** or **MPH**) in **SET4**.



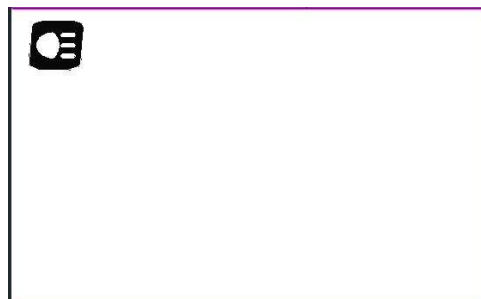
5. SPEED UNITS (KM/H or MPH)

Select KM/H or MPH for the speed and mileage, display will be the currently selected units display.

6. BACKLIGHT INDICATOR

With the power on, click the **ON/OFF** and turn on the backlight. Click it again and turn off the backlight.

※ If the e-bike has headlight, the controller will turn on/off the headlight at the same time of the backlight on/off (without this function by default).



7. 6 KM/H WORK (WALK ASSISTANCE)

Hold the **DOWN** for 2 seconds to get into 6km PAS work, and with your hand off, the 6km PAS work is released. The display is as below.



8. PAS LEVEL SELECTION

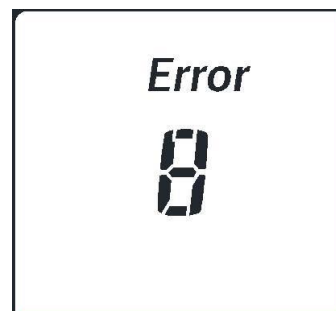
Click **UP** or **DOWN** to change the stages and output power ratio. The default number of modes is 5 modes, the default value is level 1. It is also possible to customize your own number of power stages.



9. ERROS CODE INDICATOR

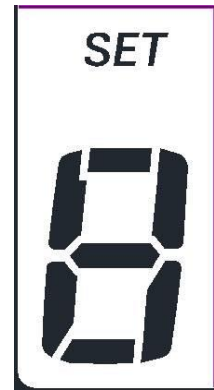
If there is something wrong with the electronic control system, the display will flash at 1 HZ and show the error code automatically. Different error code is corresponding with different error information. See the last page **Error code table** for details.

※ Display return to normal only after problem being fixed and e-bike will not run before fixing the problem.



10. SET OPERATION

Hold the **SET** for 2 seconds and enter into the setting interface, then number 8 is lighting, the display will flash at 1 HZ. Click the **SET** to cycle from 0 to 4 setting interface, press **UP** or **DOWN** to select the wanted parameter, and hold the **SET** for 1 second to exit.



10.1 SET0: Riding mode selection

There are three modes for selected: **POWER**, **NORMAL**, **ECO**.

10.2 SET1: Reset Trip 1

Click the **DOWN** and reset the trip 1, then the **TRIP1** icon will flash at 1 HZ, meanwhile the mileage will be cleared.

10.3 SET2: Max speed limited setting

The max speed is 25 km/h for the default. In the SET 2 interface, user can modify the value of max speed, when the riding speed exceeds the set value, the controller will stop supplying power to the e-bike, in order to ensure the safety of rider.

※ The max speed value range from 20 km/h to 40 km/h. The max speed displays in speed display area.

10.4 SET3: Wheel diameter setting

Select the accurate wheel diameter value to ensure the accuracy of display about speed and mileage.

10.5 SET4: Speed units setting (KM/H or MPH)

Select the accurate wheel diameter value to ensure the accuracy of display about speed and mileage. For the speed and mileage, display will be to the currently selected units display.

※ Press **UP** or **DOWN** to select parameter, hold the **SET** for 1 second to save and exit.

11. DISTANCE INDICATOR

With the display on, press **SET** to switch the display information. In turn shows: ODO, trip 1 and trip 2.

11.1 ODO

The ODO records the driving mileage from using, the accumulated value cannot be cleared.

11.2 TRIP 1

Trip 1 is resetted by hand in the **SET 1 interface** - when the riding mileage $\geq 500\text{km}$, it will be resetted automatically. The value will be accumulated without resetting.

11.3 TRIP 2

Trip 2 displays the last driving distance for 30 s after turning on the display, then reset it automatically and start to record the current distance.

11.4 REMAINING DISTANCE (without this function by default)

The function need to be customized.

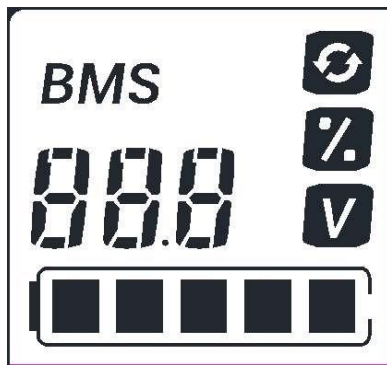


12. TRIP TIME INDICATOR

The riding time parameter is automatically reset after shut down.



13. BATTERY INDICATOR



13.1 BATTERY RESIDUAL CAPACITY INDICATOR

The battery frame has five segments, each segment representing 20% battery capacity. When the capacity is full, the five segments are all light. In low battery, the battery frame will flash, indicating that the battery is severely low and needs to be recharged immediately.



Low battery flash

13.2 BATTERY VOLTAGE

It displays the current voltage of this battery.

13.3 BATTERY CAPACITY PERCENTAGE (without this function by default)

It displays the percentage of battery capacity. This function needs to be customized.

13.4 BATTERY CHARGING AND DISCHARGING TIMES (without this function by default)

This function needs customization.

✂ The panel displays the voltage for the default.

14. AUTO SLEEP AFTER 5 MINUTES

When the riding speed is 0 km/h for 5 minutes, the system will go to sleep automatically.

ERROR CODE TABLE

The error code is corresponding with the fault definition.

error code	definition
0	normal
1	current error or MOS damaged
2	throttle error (Start detection)
3	motor no phase position
4	hall error
5	brake error (start detection)
6	under voltage
7	motor stalling
8	communication controller receiving error
9	communication display receiving error

YOUR BATTERY AND THE CORRECT WAY TO USE IT.**Charging the battery**

The batteries can be charged whilst they sit in the carrier on the bike, or when removed from the bike using the charger. Make sure it is inserted back in once charging is complete.

The average charging time of completely uncharged battery is about **4-6 hours**.

Charging should be completed when the green light lights up.

Battery charger

charger LED indicator	
LED	MODE
Red	charging
Green	charging completed, full battery

ALWAYS MAKE SURE THE BIKE IS POWERED OFF BEFORE INSERTING/REMOVING A BATTERY.

TO START CHARGING, FIRST SHOULD CONNECT POWER CABLE WITH 220V ELECTRIC SOCKET, NEXT CONNECT JACK TYPE CABLE WITH THE BATTERY.



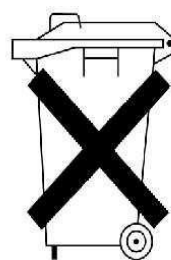
ATTENTION !

If the bicycle is unused, the battery should be stored in a charged state. Especially in the winter when we do not ride a bike remember to recharge the battery to its full no less than once every 3 months. Storing the battery in a discharged condition for a long time may cause its permanent damage !!!

Tips for taking good care of your battery:

- * Keep the battery stored in a cool dry place (5°C - 20°C)
- * Use only the charger supplied with the Geobike or a Geobike authorised charger.
- * Keep the charger and the battery out of reach of small children.
- * Do not cover the charger whilst in use.
- * Make sure no dirt or moisture is on the charger or the charger plug.
- * Do not handle the power plug or charger plug with wet hands.
- * Do not drop the charger or the battery.
- * Do not leave the battery pack or charge it in direct sunlight.

Once the battery had reached the end of its life please have it disposed by the professional technician or your dealer.



Destruction of the bike and the used battery should be performed in an environmentally sound manner. Please try to recycle wherever possible.



For more information, please contact GEOBIKE or the shop where you bought the bike.

WARRANTY INFORMATION

1. A bike that is correctly maintained and periodically inspected by your **GEOBIKE** dealer is the safest bike. In the case of an accident **Geobike** are only liable for accidents resulting from defects in material and/or workmanship. Accidents resulting from alterations, modifications and/or repairs performed by third parties are excluded from the liability. This also applies to accidents resulting from transports of persons and goods.
2. Under normal usage conditions and maintenances, your **Geobike** frame is covered by a 5 year warranty.
3. The **Geobike** electric components are covered by warranty subject to normal usage.
The warranty period: 2 years.
The warranty date commences on the date of purchasing.
4. During the warranty period, all components covered for which Geobike has established that there is a material and/or construction defect, Geobike has the right to repair/replace or compensate. Cost of disassembling and transportation of the bike are the responsibility of the owner unless the product is dead on arrival. Geobike will if certain items are eligible for warranty cover as far as possible replace by the same new parts or new parts of at least the same quality. Geobike cannot guarantee that certain components, frame types and/or parts will always be available.
5. Geobike reserves the right to decide whether an item is eligible for warranty cover.
6. The warranty applies only to the first owner of the bicycle.

NOTES :

[illegible]



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