



WESTHILL

Electric Bike User Manual

LINK



HAVE A QUESTION? NEED HELP?

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westhillbikes.com

LINK

WARRANTY

Westhill bikes are covered by a limited 3-year warranty. Aside from general cycle maintenance, any work to the motor should be carried out by a Westhill technician or authorised dealer.

1. Warranty periods

The statutory warranty valid at the time of delivery applies to:

Frame: 3 years

Motor: 2 years

Battery, Charger & Controller: 2 years

2. Warranty conditions

2.1 Requirements

There is a defect in materials or workmanship or an error of information.

The cause of the change in the product is neither natural nor related to its functions, wear and tear or ageing.

The damage was not caused by use of the bike for other than the intended purpose.

2.2 Warranty exclusions

Damage caused by improper use or force majeure.

All parts subject to function-related wear and tear, unless this is the result of a defect in the manufacturing process or material.

Damage which results from improper or insufficient care and repairs, alterations or the replacement of parts by persons other than trained professionals.

Accidental damage or other external effects, provided these are not the result of defective products or information.

Repairs resulting from the use of second-hand parts or damage caused by this use.

Damage resulting from competitive use.

Special fittings, accessories or non-standard components, especially technical modifications.

Observing the required service intervals is also a condition of any warranty claims you may make.

2.3 The following are considered wear parts under the statutory warranty:

Tyres

Rims in combination with rim brakes

Spokes

Brake pads

Chains and toothed belts

Chain wheels, sprockets, bottom brackets and jockey wheels

Sliding bearings

Lamps for lighting system

Handlebar tape/handle grips

Hydraulic oils and lubricants

Gear-shift cables and brake cables

Paint finishes

Batteries (depletion of capacity to 60% is acceptable within first two years)

(1) Definitions

In this warranty the following terms shall have the following meanings: Westhill Bikes shall mean FW3 Ltd; Westhill Product shall mean the FW3 Ltd; Product Warranty Period shall mean a period commencing on the original date of purchase as new

(2) Circumstances outside our control

FW3 Ltd shall not be liable for any failure in service as a result of FW3 Ltd, or FW3 Ltd agents employees or contractors being delayed, prevented or hindered in the performance of its obligations by reason of any circumstances beyond its reasonable control. Such circumstances include, but are not limited to fire, flood, Act of God, and civil disorder.

(3) Disclaimers

FW3 Ltd shall not be liable for any indirect, incidental, special or consequential damages losses or expenses (including without limitation lost profits, loss of use or loss of data, goodwill, reputation or lost business) arising directly or indirectly, from the purchase use or sale of the Product, whether or not FW3 Ltd was advised or aware of the possibility of such damages, losses or expenses. It is the customer's responsibility to make lawful use of the products FW3 Ltd supplies.

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BOX CONTENT

1 x Westhill Link
1 x Charger
1 x Manual

DEFAULT DISPLAY PASSWORD: 0657

THIS MANUAL SHOULD BE CONSIDERED A PERMANENT PART OF THE ELECTRIC BICYCLE AND SHOULD REMAIN IF IT IS RESOLD.

ATTENTION

- Do not operate this electric bike without fully reading and understanding its operation and limitations.
- Before riding each time ensure that all parts are in good order. If you have any questions or concerns, please contact us via Facebook chat or by email.
- Ensure you observe traffic rules and regulations when using this electric bike.
- Passengers cannot be carried.
- When riding in rain, snow or slippery conditions reduce your speed and increase the distance between yourself and other vehicles.
- We advise against performing maintenance operations that involve removing parts or components. If this is necessary, please contact us for guidance.
- Do not ride through deep puddles. Water could enter the hub motor, causing short circuits and irreparable damage.
- Do not allow individuals who are unfamiliar with the features and functions of this e-bike to operate it without proper instruction.
- Do not modify the e-bike by yourself.

CHECK BEFORE USE

- Is the tyre pressure [45-70 PSI] correct?
- Are the brakes working correctly?
- Are the batteries sufficiently charged?
- Is the handlebar attachment and saddle post correctly inserted and tightened?
- Are the wheel hub mounting nuts correctly tightened?
- Is the bell working correctly?
- Is all the wiring correctly connected?

Max load: 120KG

MAINTENANCE

Charge the battery every 2 months even if the bike hasn't been used for this period.

Keep all working parts lubricated.

Have the bike serviced regularly with a Westhill dealer.

Parts that can be lubricated

Head set
Brake cables
Chain

Parts that should not be lubricated

Rear brake
Front brake
Rims
Tyres

BIKE DIAGRAM AND PART NAMES



HOW TO UNFOLD YOUR BIKE



Please visit www.westhillbikes.com/link for a video on how to unfold / fold your bike.

1. When adjusting the seat post and handle bars do not exceed the safety limit.
2. To fold the pedals away, you must push the pedal in before folding up.

TURNING ON YOUR BATTERY

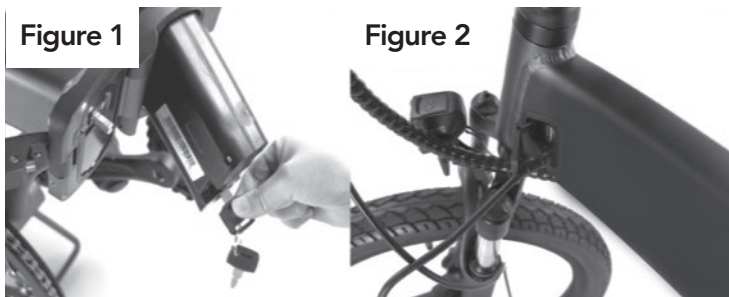
Before turning on the display for your Westhill Link you must turn the battery power on. The switch is located above the charging port on the side of the battery.

When charging the battery please make sure the switch is turned OFF.



REMOVING OR INSERTING THE BATTERY

To remove the battery you must fold the bike in half as shown in Figure 1. Please unlock the battery with the keys provided and simply slide the battery out of the frame. To insert the battery please reverse this process.



CHARGING THE BATTERY

- Plug the charger into the wall outlet. The LED on the battery charger will illuminate RED when charging. The LED will change to GREEN when the battery is fully charged.
- When the battery is fully charged, disconnect the charger from the wall outlet before disconnecting the charger from the bike.
- Ensure that the cover over the charging port on the bike is closed and sealed.
- Be sure to use the charger supplied together with the bike, use of other chargers will invalidate the warranty.

LIGHT ON/OFF

Press the UP arrow on the display for 2s to turn on the headlight, repeat this process to turn the headlight off.

Press the button on the rear light to turn on the rear light separately, double press to change to a flashing light. Pressing the button a third time will turn off the rear light.



BASIC INFORMATION

FRAME MATERIAL	Aluminum, Al6061
FRONT FORK SIZE	20"
BATTERY	10.2Ah
MOTOR	36V 250W
CONTROLLER	36V 250W
DISPLAY	DM03
LIGHT	6V/LED
BRAKES	TEKTRO Disc Brakes
DERAILLEUR	Rear 7 Speeds

DM03 E-BIKE DISPLAY USER MANUAL



SPECIFICATIONS

- Power supply: DC 24V/36V/48V
- Rated current: 18 mA
- Shutdown leakage current: <1uA
- Screen specification: 1.3" OLED
- Communication method: UART/ CAN-BUS 2 modes
- Operating temperature: -20° C ~ 60° C
- Storage temperature: -30° C ~ 80° C
- Waterproof level: IP65

FUNCTION OVERVIEW

- Four buttons, ergonomic design
- Selective digital and icon power assist gear for high visibility
- Unit: km/ miles
- Speed: Real-time speed (SPEED), maximum speed (MAX), average speed (AVG)
- Battery indicator with percentage display
- Range: Endurance mileage (*available if BMS provides necessary info)
- Headlight on/off status indication and control
- Mileage: Subtotal mileage (TRIP), total mileage (ODO)
- Walk assist function
- Parameters setting and advanced setting
- Error code indication

INSTALLATION

1. Open the display locking clip and set the display on the left handlebar (standard handlebar size: Ø22.2). Adjust the display so it is in a position to be easily and comfortably operated whilst seated upon the bike. Use the 3mm hex drive to tighten. Tightening torque: 0.8N.m.

*Note: Damage caused by excessive torque is not covered by the warranty.

2. Connect the 5 pin plug to the docking plug of the controller as marked.

INTERFACE

Loading interface

The loading logo interface is displayed for 3 seconds after the display is turned on. When the communication connection is established, the display enters the main interface which shows information obtained from the controller.

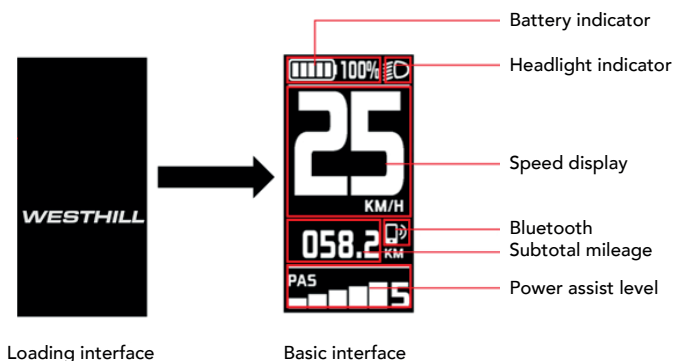




1. The display features four (4) buttons: power button, M button, ^ button, ∨ button.
2. Standard Outlet is a board end connector, which is convenient for after-sales maintenance and replacement.
3. 1.3 inch OLED dot matrix display meets the need for customization of the loading interface and UI interface.

FUNCTION INTERFACE INTRODUCTION

Loading interface and basic functions interface



Loading logo interface is displayed for 3 seconds after display is turned on.

WALK ASSIST INTERFACE

Hold down the \vee button while speed is at 0 to enter the walk assist mode.



ERROR CODE INDICATION INTERFACE

When the display receives error information, it will show a detailed error code on the interface, indicating relevant electrical system fault information. The error code will be displayed numerically in the speed display area. The numerical fault codes are detailed on page 19.



SETTING INTERFACE

Within 10 seconds after turning on the display, hold down the M button to enter setting interface and use \wedge , \vee to switch between setting interfaces. In any setting interface, short press M to enter parameter editing state, which offers two modes, picking and selecting. The picking mode is indicated by the triangle cursor on the right, and the selecting mode is indicated by the parameter shown on white background. Once the parameter is picked and the M button pressed, the options available within that parameter will be displayed to be selected.

Short press \wedge , \vee to modify the parameters to edit. Hold down the M button to confirm your choice and exit the editing state. Hold down the M button again to return to previous page. Use \wedge , \vee buttons to enter into each setting item accordingly.



BUTTON DEFINITION



Power button: Turn on/off the display.

Adjust buttons: Adjust the assisting power level during riding and use to switch between functions. Hold down the adjust buttons to perform specific function operation.

Mode button: Switch interface functions and enter into parameter setting interface.

DEFINITION OF BUTTON OPERATION

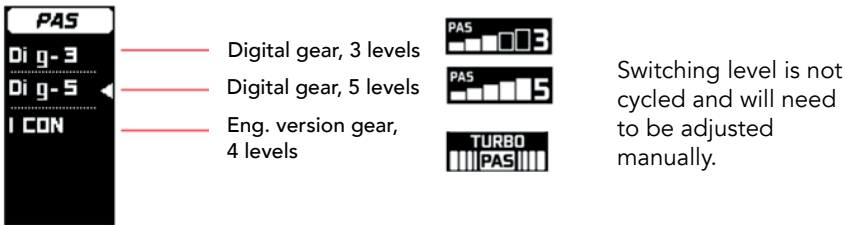
TURN ON/OFF THE DISPLAY

To turn on, hold down the power button until loading logo interface appears and the display enters the basic interface.

To turn off, hold down the power button when the display is on, until the display is turned off. If the rider does not perform any operation on the display within set shutdown time, while speed is 0, and the current is less than 1A, then the display will be turned off automatically. The set shutdown time is self-defined by user.

ASSIST LEVEL SWITCH


During normal working state, use the ^, v buttons to switch assist level, and change assist mode. There are three types of power assist display modes:



LIGHT CONTROL FUNCTION

In a power-on state, hold down the ^ button to turn on the front light, in the meantime, a light icon on top left corner of screen will appear indicating light-on status. Hold down the ^ button to turn the lights off.







WALK ASSIST FUNCTION




When speed is 0, hold down the v button to enter walk assist mode. Motor output operates according to the set speed and helps to control the actual walking speed. The display shows the walk assist icon  and the real-time speed. Release v button or any other button to exit walk assist mode.

SETTING INTERFACES

Within 10s of turning on the display, hold down M button to enter the setting interface and press ^, v buttons to switch between setting interfaces.

The following table provides a description of the setting options available within each parameter.

Setting items	Interface	Description	Setting data	Remark
Unit Setting		UNIT: Unit	Value: KM/H MPH	Default Value: KM/H KM/H-Metric MPH-Imperial
Backlight level setting		BLG: Backlight	Value: 1, Back light level 60% Value: 2 Back light level 80% Value: 3 Back light level 100%	Default Value: 1
Auto shutdown time		AutoOFF: Auto sleep	Value: OFF, 5-30 min	Default Value: 5min Step: 5 min OFF means no auto shutdown
Power-on password setting		Psword: Password	Value: OFF and ON; When ON, user is allowed to set 4-digit password	Default value: OFF
Display info		DSPIFO: display information	Read-only	According to communication protocol
Battery info		BATIFO: batter information	Read-only	According to communication protocol

Controller info		CTLIFO: controller information	Read-only	According to communication protocol
*Advanced settings options		ADVSET: advanced settings	Go to advanced settings	See advanced settings
Reset to factory setting		RESET	Reset	All parameters will be restored to factory setting

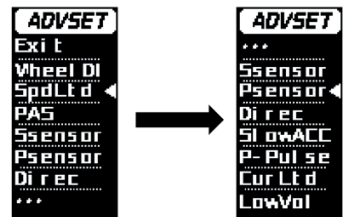
ADVANCED SETTING FUNCTIONS

Advanced setting operation instructions

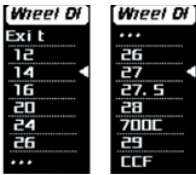




After selecting the advanced setting in the first-level menu, short press M button to enter the login password. Short press M button to select the corresponding password digits in the 4-digit password field. The selected password digits will be highlighted with a white background. Use ^, v to edit password value, and short press M button again to confirm the input. The password input interface is as follows:









After the password is typed correctly, the screen will display the advanced settings, which is divided into two content pages. Use ^, v to pick the setting you want to enter and short press M to select the setting. The triangle cursor on the right indicates the selected object.



ADVANCED SETTING FUNCTIONS DESCRIPTIONS

Setting item	Interface	Description	Setting data	Remark
Wheel size setting		WheelDI: Wheel diameter	Value: 12, 14, 16, 20, 24, 26, 27, 27.5, 700C, 28, *29, *CCF (* optional)	Default value: 26
Power assist display setting		PAS: Pedal assistance mode	Value: Dig-3; Dig-5; ICON	Dig-3: Digital 3 gear levels, Dig-5: Digital 5 gear levels, ICON: Eng. version gears
Power assist level setting		PAS: Pedal assistance level	Value: L1 to L5; 0-100%	L1 - L5 Power assist level corresponding to each gear Step: 1%
Speed magnet numbers		Ssensor: Speed sensor	Value: 1-12	Default value: 1, step: 1; magnets detected by motor
Power assist magnet number		Psensor: PAS sensor	Value: 1-64	Default value: 12 Step: 1 Power assist magnet number

Power assist magnet direction		Direc: PAS sensor direction	Value: F or R	F: Forward R: Reversed Signal direction of sensor, can be adjusted corresponding to right or left installation
Slow acceleration		Slow-ACC: slow acceleration	Value: 0-3	Default value: 0
Number of poles for power assist magnet		P- Pulse: assistance started pulse	Value: 2-63	Default value: 2 Step: 1 Number of starting magnets
Current limit setting		CurLtd: current limitation	Value: 0-31.5A	Default value: 12 Step: 0.5A Controller's current limit setting
System voltage setting		SysVol: select system voltage	Value: 24V/36V/48V	Default value: 36V Choose system voltage
Low voltage protection setting		LowVol: low voltage level	Value: 10.0 - 52.0V	Default value: 31.5V Step: 0.5V Select the low voltage value for protection

ERROR INFORMATION

Display can warn bike faults. When faults are detected, an error code will be shown on the interface and blink at 1 Hz. When an error code is shown, button functions will not be affected, meaning interfaces can be shown normally by pressing buttons. If there is no button operation after 5s, the display will return to the error code interface.

ERROR CODE INTERFACE AS SHOWN BELOW:



PROTOCOL'S ERROR CODE INFORMATION TABLE:

Error code	Error description	Suggested operation
"04" shown at speed	throttle doesn't turn back to zero position (stay on the high position)	Check if the throttle turns back
"05" shown at speed	throttle failure	Check throttle
"07" shown at speed	overvoltage protection	Check battery voltage
"08" shown at speed	failure of motor's hall signal wire	Check motor
"09" shown at speed	failure of motor's phase wire	Check motor
"11" shown at speed	failure of the motor's temperature sensor	Check controller
"12" shown at speed	failure of the current sensor	Check controller
"13" shown at speed	failure of the temperature of the battery	Check battery
"14" shown at speed	Controller temperature is too high, and reaches the protection point	Check motor
"21" shown at speed	failure of the speed sensor	Check the install position of the speed sensor
"22" shown at speed	Failure of BMS communication	Change battery
"30" shown at speed	communication failure	Check connector to controller

Note:

Regarding the use of the display, pay attention to the security and do not plug the display in, or unplug it when the display has been turned on.

Try to avoid exposure to harsh environments like heavy rain, heavy snow, and strong sunlight.

When the display can't be used normally, it should be sent for repair as soon as possible.

GENERAL INFORMATION

BATTERY RANGE

The range of the battery is up to 40 miles per charge. However, a lot of factors affect how far you can go per charge:

- Driving surface: A smooth, flat surface will increase driving distance.
 - Weight: More weight means less distance.
 - Maintenance: Regular battery charging and maintenance will prolong the life of your battery.
 - Speed and riding style: Maintaining a moderate speed will increase distance. Frequent starting and stopping, acceleration and deceleration will reduce it.
 - Battery size, tyre pressure, temperature, battery age and weather conditions.
-

SPEED LIMIT

The top speed of the bike is set to 25km/h (15.5mph) (obey local laws).

WEIGHT LIMIT

The maximum load is 120kg (18.9 stone). Going above the maximum weight limit can cause injury or damage the bicycle and will void your warranty.

CLEANING THE BIKE

To clean the bike carefully wipe with a damp cloth, then dry with a dry cloth. Do not use excessive water to clean the bike as this could damage the components, resulting in personal injury or malfunction of the bicycle. Lubricate the chain after every wash if you can to keep it smooth and rust free. Suitable products are available via **westhillbikes.com**.

BATTERY

- Keep the bike away from fire and excessive heat.
- To avoid damage to the battery, never subject the bike to intense physical shock, severe vibration or impact.
- Protect the battery from water or moisture.
- You can remove the battery but never disassemble it.
- If there are any issues with the battery, please contact Customer Support on +44 (0)1823 672 970.

STORAGE

- If you plan on storing the bike for a substantial period of time, please make sure you fully charge the battery before storing. The battery should be fully charged once a month after this.

Store the battery indoors in a room temperature environment.

- To protect against dust, cover the bike.
- Store the bike indoors, in a dry place and at a suitable temperature.
- You should bring the battery into a warm environment for charging.
- Do not leave the bike plugged into the charger for long periods of time.

TYRE PRESSURE

The recommended tyre pressure is written on the tyres (45-70 PSI depending on which bike you have & how firm you want your ride to be).

SAFETY WARNINGS

Here are some useful tips to make sure you always have a safe ride:

- Children and pregnant women should not use the bike.
- Do not ride after drinking alcohol.
- Consult your doctor if taking prescription medication.
- Do not carry items when riding.
- Prior to each ride, inspect each part of the bike to ensure it has been maintained correctly and is functioning properly.
- Always give way to pedestrians.
- Be aware of your surroundings.
- Always comply with local traffic laws and regulations. Remember, this bike is a motor vehicle, and is treated as such by local law enforcement. You can and will be arrested for drink driving. Many cities have restrictions on where you can drive motor vehicles, as well as additional restrictions on driving non-automobiles on streets and highways.
- Make sure your feet are always placed securely on the pedals.
- The bike cannot be ridden by two or more people. Only one person can ride at a time.
- When you ride the bike along with other cyclists, always keep a safe bike distance to avoid a collision.
- When turning, be sure to maintain your balance.
- Do not allow distractions when riding, such as answering the phone or engaging in any other activities.

- Applying brakes too hard or too suddenly can lock up a wheel, which could cause you to lose control and fall. Sudden or excessive application of the front brake may pitch the rider over the handlebars, which may result in injury or death.
-

MODIFICATIONS

Do not attempt to disassemble, modify, repair or replace any electrical parts without contacting the Customer Service (+44 (0)1823 672 970). This will void any warranty and can lead to malfunctions which may cause injury.

ADDITIONAL OPERATION CAUTIONS

Do not lift the bike off the ground while it is in operation and the wheels are in motion. This can result in freely spinning wheels, which may cause injury to yourself or others nearby. Do not jump on or off the bike.

Westhill Bikes Warranty

Register Now Through Our Website

Simply visit **westhillbikes.com/warranty-registration** and fill in your information.

Register Now Through Facebook



The other way to register your new bike is through Facebook. Simply visit our page **www.fb.com/westhillbikes** or scan the QR code below with your mobile phone and message us with this information:

Your name:

Your email address:

Your postal address:

Bike model & colour:

Purchase date:

Where you purchased from:



Be sure to register right away so your bike is covered!

Don't have Facebook? Email the above details to enquiries@westhillbikes.com to activate your warranty.

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