

# SMART 1S

## PEDAL ASSIST ELECTRIC BICYCLE

### Owner's Manual



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## **IMPORTANT**

This manual contains important information that should be reviewed before riding the Pedal Assist Electric Bicycle (Pedelec). Any user should read and understand this manual before riding it. Always wear a helmet and follow the local regulations while riding your Pedal Electric Bicycle. Obey local traffic rules and regulations at all times. Ensure this Pedal Assist Electric Bicycle is in good condition before riding. Use common sense and Ride Safely.

### **WARNING**

When using the Pedal Assist Electric Bicycle for the first time, ensure that you are in a safe open area to ride before you engage the Pedal Assist System (PAS) feature. Start on the first level of pedal assist until you are comfortable with how the pedal assist feature works. Never engage the pedal assist feature unless you are in a balanced, ready to ride position with both hands on the handlebar controls. Failure to follow and understand these instructions may result in risk of serious injury or even fatal, and it may also damage your bicycle and void your warranty.

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## 1. PARTS GUIDE

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- |                       |                                   |
|-----------------------|-----------------------------------|
| 1. Wheel              | 12. Brake Lever                   |
| 2. Rear Derailleur    | 13. Control Unit (Display)        |
| 3. Chain              | 14. Fork                          |
| 4. Crank Set          | 15. Front Brake                   |
| 5. Pedal              | 16. Front Light                   |
| 6. Seat Post          | 17. Kick Stand                    |
| 7. Saddle             | 18. Motor                         |
| 8. Frame              | 19. Rear Light                    |
| 9. Head Set           | 20. Rear Brake                    |
| 10. Stem / Handlepost | 21. Battery Casing                |
| 11. Handlebars        | 22. Charger Port / Battery Switch |

## 2. HANDLEBAR

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## 3. CONTROL UNIT

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## 4. CHARGING

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### To Charge the Battery:

1. Open the protective flap and insert the charging point of the charger to the battery module charging port securely.
2. Charge the battery until the charge indicator on the charger LED light turns from red to green. When fully charged, unplug it and close back the protective flap.
3. You may also remove the battery out from the frame for recharging.

**NOTE:** THE PROPER STORAGE TEMPERATURE FOR THE LITHIUM ION BATTERY IS BETWEEN 5°C AND 30°C. BATTERY PERFORMANCE WILL BE AFFECTED BY EXTREME TEMPERATURES. BATTERY DISTANCE PER CHARGE MAY NOT BE OPTIMUM WHEN OPERATING IN EXTREME TEMPRATURES. IT IS STRONGLY RECOMMENDED TO PARK IN A COOL, DRY ENVIRONMENT. AVOID EXPOSING IT TO HOT SUN OR HEAT

**CAUTION:** ONLY USE THE ORIGINAL CHARGER AND BATTERY OTHERWISE WARRANTY WILL BE VOID. DO NOT OPEN OR DISMANTLE CHARGER OR BATTERY AS IT WILL VOID THE WARRANTY. THE LITHIUM ION BATTERY SHOULD BE CHARGED IMMEDIATELY AFTER USE. DO NOT STORE THE BATTERY FOR LONG PERIODS OF TIME WITHOUT CHARGE. IF YOU MUST STORE THE BATTERY FOR A LONG TIME PERIOD WITHOUT USE, CHARGE IT EVERY 2 TO 3 MONTHS TO AVOID REDUCING BATTERY'S OPERATING LIFE. LITHIUM ION BATTERY MUST BE RECYCLED IN ACCORDANCE TO LOCAL REGULATIONS AND IN SAFELY MANNER TO ENVIRONMENT.

## 5. POWER ON / OFF

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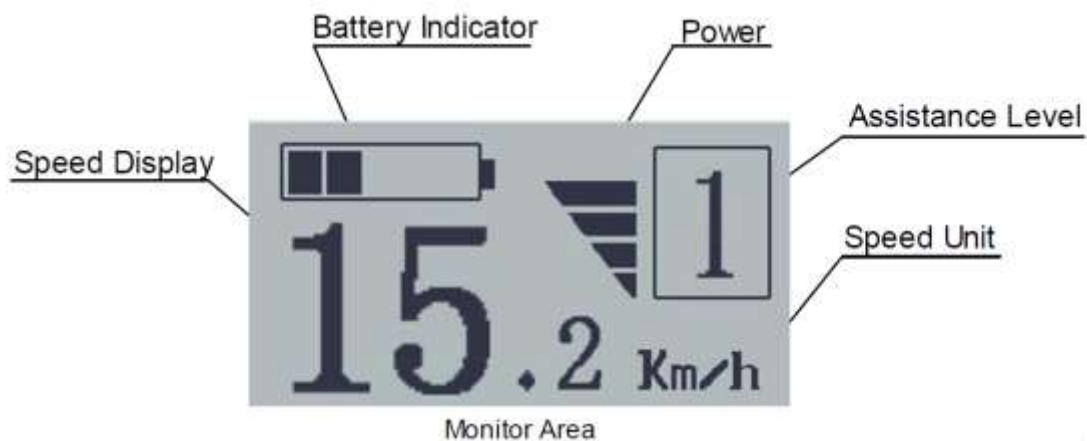
To Power ON and OFF:

1. Set the battery module SWITCH to ON position.
2. To turn ON the control unit, hold the MODE **M** button for 2 seconds.
3. To turn OFF the control unit hold the MODE **M** button for another 2 seconds.

**NOTE:** WHEN NO ACTIVITY FOR MORE THAN 10 MINUTES. THE SMART CONTROL UNIT WILL SHUT DOWN ITSELF TO CONSERVE ENERGY

## 6. DISPLAY INDICATORS

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## 7. PEDAL MOTOR ASSISTANCE LEVEL AND POWER INDICATOR

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Assistance Level "4"



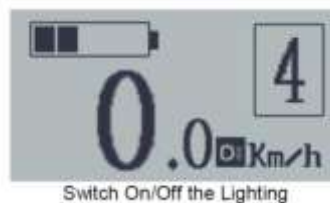
Motor Power Indicator Interface

There are five levels of pedal assist power. Start off slowly, using the first level of pedal assist until you get a proper feel for the bike and how it handles in pedal assist mode. Assistance levels indicate the output power of the motor. The default value is level "1". The default power ranges from level "0" to level "5". Level "1" is the minimum power. Level "5" is the maximum power. To adjust the desired level, press UP **+** or DOWN **-** button. While riding, motor output level is indicated in the varying power bar

**NOTE:** TO CONSERVE BATTERY ENERGY, CHOOSE THE MINIMUM POWER ASSIST WHILE PEDALLING.

## 8. LIGHTS

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FRONT LED Light ON and OFF:

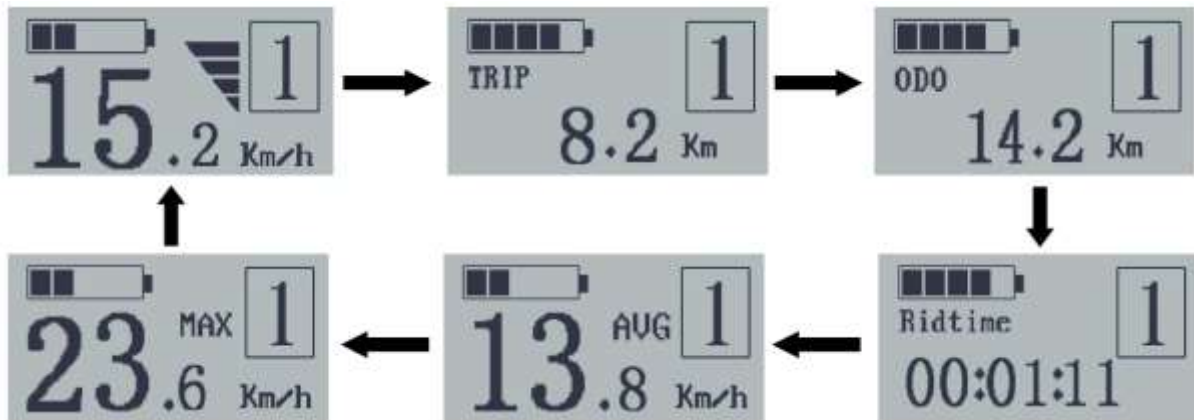
1. To turn ON the Front Light (when equipped) press and hold the UP **+** button for 2 seconds. The control unit display backlight will also be ON.
2. To turn it OFF, press and hold the UP **+** button in the same way for another 2 seconds. The control unit display backlight will also be OFF.

REAR LIGHT: turn ON or OFF rear Red LED by pressing the button in the middle.




## 9. DISPLAY MODES

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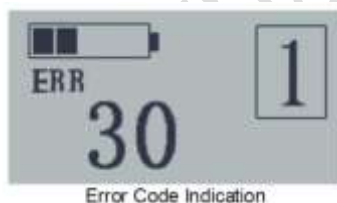
When the control unit is activated, the main indicator will show Running Speed by default.

To change the indicated information while the bicycle is not moving, press MODE  button to show information as below:

Running Speed (Km/h) → Trip Distance (Km) → Odometer (Km) → Riding Time (Hour) → Average Speed (Km/h) → Max Speed (Km/h). Each state will display for 2 seconds and then automatically returns to the Running Speed interface.

## 10. ERROR CODE INDICATION

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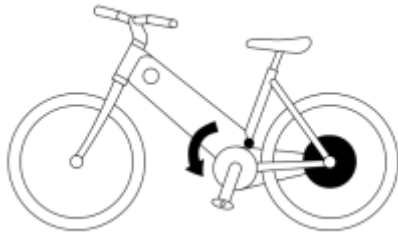


If there is error about the electronic control system, the error code will appear automatically in the display.

**CAUTION:** WHEN ERROR INDICATION APPEARS, POWER OFF YOUR CONTROL UNIT AND CONTACT YOUR AUTHORISED DEALER FOR SERVICING

## 11. RIDING

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After powering on the battery and control module, set the pedal assist power to the first level. Make sure you are in a safe open area to ride before you engage the pedal assist feature. Never engage the pedal assist feature unless you are in a balanced, ready to ride position with both hands on the handlebar controls. Remember wear a helmet and follow the local regulations.

Once ready, simply pedal the bicycle as normal. You will feel the pedal assist motor engage and “boost” you along. If you stop pedalling, or engage the brake lever, the pedal assist feature will stop automatically.

Should you wish to pedal it manually you may set the pedal assist power to “0” or simply turn it off.

**WARNING:** YOUR SAFETY AND OTHER ROAD USERS SAFETY ARE IMPORTANT THEREFORE DO NOT BE DISTRACTED OR OPERATE A MOBILE PHONE OR OTHER ELECTRONIC DEVICE WHILE RIDING. PLEASE PAY ATTENTION TO TRAFFIC. WHENEVER POSSIBLE, RIDE ON THE BICYCLE LANES AND ALWAYS IN THE SAME DIRECTION AS TRAFFIC. KEEP IN MIND THAT OTHER TRAFFIC USERS MAY UNDERESTIMATE THE SPEED. PLEASE RIDE IT WITH BOTH HANDS ON THE HANDLEBARS. RIDE SAFELY AND USE COMMON SENSE.

**CAUTION:** PLEASE ENSURE IT IS SAFE AND ROAD WORTHY BEFORE RIDING. HAVE IT CHECKED THOROUGHLY ESPECIALLY AFTER BEING STORED FOR A LONG TIME PERIOD WITHOUT USE.

**NOTE:** TO EXTEND THE DISTANCE AND TO CONSERVE BATTERY ENERGY, CHOOSE THE MINIMUM POWER ASSIST WHILE PEDALLING

## 12. SHIFTING GEARS

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Shifting gears:

1. Shifting gear up, press with your thumb on the low shifter lever
2. Shifting gear down, pull the upper shifter lever one gear at a time

**NOTE:** YOU NEED TO PEDAL WHEN SHIFTING UP OR DOWN GEARS.

## 13. BELL

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This bicycle comes with integrated bell at the left brake lever for your convenience.

## 14. FOLDING

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1. Open the safety pin and the quick release lever on the stem and let it down.
2. Open the safety pin and the quick release lever in the middle of the frame.
3. Rotate the front half of the bicycle frame until it is parallel to the back half.
4. Fold and secure.
5. To unfold, reverse the preceding steps.

**WARNING:** DO NOT RIDE UNLESS ALL JOINTS AND QUICK RELEASE MECHANISMS ARE SECURELY TIGHTENED AND LOCKED APPROPRIATELY.

## 15. BATTERY AND SAFETY PRECAUTIONS

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1. Charge the battery pack for at least 6 hours before using your new pedal assist bicycle for the first time or until the charge led on the charger turn green.
2. To install the battery, slide the battery pack onto the bike rack steadily and then lock it into the rack with the supplied key.
3. Switch on the battery power when ready for usage. Switch off the battery power when the bicycle is not in use.
4. The battery pack works properly at the temperature range of 5° C to 30° C. The running mileage will shorten if used outside of this temperature range.
5. Remove the battery pack if the bike is not used for an extended period of time, or if it is stored outdoors to prevent the battery from over exposure to excessive sun or rain.
6. Store the battery pack in a cool, dry and ventilated place with temperature between 5° C to 30° C.
7. If the battery is found overheating, leaking, deforming, giving out, has an odd smell, or is smoking, stop using the battery pack immediately.
8. Do not use the battery pack on other applications or to power other products.
9. Use only the supplied battery and the specified adaptor to charge the battery.
10. Using uncertified, non-recommended adaptor to charge the battery pack may cause irreparable damage and void the warranty.
11. Keep the battery pack away from children's reach.
12. For long term storage, the battery should be charged at 60%-80% capacity (about 3-4 hours). Repeat the same procedure every 2-3 months.
13. The battery pack should be charged promptly when the power is low, to avoid damage caused by battery self-discharge.
14. Do not use chemical solvent to clean the case of the battery pack or adaptor.
15. Use a soft cloth to wipe and clean any waterlogging or dirt on the surface of the battery pack and the adaptor.
16. Do not expose the battery for long periods of time to rain or strong sunlight.
17. Do not place the battery pack in a humid environment or submerge in water.
18. Do not put the battery pack into fire.
19. Avoid over-loading the bicycle over 100kg including rider and cargo.
20. Avoid extended climbing of hills over 15 degrees steep for over 15 minutes.

## 16. USING THE CHARGER

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The charger should be examined regularly for damage to the cord, plug, enclosure and other parts. In the event such damage has occurred, the pedal assist bicycle should not be charged until the charger is repaired or replaced.

Use only the supplied, recommended charger. Always use caution when charging. The charger is not a toy and should be operated by an adult. Never operate the charger near flammable materials or liquids.

Disconnect the charger and unplug it from the pedal assist bicycle when not in use. Do not exceed the recommended charging time. Always disconnect the charger from the pedal assist bicycle prior to wiping down or cleaning the pedal assist bicycle with any liquid.

Use the charger to charge the battery in a cool, dry and well ventilated area, away from sparks, flames, smoking and combustibles.

## 17. SERVICING

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Check and maintain your Pedal Assist Electric Bicycle periodically to ensure smooth and safe riding.

Clean the exterior with damp clothes and wipe clean. Do not spray with water.

Store the bicycle in the cool and dry place.

Before riding, check that all the safety pins are well secured, all mechanicals and electricals components are functioning properly. Ensure the brakes are functioning well and the tires properly inflated.

Check for loosen or worn out parts and do not operate your bicycle until they are repaired or replaced by your authorised dealers.

## 18. IN THE BOX

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1. Pedal Asist Electric Bicycle
2. Smart1S Owner's Manual
3. Charger and Manual
4. Cable and Plug
5. Battery
6. Battery Key
7. Warranty

## 19. SPECIFICATIONS

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Control Unit Display:	KD58C LED DISPLAY
Controller:	SINE WAVE CONTROLLER
Sensors:	12 MAGNET SPEED SENSORS, 5 LEVELS
Battery:	LITHIUM ION 36V 7.8AH
Charger:	240V/110V, 50-60HZ, 2 A, SMART CHARGER, 4-6HR
Distance:	PEDELEC <75KM PER CHARGE
Motor:	250W, 36V (MOTOR CUT OFF SPEED 25KM/H)
Frame:	LIGHT WEIGHT 6061-T6 ALUMINIUM
Tyre:	20"x1.75
Brake:	TEKRO BRAKE WITH SAFETY E-POWER CUT-OFF
Max Load:	120KG
Weight:	18KG
Shifter:	SHIMANO 7-SPEED
Derailleur:	SHIMANO 7-SPEED
Chain:	KMC 7 SPEED
Rim:	ALUMINIUM 6061-T6, SPOKE RIM 20"

**NOTE:** SPECIFICATIONS MAY SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

## 20. WARRANTY AND DISCLAIMER

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### WARRANTY

TWD Bicycle Pte Ltd warrants that the Smart1S is free from manufacturing defects and workmanship under normal conditions and reasonable use:

- for the electric motor and frame;
- for the specific of days or months as stated in the invoice from the date of original retail purchase.

### WARRANTY EXCLUSIONS

This warranty does not cover:

- if it has been modified or repaired by a person other than TWD Bicycle Pte Ltd;
- if it has been used for rental or commercial purposes;
- if the mark, logo and serial number has been defaced or removed from the Product;
- damage resulting from water, or flood;
- damage resulting from causes other than defects in materials and workmanship, including to accident, abuse, misuse, neglect, improper assembly, improper repair, improper maintenance, alteration, modification or other abnormal, excessive or improper use;
- damage occurring during shipment or transport of the Product back to TWD Bicycle Pte Ltd;
- products that are not in the original equipment at the time of purchase;
- damage resulting from use of products which are defective or incompatible with the Product;
- damage resulting from normal wear and tear, including damage or deterioration to the surface finish; aesthetics or appearance of the Product;

This warranty is void in its entirety by any modification of the frame, fork, or components. This warranty expressly provides for the repair or replacement of the said product and is the sole remedy of the warranty. Any and all other remedies and damage that may otherwise be applicable are excluded, including but not limited to, incidental and consequential damages.



## WARRANTY HANDLING

To make a valid claim under this warranty:

- return the product in its original package;
- bring the original dated invoice or receipt;
- bring the original warranty registration form or the original extended warranty form to TWD Bicycle Pte Ltd, 192 Pandan Loop #06-24, Singapore 128381.

Please have the following information available:

- Model Number
- VIN or Vehicle Identification Number
- Motor Number
- Customer and Dealer details

If, having inspected the product, TWD Bicycle Pte Ltd accepts that the product is defective; TWD Bicycle Pte Ltd will (in its sole discretion) either repair or replace the said product without charge.

## GENERAL PROVISIONS

This warranty is governed by and construed under the laws of the country or state in which the product was purchased. This warranty does not affect your statutory rights.

TWD Bicycle Pte Ltd reserves the right to revise this limited warranty without notice.

## PERSONAL DATA CLAUSE

Your personal data is being collected and may be used or disclosed to third parties (which maybe overseas) for the purpose of servicing the warranty for your Product and contacting you in relation to the same, or for promotional, marketing, publicity, research and profiling purposes (the "Purpose"). TWD Bicycle Pte Ltd, will handle your personal data in compliance with the Singapore Personal Data Protection Act 2012 and all regulations there under. TWD Bicycle Pte Ltd, reserve the right to charge a reasonable administrative fee for request to access of correct personal data.

<b>PRODUCT DETAILS</b>	
Model No:	
Motor Serial No:	
VIN / Frame No:	
Date of Purchase:	
Receipt No:	
<b>CUSTOMER DETAILS</b>	
Customer Name:	
Customer Address:	
Postal Code:	
Contact No (Mobile) :	
Contact No (Home):	
Email:	
Signature of customer:	
<b>DEALERS DETAILS</b>	
Dealer Stamp (Name and Address):	

NOTES

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