Topyond Topyonddghfyi0s1x

Topyond Electric Bike Controller Kit Instruction Manual

Model: Topyonddghfyi0s1x

1. Overview

This manual provides detailed instructions for the installation, operation, and maintenance of the Topyond Electric Bike Controller Kit. This kit is designed for modifying or replacing components on 36V/48V 1000W electric bicycles, electric scooters, and similar vehicles, enhancing your riding experience with advanced control and display features. The kit includes a 30A sine wave controller, a KT-LCD8H panel, a 10B power sensor, and a 20X full throttle grip. These components can be used individually or as a complete system.

Figure 1: Complete Topyond Electric Bike Controller Kit Components

2. Safety Information

Warning:

- Always disconnect power before performing any installation, maintenance, or troubleshooting.
- Improper installation or use can lead to electric shock, fire, or serious injury.
- Professional installation by a qualified technician is highly recommended.
- Ensure all connections are secure and insulated to prevent short circuits.
- Do not expose the controller or display to water or extreme weather conditions.
- Verify battery voltage compatibility with the controller (36V/48V).

3. Package Contents

The Topyond Electric Bike Controller Kit includes the following items:

- 1x 30A Sine Wave Controller
- 1x KT-LCD8H Display Panel

- 1x 10B Power Magnetic Point (PAS Sensor)
- 1x 20X Full Throttle Grip

Figure 2: Kit components and examples of compatible electric bikes.

4. Setup and Installation

4.1 Controller Wiring Overview

The controller features multiple color-coded wires for various connections. Ensure each connection is made correctly according to the corresponding component.

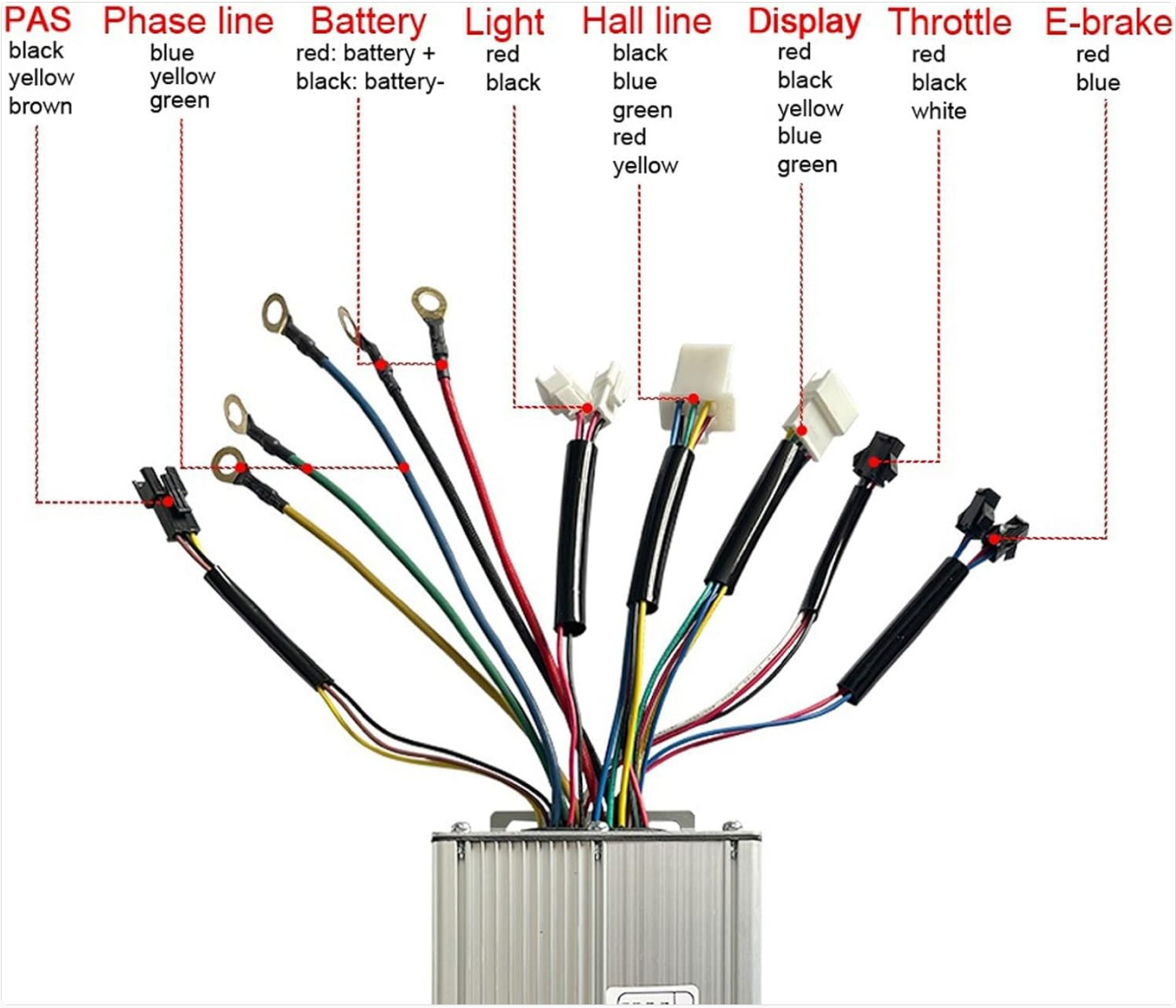

Figure 3: Topyond Controller with labeled wiring for different functions.

Key Connections:

- **Battery Power:** Red (positive) and Black (negative) lines.
- **Motor Phase Lines:** Blue, Green, Yellow wires for motor connection.
- **Hall Sensor:** Multi-pin connector for motor's Hall sensor.
- **Display:** Connector for the KT-LCD8H panel.
- **Throttle:** Connector for the 20X Full Throttle Grip.
- **E-Brake:** Connectors for electronic brake levers.
- **Light:** Connectors for headlights/taillights.
- **PAS (Power Assist Sensor):** Connector for the 10B Power Magnetic Point.

4.2 Component Specifics and Connections

4.2.1 Controller

The sine wave controller provides stable and safe operation. Its grooved design aids in heat dissipation, protecting internal circuits.

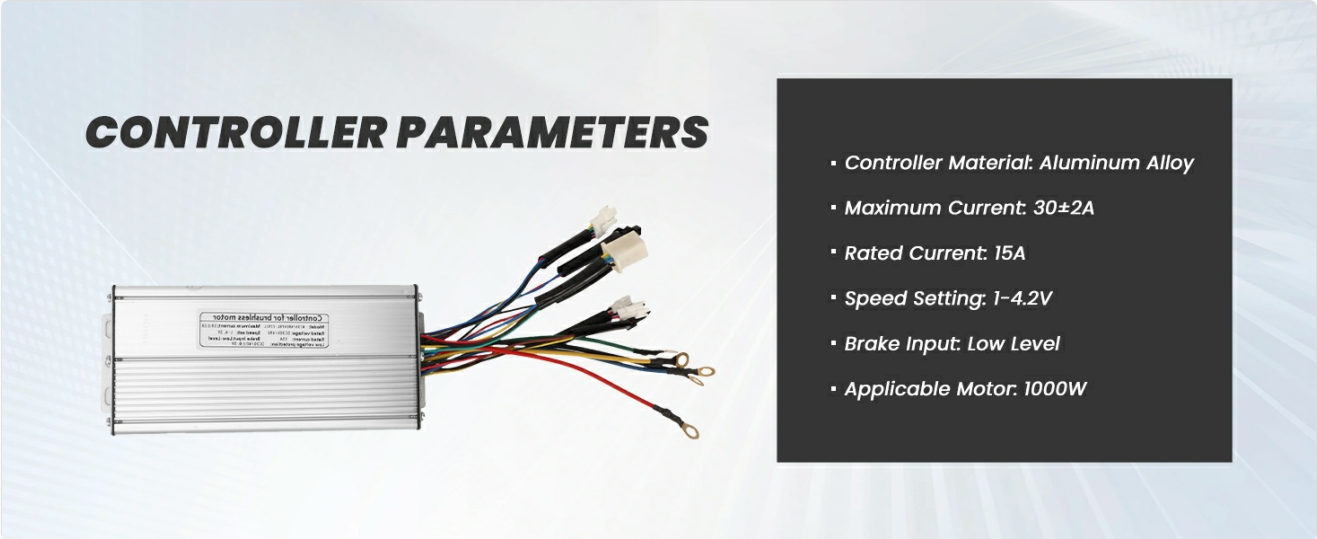

Figure 4: Controller with detailed specifications.

Ensure the red and black power lines from the controller are connected to the corresponding positive and negative terminals of your battery. The blue, green, and yellow phase lines should connect to the motor's phase lines, matching colors.

4.2.2 KT-LCD8H Display Panel

The display panel provides essential riding information. It is suitable for 22.2mm diameter handlebars.

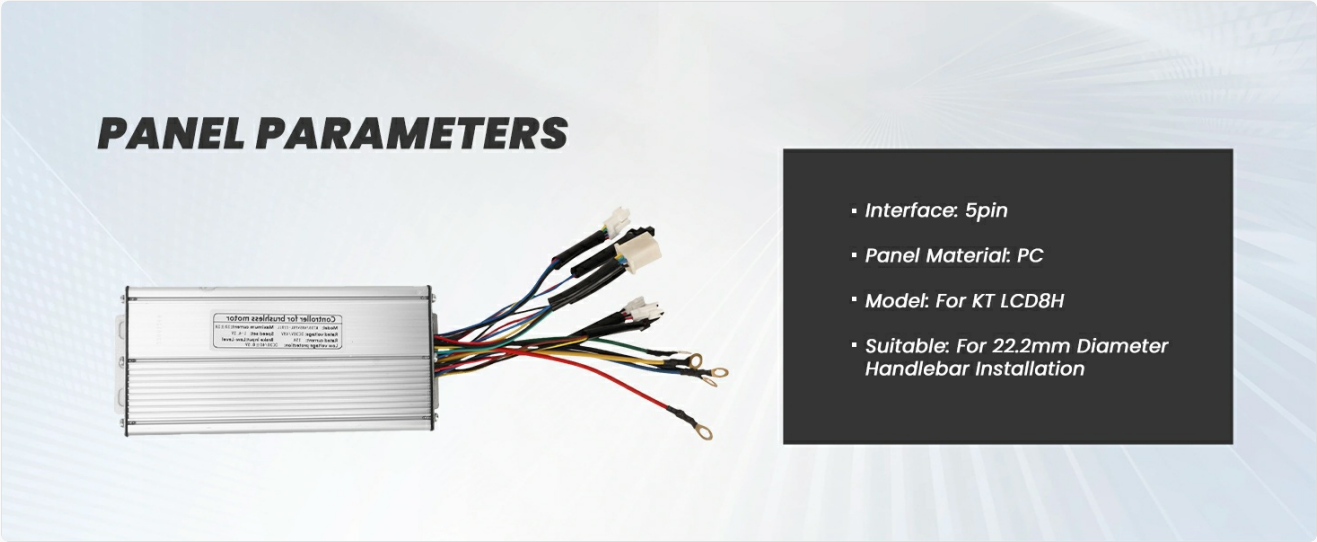

Figure 5: KT-LCD8H Display Panel with interface details.

Connect the display's 5-pin interface cable to the corresponding port on the controller. Mount the display securely on your handlebar.

4.2.3 10B Power Magnetic Point (PAS Sensor)

This sensor assists with pedaling. It is typically installed on the left side of the crank.

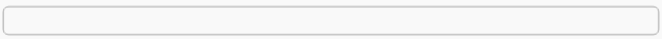

Figure 6: 10B Power Magnetic Point (PAS Sensor) with specifications.

Connect the 3-pin SM connector of the PAS sensor to the controller. Ensure it is installed in the correct position for accurate pedal assistance.

4.2.4 20X Full Throttle Grip

The throttle grip provides direct motor control. It is compatible with 22.2mm handlebars.

Figure 7: 20X Full Throttle Grip with specifications.

Connect the 3-pin SM connector of the throttle grip to the controller. Pay attention to the red and black lines in the throttle connection, ensuring they are connected correspondingly.

4.3 Wiring and Display Setup Demonstration Video

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Video 1: Detailed unboxing, component overview, wiring connections, and display parameter settings for the e-bike controller kit. This video demonstrates the connection process for the controller, display, and throttle, including parameter adjustments.

5. Operating Instructions (KT-LCD8H Panel)

The KT-LCD8H display provides various functions for controlling and monitoring your e-bike.

- **Power On/Off:** Long press the power button to turn the display on or off.
- **Adjusting PAS Levels:** Use the '+' and '-' buttons to adjust the pedal assist levels.
- **Accessing Parameter Settings:** Long press the power button and '+' button simultaneously to enter the parameter setting mode.

5.1 Key Parameter Settings (P01-P20)

In parameter setting mode, use the power button to cycle through parameters (P01-P20) and the '+' / '-' buttons to adjust values. Long press the power button to exit.

- **P01: Backlight Brightness** (1-3, 3 is brightest)
- **P02: Change Metric** (0: km, 1: mile)
- **P03: Battery Voltage Setting** (Default 36V, adjustable for 36V-60V systems)
- **P04: Hibernate Mode Time** (1-60 minutes, 0 for no hibernate)
- **P05: Total Assist Levels** (0-5, 0 for no assist)
- **P06: Wheel Size (inch)** (Set according to your wheel size)
- **P07: Speed Calculation** (Number of magnets for speed calculation, range 1-255)
- **P08: Speed Limit Range** (0-100km/h)
- **P09: Zero Speed Start** (0: zero start, 1: non-zero start)
- **P10: Driving Mode Selection** (0: only assist, 1: only electric, 2: both)
- **P11: Assist Sensitivity** (Range 1-24, sets delay between pedaling and motor start)

- **P12: Assist Starting Power** (Range 1-5, sets the starting power of the motor)
- **P13: Assist Disc Type** (5, 8, 12 magnets)
- **P14: Current Limit of Controller** (Range 3-20A, 12A by default)
- **P15: Low Voltage Protection Setting of Controller**
- **P16: ODO Distance Reset** (Hold '+' for 5 seconds to reset)
- **P17: Cruise Mode Selection** (0: cruise mode disabled, 1: cruise mode enabled)
- **P18: Speed Ratio**
- **P19: Assist Level** (0: disable, 1: level 0, 2: level 1, etc.)
- **P20: Protocol Selection** (0: NO 2 Protocol, 1: S5 Protocol)

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Video 2: A brief demonstration of the electric bike controller kit in use, showcasing its functionality on a road.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your e-bike controller kit.

- **Cleanliness:** Keep the controller, display, and all connections clean and free from dust, dirt, and moisture. Use a soft, dry cloth for cleaning.
- **Connection Checks:** Periodically inspect all electrical connections for tightness and signs of wear or corrosion. Re-secure any loose connections.
- **Cable Integrity:** Check all cables for cuts, fraying, or damage. Replace damaged cables immediately to prevent short circuits or system failure.
- **Water Exposure:** Avoid riding in heavy rain or submerging the components in water. While the components are designed for outdoor use, excessive water exposure can cause damage.
- **Heat Management:** Ensure the controller has adequate airflow for cooling. Do not cover it with insulating materials during operation.

7. Troubleshooting

The KT-LCD8H display can show error codes to help diagnose issues. Refer to the display manual for a complete list and descriptions of error codes (E00-E12).

Common Error Codes (Refer to display manual for full list)

Code (Decimal)	Description
E00	Normal
E01	Reserved
E02	Brake Error
E03	Assist Sensor Error
E04	6KM/H Push Mode
E05	Cruise Mode
E06	Battery Low Voltage Protection
E07	Motor Error

Code (Decimal)	Description
E08	Throttle Error
E09	Controller Error
E10	COM Receive Error
E11	COM Send Error
E12	BMS Communication Error
E13	Head Light Error

General Troubleshooting Steps:

- **No Power:** Check battery connection and charge level. Ensure the display is properly connected and powered on.
- **Motor Not Responding:** Verify all motor phase and Hall sensor connections. Check for error codes related to the motor or controller.
- **Inconsistent Assist:** Check PAS sensor installation and connection. Adjust PAS sensitivity (P11) if needed.
- **Throttle Issues:** Inspect throttle wiring for damage. Check for throttle error codes.

8. Specifications

Controller Parameters:

- **Material:** Aluminum Alloy
- **Maximum Current:** 30±2A
- **Rated Current:** 15A
- **Voltage:** DC 36V 48V
- **Brake Input:** Low Level
- **Low Voltage Protection:** DC30/40±0.5V
- **Applicable Motor:** 1000W

Panel Parameters (KT-LCD8H):

- **Material:** PC
- **Model:** For KT LCD8H
- **Suitable for:** 22.2mm Diameter Handlebar Installation
- **Voltage:** 24V 36V 48V
- **Interface:** 5pin
- **Functions:** Riding Time, Riding Speed, Riding Mileage, Power Gear, Power Indication, Fault Code Prompts, Headlight Display, Motor Running Status, 6km/H Power Promotion.

Assisted Magnetic Point Parameters (10B Power Sensor):

- **Material:** Plastic, Magnet
- **Voltage:** DC 36V 48V
- **Line Length:** 100cm / 39.4in
- **Connector:** 3 Pin SM Connector

- **Installation Position:** Left Side

20X Full Throttle Grip Parameters:

- **Material:** Rubber
- **Voltage:** DC 24V 36V 48V 60V 72V
- **Line Length:** 180cm / 70.9in
- **Connector:** 3 Pin SM Connector

General Product Information:

- **Item Weight:** 1.2 Kilograms
- **ASIN:** B0CKRF24GC
- **Model Number:** Topyonddghfyi0s1x
- **Date First Available:** October 9, 2023

9. Warranty and Support

For warranty information and customer support, please refer to the documentation provided with your purchase or contact the seller directly. You can also visit the official Topyond store for more product information and assistance:

Visit the Topyond Store