HALLOMOTOR KT 36V/48V 20A Controller and LCD8HPU LCD Display

HALLOMOTOR KT 36V/48V 20A Controller and LCD8HPU LCD Display User Manual

Comprehensive instructions for setup, operation, and maintenance.

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your HALLOMOTOR KT 36V/48V 20A Square Wave Controller and KT LCD8HPU LCD Display. Please read this manual thoroughly before use to ensure proper function and safety.

2. Important Safety Information

- Always disconnect power before installing or performing maintenance on the controller or display.
- Ensure all connections are secure and correctly polarized to prevent damage to components.
- This controller is designed for brushless hub motors with Hall sensors. Do not use with other motor types.
- The controller is compatible only with KT series displays. Using other brands may cause malfunction.
- Keep the controller and display away from water and extreme temperatures.
- Seek professional assistance if you are unsure about any installation or wiring steps.

3. Product Overview

The HALLOMOTOR KT 36V/48V 20A Controller and KT LCD8HPU LCD Display system is designed for electric bicycles, providing efficient motor control and comprehensive ride data. The controller features a square wave output and supports 6V/36V/48V light output, while the LCD8HPU display offers a clear interface with a USB socket.

Key Features:

- KT-LCD8HU-P Color Display Meter: 24/36/48V compatible with waterproof plug and USB socket interface.
- Controller Compatibility: Exclusively designed for KT series displays.
- Motor Compatibility: Supports hub motors equipped with Hall sensors.
- Regenerative Function: Available when paired with the specified LCD display.
- Light Output: Provides 6V/36V/48V light output.

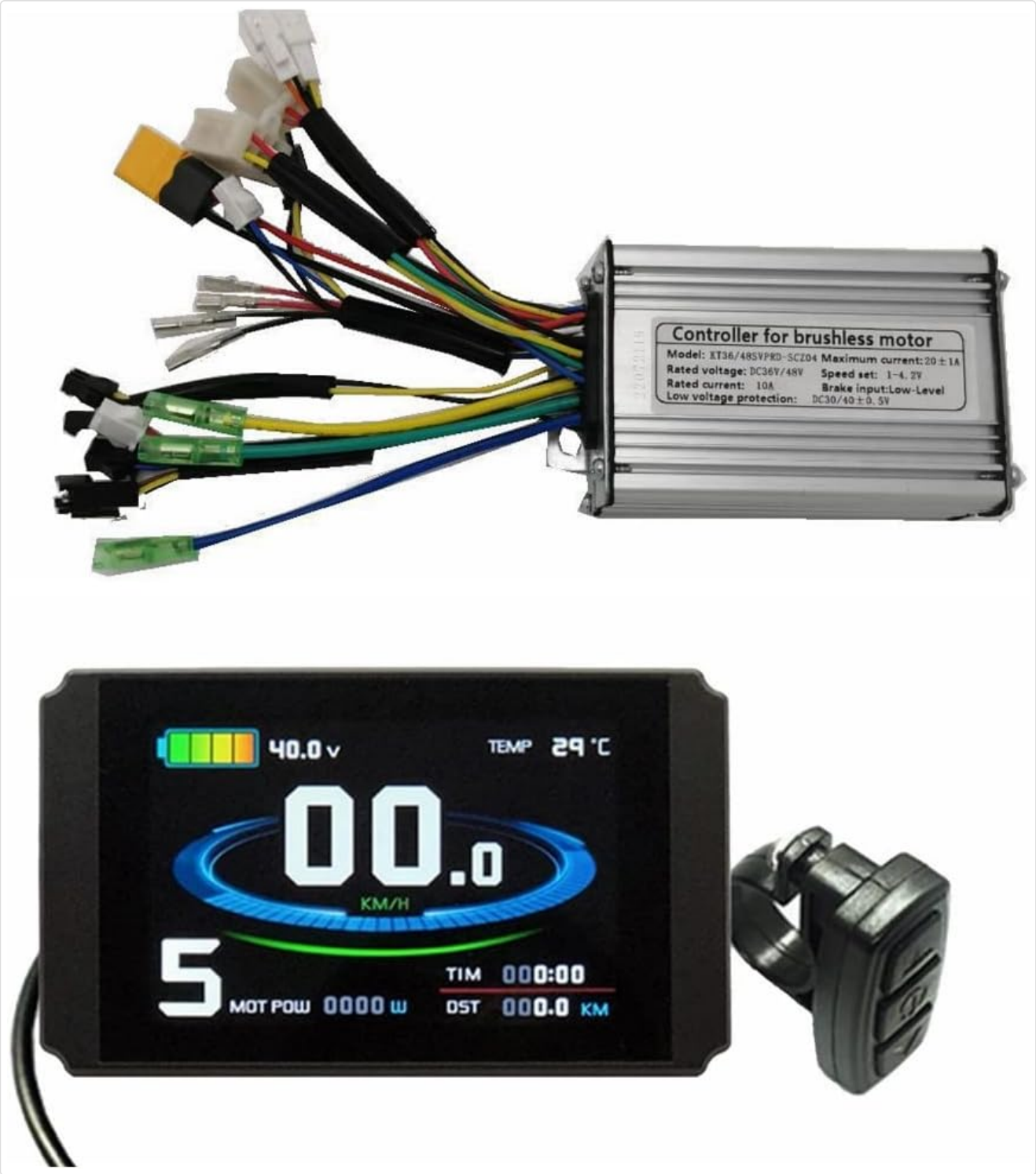

Image 3.1: The HALLOMOTOR KT 36V/48V 20A Controller and KT LCD8HPU LCD Display kit.

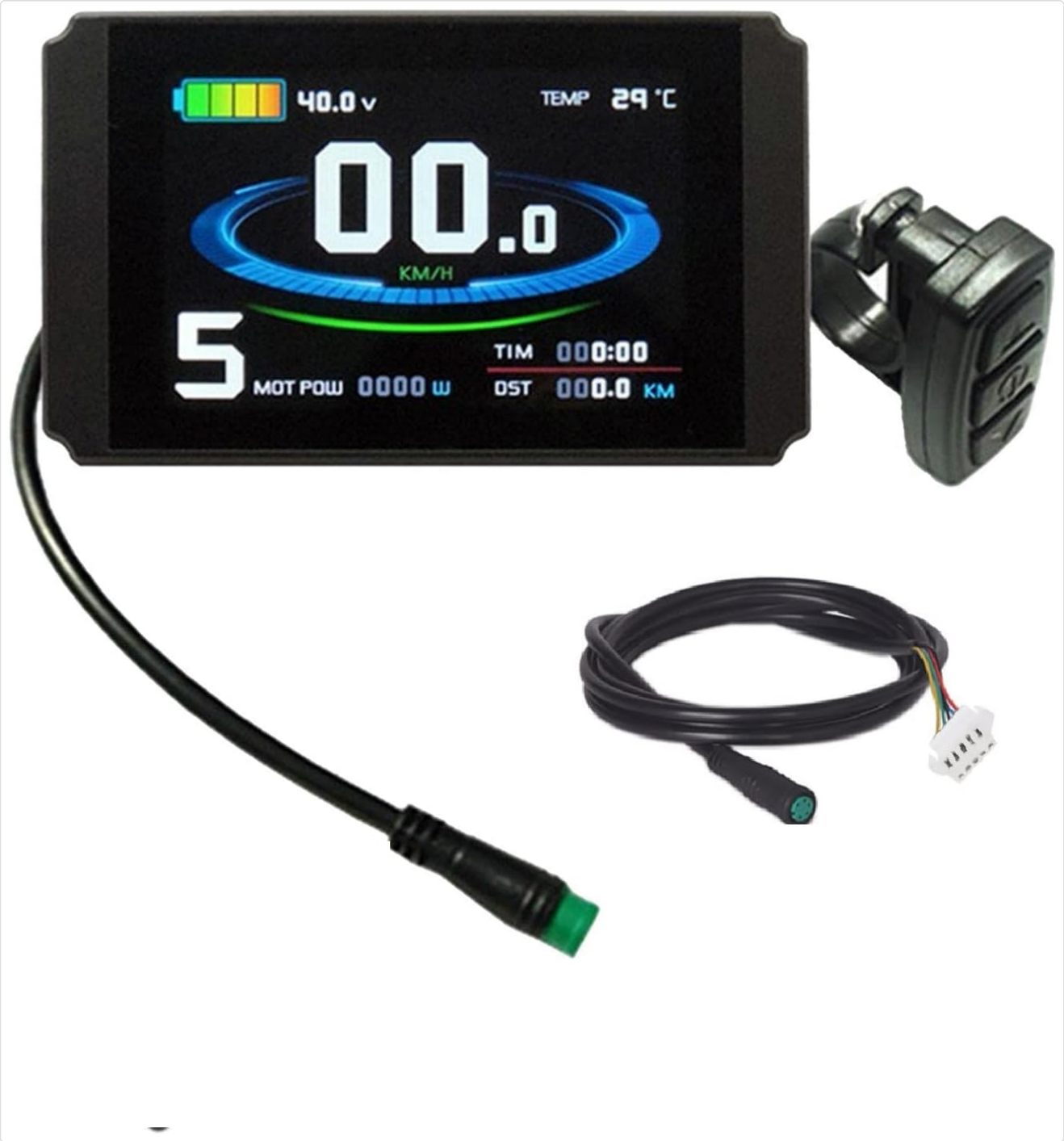

Image 3.2: The KT LCD8HPU LCD Display, showing its interface and remote control unit.

4. Setup and Installation

Careful installation is crucial for the proper functioning of your e-bike system. Follow these steps to connect the controller and display.

4.1 Controller Connection

The controller manages power delivery to the motor and receives signals from the display and other components. Ensure your motor has Hall sensors for compatibility.

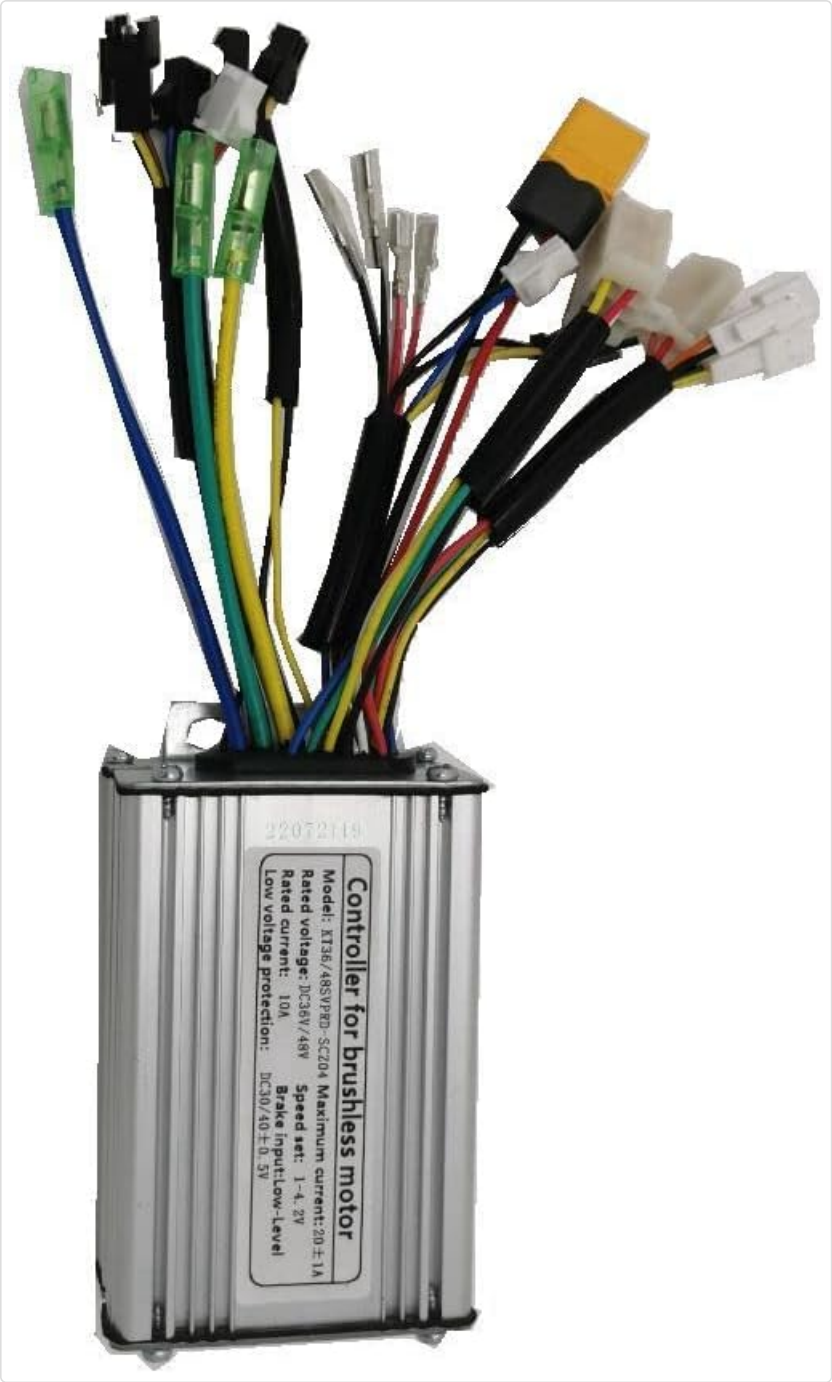

Image 4.1: The KT 36V/48V 20A Controller, illustrating its multiple wire connectors for various e-bike components.

1. **Motor Connection:** Connect the motor phase wires (usually thick green, blue, yellow) and Hall sensor wires (usually thin red, black, green, blue, yellow) from your hub motor to the corresponding connectors on the controller.
2. **Battery Connection:** Connect the battery power wires (thick red for positive, thick black for negative) to the controller's battery input.
3. **Display Connection:** Connect the display cable to the designated port on the controller.
4. **Other Components:** Connect throttle, brake levers, and light outputs as required. The controller supports 6V/36V/48V light output.

4.2 Display Connection

The KT LCD8HPU display connects to the controller via a waterproof plug. Ensure the connection is secure.

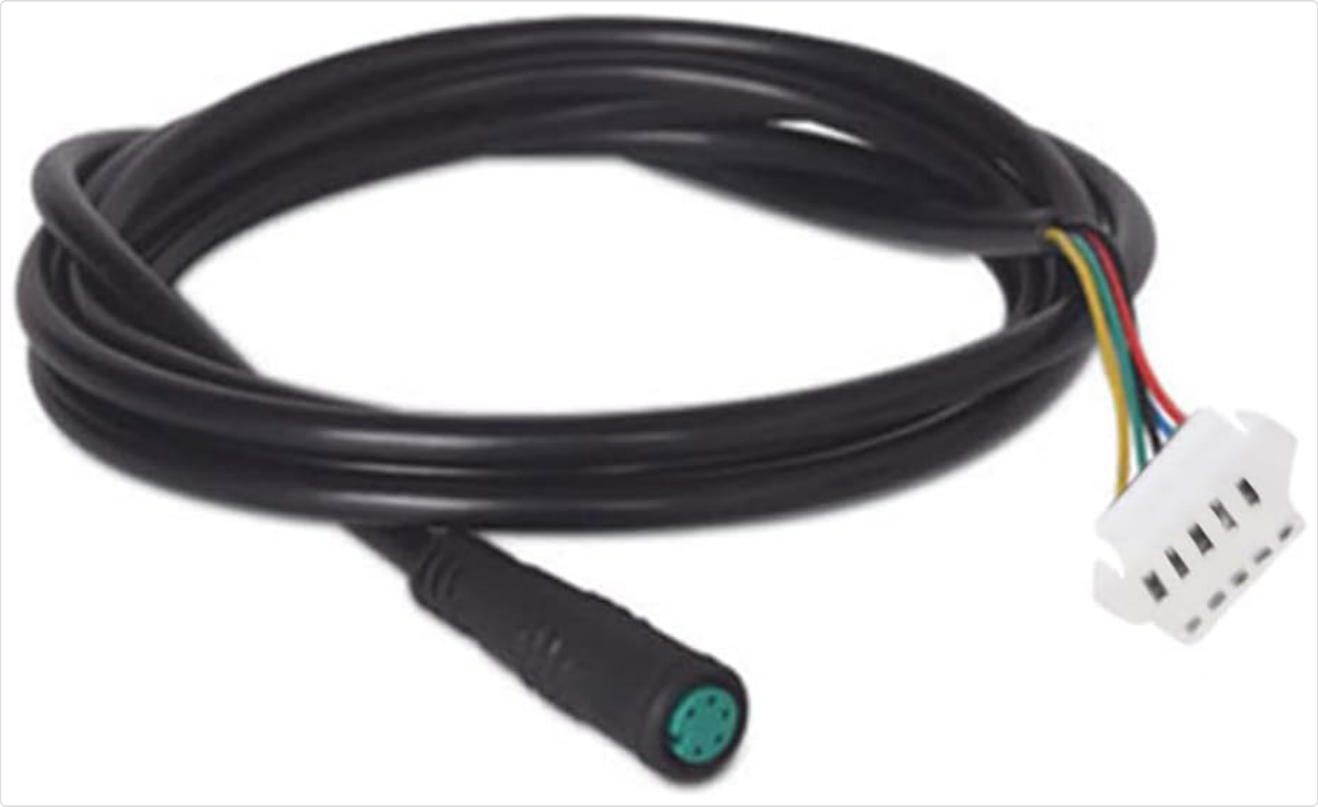

Image 4.2: The connection cable for the KT LCD8HPU display, featuring a waterproof plug.

1. Locate the display cable from the LCD8HPU unit.
2. Connect it to the corresponding waterproof connector on the KT controller.
3. Mount the display securely on your handlebars using the provided bracket.

5. Operating Instructions

Once installed, the KT LCD8HPU display provides an intuitive interface for controlling your e-bike system.

5.1 Power On/Off

Press and hold the power button on the display to turn the system on or off.

5.2 Display Functions

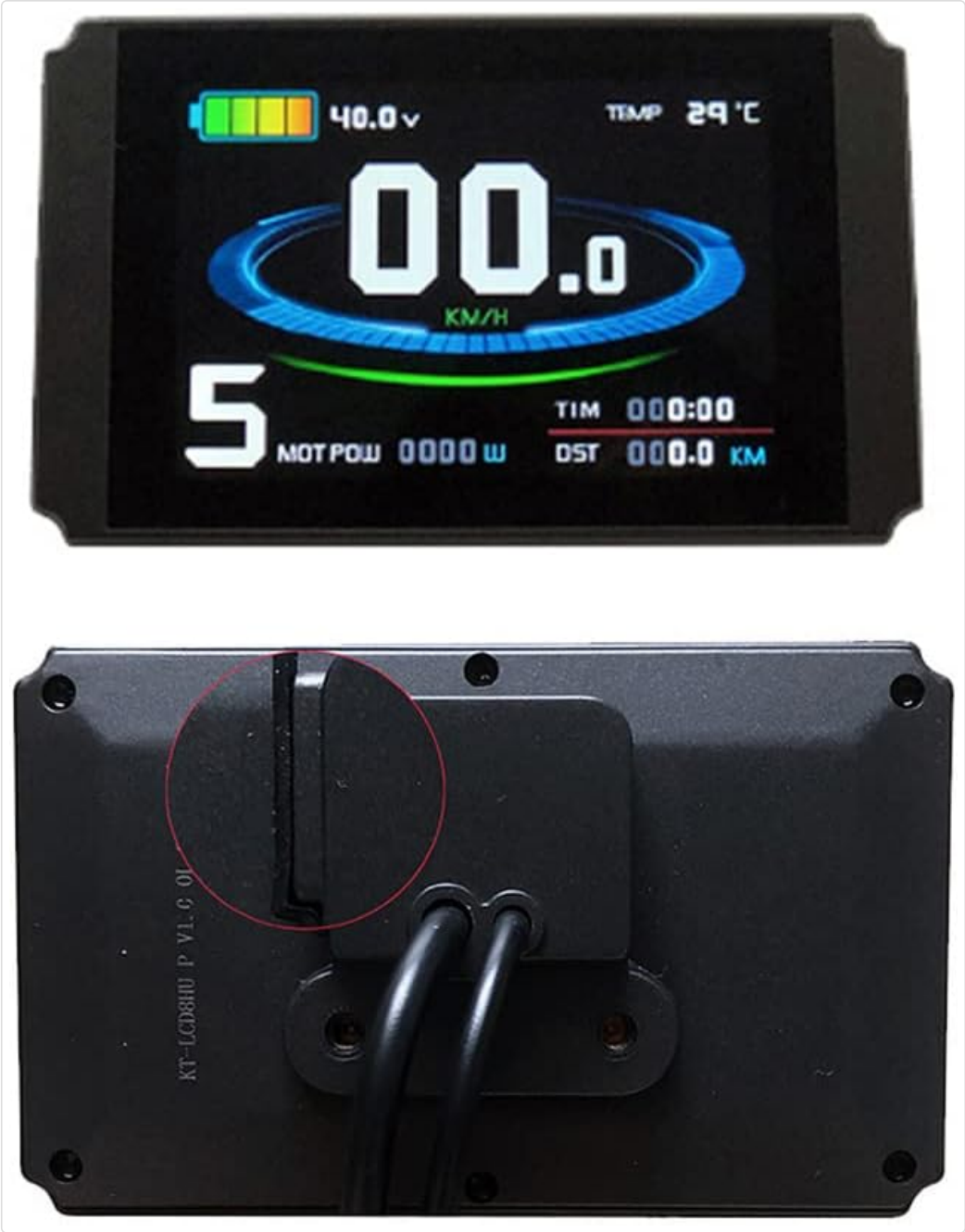

Image 5.1: Front and back views of the KT LCD8HPU display, highlighting its interface and mounting features.

The LCD8HPU display shows various parameters such as speed, battery level, temperature, time, and distance. Use the control buttons to navigate through different screens and adjust settings.

- **Speed:** Current speed in KM/H or MPH.
- **Battery Level:** Indication of remaining battery charge.
- **Temperature:** Ambient or motor temperature.
- **Time (TIM):** Trip duration.
- **Distance (DST):** Trip distance.
- **Motor Power (MOT POW):** Real-time motor power output.

5.3 Regenerative Function

The controller supports a regenerative braking function. This feature must be activated through the KT LCD8HPU display settings. Refer to the display's specific user guide for detailed instructions on enabling and configuring regenerative braking.

5.4 Light Output

The controller provides a dedicated output for 6V, 36V, or 48V lights. Connect your e-bike lights to the appropriate connector

on the controller. The lights can typically be controlled via the LCD display.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your controller and display.

- **Cleaning:** Wipe the display and controller with a soft, damp cloth. Avoid using harsh chemicals or abrasive materials.
- **Connections:** Periodically check all electrical connections for tightness and corrosion. Ensure waterproof plugs are properly sealed.
- **Storage:** When not in use for extended periods, store the e-bike in a dry, temperate environment.

7. Troubleshooting

If you encounter issues, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
System does not power on.	Loose battery connection, dead battery, faulty display/controller.	Check battery connections and charge level. Ensure display cable is securely connected.
Motor not responding.	Motor phase wires or Hall sensor wires disconnected, incorrect motor type, faulty throttle.	Verify all motor connections. Confirm motor has Hall sensors. Test throttle functionality.
Display shows error code.	Sensor malfunction, communication error.	Refer to the KT LCD8HPU display manual for specific error code meanings and troubleshooting steps.
Lights not working.	Loose light connection, incorrect voltage, faulty light.	Check light connections and ensure they are compatible with the controller's 6V/36V/48V output.
Display not compatible.	Using a non-KT series display.	The controller is only compatible with KT series displays. Ensure you are using a compatible display.

8. Specifications

Detailed technical specifications for the HALLOMOTOR KT 36V/48V 20A Controller.

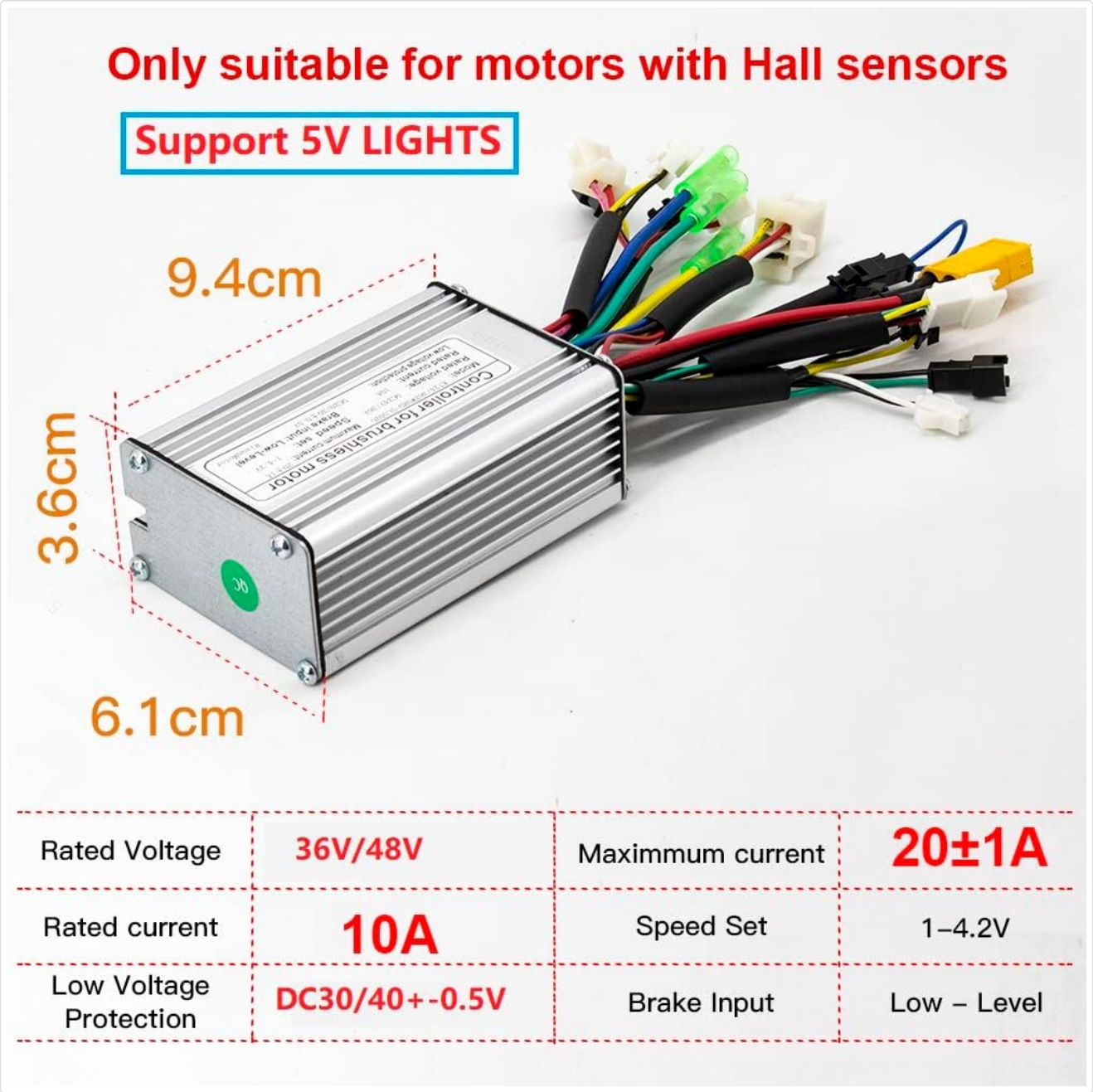

Image 8.1: Dimensions and key specifications of the KT 36V/48V 20A Controller.

Parameter	Value
Brand	HALLOMOTOR
Rated Voltage	36V/48V
Maximum Current	20A ± 1A
Rated Current	10A
Speed Set	1-4.2V
Low Voltage Protection	DC30/40 ± 0.5V
Brake Input	Low-Level
Material	Copper
Controller Dimensions (approx.)	9.4cm x 6.1cm x 3.6cm

9. Warranty and Support

For warranty information or technical support, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.