

# System Operation Manual

## **E3 Sumo, E3 Peak, Tekoa iE, E3 Dash, Route iE, Spicy Curry**

This manual is meant to be read together with the owner's manual, also included with your bicycle. The owner's manual contains important safety and use information about your bicycle. Be sure to read both manuals before riding for the first time, or performing any assembly. If you did not receive an owner's manual, the most recent version can always be found online at [www.CurrieTech.com](http://www.CurrieTech.com).



**CURRIE TECH™**  
*Electric Bikes*



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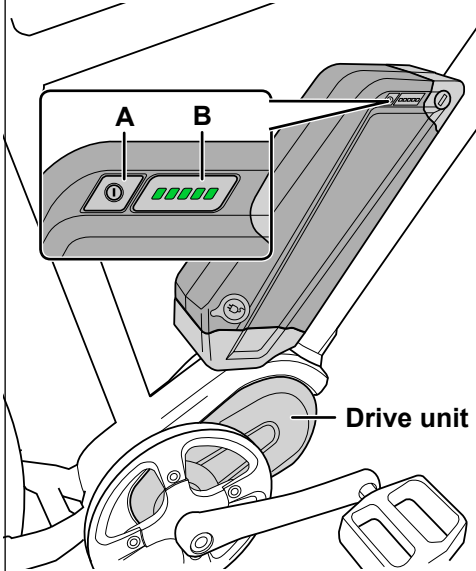
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# Electrical System Components

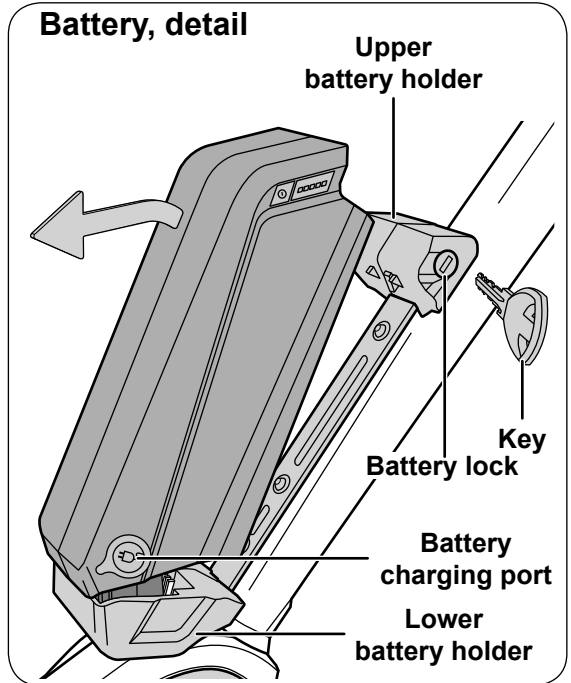
## Overview



### BATTERY BUTTONS

A	Battery power button
B	Battery level indicator

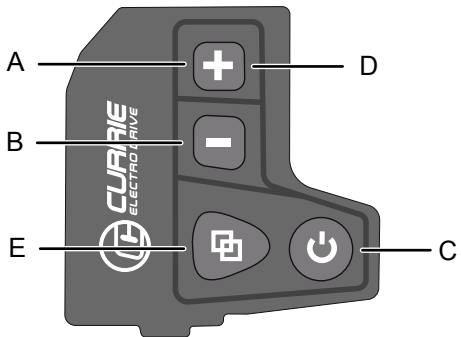
## Battery, detail



## Control pad

### CONTROL PAD BUTTONS

A	Increase assist level
B	Decrease assist level
C	Power
D	Light (hold ~2 seconds)
E	Info

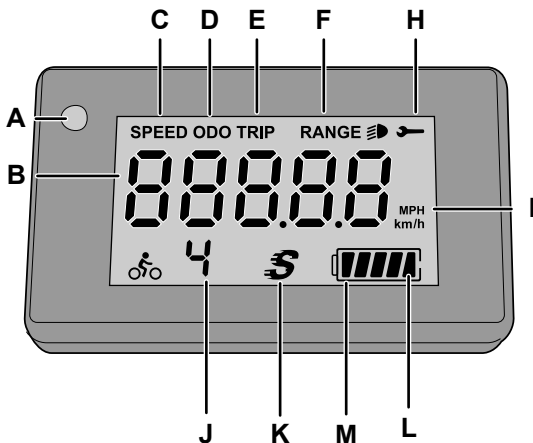


*Operational details, see p.12-14*

## Display

### DISPLAY FUNCTIONS

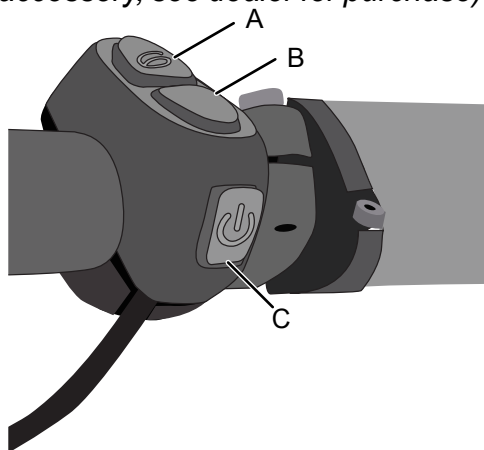
A	Ambient light sensor
B	Main display area
C	Speed
D	Odometer
E	Distance
F	Range
G	Lights
H	Maintenance indicator
I	Distance unit
J	Assist level indicator
K	Boost indicator (see page 12)
L	Low battery warning indicator
M	Battery level indicator



## Boost control (optional aftermarket accessory, see dealer for purchase)

### BOOST PAD BUTTONS

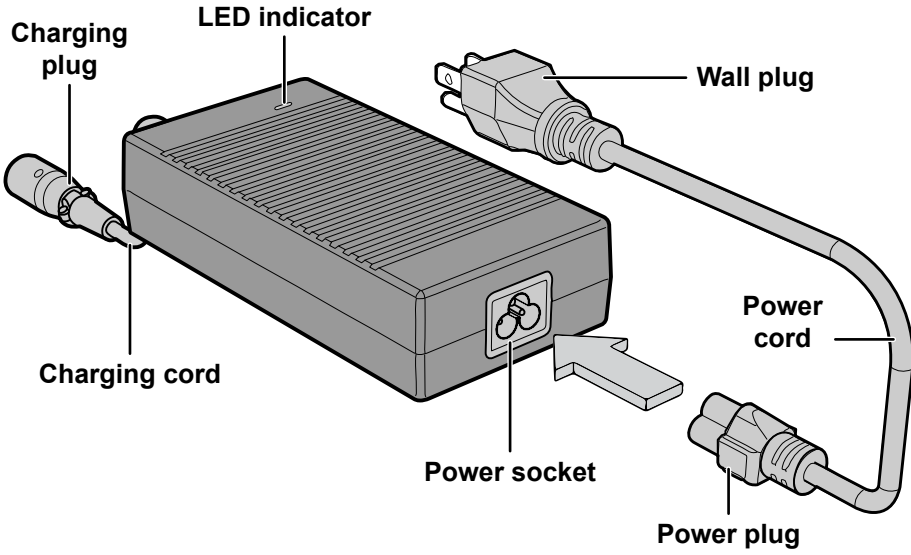
A	Boosts to 6 mph / 10 km/h with or without pedaling
B	Boosts to 20 mph / 32 km/h without pedalling
B	If pedaling, boost overrides selected assist level (1,2,3,4) to give full power
C	On/off (to operate boost control)



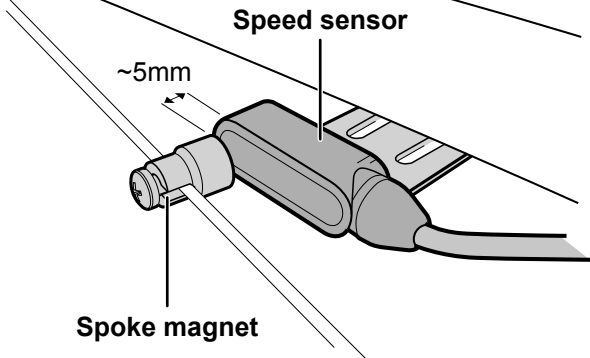
**Note:** buttons A or B must be pushed when boost is desired. Releasing button turns off boost assist.

Operational details, see p.12

### Battery charger



### Wheel speed sensor



## Aftermarket accessories

Many of our bikes are designed to accept a wide range of aftermarket accessories so you can get lots of utility and use from your bike. Think about the possibility of adding fenders, a rear rack, kickstands and lights for example.

Please talk to your dealer about the parts you'd like to add.

# General information

## USE RESTRICTIONS

<b>Intended Use<sup>1</sup></b>	<p>Models: E3 Sumo, E3 Peak, Tekoa iE: Condition 3 (Cross-country, Marathon, Hardtails)</p> <p>E3 Dash, Route iE, Spicy Curry: Condition 2 (General Riding)</p>
<b>Minimum rider age</b>	16 years
<b>Maximum permissible weight<sup>2</sup></b>	110 Kg (242 lbs)

1. This bicycle is intended to be used under the guidelines of the stated condition, found in the intended use section of your owner's manual. Be sure to read this section of the owner's manual for more information.

2. Maximum permissible weight includes the weight of the rider (plus clothing, riding gear, etc), the weight of any added accessories, and any cargo being carried.



## TECHNICAL SPECIFICATIONS

### Motor

<b>Type</b>	Center drive
<b>Rated power</b>	350W
<b>Peak torque</b>	73 Nm

### Battery

<b>Voltage</b>	48V nominal
<b>Capacity</b>	8.7Ah
<b>Energy</b>	417Wh
<b>Cycle life (expected)</b>	~700

### Charger

<b>Input voltage</b>	110-240V AC (auto-sensing)
<b>Frequency</b>	50/60Hz
<b>Input current</b>	2.2A maximum
<b>Charging voltage</b>	54.6V DC (48V nominal)
<b>Charging current</b>	2.0A
<b>Full charge duration</b>	4-6 hours

### Ride performance

<b>Top assisted speed</b>	28 mph (45 km/h) for Dash and Route, 20 mph (32 km/h) for others
<b>Range (estimated)<sup>1</sup></b>	16 mi / 26 km to 35 mi / 56 km
<b>Control type</b>	Pedal assist with: torque sensor, cadence sensor, speed sensor Optional boost control ( <i>works in conjunction with pedal assist</i> )

1. With normal pedaling. Contingent on terrain, rider weight, riding style, battery age, cargo, and other factors.

# Basics

**IMPORTANT:** The owner’s manual included with your bike contains most of the important safety and usage information about this bike, which is not included in this system operation manual. Be sure to read the owner’s manual before you begin riding or working on your bike.

## Battery charging

You should charge the battery fully before riding for the first time, following the instructions below. Be sure to check the section of your owner’s manual discussing “Battery care & safety” for additional information.

### Charging procedure

Connect the power cord to the battery charger. Plug the charging plug into the battery’s charging port, then plug the wall plug into a wall outlet.

**The charger should always be plugged first into the battery, then into the wall outlet.**

Charging will begin immediately. The charger’s LED indicator will light up to show its status.

LED	STATUS
Red	Charging
Green	Finished charging
Red (flashing)	Charging error; see “Charging issues” below

If the battery is turned on, the battery level indicator on the battery will display the battery’s charge level. See “Checking the battery’s charge level” on page 10.

If the battery is attached to the bicycle, and the bicycle is turned on, the battery level indicator on the bike’s display will also show the current charge level. See “Turning the bike on and off” on page 11.

means that it can be charged at any time, or partially charged, without causing damage or decreasing performance.

### Charge time

The amount of time needed to charge the battery varies based on the battery’s charge level. A completely empty battery will take between 4 and 6 hours to charge. A battery at 50% may only need 2-3 hours to come to a full charge.

### Checking the battery’s charge level

Before riding, check the battery’s charge level. If the battery is not fully charged, riding range will be reduced.

To check the battery’s charge level, first press the battery power button to turn the battery on. The battery level indicator will display the battery’s charge level. Alternatively battery level can also be read on the display after the bike is activated.

Each light represents about 20% capacity:

LIGHTS	BATTERY CHARGE
1	≤20%
2	~20– 40%
3	~40 – 60%
4	~60 – 80%
5	~80 – 100%

The battery does not have a “memory”. This

## Using the battery

### Installing the battery

To install the battery, place the battery's base onto the lower battery holder, then slot the battery into the upper battery holder so that it engages the holder and locks into place.


The key does not need to be used when installing the battery.

### Removing the battery


To remove the battery, unlock the battery lock with the key, pull the battery out of the upper battery holder, then lift it out of the lower battery holder.

### Turning on the power

1. Press the power button on the battery first (see *page 4*). The battery level indicator will light up.

2. Next push the power button (  ) on the control pad. The display will initialize, displaying a countdown on its screen. During this countdown, the software is self-testing and calibrating the bike's sensors. While this countdown is shown, do not step on the pedals. The calibration includes setting a zero-point for the pedal sensors, and any weight on the pedals will disrupt this process. After the countdown completes, the bike is ready to ride.

### To turn off the power

Typical way, using the handlebar controls: Press the control pad power button (  ) two times, for 2 seconds each time. After the first press, the bike will enter assistance level 0, showing '0' on the display's assist level indicator (see "Assist levels" on page 12). After the second press, the bike will turn off and the display screen will go blank, as will the battery power indicator.

Alternative way, directly from the battery: Hold the battery power button for 2 seconds and confirm the LEDs are off.

# Riding and use

Be sure to read the “Electric Bikes” section of your owner’s manual, and specifically pay attention to the sections on “Riding an electric bike”, “Riding a high-speed electric bicycle”, and “Riding a center-drive bike” before you ride for the first time.

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## Getting ready to ride

First turn the bike on, following the instructions in “Turning the bike on and off” on page 11 of this manual.

Mount the bicycle. Be sure you don’t put forward pressure on the pedals *before* you are ready to go; this could cause the bike to accelerate unexpectedly.

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## Riding the bike

### Using the motor

The purpose of the motor is to gently augment the effort you put into riding the bike. When you pedal hard, the motor assists you more; when you pedal lightly, the motor assists you less.

So, to ride the bike, all you really need to do is pedal. The majority of the work of controlling the motor is done automatically.

There are, however, two other controls that affect how the motor runs: assist levels, and the optional boost control.

### Assist levels

Assist levels control *how much* power the motor will add to your pedaling. The assist level is shown on the display, and can be changed at any time using the control pad (see “Control pad functions” on page 14).

Levels 1–4 are increasing levels of motor assist. Level 1 gives the least assistance; level 4 gives the most.

Level 0 disables motor assist completely. Other functions such as the cyclecomputer can still be used.

**Boost control** (*optional aftermarket item, refer to illustrations on page 5 if you choose to purchase it and have it installed*)

Activate the boost control by pressing bottom button “C”. Notice the “S” logo is now visible on the display telling you it is ready to use.

Button “A”: when moving under 6 mph (10 km/h), it boosts you to that speed with or without pedaling. This helps you get moving from a stop, and helps when navigating difficult terrain at low speed. Release button to end boost assist

Button “B”: boosts you up to 20 mph (32 km/h) without pedaling. If used while pedaling it overrides any selected control pad assist setting to give 100% power. Release button to end boost assist.

### Using the drivetrain

For important information on using your bike’s drivetrain together with the motor, see the “Riding a center-drive bike” section of your owner’s manual.

### Using the brakes


The brakes are separate from the electrical system. When you pull the brakes, they slow the wheel like on a normal bicycle brake, they do not cut power from the motor. Stop pedaling when braking to have a quicker stop.

See the “Brakes” section of your owner’s manual for more information.

## The display and control pad


The display serves both as a cyclecomputer, displaying speed and distance information, and as an interface to the bike's electrical system. The functions of the display are controlled by the control pad.


### The display's cyclecomputer functions

The display has four cyclecomputer functions. Switch between these functions using the  button. The function's information is displayed in the main display area.

CYCLECOMPUTER FUNCTIONS		
<b>SPD</b>	<b>Speed</b>	The bicycle's current speed
<b>ODO</b>	<b>Odometer</b>	The bicycle's total mileage
<b>DST</b>	<b>Trip distance</b>	The distance covered during the current trip
<b>Range</b>	<b>Remaining range</b>	The estimated remaining range before the battery is empty

Distance and range are displayed in the units shown to the right of the main display area.

To reset the trip distance counter, hold **+** and **-** and  on the control pad together for 10 seconds.

To reset the odometer, hold **+** and **-** and  on the control pad together for 60 seconds.

### The display's electrical system functions

The display shows information about the bike's electric assist, and gives the rider access to several important functions:

#### Assist level

The current assist level is shown on the display (assist level indicator).

#### Battery level

The battery level indicator shows the current charge level of the battery. Each bar represents about 20% capacity.

The low battery warning indicator lights up when the battery has less than 5% remaining charge.



#### Maintenance information

The maintenance indicator lights up when there is a system error. An error code shown on the display helps to diagnose the problem. See "Error codes" below.

## Control pad functions

The control pad is used to control the various functions of the bike and display.

The control pad's four buttons perform the following functions:

CONTROL PAD FUNCTIONS	
<b>+</b>	Increase assist level (1–4) Hold 2 seconds for backlight If lights are installed, they are controlled through the backlight feature
<b>-</b>	Decrease assist level (4–1)
	Turn bike on, one quick press (turn on battery first, p.4)  Set power assist to 0, one 2 second press (no pedal or throttle assistance, just power for the display)  Turn power off, one 2 second press (must be in assist level 0 first)
	Change cyclecomputer display  Change from MPH to Km/h Hold 3 seconds to make change

The display backlight is also controlled by the ambient light sensor; it will automatically turn on in low light. The same is true if lights are installed.

# Troubleshooting

## Error codes

SYSTEM ERROR CODES	
In the event of a system error, these codes will appear on the display.	
1	Motor internal error
2	BB sensor error
3	BB sensor short circuit
4	Cadence sensor error
5	Wheel speed sensor malfunction
These sensors are inside the drive unit. Contact your dealer.	
6	Not used currently
7	Boost control malfunction (if this aftermarket item is installed)

**Solution:** Check the alignment of the wheel speed sensor and spoke magnet. The spoke magnet should pass by the sensor closely as shown in the drawing on page 2.

## SYSTEM ERROR CODES

**Solution:** Ask your dealer to check the function of your boost control. The connection may be loose, or the unit itself may need service.

## Charging issues

**ISSUE:** Charger LED indicator flashes red

LED flashes red after charging for a while:

- ▶ Battery is not responding to charging.
  - The battery voltage is less than 25V, and does not rise above 25V after 30 minutes of charging.
  - The battery voltage is between 25V and 30V, and does not rise above 30V after one hour of charging.

**Solution** ▶ Reset charging by unplugging the charger from the wall outlet, then plugging it back in. If charging fails after a second attempt, the battery or charger may need to be replaced. Bring them to your dealer for inspection.

- ▶ Battery has not finished charging after 10 hours.

**Solution** ▶ The battery may be damaged and should be inspected by your dealer.

LED flashes red immediately after being plugged in:

- ▶ The polarity between the charger and battery does not match.

**Solution** ▶ The battery or charger may be damaged. Stop using the battery and charger immediately, and bring them to your dealer for inspection.

- ▶ The output of the charger is short-circuited.

**Solution** ▶ Stop using the battery and charger immediately. Check for obvious external shorts on the charging plug and battery charging port. If no obvious short exists, the battery or charger may be damaged. Bring them to your dealer for inspection.

Other issues causing a flashing red LED:

- ▶ The temperature of the battery is too high to charge.

**Solution** ▶ Put the battery and charger in a cool place, then try charging again after a few minutes.

**ISSUE:** Charger LED indicator stays green when plugged into the battery.

▶ There is no connection between the charger and the battery.

- Solution
- ▶ Check for damage: battery charging port, charging plug, charging cord, and power cord.
  - ▶ There may be an internal problem with the battery or charger. Bring them to your dealer for inspection.

▶ The battery's voltage is too low to be charged.

- Solution
- ▶ Check the battery's charge level as described in this document. If the battery will not turn on, the battery may be damaged and should be inspected by your dealer.

## Misc issues

### Lost key

We recommend keeping the second key copy in a safe place and also jotting down the number stamped on the key shaft as preventive tools to help recovery from a lost key. If you have lost your keys, note your bike's serial number (located on the frame's left dropout), or the key shaft number, then call EBCC customer service at (800) 377-4532.

### No power from battery

The battery has a user-replaceable fuse located at its base. The fuse is pre-installed at the factory.

If the fuse is present but the bike does not power up, inspect the fuse. If it is blown out, it can be replaced with a standard 30-amp automotive fuse.

Rare case: if the fuse inserted incorrectly, it may work for a while but one of the prongs will get burnt up. Check that the female tangs of the connector line up with the male fuse prongs, and that the prongs are inserted fully.

