

# AVE RC10

## Smart LCD Remote Controller



## Quick Start Guide (QSG)

**Revision History**

Date	Description	Approval	Function
07/07/2022	Version 1_Preliminary Draft Release	Andreas Hoffmann	Supervisor
		Luis Tseng	Product Manager
		Jerry Wang	Supervisor
		B. D. Weidemann	Project Manager
07/07/2022	Version 2_Preliminary Draft Release	B. D. Weidemann	Project Manager
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07/13/2022	Version 3.1_Preliminary Draft Release	B. D. Weidemann	Project Manager

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## A. Overview

- This Quick Start Guide (QSG) is intended for users of the AVE RC10 Smart LCD Remote Controller. The QSG provides a step-based approach that is easy to follow and focused on helping the user quickly get familiar with the RC10's features and functions. Carefully read the QSG before operating the E-Bike

### A.1 Product Image



### A.2 Main Features & Specifications

#### Main Features

- 1.14" Landscape IPS LCD
- High brightness with wide viewing angles
- Backlight illuminated buttons
- Sensors and BT/NFC wireless connectivity (Option)
- Standalone or in combination with CD9, CD8, TT10 or TT09

#### Specifications

Item	Definition
LCD Size	1.14" (IPS Panel)
Viewing Angle (Horizontal/Vertical)	160° (80°/80°)/160° (80°/80°)
Brightness (Typical)	1,300cd/m <sup>2</sup>
Orientation	Landscape
Coverlens	PMMA
Button Backlight	4 (Single-Color)
Sensors	Light, Wind (Option), Baro (Option), Gyro (Option)
VTorque	Option: Requires Wind, Baro and Gyro Sensor
Bluetooth	BLE 5.x (Option)
Memory	Up To 32MB
Interface	CAN/CANopen, UART, RS-485, RS-232, LIN
Power (Wide VIN Range)	7 - 55V
No. of Buttons (Total)	4x (Power, Light/Menu, Assist Up, Assist Down)
NFC	Yes (Option)
Display Data	Ride Time, ODO, Rem. Range, Bat. SoC, Bat. Temperature, Avg. Speed, Max. Speed, Cadence, Light Status, Assist Level, BLE Status, Walk Assist (Options: Time-To-Dest., Dist. Travelled, Altitude, Accum. Altitude, Windspeed, Humidity, Temperature, Rider Power, Calories, FTP, CdA, Crr, ABS Status, Slope)
Mounting	Hinge, 2x M4 Screw
IP Level	IP56
Storage/Operating Temperature	-20° to +60°C (-4° to +140°F)/-10° to +50°C (14° to +122°F)
Connector	AVS 6-Pin
Dimensions (W x D x H)	78mm x 45mm x 60mm (3.1" x 1.8" x 2.4")
Weight	50g (1.8oz)

Color

Housing: Pantone Black, Buttons: Cool Silver






### A.3 Button Behavior & Description






Item No.	Description
1	Power On/Off Button
2	Pitot Tube for Windsensor
3	Ambient IR Lightsensor
4	IPS LCD Display
5	Light Mode <ul style="list-style-type: none"> <li>On/Off (Option: Front/Rear, Front &amp; Rear, Day Light, High Beam Light, Parking Light)</li> <li>Confirm - In Settings Mode (With CD9/CD8/TT10/TT09 only)</li> <li>Enter Settings (Press Light+Down Button)</li> </ul>
6	Assist Mode "DOWN" <ul style="list-style-type: none"> <li>Open WALK Assist mode</li> <li>Cursor Down (With CD9/CD8/TT10/TT09 only)</li> <li>Enter Settings (Press Light+Down Button)</li> </ul>
7	Assist Mode "UP" <ul style="list-style-type: none"> <li>Activate Walk Assist</li> <li>Cursor Up (With CD9/CD8/TT10/TT09 only)</li> </ul>

## B.1 Button Operation (AVS Default)

### Standalone Configuration

Keypad	Action
	<b>Power On</b> <i>Press + hold</i> <i>t= 3 sec</i>
	<b>Light Mode</b> <i>Press + hold</i> <i>Press + hold</i> <i>t= 3 sec</i> <i>t= 3 sec</i> <i>On</i> <i>Off</i>
	<b>Assist Mode Selection</b> <i>Short press for Assist Mode selection</i> <i>t≤ 1 sec</i>
	<b>Walk Assist Mode</b> ( <i>bike speed ≤ 0 km/h</i> ) <i>Press + hold Assist Mode down</i> <i>t= 3 sec</i> <i>Press + hold Assist Mode up to activate Walk</i> <i>off upon button release</i>
	<b>Power Off</b> <i>Press + hold</i> <i>t= 3 sec</i>
	<b>BLE Pairing</b> <i>Press + hold</i> <i>t= 5 sec.</i> <i>bike speed ≤ 0 km/h</i>

### Additional Configurations with CD9 or CD8 Center Display

Keypad	Action
	<b>Settings Mode</b> <i>Press + hold</i> <i>t= 5 sec.</i> <i>bike speed ≤ 0 km/h</i>
	<b>Settings Operation - Cursor</b> <i>Short Press</i> <i>t ≤ 1 sec.</i> <i>Move cursor up/ down</i>
	<b>Settings Operation – Select</b> <i>Short Press</i> <i>t ≤ 1 sec.</i> <i>Select/ Confirm</i>

### C.1 Light Sensor Operations

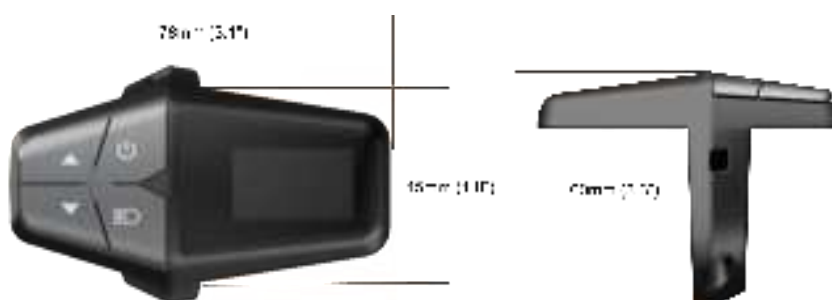
#### RC10 Standalone Configuration

- Ambient light sensor controls brightness of: Backlight Button LED; LED Lightbar
- IR light sensor controls bicycle lights

#### Configuration with CD9/CD8

- Ambient light sensor controls brightness of LCD backlight

### D.1 Product Dimensions



### E.1 Location of Markings



### F.1 Disposal and Recycling

This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at [www.eiae.org](http://www.eiae.org).

**DISPOSAL:**

Do not use household or municipal waste collection services for disposal of electrical and electronic equipment. EU countries require the use of separate recycling collection services.

### G.1 Warnings

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: FCC ID: 2AUYC-RC10.

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.
3. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
4. The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction

**NOTE:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.





If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **H.1 Manufacturer Details (Smart Remote Controller)**

AVS Electronics (HK) Ltd

16D Hollywood Centre, 77-91 Queens Road West, Sheung Wan, Hong Kong S.A.R.