



REGULATION OF ELECTRIC BICYCLES

By Ryan Long

Under Colorado law, an electric bicycle is a bicycle with two or three wheels, fully operable pedals, and an electric motor that does not exceed 750 watts. This *issue brief* provides an overview of the current state laws related to electric bicycles, as well as an overview of regulations around the country.

Electric Bicycle Regulation in Colorado

In Colorado, electric bicycle riders are exempt from motor vehicle registration and license requirements. After January 1, 2018, all electric bicycles are required to conform to one of three classifications shown in Table 1, and be labeled with the bicycle’s classification, top assisted speed, and motor wattage. Any modification to an electric bicycle that changes the speed capability or motor wattage requires an updated label.

Table 1
Classification of Electric Bicycles

| | |
|----------------|--|
| Class 1 | An electric bicycle that only provides assistance when the rider is pedaling; the motor ceases at 20 miles per hour (mph). |
| Class 2 | An electric bicycle that provides assistance regardless of whether the rider is pedaling; the motor ceases at 20 mph. |
| Class 3 | An electric bicycle that provides assistance only when the rider is pedaling; the motor ceases at 28 mph. Class 3 electric bicycles must have a speedometer. |

Source: Section 42-1-102 (28.5), C.R.S.

Permissible routes for electric bicycles.

Class 1 and Class 2 electric bicycles are allowed on the same bicycle and pedestrian paths as conventional bicycles. Class 3 electric bicycles may not be ridden on a bicycle or pedestrian path unless the path is within a street or highway or permitted by the local jurisdiction. Local jurisdictions also have the authority to prohibit the operation of electric bicycles on any bicycle or pedestrian path under their jurisdiction.

Age restrictions and helmet laws.

No one under the age of 16 may ride a Class 3 electric bicycle, except as a passenger. Anyone on a Class 3 electric bicycle who is under the age of 18 must wear a helmet.

Penalties. Anyone who violates regulations pertaining to the manufacturing standards and classification of electric bicycles is subject to a class B traffic infraction, with a fine of \$15 and a surcharge of \$6.

Other state regulations. Electric bicycles must follow many of the same state laws as conventional bicycles. According to state law, persons riding an electric bicycle:

- must not carry more people than the bicycle is designed to carry;
- must not attach themselves to a motor vehicle on a roadway;
- must ride in the right-hand lane when riding on a roadway at less than the normal speed of traffic – another lane

- may be used when turning left or overtaking a slower vehicle;
- may ride in the left lane if the roadway is a one-way and there is enough room for overtaking vehicles to safely pass;
- may not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles;
- must keep at least one hand on the handlebars at all times;
- must signal the intention to turn or stop;
- must yield the right of way to pedestrians; and
- may park on a sidewalk or on a curb edge where bicycle parking is allowed, unless otherwise prohibited.

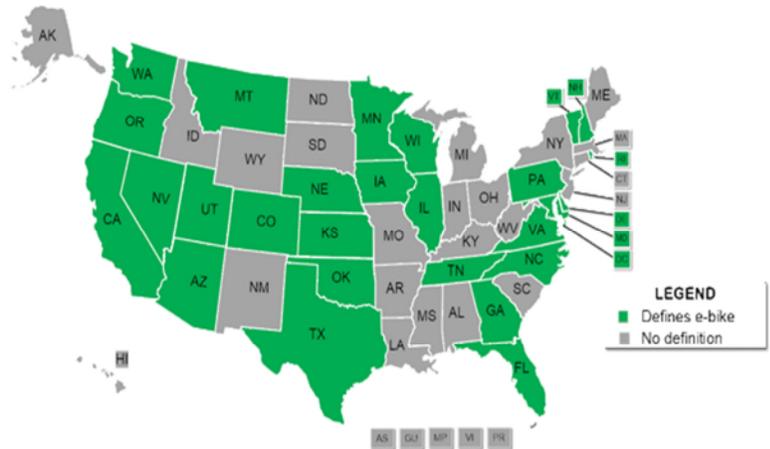
These regulations may vary depending on the local jurisdiction. Persons riding an electric bicycle are encouraged to check local ordinances and regulations before riding.

Electric Bicycle Regulation in the United States

Federal law. Federal law defines low-speed electric bicycles as two- or three-wheeled vehicles with fully operable pedals, an electric motor of less than 750 watts, and a maximum speed of 20 mph. This speed limit can be exceeded when using a combination of human and motor power.

Electric bicycle definitions. As of this writing, 27 states and the District of Columbia have passed legislation to create specific definitions and regulations regarding electric bicycles, as shown in Figure 1. States that have not created a specific definition of electric bicycle often include them within other vehicle classifications, such as moped or motorized bicycle. Electric bicycle legislation generally establishes specific regulations regarding electric bicycle use and addresses safety concerns around the use of electric bicycles with high speed limits.

Figure 1
States with Electric Bicycle Legislation
(2016)



Source: National Conference of State Legislatures

Licensing requirements. There are 23 states that require a license to operate an electric bicycle. Typically, these states have not passed legislation to create a unique classification for electric bicycles. However, some states that have passed electric bicycle legislation, such as Oklahoma and Wisconsin, have also created licensing requirements.

Three-tier system. Three other states (California, Tennessee, and Utah) utilize the same three-tier classification system as Colorado, as outlined in Table 1. Like Colorado, these states exempt electric bicycles from registration, license, and insurance requirements.

Local regulations. Electric bicycles are allowed to operate on multi-use paths and bicycle paths in a number of the states that have passed electric bicycle legislation. For example, Florida includes electric bicycles within its existing definition of bicycle, allowing them to operate on the same trails as conventional bicycles. Many states have also created exceptions to allow local governments to enact stricter regulations. Including Colorado, 11 states provide flexibility to municipalities for electric bicycle regulation. For example, Vermont allows municipalities to regulate electric bicycles as long as regulations do not conflict with state laws.