



El Segundo Police Department

Training Section

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TRAINING BULLETIN

May 4, 2022

ELECTRIC BICYCLE (CLASS 1, 2, 3): Electric bicycles are bicycles equipped with operable pedals and assisted by an electric motor of less than 750 watts.

Class 1: A “class 1 electric bicycle” provides electric assistance only when the rider is pedaling, but ceases to provide assistance when the electric bicycle reaches 20 miles per hour (MPH).

Class 2: A “class 2 electric bicycle” may be run solely off the electric motor, but ceases to provide power when the electric bicycle reaches 20 MPH.

Class 3: A “class 3 electric bicycle” provides electric assistance only when the rider is pedaling, but ceases to provide assistance when the electric bicycle reaches 28 MPH (CVC Section 312.5).

- Equipped with a speedometer
- Must wear a helmet
- Must be 16 or older
- Prohibited from Class 1 multi-use bike paths (ex. beach bike path)

24016 (a) CVC- An electric bicycle described in subdivision (a) of Section 312.5 shall meet the following criteria:

(1) Comply with the equipment and manufacturing requirements for bicycles adopted by the United States Consumer Product Safety Commission (16 C.F.R. 1512.1, et seq.).

(2) Operate in a manner so that the electric motor is disengaged or ceases to function when the brakes are applied, or operate in a manner such that the motor is engaged through a switch or mechanism that, when released or activated, will cause the electric motor to disengage or cease to function.

(b) A person operating an electric bicycle is not subject to the provisions of this code relating to financial responsibility, driver’s licenses, registration, and license plate requirements, and an electric bicycle is not a motor vehicle.

For Collision Reporting Purposes

ACCIDENT OR COLLISION: A collision is an unintended event that produces damage or injury, involving a **motor vehicle in-transport**. The word injury includes fatal injury. Although the terms “accident” and “collision” are synonymous, the word collision should be used to describe the event.

MOTOR VEHICLE: A motor vehicle is any motorized vehicle not operated on rails. For purposes of classification, a trailer, coaster, sled or wagon, or other equipment being towed or pushed by a motor vehicle is considered part of the motor vehicle, including such equipment when detached while in motion. **For collision reporting purposes, a motorized bicycle, moped, or motorized scooter, shall be considered a motor vehicle, whether the motor is operating or not.** Motor vehicle does not include a self-propelled wheelchair, motorized tricycle or quadricycle, if operated by a person who, by reason of physical disability, is otherwise unable to move about as a pedestrian. (Refer to CVC Section 415.)

According to 24016(b) CVC, an electric bicycle is not considered a motor vehicle. If an electric bicycle collides into a pedestrian, an incident or injury report should be taken, not a collision report.

ENFORCEMENT VIOLATIONS (ELECTRIC BICYCLES):

21207.5(a) CVC – BIKE PATH - a motorized bicycle or class 3 electric bicycle shall not be operated on a bicycle path or trail, bikeway, bicycle lane established pursuant to Section 21207, equestrian trail, or hiking or recreational trail, unless it is within or adjacent to a roadway or unless the local authority or the governing body of a public agency having jurisdiction over the path or trail permits, by ordinance, that operation.

21213(a) CVC – MINOR- A person under 16 years of age shall not operate a class 3 electric bicycle.

21213(b) CVC -HELMET- A person shall not operate a class 3 electric bicycle, or ride upon a class 3 electric bicycle as a passenger, upon a street, bikeway, as defined in Section 890.4 of the Streets and Highways Code, or any other public bicycle path or trail, unless that person is wearing a properly fitted and fastened bicycle helmet that meets the standards of either the American Society for Testing and Materials (ASTM) or the United States Consumer Product Safety Commission (CPSC), or standards subsequently established by those entities. This helmet requirement also applies to a person who rides upon a class 3 electric bicycle while in a restraining seat that is attached to the bicycle or in a trailer towed by the bicycle.

312.5(c) CVC- CLASSIFICATION- On and after January 1, 2017, manufacturers and distributors of electric bicycles shall apply a label that is permanently affixed, in a prominent location, to each electric bicycle. The label shall contain the classification number, top assisted speed, and motor wattage of the electric bicycle, and shall be printed in Arial font in at least 9-point type.

24016(d) CVC – MODIFY- A person shall not tamper with or modify an electric bicycle described in subdivision (a) of Section 312.5 so as to change the speed capability of the bicycle, unless he or she appropriately replaces the label indicating the classification required in subdivision (c) of Section 312.5.

ENFORCEMENT VIOLATIONS (BICYCLES AND ELECTRIC BICYCLES):

21200(a)(1) CVC – OPERATION- A person riding a bicycle or operating a pedicab upon a highway has all the rights and is subject to all the provisions applicable to the driver of a vehicle by this division, including, but not limited to, provisions concerning driving under the influence of alcoholic beverages or drugs

- Follow traffic signals, obey speed limits,
- Stop at stop signs

21650.1 CVC -OPERATION- A bicycle operated on a roadway, or the shoulder of a highway, shall be operated in the same direction as vehicles are required to be driven upon the roadway.

21202(a) CVC – OPERATION- Any person operating a bicycle upon a roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride as close as practicable to the right-hand edge of the roadway, except when overtaking or passing another bicycle or vehicle.

21208(a) CVC – BIKE LANE - Whenever a bicycle lane has been established on a roadway, any person operating a bicycle upon the roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride within the bicycle lane. Movement out of the bicycle lane is permitted to make a turn or to pass another bicycle, vehicle, or pedestrian within the lane.

21208(b) CVC – BIKE LANE - No person operating a bicycle shall leave a bicycle lane until the movement can be made with reasonable safety and then only after giving an appropriate signal in the manner provided in Chapter 6 (commencing with Section 22100) in the event that any vehicle may be affected by the movement.

21212(a) CVC – HELMET – A person under 18 years shall not operate or be a passenger on a bicycle without an approved bicycle helmet.

21201(d)(1) CVC – EQUIPMENT LIGHTS – Equipment required when operating during darkness upon a highway or on a sidewalk where bicycle operation is not prohibited by the local jurisdiction: A lamp emitting a white light that, while the bicycle is in motion, illuminates the highway, sidewalk, or bikeway in front of the bicyclist and is visible from a distance of 300 feet in front and from the sides of the bicycle. (Correctable)

21201(d)(2) CVC – EQUIPMENT – REAR REFLECTOR – A red reflector or a solid or flashing red light with a built-in reflector on the rear that shall be visible from a distance of 500 feet to the rear when directly in front of lawful upper beams of headlamps on a motor vehicle. (Correctable)

21201(d)(3) CVC – EQUIPMENT – SIDE REFLECTORS – A white or yellow reflector on each pedal, shoe, or ankle visible from the front and rear of the bicycle from a distance of 200 feet. (Correctable)

21201(d)(4) CVC – EQUIPMENT – SIDE REFLECTORS – A white or yellow reflector on each side forward of the center of the bicycle, and a white or red reflector on each side to the rear of the center of the bicycle, except that bicycles that are equipped with reflectorized tires on the front and the rear need not be equipped with these side reflectors. (Correctable)

21201(a) CVC – EQUIPMENT BRAKES – No person shall operate a bicycle on a roadway unless it is equipped with a brake which will enable the operator to make one braked wheel skid on dry, level, clean pavement. (Correctable)

21201(b) CVC – EQUIPMENT HANDLEBARS - No person shall operate on the highway a bicycle equipped with handlebars so raised that the operator must elevate his hands above the level of his shoulders in order to grasp the normal steering grip area.

21201(c) CVC – EQUIPMENT SIZE - No person shall operate upon a highway a bicycle that is of a size that prevents the operator from safely stopping the bicycle, supporting it in an upright position with at least one foot on the ground, and restarting it in a safe manner.

21205 CVC – LOADS – No person operating a bicycle shall carry any package, bundle or article which prevents the operator from keeping at least one hand upon the handlebars.

MOTORIZED BICYCLES: (Two Definitions) A motorized bicycle or moped is either:
Definition: 406(a) CVC - Any two-wheeled or three-wheeled device having fully operative pedals for propulsion by human power, or having no pedals if powered solely by electrical energy, equipped with an automatic transmission and motor which produces less than 4 gross brake horsepower and a maximum speed of not more than 30 miles per hour on level ground. A motorized bicycle is subject to applicable rules of the road and collision reporting requirements.

OR

Definition: 406(b) CVC – A device that has fully operative pedals for propulsion by human power and has an electric motor that has a power output of not more than 1,000 watts, a maximum speed of not more than 20 MPH on level ground, and is incapable of further increasing the speed when human power is used to propel the device faster than 20 MPH.

Definition 406(a) CVC – ENFORCEMENT VIOLATIONS:

12500(a) CVC – LICENSE – (406(a) CVC Definition) A valid driver’s license is required.

12500(b) CVC – MOTORCYCLE ENDORSEMENT – (406(a) CVC Definition) A M2 motorcycle endorsement is required (per 12804.9(b)(5) CVC). (Exemption: A “short-term” moped rental of 48 hours or less does not require an M2 endorsement (per 12804.9(h) CVC).

5030 CVC – REGISTRATION – (406(a) CVC Definition) Must have and display a special license plate issued by the DMV. (It shall bear a distinctive number to 13 identify the motorized bicycle for which it is issued and shall bear a symbol, letter, or word to distinguish license plates issued under this article from license plates issued for motorcycle and motor-driven cycles. The owner, upon being issued a license plate, shall attach it to the motorized bicycle for which it is issued and shall carry the identification card issued by the department (per 5035 CVC).

16028(a) CVC – INSURANCE – (406(a) CVC Definition) required (per 16020(a) CVC).

27803(b) CVC – HELMET – (406(a) CVC Definition) Operator or any passenger must wear a motorcycle safety helmet. (A “safety helmet” must meet the requirements of 27802 CVC on the person’s head that is fastened with the helmet straps and that is of a size that fits the wearing person’s head securely without excessive lateral or vertical movement (per 27803(e) CVC).

24015(a) CVC -EQUIPMENT- Motorized bicycles shall comply with those federal motor vehicle safety standards established pursuant to Chapter 301 (commencing with Section 30101) of Part A of Subtitle VI of Title 49 of the United States Code that apply to a motor-driven cycle, as that term is defined in regulations adopted pursuant to those provisions. These standards include, but are not limited to, provisions requiring a headlamp, taillamp, stoplamp, side and rear reflex reflectors, and adequate brakes.

24015(b) CVC -EQUIPMENT- In addition to equipment required in subdivision (a), all motorized bicycles operated upon a highway shall be equipped with a mirror as required in subdivision (a) of Section 26709, a horn as required in Section 27000, and an adequate muffler as required in subdivision (a) of Section 27150.

	E-Bicycle Class 1	E-Bicycle Class 2	E-Bicycle Class 3	Motorized Bicycle/Moped
Definition	Low-speed or low-speed pedal assisted	Low-speed throttle assisted	Speed pedal assisted	Motorized bicycle or moped
Type of Motor Assistance	Motor provides assistance only when rider is pedaling	Motor may be used to exclusively propel the bicycle	Motor provides assistance only when rider is pedaling	Fully operative pedals for propulsion by human power, or having no pedals if powered solely by electrical energy
Maximum Motor Assistance	Motor ceases to provide assistance when the bicycle reaches 20 MPH	Motor is not capable of providing assistance when the bicycle reaches 20 MPH	Motor ceases to provide assistance when the bicycle reaches 28 MPH	Maximum speed of not more than 30 MPH on level ground
Power Rating	750 watts	750 watts	750 watts	Automatic transmission and a motor that produces less than four gross brake horsepower
Driver License Requirement	No	No	No	Yes, M2
Helmet Requirement	Under 18, bicycle helmet	Under 18, bicycle helmet	Bicycle helmet for rider and passenger	Motorcycle helmet for rider and passenger
Additional Equipment	No	No	Must be equipped with a speedometer	Mirror, brake, lights, horn, and muffler required
Age Requirement	No	No	16 years old	16 years old
Use Restrictions (unless authorized by local authority)	No restrictions	No restrictions	Not permitted on bicycle path or trail, bikeway, bicycle lane, equestrian trail, or hiking or recreational trail, unless it is adjacent to a roadway	Not permitted on bicycle path or trail, bikeway, bicycle lane, equestrian trail, or hiking or recreational trail, unless it is adjacent to a roadway