



Electric Bicycles



Manasquan Police Department



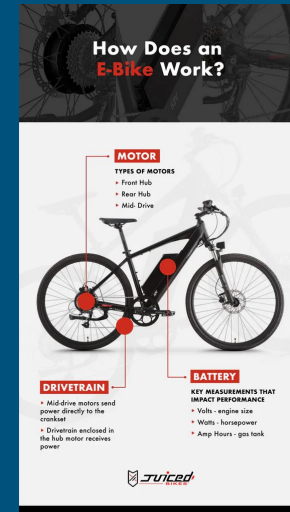
Overview

The purpose of this presentation is to inform the viewer on the facts of electric bicycles, their specifications, and how the State of New Jersey/Manasquan Police Department is enforcing laws that come with them.

Definition of an Electric Bicycle

An electric bicycle is a motorized bicycle with an integrated electric motor used to assist propulsion. Many kinds of e-bikes are available worldwide, but they generally fall into two broad categories: bikes that assist the rider's pedal-power and bikes that add a throttle, and integrating moped-style functionality.

Wikipedia. (2023). https://en.wikipedia.org/wiki/Electric_bicycle



Title 39 - Motor Vehicles and Traffic Regulation

Section 39:1-1 - Words & Phrases Defined

"Low-speed electric bicycle" means a two or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts, that meets the requirements of one of the following classifications: "class 1 low-speed electric bicycle" which means a low-speed electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour; or "class 2 low-speed electric bicycle" which means a low-speed electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.

"Low-speed vehicle" (Golf Cart) means a four-wheeled low-speed vehicle, as defined in 49 C.F.R. s.571.3(b), whose attainable speed is more than 20 miles per hour but not more than 25 miles per hour on a paved level surface and which is not powered by gasoline or diesel fuel and complies with federal safety standards as set forth in 49 C.F.R. s.571.500.

"Motorized bicycle" means a pedal bicycle having a helper motor characterized in that either the maximum piston displacement is less than 50 cc. or said motor is rated at no more than 1.5 brake horsepower or is powered by an electric drive motor and said bicycle is capable of a maximum speed of no more than 25 miles per hour on a flat surface or a pedal bicycle having an electric motor that is capable of propelling the bicycle in excess of 20 miles per hour with a maximum motor-powered speed of no more than 28 miles per hour on a flat surface. This term shall not include a low-speed electric bicycle or low-speed electric scooter as defined in this section (Which is also Known as a Class 1 or Class 2 E-bike within acceptable ranges of Wattage and speed).

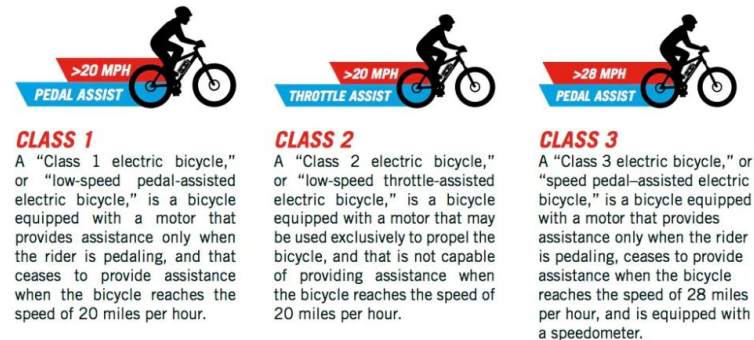
Classes of Electric Bicycles

Electric bicycles fall into three “classes” which are known as class 1, class 2, and class 3.

In Manasquan, the most common classes we see daily are class 2 electric bicycles.

What Are Ebike ‘Classes’ and What Do They Mean?

Matt Jancer (2020). <https://www.wired.com/story/guide-to-ebike-classes/>



Title 39 Classification

39:4-14.10. Electric personal assistive mobility device defined

1. a. As used in this act, "electric personal assistive mobility device" means a self-balancing non-tandem two wheeled device designed to transport one person which uses an electric propulsion system with average power of 750 watts (one horsepower), whose maximum speed on a paved level surface, when powered solely by such a propulsion system while operated by a person weighing 170 pounds is less than 20 miles per hour. The device shall not be considered a motorized wheelchair, motorized bicycle, motorcycle, motorized scooter, motorized skateboard, vehicle or motor vehicle.

b. An electric personal assistive mobility device may be operated on the public highways, sidewalks and bicycle paths of the State. Every person operating such a device shall be granted all of the rights and be subject to all of the duties applicable to the driver of a bicycle by chapter four of Title 39 of the Revised Statutes except as to those provisions thereof which by their nature can have no application. An electric personal assistive mobility device shall be subject to the safety and equipment requirements applicable to the bicycle provisions of chapter 4 of Title 39 of the Revised Statutes, except as to those provisions thereof which by their nature can have no application.

c. The operator of an electric personal assistive mobility device shall not be required to obtain a driver's license therefor or to register the device. The operator shall not be required to furnish proof of having liability insurance for the device or other proof of financial responsibility.

Class 1 Electric Bicycle

Class 1 Electric Bicycles

A class 1 electric bicycle is only a “pedal assist” bicycle. A class 1 electric bicycle does not have a throttle. Class 1 electric bicycles are limited to a top speed of 20 mph and are only activated when the rider pedals.

There is no age limit for class 1 electric bicycles, however, riders still must follow the same laws as regular bicycles.

What Are Ebike ‘Classes’ and What Do They Mean?

Matt Jancer (2020). <https://www.wired.com/story/guide-to-ebike-classes/>

CLASS 1



A “Class 1 electric bike” or “low-speed pedal-assisted bicycle” is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches a top speed of 20 mph.

Class 2 Electric Bicycles

Class 2 Electric Bicycles

Class 2 e-bikes are defined as an electric bicycle that has a motor that can operate independently by using the throttle or dependently by using pedal assist. Class 2 e-bikes are the only class that always comes with a throttle. In many states, Class 2 e-bikes are treated as scooters or mopeds under the law. Class 2 e-bikes are more complex than Class 1 electric bicycles. Class 2 bicycles MAY need to be registered, insured, and have a license to operate. If the bicycle can attain speeds of over 20 MPH on a flat surface, has more than 750 watts, or more than 50cc, the bicycle must be registered as it is considered a “low speed vehicle”. If the bicycle falls under all the stated regulations, there is no age limit for this type of bicycle. If it must be registered/insured, you must be 15 years old with a valid moped license. As the same for Class 1 e-bikes, Class 2 e-bikes must follow all Title 39 Laws.

Class 2 electric bicycles are the most common type of electric bicycle we see in Manasquan.

What Are Ebike 'Classes' and What Do They Mean?

Matt Jancer (2020). <https://www.wired.com/story/guide-to-ebike-classes/>



Class 3 Electric Bicycles

Class 3 Electric Bicycles

A Class 3 Electric Bicycle is defined as a motorized bicycle. The biggest differences between a Class 2 vs Class 3 e-bike is their top speeds and the use of a throttle. Class 2 e-bikes have pedal assist and throttle with a top speed of 20 mph. Class 3 e-bikes have a pedal assist and throttle feature with a top speed of 28 mph. Being that the Class 3 e-bike can attain speeds of over 20mph on a flat level surface, can have more than 750 watts, or more than 50cc, the bicycle must be registered/insured as it is considered a low-speed vehicle. Any e-bikes over 28 mph can not be ridden on any public roadway even if they are registered/insured.

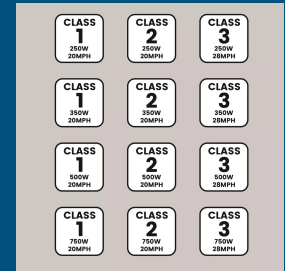
Although needing to be registered and insured, this is the second most common electric bicycle we see in Manasquan.

What Are Ebike 'Classes' and What Do They Mean?
Matt Jancer (2020). <https://www.wired.com/story/guide-to-ebike-classes/>



Issues With Classification & Enforcement

Classification Stickers



Every electric bicycle is required to come with a “classification sticker” located somewhere on the frame of the bicycle. It specifies the class, wattage, and top speed of the bicycle. On some bicycles, what the sticker displays is not correct. An example would be the sticker saying that the top speed is 20 MPH when the bicycle can actually travel at 28 MPH (class 2 to class 3).

39:4-14.16 (b) - On and after January 1, 2019, manufacturers and distributors of low-speed electric bicycles shall apply a label that is permanently affixed, in a prominent location, to each low-speed electric bicycle. The label shall contain the classification number, top assisted speed, and motor wattage of the low-speed electric bicycle, and shall be printed in Arial font in at least 9-point type (see above).

Issues With Classification

Although it may state these classifications, riders and manufacturers are able to make modifications to exceed the speed limit by various ways. Some examples are the governor (speed regulator) being removed from the e-bike, the manufacturer modifies it to exceed the speed or does not list the true bicycle speed, and most e-bikes come with a mobile app which can regulate top speed through the phone.

Officers can only go based off the sticker provided by the manufacturers. However, if a rider is caught by a certified radar in excess of the stated speed and is not registered, insured, and the rider does not possess a valid license, the e-bike can be impounded, and the rider may face various penalties along with any other violations observed. Officers can also survey the bicycle on a motor vehicle stop.



*Governor for e-bike
(Can simply be removed by
disconnecting from battery on
bicycle)*

Issues With Classification *(Continued)*

Below is a quote from the Electric Bicycle article, “What Are Ebike ‘Classes and What Do They Mean?”

“There’s also an unregulated mania where ebike manufacturers are doing whatever they want. Did you know there are e-bikes that go 60 miles per hour? At that point, they’re basically electric motorcycles with superfluous pedals attached. A growing number of very fast e-bikes are capable of blowing past 28 miles per hour and yet still have found a way to technically, legally fit into the classification system with a switchable setting and a little rider cooperation.

It’s the honor system. A lot of ebikes, like the Wing Freedom 2 and X, will let you remove the top-speed restriction in exchange for a promise that you won’t ride them in bike lanes or they’ll give you a notice that you should only unlock them if you’re on private property. It’s easy and usually done through the bike’s display screen or if the bike has one, a companion app. Most only go a few miles per hour over their class’ limit, but others, such as the Vintage Electric Roadster and the HPC Block Lightning, can go much faster than 28 miles per hour. It’s how some manufacturers can sell a 40 mile-per-hour ebike with a motor many times more powerful than normal and still be compliant. You toggle a setting and suddenly it’s a Class 2 or 3 ebike, at least legally.”

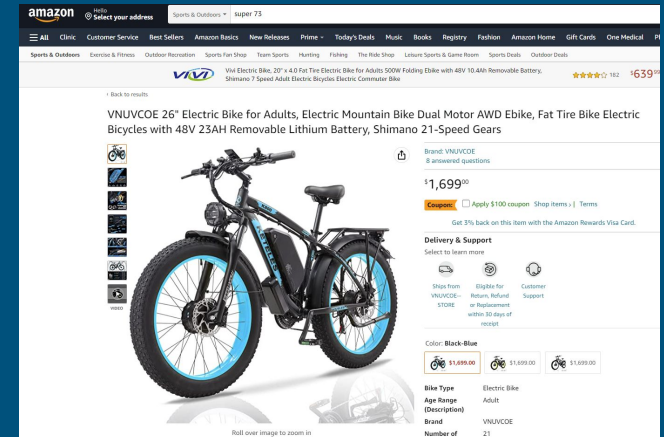
What Are Ebike ‘Classes’ and What Do They Mean?
Matt Jancer (2020). <https://www.wired.com/story/guide-to-ebike-classes/>



Examples of Electric Bicycles Without Classification

On many websites such as Amazon, Walmart, and other websites, you can find numerous electric bicycles all without classifications and top speeds well over the listed 28 MPH max. The reason for this is because it is not illegal for these companies to sell these types of bicycles. These bicycles can be used on their private property. The issue is that buyers in the area are unaware of these regulations for electric bicycles. Often times the parent, who is the buyer, purchases the bike for their child and does not know these regulations and laws. This leads to what we are currently seeing which is juveniles on electric bicycles traveling at high speeds throughout town.

Attached beside is an electric bicycle listed on Amazon for sale. In the description, it states that this electric bicycle can reach speeds up to 37 MPH. As stated in prior slides, this electric bicycle is not only going to fit in any classification and can not be ridden on any roadway.



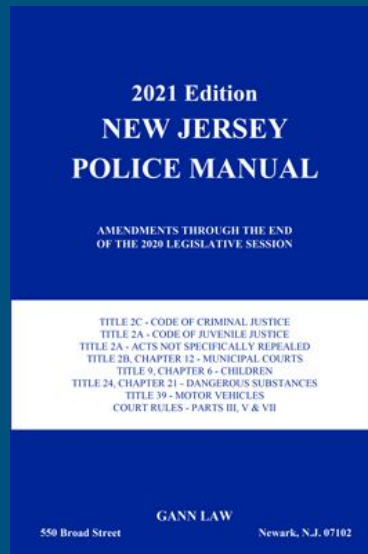
Title 39 (NJ Motor Vehicle Law)

Title 39 (NJ Motor Vehicle Law) for Bicycles

- 39:4-10 (No Lights or Reflectors on Bicycles) *Court Mandatory*
- 39:4-10.1(a) Helmets Required for Bicyclist <17 *Court Mandatory*
- 39:4-11 - No Audible Signal on Bicycle (Bicycle Bell)
- 39:4-11.1 - No Brakes on Bicycle
- 39:4-12 Improper Riding or Carrying on Bicycle
- 39:4-14 - Hitching to Vehicle Prohibited
- 39:4-14.2 Keep Right on Roadway
- 39:4-81 Disregard of a Traffic Control Device (Red Light)
- 39:4-144 Failure to Stop or Yield to Right of Way of Vehicles
- 39:4-100 speed limit of >4 mph on sidewalk

Laws for Certain Electric Bicycles

- 39:3-4 Unregistered Vehicle
- 39:6B-2 Uninsured Vehicle *Court Mandatory*
- 39:3-10 Unlicensed Driver *Court Mandatory*



Title 39 On Bicycles Under 17

39:4-10.1 - Bicycle helmets, requirements.

1. a. A person under 17 years of age shall not operate, or ride upon a bicycle as a passenger, unless that person is wearing a properly fitted and fastened bicycle helmet which meets the standards of the American National Standards Institute (ANSI Z90.4 bicycle helmet standard) or the Snell Memorial Foundation's 1990 Standard for Protective Headgear for Use in Bicycling. This requirement shall apply to a person who rides upon a bicycle while in a restraining seat which is attached to the bicycle or in a trailer towed by the bicycle.

Rider under 17 shall receive a warning and the parent or guardian may be issued a summons for the offense

this violation rule only applies to the helmet section



Liability

If you are in violation of a motor vehicle offense while riding your bicycle and you are struck by a moving vehicle or you strike a pedestrian, you will be at fault.

You can subsequently be issued a citation for the violation.

Example: A bicyclist does not stop at a stop sign at an intersection and is involved in an accident with a vehicle that had the right away on the road. Not only are you at fault, but consequences can include:

- *Paying for damage*
- *Receiving a summons for failure to stop (39:4-144 {2 pts})*



How Manasquan Police Will Enforce Electric Bicycle Violations

- Making stops for other violations listed in the Title 39 slide and now being able to survey the bicycle for top speeds and classification stickers.
 - *Example: a subject who is 14 years old is stopped for no helmet. The officer can now check the bicycle for the classification sticker as well check the bicycle to see what its true top speed is (running the throttle on the bicycle).*
- *Radar enforcement on the main roads traveled by the bicyclists (some examples East Main St, Main St, Brielle Rd, First Ave)*
- *Impoundment of the electric bicycle for unregistered and uninsured if it meets when required for registration and insurance.*
- *Inconvenience of the parents of juveniles by making them respond to the scene to retrieve the child and/or the bicycle.*
 - *By doing this, the goal is that the parent will understand the laws that come with the electric bicycle along with the penalties if the child is caught again which will fall back onto the parent.*



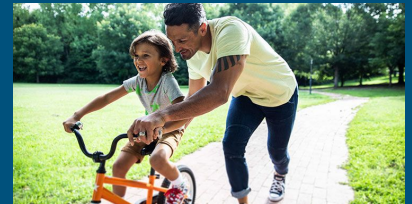
It Begins At Home

It Begins At Home

Although as it is the job of law enforcement to enforce bicycle laws for both regular and electric bicycles, the role of the parents is vital.

For an overwhelming majority of bicycle complaints, the average age for offenders is under 18. Although the police stop the juveniles and enforce the laws, it is the responsibility of the parents to ensure their children have proper needs when riding their bicycles. This includes helmets, lights, reflectors, etc. It is also important as a parent to ensure that the bicycle you are putting your child on is not only within proper standards for the law, but most importantly the safety of the child.

Parents can be issued summons for actions done by their children. Fines can range from \$20 to \$2,000 for a single violation.



Manasquan Police Department Contacts

For any questions regarding electric bicycles, please see contact information below.

Police Headquarters Non-Emergency Line - (732) 223 - 1000 x 0

Patrol Michael Tantum #70 mtantum@manasquanpd.com

Patrol Kevin Istvanditsch #71 kistvanditsch@manasquanpd.com