540 CMR: REGISTRY OF MOTOR VEHICLES

## 540 CMR 29.00: AMPHIBIOUS SIGHT-SEEING MOTOR VEHICLES

Section

29.01: Purpose, Scope and Applicability

29.02: General Requirements

29.01: Purpose, Scope, and Applicability

540 CMR 29.00 is adopted by the Registrar of Motor Vehicles pursuant to M.G.L. c. 90, §§ 13C and 31 to establish rules and regulations for the installation of safety equipment, including proximity sensors and blind spot cameras on sight-seeing amphibious motor vehicles.

## 29.02: General Requirements

- (1) No person shall operate an amphibious motor vehicle used for sight-seeing tours on a public way unless it is equipped with a minimum of four cameras, in good working order, one of which must be mounted on the front of the vehicle; one on the rear of the vehicle and one on each side of the vehicle.
  - (1) Each such camera system must be able to display objects, motorists and pedestrians in close proximity as described in 540 CMR 29.02(2) to the vehicle and generate and record digital images of said objects, motorists and pedestrians on a monitor located within the vehicle.
  - (2) The monitor must display images in real time that are clear and not distorted.
  - (3) Collectively, the digital images displayed on the monitor shall provide the operator of the vehicle with a  $360^{\circ}$  view of all motorists, pedestrians and objects within the vehicle's blind spots.
  - (4) Said monitor's screen must be sufficient in size to allow the operator to easily view the areas covered by the individual cameras and must be positioned so that the screen or screens may be viewed by the vehicle's operator without the need to turn his or her head away from the forward looking position while operating the vehicle. The screen must be able to simultaneously display the areas covered by all of the cameras.
  - (5) All such cameras must be resistant to water and vibration.
  - (6) Each camera must be operable in temperatures ranging from -25°F through 150°F.
  - (7) The camera system shall have the ability to record the activity displayed on the monitor and retain the images for a period of at least 30 days.
- (2) No person shall operate an amphibious motor vehicle used for sight-seeing tours on a public way unless it is equipped with a minimum of two proximity sensors, in good working order, one of which shall be located on the front of the vehicle and one on the rear of the vehicle.
  - (a) The proximity sensor(s) located on the front of the vehicle must have a detection area as follows:
    - 1. a minimum length of 15 feet from the front of the hull;
    - 2. a minimum width of ten feet from the front of the hull.
  - (b) The proximity sensor(s) on the rear of the vehicle must have a detection area as follows:
    - 1. a minimum length of 15 feet from behind the rear of the hull;
    - 2. a minimum width of ten feet from the rear of the hull.
  - (c) Each proximity sensor must provide the operator with both an audible and visual distance warning when it detects an object, pedestrian or motorist in the detection area.
  - (d) Proximity sensors must be resistant to water and vibration.
  - (e) Proximity sensors must be operable in temperatures ranging from -25  $^{\circ}$ F through 150  $^{\circ}$ F.

## REGULATORY AUTHORITY

540 CMR 29.00: M.G.L. c. 90, §§ 13C and 31.