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**Question 1:** May a school bus have a forward facing camera installed which is mounted more than 2 inches below the upper edge of the area swept by the windshield wipers? (Reference TR300.81(7)(a))

### **History:**

The April 2016 version of TR300 was the first published update which included language specific to forward facing cameras being mounting on the windshield.

#### **TR300.81(7)(a)**

(a) When a device is mounted in the driver's compartment it shall be located so as to not interfere with movement into and out of step well area. When a camera is placed to view through the windshield it shall not be located to the left of the centerline of the school bus. **The camera shall be mounted not more than 2 inches below the upper edge of the area swept by the windshield wipers and located outside the driver's sight lines to the road, mirrors, highway signs and signals.**

The language concerning the allowable camera placement within two inches of the upper edge area was based on an exemption granted by FMCSA in Federal Register 14231 for such safety devices.

- *On March 18, 2015 (80 FR **14231**), FMCSA granted Lytx Inc. (formerly DriveCam, Inc.), a renewal of a 2-year exemption from § 393.60(e)(1) for CMV utilizing video event recorders mounted not more than 50 mm (**2 inches**) below the upper edge of the area swept by **the windshield wipers**, and located outside the driver's sight lines to the road and highway signs and signals.*

Not realized during the language drafting of the April 2016 version of TR300, two other exemptions from 393.60(e)(1) were also granted and those were included in Federal Registers 14222 and 13460.

- *On March 18, 2015 (80 FR 14222), FMCSA granted Mobileye, Inc., a 2-year exemption from § 393.60(e)(1) for CMVs utilizing a camera-based collision avoidance system mounted not more than 4 inches below the upper edge, or above the lower edge, of the area swept by the windshield wipers, and outside the driver's sight lines to the road and highway signs and signals. The collision avoidance system warns drivers of potential hazards by detecting other vehicles, pedestrians and cyclists on the road, and lane markings and traffic signs.*
- *On March 13, 2015 (80 FR 13460), FMCSA granted a 2-year exemption from § 393.60(e)(1) to Volvo/Prevost, LLC motorcoaches for a lane departure system mounted not more than 7 inches above the lower edge of the area swept by the windshield wipers, and outside the driver's sight lines to the road and highway signs and signals. The lane departure warning*

*system alerts drivers who unintentionally drift out of their lane of travel, thus promoting improved safety performance.*

On October 24, 2016 Section 5301 of the Fixing America's Surface Transportation (FAST) Act directed the Federal Motor Carrier Safety Administration (FMCSA) to amend the Federal Motor Carrier Safety Regulations (FMCSRs) to allow devices to be mounted on the windshield that utilize "vehicle safety technology" as defined in the Act. In addition, section 5301 of the Fast Act states that all windshield mounted devices/technologies with a limited 2-year exemption in effect on the date of enactment, shall be considered to meet the equivalent-or-greater safety standard required for the initial exemption.

49 CFR 393.60(e)(1) was therefore amended to read:

- **(e) Prohibition on obstructions to the driver's field of view—(1) Devices mounted on the interior of the windshield.** (i) Antennas, and similar devices must not be mounted more than 152 mm (6 inches) below the upper edge of the windshield. These devices must be located outside the area swept by the windshield wipers, and outside the driver's sight lines to the road and highway signs and signals.  
(ii) Paragraph (e)(1)(i) of this section does not apply to vehicle safety technologies, as defined in § 393.5, that are mounted on the interior of a windshield. Devices with **vehicle safety technologies** must be mounted:
  - (A) Not more than 100 mm (**4 inches**) below the upper edge of the area swept by the windshield wipers;
  - (B) Not more than 175 mm (**7 inches**) above the lower edge of the area swept by the windshield wipers; and
  - (C) Outside the driver's sight lines to the road and highway signs and signals.
- **Vehicle safety technology.** Vehicle safety technology includes a fleet related incident management system, performance or behavior management system, speed management system, lane departure warning system, forward collision warning or mitigation system, active cruise control system, and transponder.

**Guidance:**

The Division of State Patrol (DSP) will create language to mirror 393.60(e)(1)(ii) during the next rulemaking process of TR300. Until then, the DSP will follow the mounting allowances in 393.60(e)(1)(ii) when it pertains to vehicle safety technology as defined in 49 CFR 393.5. If a camera is mounted in the windshield and it does not meet the definition of vehicle safety technology the current language in TR300.81(7)(a) shall be followed.

Sincerely,  
Lieutenant Karl L. Mittelstadt  
Division of State Patrol – Motor Carrier Enforcement Section