Florida Traffic Infraction Detector Equipment and Testing Compliance Matrix

(Derived from December 16, 2010 Equipment and Testing Specifications)

Date: April 4th 2015

Manufacturer: RedSpeed USA

Authorized Official Name (print): Robert Liberman

Item, Model No.: RedSpeed V2.0 RICS

Signature:

ID No.	Section	Requirement	Item comply? (Yes/No)	Comments
1	1.3.1	TID defines 'Compliant Vehicle' as a motor vehicle that stops behind the stop bar or clearly marked stop line when facing a traffic control signal steady red indication or traveling over the stop bar or clearly marked stop line when facing traffic control signal steady green or steady yellow indications.	Yes	
2	1.3.2	TID defines 'Event' as when a motor vehicle fails to stop behind the stop bar or clearly marked stop line when facing a traffic control signal steady red indication.	Yes	
3	1.3.4	Section 316.003(87), Florida Statutes defines a TID as a vehicle sensor installed to work in conjunction with a traffic control signal and a camera or cameras synchronized to automatically record two or more sequenced photographic or electronic images or streaming video of only the rear of a motor vehicle at the time the vehicle fails to stop behind the stop bar or clearly marked stop line when facing a traffic control signal steady red light.	Yes	
4	2.1	TID captures an Event with a single vehicle in a single through lane.	Yes	
5	2.2	TID captures an Event with a single vehicle in a single through lane with the presence of multiple compliant vehicles in the same lane.	Yes	
6	2.3	TID captures an Event with a single vehicle in a single through lane with the presence of multiple compliant vehicles in the same and adjacent through lanes.	Yes	
7	2.4	TID captures multiple Events with multiple vehicles in a single through lane.	Yes	
8	2.5	TID captures multiple Events with multiple vehicles in the same and adjacent through lanes.	Yes	
9	2.6	TID meets the requirements of Sections 2.1 – 2.5 for left turn lane Events.	Yes	
10	2.7	TID is capable of identifying Events where the speed of a single vehicle or multiple vehicles making a right turn on red is more than a configurable threshold speed. Speed is in miles per hour.	Yes	
11	3.1	TID captures and stores photographic or electronic image of the intersection that includes the rear of the vehicle and license tag at a time the vehicle is in advance of the stop bar or clearly marked stop line with the corresponding traffic control signal steady red light visible in the image.	Yes	
12		TID captures and stores photographic or electronic image of the intersection that includes the rear of the vehicle and license tag at a time the vehicle is beyond the stop bar or clearly marked stop line with the corresponding traffic control signal steady red light visible in the image.	Yes	
13		If Right Turn on Red events are enforced, TID captures and stores a minimum of 5 seconds of streaming video of the intersection that includes the rear of the vehicle and license tag beginning at a time the vehicle is in advance of the stop bar or clearly marked stop line with the corresponding traffic control signal steady red light and ending at a time after the vehicle is beyond the stop bar or clearly marked stop line with the corresponding traffic control signal steady red light.	Yes	
14		At least one of the two photographic or electronic images of the license tag, including license tag state, number and specialty logo (if applicable), is clearly legible. The viewable images have a minimum pixel resolution of 640 by 480.	Yes	
15		The video has a minimum pixel resolution of 320 by 200 with a minimum frame rate of 5 frames per second.	Yes	
16		TID includes protective measures to prevent modification or unauthorized manipulation of captured and stored photographic or electronic images and video.	Yes	
17		TID does not capture nor store any front photographic or electronic images or videos of vehicle occupants.	Yes	All violation images are taken from the rear

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18	3.2	TID captures and stores the following Event information in English text and/or Arabic numerals: 1. Names of intersecting Street and Highways; 2. A unique identifier of the intersection; 3. Lane number; 4. Direction of travel; 5. Month, day and year of the Event; 6. Hour, minute, and second of the photographic or electronic images in the local time; and 7. The difference in time from the beginning of the traffic control signal steady red light to the associated photographic or electronic images in tenths of a second.	Yes	
19		The time of the photographic or electronic images or video are synchronized to an external source such that it is always within plus or minus one minute of Coordinated Universal Time (UTC).	Yes	
20		The alpha-numeric data and corresponding photographic or electronic image(s) are automatically captured at the same time. The data is associated with the photographic or electronic image without human intervention.	Yes	
21	4.1	The TID equipment does not interfere with any traffic control signal or other FDOT or Traffic Signal Maintaining Agency equipment. TID equipment that requires regulation by the Federal Communications Commission (FCC) meets the requirements in the 2005 Code of Federal Regulation (CFR), Title 47, Part 15, and is FCC certified. The FCC identification number is externally displayed on the TID equipment.	Yes	Current sensing transformers
22	4.2	If visible illumination is used, the power of an illuminator (flash) device does not exceed 350 watts/second.	Yes	Non white light flash - IR LED illumination only
23	4.2	The illuminator device has the capability of being filtered and/or positioned to limit effects on the drivers' field of vision.	Yes	Non white light flash - IR only
24	4.3	TID cabinets and camera housings have protective measures against vandalism.	Yes	
25	5.0	If the Traffic Signal Maintaining Agency allows access to the traffic control signal cabinet, the TID does not impact operations or maintenance of the traffic control signals, pedestrian signals, or any other traffic control devices.	Yes	
26	5.1	Any attachment to traffic control signal cabinet wiring is electrically isolated from the traffic control signal cabinet. Electrical sensing devices are "donut" current transformers or Hall-effect devices. No other physical or electrical connections to traffic signal control circuits are allowed, including load switch driver control circuits, load switch signal circuits and detection circuits.	Yes	
27	5.2	All TID equipment is electrically isolated from traffic signal equipment. If the Traffic Signal Maintaining Agency allows access to the traffic control signal cabinet, a surge protective device(s) is installed on any conductive bonds between the traffic control signal cabinet equipment and the TID equipment to protect the traffic signal equipment.	Yes	
28		If electric power is obtained from an FDOT or Traffic Signal Maintaining Agency power service, a surge protective device(s) is installed between the TID equipment or circuit breaker and the power service. All surge protective devices and grounding systems installed meet the current FDOT Standard Specifications for Road and Bridge Construction.	Yes	
29	6.0	Testing is conducted in accordance with the manufacturer's recommendations or in accordance with the County or City testing requirements, whichever is more stringent. Testing is conducted at regular intervals in accordance with the manufacturer's recommendations or in accordance with the County or City testing requirements, whichever is more frequent.	Yes	
30		Testing includes, at minimum, System Test Function and Self Test Function.	Yes	
31	6.1	The TID activates and creates Event information consistent with an Event, when artificially activated by a system test function.	Yes	
32	6.2	The TID performs and records the results of a daily internal self test sequence that confirms proper operation of each critical system component.	Yes	
33	6.2	If the system fails on one or more portions of the internal self test, the system renders itself inoperable until a successful internal self test is recorded.	Yes	
34	7.0	The TID manufacturer provides: • Installation and/or users manual(s) required to install and calibrate all TID equipment; • Operations, maintenance and/or service manual(s) required to operate and maintain all TID equipment; • Testing results in accordance with Section 6.0 (ID numbers 30 throught 33) of the Traffic Infraction Detector Equipment and Testing Specifictaions.	Yes	

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