

## NFPA OPTIONS

### Vehicle Data Recorder.

Vehicle data recorder (VDR) shall be installed in the completed ambulance. This vehicle data recorder shall conform to comply to the standards established in the forthcoming edition of NFPA 1917 Standard For Automotive Ambulances.

The vehicle data recorder shall interface with the vehicle's multiplex electrical system. The VDR data shall be able to record the following:

- Vehicle speed mph
- Acceleration (from speedometer) mph/sec
- Deceleration (from speedometer) mph/sec
- Engine speed rpm
- Engine throttle position % of full throttle
- Anti-lock braking system event On/off
- Seat occupied status Occupied: Yes/No by position
- Seat belt status Buckled: Yes/No by position
- Master optical warning device switch On/off
- Time 24-hour clock
- Date Year/month/day

Onboard data collected from the VDR shall be able to be uploaded to a computer and shall be able to be retrieved via password into the monitoring software owned by the purchaser. The VDR shall be capable of recording the data shown in the following order at least once per second.

- Maximum vehicle speed mph
- Maximum acceleration (from speedometer) mph/sec
- Maximum deceleration (from speedometer) mph/sec
- Maximum engine speed rpm
- Maximum engine throttle position % of full throttle
- Anti-lock braking system event On/off
- Seat occupied with seat belt unbuckled Yes/no by position at 30 sec into minute
- Master optical warning device switch On/off at 30 sec into minute
- Time 24-hour clock
- Date Year/month/day

Per NFPA 1917 Standard for Automotive Ambulances requirements, all Data shall be stored at the sampling rate in a 48-hour loop and shall have enough memory to record up to 100 engine hours worth of minute-by-minute summary.

The VDR software delivered with the ambulance shall be able to be run on both Windows® and Apple® operating systems and be able to produce the following formatted reports from the uploaded data:

- (1) Raw second-by-second data over a specified data/time range
- (2) Daily log for the time the engine is running for a given date (minute-by-minute output of all values)
- (3) Weekly summary (maximum values each hour for each day of the week)
- (4) Monthly summary (maximum values each day for each day of the month)

Does your bid comply with the specification as written?            Y\_\_\_ N\_\_\_

Does your proposal include an exception to this requirement?    Y\_\_\_ N\_\_\_

#### Seat Belt Indication System

Conspicuous signs reading “Occupants Must be Seated and Belted When Ambulance Is in Motion” shall be installed. These signs shall be visible from any seated position in the ambulance.

A seat belt warning system shall be provided. This seat belt warning system shall work in conjunction with the OEM chassis seat belt warning indicator. The seat belt warning system specified here shall monitor all seat belt locations in the patient compartment. The seatbelt warning system shall run through ambulance manufacturer’s multiplexing electrical system. Systems which run independent of the module electrical system or a system not programmed by the ambulance manufacturer is not desired as this cannot be integrated and easily repaired in the field or remotely.

The seat belt warning system shall consist of an audible warning device that can be heard at all seating positions in the patient compartment. The alarm will activate when an attendant is not properly seat belted in and the ambulance is in motion or the parking brake is disengaged. In addition to the audible alarm, a visual display (consisting of text, lights, or other graphical indicators) easily interpreted by the occupants in the cab shall monitor the condition of each seating position in the patient compartment. The seat position display shall indicate in the various seating conditions in accordance with Section 6.26 of the NFPA 1917 Standard For Automotive Ambulances.

Does your bid comply with the specification as written?            Y\_\_\_ N\_\_\_

Does your proposal include an exception to this requirement?    Y\_\_\_ N\_\_\_

Underbody Ground Lighting.

The ambulance shall be equipped with LED ground lighting capable of providing illumination at a minimum level of 0.3 fc on ground areas within 30 in. (800 mm) of the edge of the ambulance in areas designed for personnel to climb into or onto the ambulance or descend from the ambulance to the ground level. Underbody ground lights shall be activated when the compartment or entry doors are opened. Any lighting designed to provide illumination on areas under the driver and crew riding area exits shall be switchable, but activated automatically when the exit doors are opened. All undergo all underbody ground lighting controls shall be programmed through the multiplexing electrical system.

Does your bid comply with the specification as written?            Y\_\_\_ N\_\_\_

Does your proposal include an exception to this requirement?    Y\_\_\_ N\_\_\_

Do-Not-Move Ambulance Light.

A red flashing or rotating light or electronic display within the forward view of the driver, shall be illuminated automatically whenever the ambulance’s parking brake is not fully engaged and any of the following conditions exist:

- (1) Any passenger, patient entry or equipment compartment door is not closed.
- (2) Any equipment rack is not in the stowed position.
- (3) Any other device permanently attached to the ambulance is open, extended, or deployed in a manner that is likely to cause damage to the ambulance if the ambulance is moved.

Compartments meeting all of the following conditions shall be permitted to be exempt:

- (1) The volume is less than or equal to 4 ft3 (0.1 m3).
- (2) The compartment has an opening less than or equal to 144 in.2 (92,900 mm2).
- (3) The open door does not extend sideways beyond the mirrors or up above the top of the ambulance.

If equipped with a do-not-move ambulance light it shall be labeled to read “Do Not Move Ambulance When Light Is On.”

Does your bid comply with the specification as written?            Y\_\_\_ N\_\_\_

Does your proposal include an exception to this requirement?    Y\_\_\_ N\_\_\_

Steady Burn Light

A steady burn, non-flashing LED red light shall be installed. This light shall not flash with the other emergency lights to comply with this states warning light requirements. Exact location of this light shall be detailed on the provided proposal drawings.

Does your bid comply with the specification as written?            Y\_\_\_ N\_\_\_

Does your proposal include an exception to this requirement?    Y\_\_\_ N\_\_\_