



FIX-N-FAX

Equipment Standard

Number **NEW** (#154a proposed)

Mandatory Compliance

Date: September 2011

Optical and Audible Emergency Warning Devices on Bulldozer Service Units

The intent of this Fix-N-Fax is to ensure the proper installation of emergency warning devices on Bulldozer Service Units (BDSU) while maintaining their ability to pilot/escort Bulldozer Transports. First and foremost all optical and audible warning device installations on all BDSU shall meet the minimum standard for, "Small Fire Apparatus" as described in the 2009 National Fire Protection Association, (NFPA) Standard for Automotive Fire Apparatus 1901 chapter 13 Sections 13.8.14 –13.8.14.15.

All newer BDSU equipped with light emitting diode (LED) light bars will add the necessary red LED modules to the light bar. Forward facing red lights in the grill and side facing red lights on the left and right front fenders are required for lower zone as described in NFPA 1901 chapter 13. All BDSU will maintain the required amber warning devices to pilot/escort a Bulldozer Transport.

All older BDSU without LED light bars can replace amber lenses with red lenses while maintaining the required amber lighting to pilot/escort Bulldozer Transports. In addition, forward facing red lights in the grill and side facing red lights on the left and right front fenders are required for lower zone as described in NFPA 1901 chapter 13. All BDSU will maintain the required amber lights to pilot/escort Bulldozer Transports.

An electronic emergency system controller will be required to provide an audible warning and control emergency optical warning devices.

- 1) On the emergency system controller slide switch, the number 1 position will power all amber lighting required for pilot/escort.
- 2) The number 2 position will power all lighting in position number 1, flashing red lights in the grill, steady burning forward red light and rear facing flashing red lights.
- 3) The number 3 position will power all devices powered in positions number 1 and 2 and the side facing intersection lights and rotators on the mechanical

style light bars or illuminate all additional lights on LED light bars and allow the siren to sound.

All BDSU will have the siren speaker mounted in the front bumper. Refer to [Fix-N-Fax 148](#)

When installing the system controller reference [Fix-N-Fax 2a](#) to insure that there is no interference with the air bag supplemental restraint systems.

Amber LED Traffic Advisor or Arrow Stick with controller can be added. The directional Traffic Advisor or Arrow Stick will be mounted below the light bar facing the rear of the BDSU.

A wig wag headlight flasher can be installed. The flasher shall be controlled by the electronic emergency system controller and shall only be activated when the slide switch is in the #3 position.

Any deviation from this policy will be considered a **vehicle modification** and must have prior written approval as directed in the [Mobile Equipment Management Procedures Handbook Section 6820](#).

The BDSU will not be operated code three by anyone who has not met all provisions of Training Procedures Handbook section 4033 requirements. The [Training Handbook section 4033](#) states that; *“probationary, permanent, limited term (LT) or temporary (TAU) safety personnel must successfully complete the Driver Operator Module or Basic Fire Engine Operation (14-day) Course before operating a CAL FIRE or local government contract fire apparatus under code 3 conditions”.*

The Unit Fleet Manager shall have oversight and approve all installations and mountings of equipment. Because emergency warning equipment models and Cal Fire fleet standards change periodically, the Unit Fleet Manager shall consult with the Region Fleet Manager for currently approved make and model of emergency equipment.

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