



FIRE APPARATUS MANUFACTURERS' ASSOCIATION
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TC010 White Paper

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Standard Product Safety Signs for Automotive Fire Apparatus

RATIONALE

This document gives the fire apparatus manufacturers an option to provide standardized product safety sign text and artwork for common hazards.

FOREWORD

This document presents safety signs for potential use on fire and rescue apparatus.

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1 SCOPE

This document presents a standardized catalog of safety sign text and artwork that may be used by any apparatus manufacturer to warn of common hazards. It remains the product manufacturers' obligation to furnish adequate warnings and instructions, after consideration of the products specific characteristics and environment of use. A manufacturer may elect to use any of the standardized signs, text and/or artwork contained in this catalog, but no manufacture is required to do so.

2 REFERENCES

2.1 Applicable Publications

The following publications form a part of this specification to the extent specified herein.

2.1.1 ISO Publications

Available from ANSI, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, www.ansi.org.

ISO 9244 Earth-moving machinery – Machine safety labels – General Principles

ISO 7010 Graphical symbols – Safety colours and safety signs – Registered safety signs

2.1.2 Other Publications

ANSI Z535.4 American National Standard for Product Safety Signs and labels

ANSI Z535.6	American National Standard for Product Safety Information in Product Manuals, instructions, and Other Collateral Materials
NFPA 1901	Standard for Automotive Fire Apparatus
NFPA 1906	Standard for Wildland Fire Apparatus

3 DEFINITIONS

3.1 Product Safety Sign

Sign, label, or decal affixed to a product that provides essential information concerning a potential hazard, the degree or level of hazard seriousness, the probable consequence of involvement with the hazard, and how the hazard can be avoided.

4 GENERAL

- 4.1 New proposals for product safety sign ideas should be forwarded to FAMA. The FAMA Product Safety Sign group will consider new ideas at each FAMA technical committee meeting and may add new text and artwork to this catalog as appropriate.
- 4.2 The product safety signs shown in this document are intended as examples for sufficiency of text and graphic size with respect to each hazard, however it is the product manufacturer's responsibility to determine the adequacy of warnings and/or instructions that are provided with the product.
- 4.3 Limitations inherent in some reproduction and display technologies may require increased line thickness or other minor modifications of symbols. Such modifications are acceptable provided the symbol is unchanged in its basic graphical elements and remains easily discernible by the operator.
- 4.4 To improve the appearance and perceptibility of a safety sign, or to coordinate with the design of the equipment to which the sign is applied, it may be necessary to change the line thickness or round the corners of a symbol. The graphic designer is free to make such changes, provided that the essential perceptual characteristics of the symbol are maintained.
- 4.5 Some of the product safety signs included in this document are provided with "textless" two-panel versions developed using the guidelines found in ISO 7010. Where appropriate, these versions could be used in place of the ANSI Z535.4 signs at the option of the manufacturer.
- 4.6 Symbols on controls and displays should have good contrast to their background. Pictorials may use either a light symbol on a dark background or a dark symbol on a light background at the manufacturer's discretion. When a pictorial image is reversed (for example, from black-on-white to white-on-black and vice versa), it should be done for the entire pictorial.
- 4.7 Where used, product safety signs should be located as close as practical to the location of the hazard addressed. Some recommendations regarding sign placement are included in this catalog.
- 4.8 Reference numbers are provided as a convenience to the organization of this document and need not appear on the final product.
- 4.9 Product safety sign graphic thumbnails are provided in this document. Full scale artwork can be downloaded from the FAMA website at www.FAMA.org.
- 4.10 All standard ISO version signs are 6.65 in. tall by 3.35 in. wide.
- 4.11 Font sizes are based on using Microsoft Sans Serif.

5 NFPA APPARATUS STANDARD COMPLIANCE

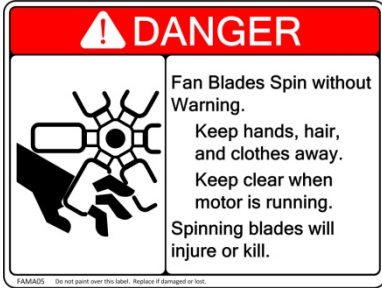





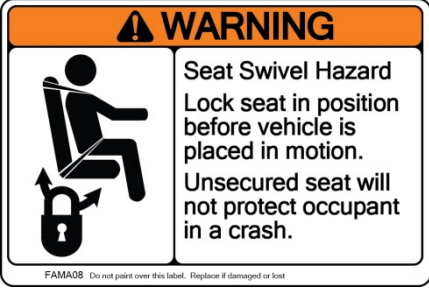

- 5.1 NFPA 1901 and NFPA 1906 include certain detailed specifications for safety sign text that address specific hazards. These standards also state that “Safety-related (caution, warning, danger) signs shall meet the requirements of ANSI Z535.4, Product Safety Signs and Labels”. The detailed text contained in the NFPA standards, however, does not necessarily conform to the ANSI Z535.4 format. This presents the apparatus manufacturer with a conflict of either providing the text verbatim from the NFPA standard, or modifying the text to comply with the ANSI Z535.4 guidelines. The safety signs provided in this document address this conflict by presenting safety signs that are compliant the ANSI Z535.4 guidelines while remaining as true as possible to the intent of detailed text found in the NFPA apparatus standards. It is the intent of the authors of this paper to suggest changes to the NFPA documents that will resolve these conflicts for future revisions.
- 5.2 The following is a list of the safety signs in this document that address hazards specifically considered in NFPA 1901 *Standard for Automotive Fire Apparatus* 2009 edition and NFPA 1906 *Standard for Wildland Fire Apparatus* 2012 edition:

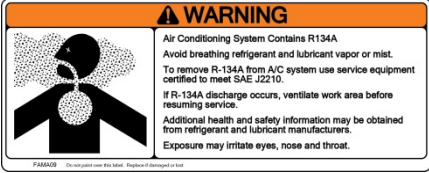







NFPA 1901	NFPA 1906	Topic	Safety Sign
14.1.2	14.1.2	Cab Seating Capacity	FAMA14
14.1.3.8	14.1.3.8	Seat Belts	FAMA07
14.1.3.9 23.7.3	14.1.3.9	Seat Not to be Occupied	FAMA06
14.1.8.4.3		Helmets NFPA 1901	FAMA15
	14.1.8.5	Helmets NFPA 1906	FAMA43
15.7.5	15.7.5	Riding on the Tailboard	FAMA24
15.12.3 25.4.4.2	15.12.3 25.4.4.2	Winch Receivers and Rope Anchors	FAMA28
19.23.1.2(1) 19.23.1.2(2)		Aerial Electrocutation from Power Lines	FAMA35 FAMA36
19.23.1.2(3)		Hazards from Stabilizer Motion	FAMA30 FAMA31 FAMA32 FAMA33
19.23.1.2(4)		Failure to Follow Operator Instructions	FAMA25 FAMA37 FAMA38 FAMA39

- 5.3 The safety sign artwork in this catalog is available for free download from the FAMA website at fama.org.







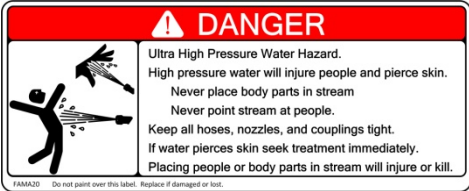

6 SAFETY SIGN TEXT AND ARTWORK

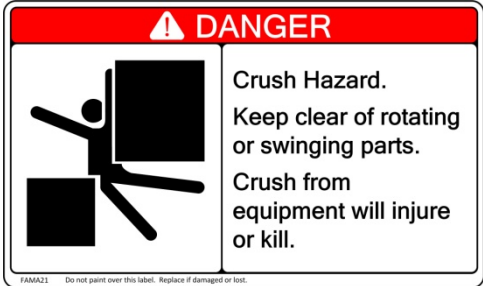







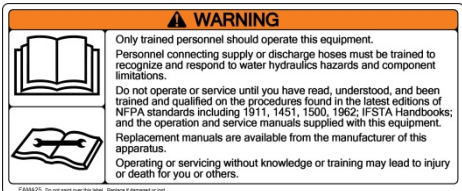

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA01	Battery Explosion	Visible to personnel near batteries.	3.0 x 4.0	12		
FAMA02	Rotating Shafts	One sign each side of vehicle on the frame rail, and any other place where rotating shaft hazard is apparent.	3.0 x 4.0	14		
FAMA03	Hot Surface	Near hot surfaces	2.0 x 5.0	18		
FAMA04	Hot Exhaust - Horizontal Muffler	Visible to personnel approaching the hot exhaust parts.	3.5 x 3.5	14		



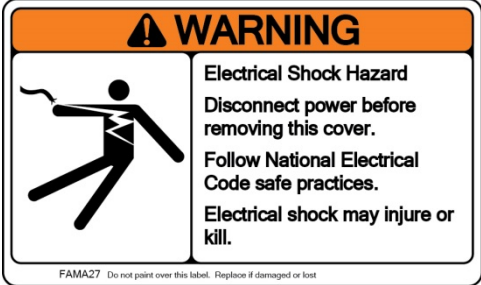



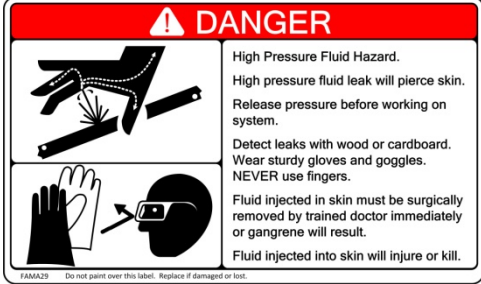

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA05	Spinning Fan	Visible to personnel at each approach to spinning fans.	3.0 x 4.0	14		 <p>FAMA05G</p>
FAMA06 (NFPA)	Seats Without Belts Not Occupied	Visible to each occupant where seating positions without seat belts are present.	2.0 x 3.0	14		 <p>FAMA06G</p>
FAMA07 (NFPA)	Seated and Belted	Visible to any occupant.	2.0 x 3.0	9		 <p>FAMA07G</p>
FAMA08	Swivel Seat Unsecured	Visible to occupant of swivel seat.	1.9 x 3.1	10		 <p>FAMA08G</p>



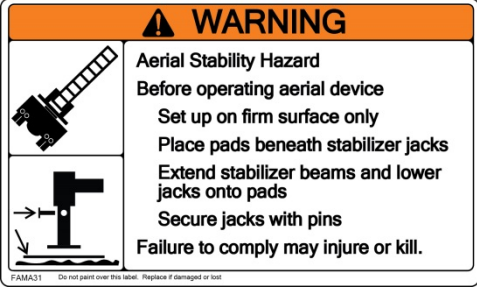

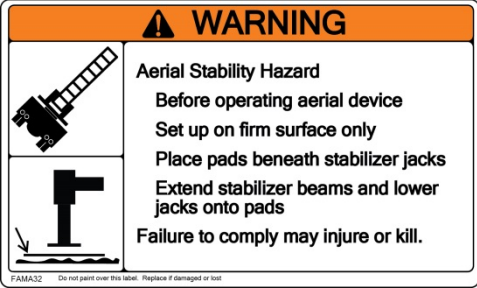

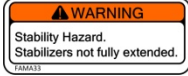



Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA09	Air Conditioning Refrigerant	On or near air conditioning unit where mechanic would be apt to find it.	2.0 x 5.0	10		 <p>FAMA09G</p>
FAMA10 (NFPA)	Cab Equipment Mounting	Visible to operator inside the cab.	2.0 x 3.0	8		 <p>FAMA10G</p>
FAMA11	SCBA Seat Insert	Visible to operator inside the cab.	2.0 x 3.0	8		 <p>FAMA11G</p>
FAMA12 (NFPA)	Fire Service Tire Rating	Visible to operator inside the cab.	2.0 x 3.0	9		 <p>FAMA12G</p>

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA13	Electronic Stability Control	Visible to operator inside the cab.	2.0 x 3.0	10		
FAMA14	Cab Seating	Visible to operator inside the cab. Fill in blank with number of belted seating positions.	2.0 x 3.0	14		
FAMA15 (NFPA)	Helmet Worn in Cab	Visible from each seating location	2.0 x 3.0	10		
FAMA16	Deployable Steps	Visible at step locations.	2.0 x 3.0	14		



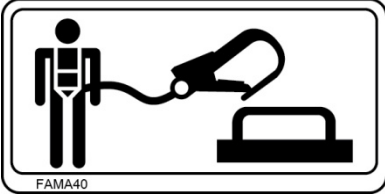

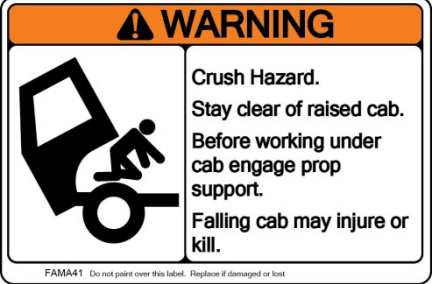





Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA17	Vehicle Backing	Visible to the driver while sitting in the driver seat.	2.0 x 3.0	9		 <p>FAMA17G</p>
FAMA18	Intake and Discharge Cap Pressure	One sign on each side and back of vehicle where caps are present.	3.5 x 3.5	12		 <p>FAMA18G</p>
FAMA19	Foam Type Mixing	Near Foam Controls	1.9 x 3.1	8		 <p>FAMA19G</p>
FAMA20 (NFPA)	Ultra High Pressure Water	Visible to a person in front of the turret. Visible to turret operator. Visible to fire fighter preparing to use any hand line.	2.1 x 5.2	10		 <p>FAMA20G</p>



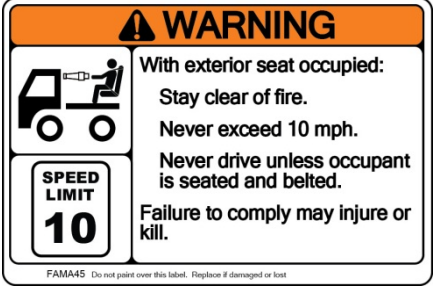



Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA21	Rotating or Swinging Parts	One sign near each crush point.	3.0 x 5.0	18		 <p>FAMA21G</p>
FAMA22 (NFPA)	Hose Restraint Required	Near each hose storage area	1.9 x 3.1	10		 <p>FAMA22G</p>
FAMA23 (NFPA)	Access Step Method - Small	Visible to personnel preparing to climb onto or enter vehicle.	3.5 x 3.5	10		 <p>FAMA23G</p>
FAMA24 (NFPA)	Riding on exterior	On the vehicle at the rear step areas and at any cross walkways"	3.5 x 3.5	16		 <p>FAMA24G</p>
FAMA25 (NFPA)	Trained Personnel Only - NFPA Required	Visible at pump operator's station and Aerial operator's platform. For apparatus without a pump or aerial device, locate this sign in a prominent location visible to operating personnel.	2.7 x 6.6	10		 <p>FAMA25G</p>



Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA26	No-Step	On any horizontal surface that would be tempting to step on but that is not provided with slip resistant surface and grab handles.	3.5 x 3.5	12		 <p>FAMA26G</p>
FAMA27	Breaker Box Warning	Visible to personnel accessing electrical panel.	1.9 x 3.1	8		 <p>FAMA27G</p>
FAMA28 (NFPA)	Rope Tie-Down 9000	Near each rope anchor	1.9 x 3.1	10		 <p>FAMA28G</p>
FAMA29	Hydraulic High Pressure Leaks	One label per vehicle in a conspicuous area near the majority of the hydraulic lines or components.	3.0 x 5.0	10		 <p>FAMA29G</p>

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA30 (NFPA)	Stabilizer Crush	Visible to person standing near each stabilizer Visible to stabilizer deployment operator.	3.5 x 3.5	12		
FAMA31 (NFPA)	Stabilizer Pins & Pads	Visible to stabilizer deployment operator.	3.0 x 5.0	14		
FAMA32 (NFPA)	Stabilizer Pads	Visible to stabilizer deployment operator.	3.0 x 5.0	14		
FAMA33 (NFPA)	Stabilizers Not extended	Visible to stabilizer deployment operator.	0.9 x 2.1	10		
FAMA34 (NFPA)	Fall Restraint Required.	One sign near base of ladder. One sign visible in platform.	3.0 x 5.0	18		

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA35 (NFPA)	Aerial Electrocution Small Size	Visible to aerial and pump operator.	3.0 x 5.0	10		 FAMA35G
FAMA36 (NFPA)	Aerial Electrocution Large Size	Visible to personnel on aerial apparatus approaching vehicle from either side and back.	6.0 x 8.0	18		 FAMA35G
FAMA37 (NFPA)	Aerial Device Load Capacity	Visible to aerial operator at turntable, in the platform, and at tip controls.	3.0 x 5.0	12		 FAMA37G
FAMA38 (NFPA)	Aerial Ladder Rung Pinch	One sign visible to personnel operating tip controls. One sign visible to Aerial Operator.	1.9 x 3.1	11		 FAMA38G

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA39 (NFPA)	Aerial Inspection	Visible to operator at turntable.	2.0 x 3.0	10		 <p>FAMA39G</p>
FAMA40	Fall Protection Anchor	Next to fall protection anchor.	1.0 x 2.0			 <p>FAMA40G</p>
FAMA41	Cab Tilt	Inside of driver cab door	2.0 x 3.0	10		 <p>FAMA41G</p>
FAMA42	Siren Noise	Inside of driver cab door	2.0 x 3.0	9		 <p>FAMA42G</p>
FAMA43	Helmet Worn in Cab	Visible from each seating location	2.0 x 3.0	10		 <p>FAMA15G</p>

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
<p>FAMA44 (NFPA)</p>	<p>Pump and Roll Fire Fighting Position - Exterior</p>	<p>One sign visible from the pump-and-roll firefighting position</p>	<p>3.5 x 3.5</p>	<p>14</p>		
<p>FAMA45 (NFPA)</p>	<p>Pump and Roll Fire Fighting Position - Driver</p>	<p>One sign visible from the drivers position or visible to the driver while entering the cab</p>	<p>2.0 x 3.0</p>	<p>10</p>		
<p>FAMA46 (NFPA)</p>	<p>Aerial Device Pinch</p>	<p>One sign on aerial device visible to personnel on the turntable at the foot of the device</p>	<p>1.9 x 3.1</p>	<p>10</p>		

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
<p>FAMA47 (NFPA)</p>	<p>Aerial Device Operator Attention Required</p>	<p>Visible to aerial operator at turntable, in the platform, and at tip controls</p>	<p>3.0 x 5.0</p>	<p>12</p>		

7 REVISIONS

Date	Safety Sign	Description of Change
09/19/2013	FAMA30	Changed term from “jacks” to “stabilizers”. Added second pictograph panel for staying away from hazard. Changes made at the request of NFPA 1901/1906 Aerial Task Group.
09/19/2013	FAMA39	...daily, frequent, and annual inspections <u>and maintenance</u> . Change made at the request of NFPA 1901/1906 Aerial Task Group.
02/11/2014	FAMA13	Changed the graphics for consistency with W09 and J14 from SAE J2402. Increased font size from 8 to 10.
02/11/2014	FAMA16	Added deployable step symbol 2572 from ISO 7000. Increased font size from 12 to 14.
02/11/2014	FAMA40	Revised the image of the hook to be consistent with typical safety harness hooks.
02/11/2014	ISO Symbols	Added ISO text-free safety signs FAMA04G, FAMA06G, FAMA08G, FAMA09G, FAMA10G, FAMA11G, FAMA12G, FAMA13G, FAMA14G, FAMA16G, FAMA17G, FAMA19G, FAMA20G, FAMA21G, FAMA28G, FAMA36G, FAMA39G, FAMA40G, FAMA41G, and FAMA42G.
10/03/2014	FAMA44, 45	New NFPA 1906 Pump and Roll Fire Fighting Position signs.
10/03/2014	FAMA46	New pinch and crush warning sign for aerial device turntable position.
10/03/2014	FAMA47	New aerial primary operator attention required warning
03/25/2015	All	Added indication of which signs are required in NFPA 1901 or 1906
09/04/2015	FAMA25	Added reference to NFPA 1962 Standard for the Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose.
10/07/2015	General	Updated FAMA 7,8,9,10,11,12,14,15,17,18,19,22,23,24,27,28,31,32,36,38,41 and 42 to show match the narrower safety alert panel and corrected safety orange color. This catches up to improvements already contained in artwork published on the FAMA website. No change to text, graphical images, or substance.