



July 1, 2019

Federal Specification for the Star-of-Life Ambulance
KKK-A-1822F
Dated 1 August 2007
Change Notice 12

**THIS CHANGE NOTICE IS NOT CUMULATIVE AND SHALL BE RETAINED
UNTIL SUCH TIME AS THE SPECIFICATION IS REVISED.**

The following changes, which form a part of FED-STD KKK-A-1822F, dated 1 August 2007, are approved by the General Services Administration, for use by all agencies.

If you have technical questions regarding this change notice, please contact John McDonald at jmcdonald@gsa.gov for assistance.

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2.2 OTHER PUBLICATIONS

Add the following:

**AMD STANDARDIZED TEST METHOD 028 - VERTICAL COMPONENT
RETENTION - STATIC TEST**

SAE J1849 (Emergency Vehicle Sirens)

Change all "AMD STANDARD" to "AMD STANDARDIZED TEST METHOD"

Delete the following:

AMD 001
AMD 003

3.4.2 TEMPERATURE CONDITIONS.

Delete the following:

3.4.2.2 INTERIOR.

The interior of the ambulance patient compartment must be maintained at a minimum temperature of 50°F when the ambulance is prepared for immediate response. This requirement does not apply to ambulances that are fully operational but being held in reserve or ambulances that are not fully operational.

3.7.6.1 ENGINE HIGH-IDLE SPEED CONTROL

Delete the existing text and replace it with the following

If available, the OEM engine high-idle speed control shall be furnished.

The device shall operate only when the transmission is in "PARK" or "NEUTRAL," the parking brake is applied, and the service brake is not applied. The control shall be set to automatically increase the engine speed (RPM) up to but not exceeding the engine manufacturer's recommended setting.

3.8.2 AMBULANCE EMERGENCY LIGHTING.

Delete the existing text and replace it with the following

An emergency lighting system shall provide the ambulance with 360° of conspicuity for safety during its missions. The system shall display highly

perceptible and attention getting signals that function in a modal system, and convey the message in the “PRIMARY MODE” — “Clear the Right of- Way” and in the “SECONDARY MODE” — “Hazard, Vehicle Stopped on Right-of-Way.” The ambulance standard warning light system shall not impose a continuous average electrical load exceeding 560 watts.

Warning light systems shall not impair the effectiveness of the ambulance’s exterior lighting with conformity to the requirements of FMVSS No. 108.

3.8.2.2 PHOTOMETRIC, CHROMATICITY, AND PHYSICAL REQUIREMENTS.

Delete the existing text and replace it with the following

Each emergency light shall flash 60 to 240 times per minute. The chromaticity values of the lights shall conform to SAE J578, for their respective color, except for the red lights, which may conform to the following expanded boundary limits of: $y = 0.34$; $y = 0.32$; $x = 0.62$. All warning lights shall project a beam spread of at least 5° up and 5° down and at least 45° left and right of H-V. Each light shall produce flash energy, (Cd-s) per flash, measured from the H-V to all the extreme test point coordinates and shall be tested at all 5° increments. At no point shall the Cd-s values drop to less than the minimum values as shown in Table 1 when tested. Flash energy shall be determined in accordance with the SAE J845 method for determining the flash energy of a light. Testing shall be conducted on the device(s) as manufactured including use of the actual light source and all other related system components.

3.8.2.5 TESTS, WARNING LIGHT SYSTEM.

Delete the existing text and replace it with the following

The lighting manufacturers shall furnish and certify or the FSAM shall measure and record the total average current load of the standard emergency warning light system on the vehicle as manufactured, when operated in the mode which draws maximum current. The warning light system and related components and devices shall be tested and approved by an Automotive Manufacturers Equipment Compliance Agency (AMECA) accredited laboratory and listed with AMECA for compliance with the requirements in this specification.

3.8.3 FLOOD AND LOADING LIGHT (EXTERIOR)

Delete the existing header and text and replace it with the following:

3.8.3 FLOOD LIGHT (EXTERIOR)

Flood light(s) shall be provided on both sides and the rear of the patient compartment. The area illuminated by the lights shall be to a level of at least 1 footcandle at a distance of up to 10 ft from the vehicle.

They shall be:

1. Not less than 75" above the ground
2. Unobstructed by open doors
3. Firmly fastened to reinforced fixed body surfaces, below the roofline.

Floodlight switches shall be located on the cab console and control both sides and the rear independently.

The rear flood light(s) shall automatically be activated when rear doors are opened.

3.9.6 BUMPERS AND STEPS.

OEM's standard bumpers shall be furnished.

When the OEM's standard rear bumper is unavailable, the rear of the ambulance shall be furnished with a, full-width, rear bumper, with step secured to the vehicle's chassis-frame. The bumper-step shall be designed to prevent the accumulation of mud, ice, or snow and made of anti-skid open grating metal. These steps shall not be located or exposed to the interior of the ambulance when the door(s) are closed. All necessary steps shall be at least the width of the door opening for which they are provided. The step's tread shall have a minimum depth of 5" and a maximum depth of 10". If the step protrudes more than 7" from the rear of the vehicle, a fold up step shall be furnished. The rear bumper and step shall be adequate to support a test weight of 500 lbs. The height of the rear step shall not exceed 22".

3.10.8 DOORS.

Delete the existing text and replace it with the following

Two patient compartment door openings shall be provided. They shall not be on the same side of the vehicle.

1) Door 1

There shall be a door opening for loading a patient on a backboard.

- a) For modular bodies the door(s) shall provide a minimum clear opening of 30" wide and of 46" high
- b) For Type II vehicles the OEM's standard door opening shall be furnished

2) Door 2

There shall be a door opening for loading a patient on a cot.

- a) For modular bodies the door(s) shall provide a minimum clear opening of 44" wide and of 46" high
- b) For Type II vehicles the OEM's standard door opening shall be furnished

3) All ambulance body doors shall be equipped with not less than 250 sq. in. of safety glass area per door.

4) Each door shall have effective compression or overlapping seals to prevent leakage of exhaust fumes, dust, water, and air.

5) Patient compartment doors, on modular bodies, shall be flush or near flush style.

- a) Shall be full box type construction.
- b) Have removable inner panel.
- c) Inner panel shall be finished with a durable, washable type material.
- d) Shall include trim moldings around all unfinished, exposed edges.

6) A reflective device shall be furnished in any color meeting the reflector or conspicuity systems requirements of FMVSS 108.

- a) Have at least 60 sq. in. of total reflective area.
- b) Shall be installed on the interior of all patient compartment entry doors.
- c) The reflective device shall be so positioned as to provide maximum visibility when the doors are in the fully open position.

7) Bottom steps at the entry/exit of doorways of the patient compartment shall be at least the width of the doorway internal frame opening.

3.11.1.3 EQUIPMENT MOUNTING DEVICES

Delete paragraph 3.11.1.3

Replace it with the following paragraph:

Installed Oxygen cylinder, suction, cardiac monitor, and fire extinguisher mounting devices shall meet the performance requirements of SAE J3043 and withstand a vertical force equal to 25 times the combined weight of the equipment and the equipment mounting device or system.

3.12 OXYGEN, MAIN SUPPLY AND INSTALLATION.

Delete the requirement for, “self-sealing duplex oxygen outlet stations” and replace it with, “self-sealing oxygen outlet stations”

3.13.4 VENTILATION CRITERIA

Delete the existing text and replace it with the following:

Ventilation system(s) of the driver and patient compartments shall provide a change of ambient air within both compartments with the vehicle stationary. Ventilation shall be separately controlled within the cab and patient compartments. Fresh air intakes shall be located towards the front of the vehicle and exhaust vents shall be located on the upper portion of the module toward the rear of the vehicle. Exhaust vents may be located on the rear lower half of the module/body, provided the vent/device incorporates a reverse flow damper to prevent back draft and intrusion of vehicle engine exhaust, dust, dirt, or road spray. The patient compartment shall be ventilated by the air delivery system of the environmental equipment (heater-air conditioner) or by separate system(s), such as power intake, exhaust ventilator(s).

3.14.4 SIREN – PUBLIC ADDRESS SYSTEM.

Delete the existing text and replace it with the following:

A combination electronic siren with integral public address system including radio interface capability shall be provided. A “Horn/Siren” switch shall be provided on the driver’s console. When on shall activate or change the siren tone when the horn button is pushed. The “Horn/Siren” switch shall be illuminated (in siren mode). Dual speakers shall be installed, outside the vehicle, in the bumper/hood area. Speakers shall not protrude beyond the face of the bumper or bumper guards.

The siren shall be compliant with the current edition of SAE J1849 (Emergency Vehicle Sirens). The completed system shall be capable of producing a warning sound at a level of 123 dB, A-weighted, at 10'.

4.4.1 TEST CRITERIA

Delete the existing text and replace it with the following:

The ambulance shall be prepared for operation in accordance with OEM's recommendations, and AMD Standards 004-026 & 28 and the annex. The ambulance shall successfully complete all parts of the quality conformance inspection

4.3.3 CRITERIA OF CERTIFICATIONS.

Delete the existing text and replace it with the following:

The initial testing and inspections required for certification shall be performed by:

1. A Nationally recognized testing laboratory, recognized by OSHA under Appendix A to 29 CFR 1910.7.

OR:

2. An ISO/IEC 17025 accredited laboratory by an accreditation body that is recognized by the National Cooperation for Laboratory Accreditation (NACLA) or is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). The scope of accreditation shall include AMD tests 004-026, 28 and the annex.

The individual certifications will remain valid for 5 years as long as the type of ambulance tested remains in production. Design changes during the 5 year certification period must be tested at the time of production release.

Certifications that appear on the ambulance need not be re-submitted (i.e.; DOT, EPA, etc.). Certification(s) will be acceptable in lieu of actual verification test during inspections providing supporting verifying data complying with 4.3.3 is on file for examination.

Certification from OEM and individual equipment manufacturers are acceptable providing they are not part of a system(s) or altered and in accordance with 4.3.4.

Type certifications of individual components and equipment products are acceptable.

Each ambulance constructed shall be tested by the FSAM to demonstrate compliance with AMD STDs 5, 9, 10, 15, 21, 25 & 26 and the annex. This is in addition to the initial type testing certification required.

END OF CHANGE NOTICE 12