



July 1, 2017

Federal Specification for the Star-of-Life Ambulance  
KKK-A-1822F  
Dated 1 August 2007  
Change Notice 10

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](mailto:jmcdonald@gsa.gov) for assistance.

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## 1.1 SCOPE.

Delete paragraph 1.1  
Replace it with the following paragraph:

This specification identifies the minimum requirements for new automotive Emergency Medical Services (EMS) ambulances (except military field ambulances) built on Original Equipment Manufacturer's Chassis (OEM) that are prepared by the OEM for use as an ambulance.

The ambulances are front or rear wheel driven (4x2) and minimally warranted as specified in Section 6.

Refurbished and remounted ambulances are not covered by this standard.

This standard applies to new ambulances only.

By definition an ambulance is a vehicle used for emergency medical care and patient transport. This specification is for the construction of ambulances.

Section 3 of this specification contains:

- Optional configurations.
- Guidance and a worksheet to assist the purchaser in developing their procurement requirements.

## 2.2 OTHER PUBLICATIONS

Add the following:

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE), INC., STANDARDS,  
RECOMMENDED PRACTICES, AND INFORMATION REPORTS:

- SAE J3057 Ambulance Modular Body Evaluation-Quasi-Static Loading For Type I and Type III Modular Ambulance Bodies
- SAE J3058 Ambulance Interior Storage Compartment Integrity
- SAE J3059 Ambulance Patient Compartment Seated Occupant Excursion Zone Evaluation
- SAE J3102 Ambulance Patient Compartment Structural Integrity Test to Support SAE J3027 Compliant Litter Systems

Delete the following:

## AMD STANDARD 001 – AMBULANCE BODY STRUCTURE STATIC LOAD TEST

### **3.1 GENERAL VEHICULAR DESIGN, TYPES, AND CONFIGURATION**

Delete paragraph 3.1.3

Replace it with the following paragraph:

#### **3.1.3 TYPE II AMBULANCE.**

Type II ambulance shall be a Van, with Integral Cab-Body

#### **3.10.5 BODY, GENERAL CONSTRUCTION.**

Delete paragraph 3.10.5

Replace it with the following paragraph:

For modular construction, the body shall be all welded aluminum or, other lightweight, inherently corrosion resistant materials of equal, or greater, strength. The exterior of the body shall be finished smooth with a symmetrical radius to corners and edges, and shall include doors and windows specified herein. . Wood, or wood products, shall not be used for structural framing.

As evidence that the modular ambulance body meets the above criteria, the FSAM's shall furnish a certification that the modular ambulance body meets the testing requirements of SAE J3057

The roof structure, liner, and outer skin or cap shall be designed and constructed to prevent separation. Any absorbent material such as carpeting, fabric, or inside/outside plastic type carpeting, etc. that resists cleaning and decontamination shall not be used.

### **3.11 STORAGE COMPARTMENTS.**

Delete paragraph 3.11

Replace it with the following paragraph:

Storage compartments shall be furnished for all items required by this specification and/or specified by the purchaser. Equipment may include, but not be limited to; backboards, portable cots/litters, stair chairs, and any other specified patient handling devices. The purchaser shall define the location of all required equipment and supplies. Any absorbent material such as carpeting, fabric, or inside/outside plastic type carpeting, etc. that resists cleaning and decontamination shall not be used in any storage or patient compartment.

### 3.11.1 INTERIOR STOWAGE ACCOMMODATIONS.

Delete paragraph 3.11.1

Replace it with the following paragraph:

The interior of the patient compartment shall provide sufficient stowage to accommodate the storage needs of the purchaser in the form of enclosed stowage. Compartment(s) under the floor, with opening panel(s) inside the patient compartment, shall not be acceptable.

### 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

### 3.11.3 STORAGE COMPARTMENTS AND CABINETS DESIGN.

Delete paragraph 3.11.3

Replace it with the following paragraph:

- 1) All interior enclosed stowage devices shall be tested to their rated weight capacity in accordance with the requirements of SAE J3058.
- 2) Stowage devices shall not come open in transit.

- 3) Storage for the main oxygen cylinder shall be accessible for replacement from an outside position.
- 4) The oxygen compartment shall be provided with at least a 9 sq. in. of open vent to dissipate/vent leaking oxygen to the outside of the ambulance.
- 5) Oxygen cylinder compartment shall not be utilized for storage of any other equipment.
- 6) All interior enclosed stowage devices shall be labeled with their rated weight capacity.

#### 3.11.6 LITTER FASTENERS AND ANCHORAGES.

Delete paragraph 3.11.6

Replace it with the following paragraph:

A complete litter fastener assembly shall be furnished. The installed litter fastener device for wheeled cots shall meet the performance requirements of SAE J3027.

The litter fastener device shall be installed according to the litter fastener manufacturer's instructions. The ambulance floor and substructure shall be tested in accordance with the dynamic requirements of SAE J3102.

ALL LITTERS SHOULD ONLY BE USED WITH THE REQUIRED FASTENER ASSEMBLY AS PRESCRIBED BY THE LITTER MANUFACTURER.

#### 3.12 OXYGEN, MAIN SUPPLY AND INSTALLATION.

Delete the first paragraph and replace it with the following:

The ambulance shall have a piped medical oxygen system capable of storing and supplying the minimum requirements in liters of medical oxygen as specified by the purchaser. The installed medical oxygen piping shall be leak tested to 80 PSI. After the successful completion of piping test, the system shall be completely assembled and the flow rate of the outlets tested with the system pressurized at normal working pressure. The system shall be capped then tagged with date and signature of person and firm performing the tests.

#### 3.15.3 CONFIGURATION WORKSHEET

Add the following text before “Reference Section 3.0 – REQUIREMENTS”

When designing a new ambulance patient compartment interior, one of the primary design goals should be to provide a seating system that allows the worker to remain safely seated and restrained while still allowing the worker to provide efficient and effective patient care. To provide safe, efficient, and effective patient care, a worker needs to be able to reach his or her patient, equipment, and supplies while still seated and restrained. Balancing the need for proximity to equipment, manufacturers should collect occupant excursion data concurrent with the dynamic testing of all seating systems using the methodology described in SAE J3059, Ambulance Patient Compartment Seated Occupant Excursion Zone Evaluation. The resulting data can be used to develop expected head excursion zones for each seating system when a vehicle is impacted in the front, side, or rear. In addition, the Department of Homeland Security’s Ambulance Patient Compartment Human Factors Design Guidebook should be used in conjunction with excursion zone data to improve patient compartment safety

#### 4.2.1 QUALITY CONFORMANCE INSPECTION

Delete paragraph 4.2.1

Replace it with the following paragraph:

Quality conformance inspection applies to all ambulance(s) offered for acceptance under the contract.

Quality conformance inspection shall consist of:

1. Workmanship inspection
2. Operational checks
3. Examination of the ambulance handbook
4. Verification of successful completion of AMD tests 003 and 005-026 and the Annex
5. Verification of successful completion of SAE standards, recommended practices and information reports J3026, J3027, J3043, J3057, J3058, J3102

**END OF CHANGES**