



GSA Federal Supply Service

9 June 2008

CHANGE NOTICES ARE NOT CUMULATIVE AND SHALL BE RETAINED  
UNTIL SUCH TIME AS THE STANDARD IS REVISED

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

The following changes, which form a part of FED-STD KKK-A-1822F, dated 1 August 2008, 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) or 703-605-2971.

A handwritten signature in black ink, appearing to read "R. Miller". The signature is fluid and cursive, with a large initial "R" and a stylized "Miller".

Russell Miller  
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### **3.7.7.2 PORTABLE EQUIPMENT CHARGING CIRCUIT.**

Delete paragraph 3.7.7.2.

Replace it with the following paragraph:

A circuit shall be furnished (Figure 5) for charging all portable battery powered devices, i.e. suction units, hand lights, defibrillators, portable radios, etc. This circuit shall prevent discharge of chassis batteries by only permitting the charging of portable devices when the vehicle is either running or the Automatic Charger/Conditioner is connected to shore power. Circuit breaker protection shall be provided and shall have a minimum of 10 amp capacity. An additional tagged, identified lead shall be furnished in both the cab and module for connection of additional (future) portable equipment that requires recharging.

### **3.7.12 ELECTROMAGNETIC RADIATION AND SUPPRESSION**

Delete paragraph 3.7.12.

Replace it with the following paragraph:

In addition to OEM chassis, all added electrically operated or electrical generating devices, including alternators, air conditioning, warning light systems, electromagnetic coils of high current solenoids and relays, and medical equipment, shall be electromagnetic radiation suppressed, filtered, or shielded to prevent interference to radios and telemetry equipment aboard the vehicle and the surrounding area and shall not exceed MIL-STD 461 limits per Ground, Navy in table V of the requirement matrix. Type certification for these devices is acceptable.

### **3.9.2 CAB-BODY PROVISIONS.**

Delete paragraph 3.9.2.

Replace it with the following paragraph:

An OEM two door cab shall be furnished that is suitable for the subsequent mounting of various ambulance equipment and bodies. Driver's cab section shall provide:

- a. Forward hinged doors.
- b. Opening side windows.
- c. Door stops.
- d. External key operated door locks with two sets of keys.
- e. Trim or closed panels and headliner.
- f. Floor covering (OEM's heat, noise and appearance trim packages).

- g. Panel mounted instruments.
- n. All exposed interior surfaces shall be painted.
- h. Armrests, mounted on each side door.
- i. Key operated ignition/starter switch.
- j. Fuel gauge(s).
- k. Oil pressure gauge.
- l. Engine temperature gauge.
- m. Speedometer with odometer.
- n. Environmental controls (heater-defroster/air conditioner, etc.).
- o. Type II Seatbelts and shoulder harness for driver and passenger.
- p. Cab lighting and controls.
- q. Tinted windshield.
- r. Dual electric horn(s).

### **3.9.3 CAB COMPARTMENT DRIVER AND PASSENGER SEAT.**

Delete paragraph 3.9.3.

Replace it with the following paragraph:

The driver's compartment shall be OEM two individual bucket-type seats (driver and passenger). Driver's seat shall have the OEM's full, unobstructed seat track travel range of longitudinal adjustment, and a minimum of 30 percent of the range of inclination, but not less than the angle furnished on the OEM's standard non-reclining high back seat.

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

Delete paragraph 3.12.

Replace it with the following paragraph:

The ambulance shall have a piped medical oxygen system capable of storing and supplying a minimum of 3,000 liters of medical oxygen. The installed medical oxygen piping shall be leak tested to 200 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.

The main oxygen supply shall be from a compressed gas cylinder(s) that the consignee will provide and install at the time the vehicle is placed in service.

A cylinder changing wrench shall be furnished. The wrench shall be chained and clipped within the oxygen cylinder compartment.

The cylinder controls shall be accessible from the inside the vehicle. A device shall be visible from the EMSP's seat that indicates cylinder pressure. The use of remote high pressure lines and gauges are not allowed. The oxygen cylinder(s) shall be accessible for changing from the exterior of the body.

The purchaser shall specify the type of quick disconnect, to be used. The FSAM shall install all other components and accessories required for the piped oxygen system which shall include as a minimum:

- A pressure regulator
- Low pressure, electrically conductive, hose and fittings approved for medical oxygen
- Oxygen piping shall be concealed and not exposed to the elements, securely supported to prevent damage, and be readily accessible for inspection and replacement.
- Oxygen shall be piped to a self-sealing duplex oxygen outlet station for the primary patient with a minimum flow rate of 100 LPM at the outlet.
- Outlets shall be marked and identified and not interfere with the suction outlet

### **3.12.1 OXYGEN PRESSURE REGULATOR.**

Delete paragraph 3.12.1.

Replace it with the following paragraph:

The medical, oxygen pressure reducing, and regulating valve with inlet filter at the cylinder shall have line relief valve set at 200 psi maximum, and a gauge or digital monitor with a minimum range of 0 to 2,500 psi with the gauge or display scale graduated in not more than 100 PSI increments. The regulator shall be easy to connect and preset, with a locking adjustment, at 50 +/- 5 psi line pressure.

With the regulator set at 50 +/- 5 psi, a 100 LPM minimum flow rate shall be available at all oxygen outlets.

This regulator shall perform as required at an inlet pressure range from 150 psi to 2500 psi.

### **3.12.2 SUCTION ASPIRATOR, PRIMARY PATIENT.**

Delete paragraph 3.12.2.

Replace it with the following paragraph:

An electrically powered suction aspirator system shall be furnished. The vacuum control, vacuum indicator and collection bottle or bag shall be located so that the EMSP can properly operate the device from the EMSP seat. The electric type aspirator system shall be connected per Figure 3. The suction pump shall be located in an area that is accessible and vibration insulated from the patient compartment.

- 1) The pump shall be vented to the vehicle's exterior.
- 2) A vacuum control and a shut-off valve, or combination thereof, shall be provided to adjust vacuum levels.
- 3) A vacuum indicator gauge of 3" +/-0.5" in diameter, with numerical markers at least every 100 mm Hg and a total range of 0 to 760 mm Hg, shall be provided.
- 4) The collection bottle or bag shall be non-breakable and transparent with a minimum 1,000 ml capacity.
- 5) The minimum inside diameter for the suction tubing connectors shall be at least 1/4 in. The end user shall provide any suctioning catheters desired.

### **3.13.4 VENTILATION CRITERIA.**

Delete paragraph 3.13.4.

Replace it with the following paragraph:

Ventilation system(s) of the driver and patient compartments will provide a change of ambient air within both compartments with the vehicle stationary. Ventilation will be separately controlled within the cab and patient compartments. Fresh air intakes will be located towards the front of the vehicle and exhaust vents will be located on the upper 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 will 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).

#### **4.3.3 CRITERIA OF CERTIFICATIONS.**

Delete paragraph 4.3.3.

Replace it with the following paragraph:

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 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. This is in addition to the initial type testing certification required