



22 December 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 2

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 or 703-605-2971.

A handwritten signature in dark ink, appearing to read "Russell Miller", with a stylized, cursive script.

Russell Miller
Chief Vehicle Engineering Branch (QMDAA)
Center For Automotive Acquisition
General Services Administration

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 (Up to and including 10,000 GVWR).

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

3.6.3.1 POWER UNIT

Delete paragraph 3.6.3.1

Replace it with the following paragraph:

The power unit shall meet or exceed the required vehicle performance specified at not more than the engine manufacturer's recommended operating engine speed. The OEM's diesel engine and power train shall be provided. When available from the OEM, an engine block heater shall be furnished.

3.7.1 ELECTRICAL SYSTEM.

Delete paragraph 3.7.1

Replace it with the following paragraph:

The ambulance electrical system shall be equipped with, but not limited to, the following:

1. Dual, OEM's batteries.
2. Generating, starting, lighting, visual and audible warning systems.
3. Specified electronics equipment and devices (including master consoles located in the cab and patient compartment).
4. Other specified accessory wiring.
5. All electrical system components and wiring shall be readily accessible through access panels.
6. All switches, indicators, and controls shall be located and installed in a manner that facilitates easy removal and servicing.
7. All exterior housings of lamps, switches, electronic devices, connectors, and fixtures shall be corrosion resistant and weatherproofed.
8. Electrical fixtures attached to the exterior sides of the ambulance below the 75" level shall be near flush mounted and not protrude more than 2", except for such items as lights and ventilators.
9. All electrical devices and equipment installed, including the electromagnetic coils of high current solenoids, and relays etc, which produce RFI, shall include filters, suppressers, or shielding to prevent electromagnetic radiation and the resultant interference to radios and other electronic equipment.
10. Vehicles shall be immune from interference caused by radio transmissions.

3.7.2 WIRING INSTALLATION.

Add line item 16 as shown below:

16. Wiring shall not be secured to brake lines and/or fuel lines.

3.7.6 LOW VOLTAGE ELECTRICAL SYSTEM.

Delete paragraph 3.7.6.

Replace it with the following paragraph:

The ambulance shall, when available from the OEM, be equipped with standard or optional generating system designed for ambulance applications, and shall be nominally rated at 14 volts, with a minimum under hood temperature of 200°F.

The generating system shall be capable of supplying at its regulated voltage (at 200°F) the continuous electrical load, which consists of the following electrical equipment and systems:

1. Engine/transmission control system.
2. Headlights (low beam).
3. All FMVSS 108 lights.
4. Windshield wipers (low speed).
5. Cab air conditioning (at coldest setting with highest blower speed).
6. Radio in receiving mode (or equal load, if not equipped).
7. Patient module dome lighting (in the high intensity setting).
8. Patient module air conditioning (at coldest setting with highest blower speed).
9. Emergency warning lighting system (in the daytime "primary" mode).
10. 20 amp medical load or equal.

The generating system components shall be rated by the manufacturer to supply the maximum electrical load, at the regulated voltage, at a 200°F under hood temperature at an engine speed not exceeding the furnished engine manufacturer's high idle setting in order to maintain battery charge at the regulated voltage.

The throttle control device shall control the engine RPM necessary to maintain the heating and air conditioning systems, at full operating capacity, and to maintain the generating system's required output when the vehicle is stationary and the parking brake is set.

The 12-volt electrical system shall incorporate a voltmeter and low voltage warning device which is functionally connected as shown in Figure 3. The FSAM shall test each ambulance prior to delivery and provide, to the purchaser, a written certification indicating the amount of generating capacity remaining, at the regulated voltage after supplying the total electrical load as manufactured (including the purchaser options).

3.8.2.1 EMERGENCY LIGHTING SYSTEM CONFIGURATION.

Delete paragraph 3.8.2.1

Replace it with the following paragraph:

The ambulance standard emergency warning light system shall contain twelve fixed red lights, one fixed clear light and one fixed amber light. These lights shall function in a dual mode system as shown in Table 1 and meet the physical and photometric requirements. The upper body warning lights shall be mounted at the extreme upper corner areas of the ambulance body. The single clear light shall be centered between the two front facing, red, upper corner lights or in a dedicated housing mounted forward of the body on the cab roof. If due to limited body dimensions and physical size of the outboard forward facing lights, the lights may also be mounted in dedicated housings on the cab roof. Doors or other ancillary equipment shall not obstruct the standard warning lights. The amber light shall be symmetrically located between the two rear facing red lights. The red "grille" lights shall be located at least 30" above the ground and below the bottom edge of the windshield and be laterally separated by at least 18", measured

from centerline to centerline of each lamp. The lateral facing intersection lights shall be mounted as close as possible to the front upper edge of each front fender and may be angled forward a maximum of 30°. All warning lights furnished shall be mounted to project their highest intensity beams on the horizontal plane.

Alternate approved lighting systems are NFPA 1901 compliant or SAE J2498 compliant.

3.8.3 FLOOD AND LOADING LIGHT (EXTERIOR).

Delete paragraph 3.8.3

Replace it with the following paragraph:

Flood and loading lights shall be not less than 75" above the ground and unobstructed by open doors. Floodlights shall be located on the sides, and a patient loading light shall be located on the rear of the ambulance. They shall be fastened to reinforced fixed body surfaces. Floodlight switches shall be located on the cab console and control each side independently. Loading light(s) shall automatically be activated when rear doors are opened.

3.10.4 PATIENT COMPARTMENT INTERIOR DIMENSIONAL PARAMETERS.

Delete paragraph 3.10.4.b

Replace it with the following paragraph:

b. The compartment shall provide a minimum of 12" of clear aisle walkway between the edge of the primary patient cot and base of the nearest vertical feature measured along the floor. Each end of the walkway shall provide access to a means of egress.

3.10.8 DOORS.

Delete sentence 3.10.8 1) c)

Replace it with the following paragraph:

c) Curb side door frame(s) shall provide a minimum opening of 30" wide and of 63" high for modular bodies. The door access area shall provide a minimum clear width of 28" in order to permit the removal of a 95th percentile male patient on a full length backboard.

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 graduated at least every 100 mm Hg and a minimum 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.
- 6) The suction aspirator system shall provide a minimum of 30 LPM flow at the catheter tip.