

Ambulance conversion

Vehicle front Cabin

Siren:

- 100W output siren microprocessor based fully programmable electronic siren amplifier that meets SAE J1849 requirements of sound output
- (8) eight 10A light
- operating on 11-28 VDC suitable for both 12 VDC and 24 VDC
- 185 – 1600 Hz frequency range
- Voltage output 62 – 66 Vpp
- Different tones (wail, yelp, priority, air horn, Hi-LO)
- Controlled via a 14 push-button controller (Made in The USA or Europe), with PA system
- horn ring transfer function and integrated emergency lighting control with programmable outputs.
- A high powered sound of 100 Watt output neodymium compact speaker for emergency vehicles application (Made in The USA or Europe)

Partition of Vehicle:

- Partition between the driver's cabin and the patient's compartment
 - o Plywood of **thickness 15mm**
 - o Covered with cleanable and smooth laminated “formaica” sheets on both sides
 - o Having **1.1mm thickness**
 - o Integrated sliding window
 - o Making the sheet after lamination of **thickness at least 17.2 cm**

Rear Cabin

Floor:

- Isolated wooden floor made of special treated wood (marine plywood)
 - o Thickness 18mm
 - o Having at least 10 plies.
- Floor covered with washable rubber

- Non-slippery heavy duty vinyl material
- Minimum thickness 1mm.

Ceiling:

- Modular internal roof lining with integrated high mounted cabinets made of GRP Fiberglass material with gelcoat ultra-violet UV resistant finishing molded into shape of thickness between 4.5mm and 7mm including thermal insulation underneath.
- Three LED internal roof lights with at least 40 LEDs, 12V DC power source, density fitting at least IP 66, and light color of at least 5000 K (Kelvin) with dim night lights (blue color) integrated option.
- One handle bar made of stainless steel
 - Grade 316
 - Round tube of diameter between 25 and 30 mm
 - Thickness minimum of 2mm
 - Fixed to the internal roof supporting chassis via a rigid counter plate metallic support

Left side Cabinet:

- A large cabinet made of GRP Fiberglass material with gelcoat ultra-violet UV resistant finishing
- Molded into shape of **thickness between 4.5mm and 7mm** including thermal insulation underneath
- Transparent **8mm Plexiglas sliding doors** covered with a special designed recessed and satin anodized aluminum silver profile including mole hair, used for storing medicines, first aid and medical materials.
- Fixed on the left side with shelves
- Three (3) electric outlets 12V/DC

EMT Bench:

- A large squad bench for 3 persons
- Multifunctional storage underneath
 - Made of 15mm plywood
 - Covered with cleanable and smooth laminated “formaica” sheets on both sides
 - 1.1mm thickness making the sheet after lamination of thickness at least 17.2 cm
- The top made of vinyl covered quality foam

- 3 passengers' 2 points seat belts
- Metallic chassis structure underneath made of metallic bars
 - o Size 40 x 20 x 2mm powder
 - o Coated with an anti-corrosive material
 - o Painted with high quality automotive coat painting
- Chassis fixed to the body of the vehicle via a total of 14 screws
 - o four made of 8mm cobalt and length of 7cm
 - o ten made of 6mm iron
- Fixed on the right side of the vehicle

EMT Chair:

- Swivel paramedic seat with 15 degrees reclining backrest
- 3 points safety belt
- Double arm rest
- Headrest covered with high quality artificial leather of Dark color(black, grey)

Equipment Holders:

- Special fitting for a backboard made of stainless steel
 - o Grade 316
 - o Brushed
 - o Having a 3mm thickness fixed underneath the cabinet with integrated metallic counter plates behind the cabinet.
- Special fitting for scoop stretcher made of stainless steel
 - o Grade 316
 - o Brushed
 - o Having a 3mm thickness fixed behind the wooden partition
- Loading tray for main stretcher made of stainless steel
 - o Grade 316
 - o Brushed on both sides
 - o Having a thickness of 2mm
 - o Fixed on a double 18mm marine plywood layer platform,
 - o Stainless steel supporting bars
 - Grade 316
 - Brushed
 - Size 40 x 20 x 1.5mm or OEM platform of the suitable stretcher
- Special storage for second portable stretcher behind the cabinet adjacent to the rear door
- Two serum hangers (hook) made of stainless steel

- grade 316
- thickness 3mm
- Fixed above the main stretcher with a Velcro to hold the serum bag
- Spray Holder made of stainless steel
 - Grade 316
 - Brushed
 - Size
 - Height approx. 100 mm
 - Width approx. 70 mm
 - Length approx. 170 mm

Oxygen Supply:

- Provision and supply for “M” tank oxygen cylinder
 - Made of 6061 aluminum alloy
 - Having a CGA540 post valve and internal volume of 21.3 liters
 - 3452 liters’ oxygen capacity
 - Service pressure at 153 bar or 2216 psi.
- Pressure reducer or Oxygen Regulator (Made in the USA or Europe)
 - Fixed on the oxygen cylinder
 - CGA540 inlet & a DISS outlet
 - Connected to a recessed wall outlet via 4 meters’ oxygen hose having an outer diameter 12.75mm and inner diameter 6.35mm.
- Oxygen supplied to the patient via a wall mounted flowmeter
 - Measuring 0-25 LPM (liters per minute)
 - Fixed to the wall outlet by a stainless steel connector (USA or Europe Standards)

Heat system:

- Rear 12V air heater
- Heat capacity up to 8100 kcal/h
- Noise level not more than 67db
- Installed with an independent control via touch screen
- The air heater can be turned on automatically if the desired temperature set by the user is higher than the ambient temperature in the patient compartment or manually upon user’s request using a push button for 3 fan speeds (low, medium, high).

Negative pressure:

- Installation of negative pressure kit for air purification
- Double layer of air filtration and sterilization functions consisting of:
 - o One UV lamp
 - o Two aluminum mesh filters
 - o One HEPA filter made of micro glass fiber paper that removes 99.98% of particles with diameter of 0.1µm (micrometer) or more.
- This system should be connected to the HVAC system via air ducts for clean air circulation in the patient compartment

Cabin control:

- Electrical control and management touch screen 3.5 inch display
- CPU with an advanced programmed software to control:
 - o Internal roof lights
 - o Extract fan
 - o Negative pressure system
 - o HVAC automatic or manual climate control system
- Voltage management and 12V electric sockets.
- The system undergoes an auto-diagnostic process via a self-protected and programmed central processing unit
- All of the above can be seen on screen and indicates when a fault occurs; it automatically undergoes an open circuit on the specific output to protect the electric appliances from damage.
- This unit has in total 20 outputs
 - o 12 of which are positive outputs
 - o 8 are software configurable (+ve/-ve)
 - o Compatible for 12/24V DC
- 4GB internal memory.
- Patient status light warning code included in the touch screen for the driver to be aware of the patient's status in the rear cabin (Red, yellow and green lights).
- Secondary battery with special wiring and voltage management system controlled via the programmed software
 - o Turns off gradually the electronic installed equipment in the patient compartment when the voltage of the battery drops under a specified threshold
 - o Battery indicator appears on the screen.
 - o This safety system helps maintaining the battery lifetime.
- Air extrication fan integrated in the patient compartment with exhaust
 - o Fixed on the top left side of the ambulance

- With proper rubber sealing to prevent corrosion, water dissipation and blockage due to snow, leaves etc...

Fire extinguisher:

Fixation of one CO2 fire extinguisher of 2 kg size.

Vehicle Body:

Flag:

- Flag pole made of stainless steel
 - Grade 316
 - Round tube of diameter 32mm and thickness 1.25mm
- Brushed stainless steel flat plate of 3 mm
- Metallic counter plate of thickness 3mm
- Fixed on the chassis of the ambulance behind the cabinet
 - 4 stainless steel screws
 - 4 stainless steel hex nuts.

Windows:

- Glazing of side and rear windows with the exception of the **upper 100 mm** glass portion.

Balisage:

- LRC Standard Labeling design
- Scotch Light reflective vinyl – Brand Name 3M (Annex for brand preferably)

Lights:

- LED Rear projector loading light.
- LED projector for flag light.
- Front and rear LED system Light bar
 - Ultra-low Profile, Roof mounted
 - 120 to 125 cm length, 28 to 30 cm Width, 3 to 4cm Height
 - Having 28 different selectable flashing patterns
 - A traditional 9-conductor cable
 - Operates on 12VDC
 - Solaris LED reflector technology, providing 360° high-intensity warning illumination SAE J845 Class 1 and 2 approved

- Blue/blue domes and integrated option of left and right scene lights fixed on roof front and rear of the ambulance
 - Made in The USA or Europe
- Two LED compact flashing modules
 - With **3 high-power LEDs**
 - Meeting **SAE J845 class 1 and SAE J595 class 1 requirements**
 - **At least IP 67** rated for protection against dust and water
 - Blue lights fixed on front grill
 - Made in The USA or Europe