# EMERGENCY AMBULANCE BODY CONVERSION SPECIFICATION

# **INDEX**

## 1.2 WEIGHT

1.2.1 It is ESSENTIAL that the manufacturers weight limit of **3.9tonnes** is NOT exceeded when the vehicle is in full operational mode. For calculation purposes it is estimated that 4 persons weighing a total of 330kg, a full tank of fuel weighing 65kg and crew equipment weighing 150kg should be used (documented weight of the vehicle – Full load – is required when the first off Ambulance is built).

## 1.3 QUALITY OF FIXTURES AND FITTINGS

- 1.3.1 All lockers, work surfaces and cupboards are to be manufactured from smooth Pastel Green Formica, Melamine faced plywood. (Formica to be Colour System, Fern Green Print 801). Smoke polycarbonate doors on upper cupboards except drugs cabinet/safe locker. Over head lockers to be made as large as possible to enable maximun storage space.
- N.B. Other materials such as honeycomb polycarbonate may be considered subject to prior testing & approval by CWA.
- 1.3.2 The colour of the interior the saloon compartment is to be Fern Green G.R.P., to complement the Formica.
- 1.3.3 All exterior doors, including side and rear, are to operate via a central locking mechanism. Side door handle relocated to centre of door (inside).
- 1.3.4 Polycarbonate overhead cupboards to be smoked with double twist latches fitted except for safe cupboard.

#### 2.0 CHASSIS

- 2.0.1 The vehicle chassis will be a Vauxhall Mavano Maxi Roof Euro Yellow (RAL 1016)
  3.0L CDTI. 3900kgs. With Pneumatic rear suspension adjustable for height. Air
  Con, full height steel bulkhead. Electric pack including elec. Windows & heated
  door mirrors. Single fully adjustable "comfort" passenger seat with armrest.
- 2.0.2 A compact inboard access ramp giving an angle of no more than 12 degrees allowing unrestricted access. The total area of the ramp to be covered with anti slip material. The ramp must be electrically operated and to the following dimensions:- 870 mm wide, 840 mm long with a safe working load of 350 kg and a ramp weight of no more than 15 kg. When not in use the ramp must fold flush with the vehicle floor. Safety interlock to be

fitted to prevent use of the ramp when vehicle not in the lowered position and to incorporate an impact sensor to prevent injury. The ramp must be able to operate manually in the event of mechanical failure and be exchangeable within 5 minutes to avoid unnecessary vehicle downtime. No working components should be exposed to the elements. Wedge ramp to operate at any lowered height.

High visibility to:-

To highlight area where vehicle floor height changes.

Black and yellow high visibility non slip to all walk on surfaces.

High visibility soft nose edging to front edge of ramp.

# 2.1 CHASSIS PROTECTION

2.1.1 The complete underside of the chassis and cab is to be under sealed with a suitable material, which has **high sound insulating properties** after final build. There is to be no exposed bare metal. All enclosed channels are to be treated with Wax oil.

# **2.2 TOWING EYES**

2.2.1 Supply and fit to the chassis frame, one front towing eye (unless already incorporated in the cab chassis design) and with the appropriate screw in tow hook, secured / clipped under the drivers seat.

# 2.3 SPARE WHEEL – CARRIER AND TOOLS

2.3.1 NOT REQUIRED. However, if the van is supplied with a spare wheel it must be left in the vehicle on delivery. The wheel must be encapsulated in bubble wrap or suitable alternative to avoid damaging any of the interior fitments during transit.

# **2.4 CORROSION PREVENTION**

2.4.1 All new chassis fittings should be de-rusted and treated with Zinc Chromate Primer and finished with 3M Wax oil. All joints are to be sealed with polyurethane sealer adhesive or equivalent.

# 3.0 BODY CONTRUCTION

- 3.0.1 All protruding locking devices are to be adequately protected to ensure no injuries are sustained by staff.
- 3.0.2 The interior of the Ambulance body is to be manufactured from glass reinforced plastic (GRP) panels, bonded to a stainless steel framework, incorporating adequate reinforcing for assembly, body mounting and for the installation of interior paneling, fittings and equipment.

- 3.0.3 Any alterations to the body, the design is to compliment the styling of the cab, giving an aerodynamic appearance.
- 3.0.4 The GRP roof should be suitably reinforced to withstand forces enforced in a 10g dynamic test.

# 3.1 DIMENSIONS – TYPE "B" EMERGENCY AMBULANCE

Overall Length	Max 6.0m
Overall Height	Max 2.9m
Overall Width (Excluding mirrors)	Max 2.2m
Floor Height (at rear with suspension raised)	520mm
Floor Height (at rear with suspension lowered)	330 mm
Interior Length	Approx. 3.7m
Interior Width	Approx. 2.0m
Interior Height	Approx. 2.2m
Side Sliding Door Aperture	1830 x 750mm

- 3.1.1 The van conversions are to have sufficient strength in the framework, outriggers and joint to adequately accommodate and transmit working loads from the chassis/suspension.
- 3.1.2 The base van conversion must not be imparted with excessive working loads or exceed the manufacturer recommendations.
- 3.1.3 Two aerial ground planes are required per vehicle.
  18swg. Aluminum ground planes are to be bonded into the roof moulding and fitted with a PERMANENT earth lead to the vehicle chassis.

#### 3.2 FUEL TANK SPLASH PANEL

3.2.1 The body panel, which surrounds the fuel filler cap, must incorporate a fuel filler splashguard. The guard is to have a slight flange to the outer edges running to the bottom edge of the panel. The words **Diesel Fuel Only** must be clearly marked in 1" black lettering above the fuel filler cap.

# 3.3 REAR DOORS – CONSTRUCTION

- 3.3.1 Both rear doors are to be fully draught and weather proof.
- 3.3.2 All rubber sections utilised for draught proofing purposes must be of a "skinned" and non-cellular type and secured by means other than an adhesive.
- 3.3.3 Supply and fit grab handles. Yellow in colour.

# 3.4 FRONT DOORS

3.4.1 Supply and fit 1" reflective strips to both the Driver and passenger edge doors, to provide maximum visibility when the doors are in the open position.

# 3.5 REAR DOORS – LOCKS AND HANDLES

- 3.5.1 The offside rear door must be fastened in the closed position by the means of an antiburst locking system. It is to incorporate an exterior locking handle and interior handle. The rear door opening mechanism must be substantial and easy to operate.
- 3.5.2 The interior handle must override both the external handle and the central locking mechanism (see item 1.4.3).

Note: Any central locking mechanism must have the facility to be manually overridden from the inside of the vehicle to facilitate emergency egress.

# 3.6 REAR DOOR – RETAINING CATCHES

3.6.1 The rear doors must be fastened in the open position by the means of two locating bars at the bottom of each door which operate on a twin fixed pivot system.

# 3.7 SIDE DOOR

- 3.7.1 Supply and fit grab handle one on either side of the door aperture. To be manufactured from moulded handle high visibility yellow.
- 3.7.2 Supply and fit high visibility black and yellow striping to door aperture.

## 4.0 BODY CONSTRUCTION – INTERIOR

# **4.1 GRP MOLDINGS**

- 4.1.1 The sides and roof of the interior are to be lined with molding of smooth, easy clean glass fibre reinforced polyester mouldings, profiled to suit the body styling. Other materials may be considered subject to CWA approval and testing.
- 4.1.2 The panels are to incorporate recesses to suit the glazing panels, with suitably strengthened aperture frames, to accommodate the installation of fittings and equipment. **ALL** exposed joints between panels are to be covered with suitable moldings. All surfaces must be of a smooth surface finish for easy cleaning.

#### **4.2 INSULATION**

**4.2.1 ALL** cavities between the interior and exterior body moldings (including the rear doors) are to be injected foamed insulated with Rockwool and have a minimum rating of R 0.9. The insulation is to be vermin proof, fire resistant, non-setting and must provide an excellent moisture barrier.

# **4.3 BULKHEAD PARTITION**

- 4.3.1 The bulkhead partition is to be manufactured from a composite sandwich of Formica, GRP and polycarbonate honeycomb or approved alternative. The bulkhead is to incorporate a centrally located sliding door with window
- 4.3.2 A blind fitted and operated from cab to be supplied and fitted.
- 4.3.3 A basic intercom to be fitted for communication between saloon and drivers cab
- 4.3.4 Supply A4 holder and fix to door in cab.

#### **4.4 DRIVERS COMPARTMENT**

- 4.4.1 The driver's compartment and saloon must be designed to achieve the minimum possible noise levels. The interior noise level across the vehicle speed range must not exceed the maximum graphical line resulting from coordinates 70 db(A) at 60km/h or 40% of the maximum speed, whichever is lower, to 78 db(A) at 120km/h or 60% of the maximum speed, whichever is lower.
- 4.4.2 Certified proof of recorded noise levels is required.
- 4.4.3 The Drivers and passenger seats must be able to fully adjust for height and forward/backward movement to facilitate any driver / passenger size and complete with adjustable headrest.

# 4.5 AERIAL GROUND PLANE ACCESS

4.5.1 A 4" diameter hole complete with cover panel is required to gain entrance to the aerial ground plane for routine maintenance.

#### 4.6 FLOOR CONSTRUCTION

4.6.1 The floor of the saloon compartment is to be constructed from one piece, 12mm thick, GRP.

Insert new wheelchair hi viz clamp disks

# **4.7 FLOOR COVERING**

4.7.1 GRP Integral Floor.

4.7.2 The floor covering is to be covered at each body side and finished with suitable moldings and/or capping. All coverings are to be continuous and fully sealed against the ingress of any liquid with no right angle corner or joints.

# 4.8 RAMP CONSTRUCTION

- 4.8.1 O&H spec 12° angle modification required on wedge ramp. The edge of the ramp floor must incorporate "Stedall" red illuminated polycarbonate striping lamp module, to enhance the safety of the vehicle and to be interlocked with the courtesy light switch on the rear doors. SVF1572, SVF1580 and SVF1582.
- 4.8.2 The surface of the ramp is to be completely covered with a durable, non-slip 3M tape.
- 4.8.3 A flush fitting handle is to be fitted to the right hand corner of the ramp, for manual override facility.
- 4.8.4 Suspension ramp to work independently of ignition.

# **4.9 INTERNAL STORAGE LOCKERS**

- 4.9.1 Construct and fit equipment lockers to the saloon. All shelves are to have 15mm upstands and webbing straps where required. Rubberised matting on nearside locker door next to attendants seat.
- 4.9.5 The offside front cantrail locker is to be designated as a drug locker and as such must be lockable and fitted with digital safe.
- 4.9.6 The body builder must warrant all fixtures and fittings for two years from the vehicle registration date.
- 4.9.7 Provision for long board storage is to be made (see drawings).
- 4.9.8 A3 storage for PRF's on side of front nearside cupboard.
- 4.9.9 Two rows of Slingsby bins. Position under front of side cupboard.

## 5.0 WINDOWS

5.0.1 All saloon windows are to have double shadowlite glass, stripes at the upper section. Top slider construction to center offside and nearside rear windows.

5.0.2 An emergency pull ring is to be incorporated in each saloon window, with a ring pull located at the top of the glazing panel for the external windows and located at the bottom for the inside windows.

# **6.0 DRIVERS COMPARTMENT STORAGE**

- 6.0.1 If not fitted to the van on delivery, the following items must be fitted:
  - i) Interior Drivers Mirror.
  - ii) Document wallet A4 size.

# **6.1 BUMP PADS**

6.1.1 Adequate bump pads are to be fitted above all door apertures, this includes the cab, saloon and bulkhead doors. The body builder may also fit further protection wherever it is necessary. (Covering to match green trim of seating).

# **6.2 FIRE EXTINGUISHER**

6.2.1 One 2.0 litre, Aqueous Film Forming Foam (AFFF), visible gauge, controllable flow fire extinguisher is to be fitted within easy reach of the driver from both inside and outside the vehicle.

# 7.0 AMBULANCE COMPARTMENT FITTINGS

#### 7.1 INTERIOR DESIGN

- 7.1.1 Supply and fit rearward facing attendants seat at the head end of the stretcher. All seating to be trimmed in Fern Green. •
- 7.1.2 One "Schnierle" seat with swivel auto base lift up. Two armrests per seat **arm rest not to be adjustable. Up or Down,** with lap and diagonal seatbelts mounted on N/S vehicle completed with child harness.
- 7.1.3 One fold down fixed Rescroft seat with and seatbelt headrest **to be placed on to cupboard behind seat.** One arm rests per seat and diagonal seatbelts on N/S vehicle. **This seat must secure easily.**
- 7.1.4 Provision for one Sharps tub container to be positioned top of near side front cupboard.
- 7.1.6 7.1.7 Supply and fit two additional 2mm (1/8" gauge) support plates, secured to the o/s/f & o/s/r of side window, interior metal framework to accommodate securing ambulance retro fit equipment (copy of the interior framework is to be supplied).

# 7.3 FIRE EXTINGUISHER

7.3.1 One 2.0 litre Aqueous Film Forming Foam (AFFF), visible gauge, controllable flow, fire extinguisher is to be fitted to the offside rear quadrant of the saloon.

# 7.4 BUMP PADS

7.4.1 Bump pads are to be fitted above the rear bulkhead doors, trimmed to complement the saloon trim.

# 7.5 OXYGEN EQUIPMENT

- 7.5.1 The Oxygen pipeline shall be manufactured from electrically conductive rubber hose, having a working pressure of 200 p.s.i. The system will be leak tested with a minimum of 150 p.s.i. Of nitrogen, for a period of four hours. The system will be sealed and tagged with the inspector's name and date of test. Messer's Oxylitre Ltd at the body builder's workshops should carry out the complete installation during the build process. Note: Minimum standard to BS5682. Tubing used should be colour coded as follows: Oxygen WHITE. (
- 7.5.2 The patient compartment will be equipped with an oxygen system, capable of the delivery and storage of oxygen. It must have the capability for dual manifold oxygen system and **CEN Compliant** storage of 2 x BOC HX type cylinders. **Please place by HX storage instructions on how to secure cylinders.** Three oxygen outlets are required, i.e. one twin to the right side and one signal to the left side. The outlets will be positioned in such a way that the cantarail lockers do not obstruct the flow meters.
- 7.5.3 Storage for two BOC CD type cylinders & one small Entinox cylinder.

#### 7.6 SEAT BELTS

7.6.1 All seats are to be fitted with all age seat belts where possible or otherwise lap and diagonal, inertia reel seatbelts.

#### 7.8 CARRYING CHAIR

7.8.1 Provision for a two wheeled carrying chair to be fitted to the nearside rear saloon **door**. It is to be positively restrained **with hi vis webbing not black and** by the use of a suitably dimensioned floor channel and a **bracket to hook on at** handle level.

Also fit rubber-edging strip to window aperture to avoid damage when storing chair.

## 7.9 SCOOP STRETCHER

7.9.1 Provision to be made for storage of scoop

# 7.10 DRIP HOLDERS

7.10.1 One section of tracking and suitable slider/hook arrangements should be mounted on the underside of the cant rail lockers above the stretcher. A second length is to be mounted on the near side directly above the seating.

# **7.11 HEATING**

7.11.1 Supply and fit cab controlled Eberspacher D4 Airtronic heater complete with 10 minute shut down timer kit and with the main supply routed via a circuit breaker or (blade type – 20 amp). To be controlled through the ignition switch. The inlet/outlet ports are to be fitted with suitable mesh protection coverings.

# 7.12 VENTILATION

7.12.1 2 x intake extractor fan in ceiling

#### **7.13 SIGNS**

- 7.13.1 ALL interior signs are to be manufactured for WHITE vinyl with RED lettering and securely mounted to the vehicle trim as directed.
- 7.13.2 A "NO SMOKING" sign situated above the cab, bulkhead and rear door apertures.
- 7.13.3 A "PLEASE USE THE SEATBELTS PROVIDED" sign situated to the near side of the saloon.
- 7.13.4 A "MIND YOUR HEAD" sign situated above the cab, bulkhead and rear door apertures.
- 7.13.5 A "12 volts dc" SIGN ON EACH ELECTRICAL OUTLET.
- 7.13.6 A "TO OPEN" sign, with accompanying directional arrow on the rear doors to indicate their operation in the event of an emergency. 7.13.7A "PULL AND REMOVE WINDOW IN EMERGENCY" sign is to be fitted adjacent to the emergency rip cord rings on each body side.

- 7.13.8 A "DIESEL ONLY" sign is to be fitted directly above the fuel filler cap.
- 7.13.9 A "RE-FUEL THIS VEHICLE WITH DIESEL FUEL ONLY" sign is to be situated prominently in the drivers field of vision, but not obscuring any instrumentation.
- 7.13.10 Zero Tolerance sign A4 size large letter. Text to be agreed with HR.
- 7.13.11 Warning signs on all strobes re: electric shock. "WARNING ELECTRIC SHOCK IF TAMPERED WITH"

# **7.14 CLOCK**

7.14.1 Fit one battery operated clock position to be in the rear saloon mounted on the o/s wall cupboard.

# **8.0 ELECTRICAL EQUIPMENT**

# **8.1 GENERAL REQUIREMENTS**

IMPORTANT: All electrical items are to be routed through circuit breakers. No electrical items are to be hard wired to the battery. All circuits in the rear compartment are to be ignition controlled with exception of the incubator terminal and saloon lights. Woodway Engineering <a href="mailto:must supply all">must supply all</a> AUXILIARY LIGHTING and SIREN System. It is imperative that all wiring circuits are completely standardized and is compatible to all vehicles supplied.

A "One stop shop" supplier must fit all wiring, electrical equipment, communication equipment and installation.

- 8.1.1 Two auxiliary AGM batteries at 105amp each. (
- 8.1.2 An emergency start battery is required to be fitted. Also a priority start relay to protect the vehicle start battery dropping below a certain amp level.
- 8.1.3 ALL wiring is to be PVC insulated and run in appropriate sleeving.
- 8.1.3 ALL circuits are to be independently and adequately protected by re-settable circuit breakers with LED indication when tripped.
- 8.1.4 A full and comprehensive wiring diagram denoting the runs of cabling, wire colour code and sizes of cables used for each applications, the ratings and types of breakers used for each application, the positions of breakers in the fuse box and the positions of any in-line fuses are to be forwarded with the first completed vehicle.
- 8.1.5 Synergie electronic battery management system to be fitted.

8.1.6 Supply and fit an incubator terminal to the offside wall of the patient compartment, adjacent to the stretcher trolley.

Note: The Incubator supply is not to be ignition controlled and is to incorporate a 30 amp circuit breaker.

8.1.7 Supply and fit Umbilical battery charging units with auto eject sockets to the o/s body panel / adjacent to drivers door and 110 volt isolation transformer:-

Charger: - Antaris 12 volt 40 amp/110 input – 90166

Ejection socket: - 20 amp - 091-20WP120

3 pin socket:- 20 amp – NEMA5-20p

Isolator Transformer:-Clark 110 volt – rating 1000VA – part number 3220755/16 amp

# 8.2 AUXILLARY EQUIPMENT, SWITCHES AND SOCKETS

- 8.2.1 ALL switches should be of the "push button" type and be individually icon marked and illuminated. The switch panel is to be fitted with an appropriate cowling to shield against sunlight.
- 8.2.2 The switches should be incorporated into the auxiliary switch pod mounted on the centre of the dashboard fascia.
- 8.2.3 The pod switches are to be illuminated by a lamp switched through the vehicle ignition.
- 8.2.4 The side and rear doors are to be fitted with an audible warning device to indicate to the driver when the doors are open and the ignition is ion.
- 8.2.5 An audible warning device is to be fitted to indicate to the driver that the vehicle sidelights are on and the cab door is open.
- 8.2.6 Supply and fit DC power in the monitor area.
- 8.2.7 Supply and fit four Britax bayonet outlet sockets complete for 12 volt supply via separate circuit breakers. One to the offside rear of the saloon, two on either side of the patient compartment at the front, and one to be positioned in the front n/s equipment locker. Plug 201513 and Socket 201512.
- 8.2.8 Supply and fit battery condition warning indicator, fitted in the view of the driver to monitor all battery voltages.
- 8.2.10 All switches must be clearly marked to identify their purpose.~
- 8.2.11 Two audio speakers to be fitted in the saloon with left and right cut off switches.

# **8.3 REAR NUMBER PLATE**

8.3.1 Illuminated by a double lamp and suitably positioned.

### **8.4 EMERGENCY LIGHTING**

All auxiliary light to be supplied by Woodway Engineering.

Front light bar – Part No. WAS504F to include 2 x corner LED linear 12 blues and 4 x 400 series LED linear 8 blues.

Rear light bar – Part No. WAS504R to include 2 x corner LED linear 12 blues, stop, tail, indicator halogen lights, 400 series LED linear 8 blue and red and 400 load light.

#### 8.5 ROOF MOUNTED LED's

- 8.5.1 2 x 400 Duplex LED linear blue/blue lighthead positioned to front above side load door.
- 8.5.2 2 x 400 Duplex LED linear blue/blue lighthead positioned to rear quarter corners of high roof section directly above rear scene light.

All to be mounted on GRP plinths to give correct angle of light.

# **8.6 FRONT GRILLE MOUNTED STROBE LIGHTS**

8.6.1 Two 400 Duplex LED linear white/blue lighthead (blue below white LED) are to be flush fitted to the front grille of the vehicle (in accordance with LHAL 32/72). The distance between the centre line of the headlamp to the centre line of the lamp is to be approximately 300mm.

#### 8.7 FRONT WING STROBE LIGHTS

8.7.1 Fit two, blue, front wing LED's.

Model 3 TIR synchronisable (horizontal mount).

These to be situated as high as possible.

#### 8.9 MAP LIGHT

8.9.1 Supply and fit a 2 x 12 volts. One to be above driver and one to be above attendant.

# **8.11 REVERSING ALARM**

8.11.1 Supply and fit a reverse bleeper with cab controlled rocker switch, for night silent facility to be disarmed on side lights.

# **8.12 RAMP AND SIDE DOOR COURTESY LAMPS**

8.12.1 Supply and fit courtesy lamps to both the side load door and the ramp areas, switched to operate when the doors are opened and the saloon lights are on. Switch to be mounted on rear door area not in cupboard.

# **8.13 REAR MOUNTED SCENE LIGHTS**

- 8.13.1 2 x halogen 12v 27w clear lighthead positioned to front over driver and passenger cab doors.
- 8.13.2 2 x 508 scene light 8-32 degree including surface mount positioned to rear quarter of roof above window aperture.

# **8.14 HAND LAMP**

- 8.14.1 Rechargeable hand torch to be fitted into cab.
- 8.14.2 Supply and fit a hand/spot lamp to interior of o/s rear door with adjacent power socket.

# **8.15 PATIENT COMPARTMENT ILLUMINATION**

- 8.15.1 The illumination level, measured from the stretcher, should achieve 300LUX (27.9 lumens) by the use of SIX colour balanced fluorescent tubed units, complete with opal diffusers and inverters. It is essential that the lighting conforms to CEN regulation section 4.5.6. + 2 flush lights over stretcher and lower attendants seat near side.
- 8.15.2 The lighting is to be TO-WAY switched with 50% dim facility, from controls mounted on the cab fascia and waist height on the offside rear door pillar.

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Model No. – Fitting – Labcraft x 4
Model No. – Inverter – Labcraft x 4
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8.15.3 Fit 2x12 volt spotlamps over stretcher under counter rail cupboard. Fit 1x 12 volt spotlamp under near side counter rail cupboard over attendants seat.

#### 8.16 SIDE MOUNTED SCENE LIGHTS

8.16.1 Fit two, twin compact flush mounted scene lights (angled at 26<sup>0</sup>) one to either side of the body, at central height. They are to be switched independently and the switches clearly marked left and right and illuminate. Their position to be in the immediate area adjacent

to the side of the vehicle mounted at the rear of the vehicle. Small scene lamps are to be mounted at the front side for house spotting.

# **8.17 AUDIBLE WARNING SYSTEM**

- 8.17.1 An electronic, 100w, three sound warning system is to be supplied and fitted. Yelp, Wail. Piercer.
- 8.17.2 The power speaker driver is to be mounted in the engine bay and directed out of the front bumper of the vehicle. Siren to be operated and controlled through vehicle horn.
- 8.17.3 The change of tones should be via the vehicle horn ring transfer controller. Siren pattern to be Yelp/Wail/Piercer.

# **8.18 COMMUNICATION AERIAL**

- 8.18.1 M8 (METAL BASE) or M8A (FIBREGLASS ROOF) with ground plane.
- 8.18.2 A communication aerial should be mounted to each aerial ground plane, terminating to the vehicle earth. The aerial is to be installed by the body builder in line with Philips specifications. The fitted aerial cables are to terminate at the centre of the dashboard console, leaving a minimum of one meter spare lead exposed.

# **8.19 HEADLAMP FLASHERS**

- 8.19.1 An electronic headlamp flasher unit is to be fitted with a cab fascia mounted control switch. This is to enable alternate flashing. HF1000.

  It must also incorporate dipped to mainbeam facility for nighttime driving.
- 8.19.2 Supply and fit a flashing LED warning light on the dashboard to indicate the rear suspension fuse failure. A label is to be fitted on the dashboard reading:- "Rear suspension:- When LED flashes push re-set button".
- 8.19.3 The battery housing compartment (n/s) should be fabricated to allow for headlamp bulb change. (If necessary).
- 8.19.4 Supply and fit an ignition override facility comprising of a single contact change over relay connected from the beacon switch and handbrake switch.

  Supply a 40mm x 40mm red sign fitted to the dashboard —

  "ATTENTION This engine will run with ignition key removed whilst blue lights are on! Handbrake or blue lights off will inhibit this function".

Note – (this is incorporated into Synergie system).

# 9.0 EXTERIOR FINISHING

#### 9.1 MUD FLAPS

9.1.1 Heavy duty mud flaps are to be fitted to the bottom faces of the rear wheels.

# 9.2 EXTERNAL LIVERY

Note – All external livery are to be VAG rounded BT, including Battenburg tape, must be laser/ultrasonic edged sealed. 3M Diamond grade and **that all edges are then sealed with a clear lacquer/varnish.** All tape, logo's etc. are to be supplied by the bodybuilder.

- 9.2.1 ALL external livery is to be in 25mm GREEN pre-spaced vinyl lettering (unless otherwise stated) and securely adhered to the body panels.
- 9.2.2 A "TO OPEN" sign with accompanying instructions and/or directional arrow should be fitted adjacent to the rear door handle.
- 9.2.3 A "PULL TO REMOVE WINDOW IN EMERGENCY" sign is to be affixed adjacent to the ripcord on one side of the vehicle.
- 9.2.4 A tyre pressure indicator sign in 1bs/sq, e.g. "40", should be affixed centrally above each wheel.
- 9.2.5 A "KEEP CLEAR" sign (50mm red reflective) is to be affixed to the lower panels of the rear doors KEEP on the nearside door and CLEAR on the offside door.
- 9.2.6 An "AMBULANCE" sign (100mm red reflective) is to be affixed centrally across the rear doors below the upper glazing panels (above windows).
- 9.2.7 An "EMERGENCY AMBULANCE" sign (4.5" Green reflective) are to be affixed to both sides of the vehicle above the side windows and forward of the scene lights.
- 9.2.8 A "AMBULANCE" sign (4.5" green) is to be affixed centrally across the bonnet above the front edge mirror image.
- 9.2.9 The bodyside to incorporate the Battenburg design of alternate blocks of yellow/green material (600mm). Two rows of alternate blocks producing a horizontal band of 600mm, running full width of body.
- 9.2.10 Supply and fit to the rear bumpers in Chevron style "This is not a step" (red) signs.
- 9.2.11 An "AMBULANCE" sign in green lettering (12cm) is to be fitted to the front over cab molding, above the edge of the windscreen and below the blue lights.

9.2.12 Rear chevrons are to cover to the whole rear door.

# 9.2.13 **9.3 GAS HAZARD NOTICES**

9.3.1 A green diamond "COMPRESSED GAS" hazard notice is to be fitted to the offside rear of the vehicle.

# 9.4 LETTERIN

# **9.6 PARTS**

9.6.1 A full parts listing must be supplied with the first Ambulance.

# 9.7 USER GUIDE

9.7.1 A full comprehensive "User Guide" manual must be provided with each vehicle.