Van Conversion Centre

CoTrim Passenger Seating Statement

Passenger safety is our number 1 priority, not cost. Its peoples lives we are protecting…

Safety

CoTrim's aftermarket crew van and people carrier seat conversions have been developed and rigorously safety tested in accordance with current EU directives for M1 category vehicles, to meet the highest level of safety currently available. The range of aftermarket passenger seating on offer by CoTrim have been crash tested in a vehicle bodyshell, therefore the complete system including the seats, belts, safety floor and all necessary fixings, have been put through a simulated crash test, giving you complete peace of mind.

Comparisons

CoTrim are often provided with details of other companies offering low-priced solutions for aftermarket passenger seat conversions. We feel morally obliged to advise you to check that the seating you have been offered has been safety tested in a vehicle specific bodyshell and independently certified in accordance with current directives, and is not just a crash tested seat bolted in position, as is often the case. When additional seats and belts are fitted in a vehicle, if they haven't been in-vehicle crash tested there is no guarantee that they will not pull out of the vehicle floor in a real life accident. This could result in serious injury to passengers. As many would know, in order to achieve a solution that is both safe and fully compliant with current EU laws, in addition to being comfortable and durable commands a premium. This method of testing seats mounted in a vehicle bodyshell costs around £20,000.00 per test, therefore CoTrim's seat conversions are not the cheapest on the market. **Low cost seat conversions usually omit this vital vehicle bodyshell test.**

Safety Test Data

CoTrim has full safety test documentation readily available on file for customer appraisal.

Quality

CoTrim's passenger seat conversions will last for the lifetime of your vehicle, and will cope with sustained use - day in and day out.

Vehicle Manufacturer Approved

Citroen, Ford, Mercedes-Benz, Renault, Renault Trucks, Toyota, Vauxhall & Volkswagen.

Your Safety and Comfort is our Priority

Our seat conversions are covered by type approval legislation, fully proven and certified.
Designed to protect peoples lives - your passengers lives are priceless…

The choice is yours…please make it the right one.

For more information about the CoTrim range of conversions
call **01722 324524**
Newton Road, Churchfields Ind. Estate. Salisbury, Wiltshire SP2 7QA

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Crew Vans - N1/M1 categories

for light goods vehicles up to 3.5t

You cannot really call a vehicle seat an "M1 or N1 Seat" as the 'M' or 'N' category applies to the whole vehicle class. A brief outline of both vehicle classes are set out below:

N1 Category

- The vehicle is classed as commercial vehicle and must have a payload in excess of 1 tonne
- Maximum seating capacity up to 7 seats including the driver
- If business owned, VAT can be claimed on purchase price
- Road tax is a flat rate of £245.00 per year
- You can travel up to 60mph on Dual Carriageways, 70mph on Motorways

M1 Category

- The vehicle is classed the same as a passenger car
- Maximum seating capacity up to 9 seats including the driver
- You cannot claim back the VAT on M1 class vehicles
- Road tax is variable and is charged based on the vehicles emissions
- You can travel up to 70mph on Dual Carriageways and Motorways

*** For the vehicle to be classed as a commercial vehicle, apart from a complicated mathematical formula, there are 2 simple "Rules of Thumb"**
1. As a simple basic panel van, the vehicle must have at least a 1 tonne payload
2. The 60/40 rule; based on this rule, if 60% of its carrying capacity is for goods and 40% is for passengers it can then fall into the N Class. On the other hand, a vehicle will automatically fall into the M class if 60% of its capacity is for carrying passengers.

Therefore as a business owner running a fleet of vans for moving goods and people it is always more advantageous to operate vehicles categorized in the **N class** as running costs would be lower.

VEHICLE CATEGORY CHART

PASSENGER VEHICLES

Kind of vehicle		Description	Weight range
M_1		No more than 8 seats in addition to driver's seat	Not applicable
M_2		More than 8 seats in addition to driver's seat	5t or less
M_3		More than 8 seats in addition to driver's seat	Over 5t
M_1	 Special purpose	Motor caravans, ambulances, hearses, armoured cars, wheelchair-accessible vehicles	Not applicable

GOODS VEHICLES

N_1		Light vans and trucks	3.5t or less
N_2		Mid size vans and trucks	Over 3.5t and not more than 12t

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Type Approval Requirements

for aftermarket passenger seating

In order to obtain M1 or N1 class type approval of a vehicle, the entire vehicle as a whole should meet a series of EU directives and testing requirements. To achieve the approvals required when installing additional passenger seats into a vehicle, the seats and safety belts must not only be safety tested as individual units, but also as a complete system, including the vital seat to vehicle floor fixings. The seat is not all about pull testing on a flat surface, it must be pulled in a vehicle shell that the seats are intended to be fitted into.

Required approvals for passenger seats category N1/M1

To meet the latest directives seat manufacturers have to test to the following standards;

ECE R 14: Seat Belt Anchorages:

Uniform provisions concerning the approval of vehicles with regard to anchoring the seat belts.

In order to ensure proper operation of the belt system, the anchoring points have to be able to keep the defined tensile stress, which has the same efficiency as if replicated in an accident. The upper shoulder belt and lower pelvic belt on a 3-point belt is secured with a traction device. A traction machine loads the seat with 1350 kg on each belt section, while the seat is exposed to a static load of 20 x weight of the seat in the lower anchorage points. The Duoliner seat system is loaded with a total of approx. 3.5 tonne, and must be able to keep the load 0.2 sec. without breaking, to be approved.

ECE R 16: Seat Belts:

Uniform provisions concerning the approval of safety belts and child restraint for people in motor vehicles.

For the belt, which is the occupant's safety device in an accident, there is a greater test requirement. The functionality of a belt, the tension for the speed, angle, and the acceleration, is tested by cycle tests. In addition to a dynamic and static tensile test, the conditioning of all elements is tested against temperature variations, water and resistance to dust.

ECE R 17: Seat Strength:

Uniform provisions concerning the approval of vehicles in regard to seat anchorages and head restraints.

One of the main tests is a dynamic sled test. The seat must be tested front- and rear-facing and must withstand a force of 20G. Sled test have now been extended to include two loose blocks impacting the rear of the seats to simulate for example loose luggage or boxes hitting the seat during a crash.

All seat systems marketed and fitted by CoTrim are tested in leading vehicle manufacturer's shells in accordance with above EU directives and are fully certified.

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