# **Operators Guide**

Information for 15-30 seat Minibuses and Coaches

> This guide is produced by Irisbus for the benefit of operators and community transport groups



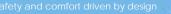




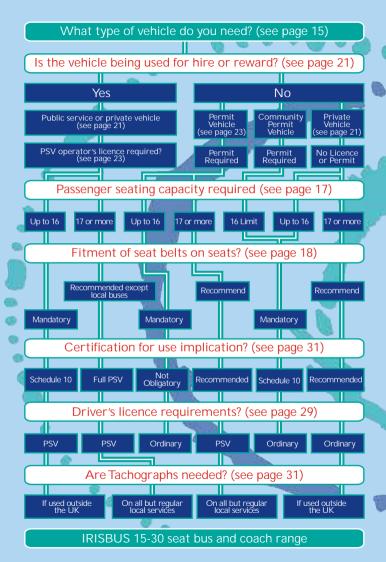












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# **Contents**

#### Legislation:

Both National and European legislation can change frequently and this guide should be treated as advisory only.

We appreciate that legislation is a complex subject and would remind you that the courts are the sole arbiters when it comes to interpreting the law. Nevertheless, we hope that this guide will be of help to your sales force in their day to day negotiations. If you require detailed advice on a particular provision it is recommended that you contact your own solicitor or legal advisor.





# Irisbus: A Global Manufacturer

Only a few years after its birth, Irisbus has established itself as one of the world's major players in the field of passenger transportation. In addition to its special position in Europe, where the Group is the second largest manufacturer of coaches and buses, Irisbus also holds a leading position on an international scale.

Such a result is of course no accident. It is due to the importance placed upon the high technology level of the production units and is the logical consequence of the unceasing work carried out by Research and Development departments. Finally, the extent of the range of vehicles being offered - coaches, buses, trolley buses, tramway on tyres Civis or minibuses also helps to strengthen the successes already recorded by the Group.

But we intend reach still further to ensure continued success. There are many ways to reach such objectives. This involves in particular our will to get stronger everywhere on the planet. The agreement signed between lveco and the Chinese Group CBC - which allows us to broaden in a significant way our presence in Asia - represents a good illustration of this.

But above all, we do not forget that in such a competitive sector as that of passenger transportation, the demands are greater each day in terms of better performance, increased comfort, optimized cost, environment preservation and safety. It is our will as a responsible manufacturer to meet these expectations, by devising the solutions that will design the transportation of tomorrow. This is why we attach a special importance to the research carried out by our teams, whether it be "clean" afternative fuels, techniques intended to make vehicle access easier, or means to protect the environment even better.

Such are our goals and that is the way that we intend to develop.

# Irisbus: The strength of a heritage

risbus was born in January 1999 and is part of the Iveco family within the Fiat Group. It was decided to create a specialised division concentrating their activities in the world of public transportation. But this decision, which enables Irisbus today to establish itself as one of the leading manufacturers worldwide, goes well beyond a mere union of skills and means of production. It carries a prestigious heritage and a tradition for excellence that dates back to the origins of public transportation.

At the beginning of the last century the "Fabbrica Italiana Autombili di Torino" (Fiat) starred making trucks and buses. From then on, the importance of this company in the field of heavy vehicles did not stop growing. The creation in 1975 of Iveco (Industrial Vehicles Corporation) was an additional decisive step, and the takeover of the Spanish manufacturer Pegaso further strengthened the importance of Iveco as a major player in the world of transportation. Finally, 1999 saw the birth of Irisbus, and then late that same year the buyout of the Hungarian company Ikarusbus. Iveco is also associated, in equal shares, with the Chinese company CBC Changzhu, within the Group CBC/Iveco, whose annual sales objectives are 7,000 units, Irisbus selling for its part close to 10,000 units in more than 40 countries.





Fiat/Iveco: The richness of a century of experience

# Important human

Effective means of production

Forward-looking R & D Centres





# Irisbus: The sharing of talent and efficient means of production

As a multicultural company strengthened by the diversity of the Amen and women that make it up - a factor likely to stimulate sharing and creativity - Irisbus has all the assets allowing it to be one of the world leading manufacturers of coaches of buses. These assets include an important human potential, modern and effective means of production, as well as high-level Research and Development centres that imagine and design what the vehicles of tomorrow will be like.

Between the industrial sites, the commercial representations and the Research and Development centres, Irisbus unites in all the countries where it operates, almost 9,000 people, including close to 700 researchers, engineers and technicians. These are men and women who each and every day put their professionalism and their know-how at the service of new solutions for public transportation.

Irisbus has plants in France, Italy, Spain, the Czech Republic and Hungary, making complete vehicles, buses and coaches or specializing in the making of chassis or bodies. These production centures use, of course, the most advanced technologies in manufacturing, among them computer-aided design and manufacturing, programmable robots and cataphoresis, the most thorough anti-corrosion treatment, which Irisbus is one of the few manufacturers to use this process on vehicles of up to 15 metres in lensth.

Irisbus benefits from the know-how of multi-disciplinary teams - highly qualified in the field of Research and Development - present in several European countries: France, Italy, Spain, the Czech Republic and Hungary. These teams - which work to define the face that public transportation will take on tomorrow - explore all innovations: post-treatment of exhaust gases, natural gas, hybrid systems, research on fuel cells, etc. They also carry out many laboratory tests and field experiments in actual operating conditions, in order to check the validity of the planned solutions. Of course, the interconnections between the research facilities further promote the sharing of experience and skills.



# Irisbus: At the service of a better quality of life

Offering "urban" vehicles that always take the concerns of public transportation users and operators more and more into account is one of the main lines of thinking which guides Irisbus. From demands in the area of body styling to optimized accessibility, through the increasingly larger part given to well-being inside the vehicles. Irisbus intends to meet the legitimate expectations for a better quality of life that drives everyone of us.

The work of Irisbus's engineers aims in particular to optimize the style of the vehicles so that they integrate into the city environment more harmoniously thanks to fluid lines and round soft shapes. This better integration also manifests itself in the very special effort exercised in the area of the fight against noise at source. Providing better sound proofing, and reducing rolling noise contributes to cutting down these nuisances.

#### Better accessibility for everyone

their young children their legitimate place in the city. The range of Irisbus lowfloor buses and midibuses illustrates this well by guaranteeing passengers first class accessibility to all the doors. With regard to the "tramways on tyres" Civis. its optical guidance system provides for easy, safe docking at stops as close to the curb as possible and eliminates any annoying or potentially dangerous gap between the platform and vehicle.

#### A more user-friendly interior layout

interior layout, as exemplified by Civis and Cristalis. In these transportation systems, the absence of a mechanical transmission provides for a wide aisle throughout the length of the vehicle, in which the passengers can pass each other, and where a wheelchair or a stroller can get around without problems. These vehicles, which are characterized by a great flexibility in interior layout, also provide a vast interior space with more lighting, more open to the city, where warmth and friendliness become key words. This care for warmth naturally also finds its place in the coaches designed by Irisbus, which - from high level interior comfort to the quality of the equipment - show a sense of coziness which is an example to everyone.



#### Vehicles better integrated in the world around them

The aim of Irisbus is to make the city accessible to everyone and to give the disabled, the elderly and mothers with

In order to make it easier for passengers to move about inside the vehicles, Irisbus has completely rethought the



# Irisbus: Preserving a better environment

I risbus is working relentlessly toward developing all the means of research promoting better ways to preserve the environment, from improving diesel engine technology to using alternate fuels. In fact, the will of Irisbus to play a major role in the field of "clean" systems is stronger than ever. All the solutions that can lead towards a better world, where nature will reeain its rights, need to be explored.

For many years, the technological progress recorded in the field of optimizing the building and tuning of engines, control over combustion, multi-valve technique and electronic control of injection, have helped to significantly lower the emissions of noxious substances. These emissions can be further limited through the use of a particle filter, a technical solution for which Irisbus devoted lengthy experiments, and which constitutes a first step on the way towards the post-treatment of exhaust gases, in which Irisbus is pursuing its developments.

Irisbus is exploring other fields aimed at better protecting the environment, in particular through the use of alternative fuels, bio-fuels, or natural gas. Irisbus is in fact the European leader in the field of gas, with CNG versions of the Agora, CityClass and Access' Bus buses having been adopted by more than 30 European networks. Indeed, these vehicles offer remarkable qualities, particularly in the field of protecting the environment. Their latest versions have emission rates better than the values expected for Euro 4, the European standard that should come into force by the year 2006. The city of Athens has purchased 300 natural gas powered Agora buses.

From the use of new means of propulsion to the use of optical guidance, from the increasing importance given to demands in terms of aesthetics and functionality in vehicle design to fuel cell testing, Irisbus shows again and again the way of innovation. So many ideas which, combined, help public transportation make continuous progress.

# continuous progress.

## Clean diesel engines

## **Alternate fuels**

An intermediate system between conventional buses and tramways, Civis represents a major step in the development of light urban transportation systems in dedicated lanes. This vehicle on tyres, developed by Irisbus in collaboration with Siemens Transportation Systems for the optical guidance system, offers many advantages especially in terms of passenger transportation apacities, accessibility, operating flexibility on totally or partly dedicated lanes, and overall investment cost. Using a highly advanced technology combining an electric propulsion system based on the motorized wheel concept and an optical guidance system designed to provide both optimal positioning of the vehicle on the street and minimum encroachment. Civis represents the new way for city transportation. Already adopted in France by the cities of Clermont-Ferrand and Rouen, Civis was hailed by Time Magazine as one of the "outstanding inventions" of the year 2001.

Cristalis, the modern trolley bus, combines technological demand and innovative design. The long lifetime of trolley buses required finding an innovative concept different from an electrified bus and that could last without going out of fashion.

A new non-polluting transportation system, Cristalia adopts an electrical traction system using motorized wheels, the electricity being supplied by current collectors and, optionally by an autonomous thermal engine. Remarkable accessibility and high levels of interior comfort also characterize this new trolley bus concept, which is different from a conventional electrified bus.

#### Civis: A new way to enjoy the city

# Cristalis: The Trolley Bus reinvented



Three distinct programmes, intended to check, in actual operating conditions, the validity and the contribution of the fuel cell technology, are presently underway or are going to be carried out by Irisbus. Turin has started experimentation on a City Class, and will be followed by Madrid also on a City Class. Paris will then use

a Cristalis powered by a fuel cell. Combining absence of pollutant emissions, high-energy efficiency and low noise level, this technique already seems to have a great future.

# The Fuel Cell: en-route toward the future



# Irisbus: A presence in all sectors - everywhere

Present in the field of imagination and inventiveness, with the work performed on the vehicles of the future, Irisbus is also solidly anchored in the reality of day-to-day life thanks to a full range of coaches and buses intended to meet the needs of passenger transportation. These are the keys to the development of Irisbus worldwide which explain the company's growing success in all the regions of the world.

Solutions for all types of transportation, everywhere In the world of coaches and buses, Irisbus offers the full range of a big multispecialist manufacturer. The range includes touring and grand touring coaches; inter-city coaches and school buses; standard and articulated buses, powered by diesel engines or engines fuelled by alternate fuels; small buses, new city transport

systems like Civis and Cristalis, coach and bus chassis and finally, special designs for passenger transportation, which meet the demands of the different countries.

# A presence on all the continents



Present in Europe, in the United States and in Australia, Irisbus shows day in day out the quality of fits vehicles under all latitudes, from Canberra to Prague or from Budapest to Athens. Strongly established in Europe, Irisbus also carries high the colours of the brand at the four corners of the planet. The association between lveco and a Chinese partner thus opens new perspectives to the Group on that continent, while at the other end of the world, the United States show their interest for Civis, which was chosen by LaxVeeza.











# The Irisbus UK Range

The Irisbus range of models for the UK provides an ideal base for any passenger carrying application. The model line up includes factory finished minibuses and coaches, windowed shell variants for access and welfare applications and chassis cowls suitable for a wide range of coach built bodies, including models which are fully D.D.A. compliant.



Both of the listed models have a 3950mm wheelbase and are supplied in factory finished condition with all passenger seats, seat belts and floor mounting tracking having been dynamically crash tested and are fully compliant to M2 EEC.76/115 - as amended. Fixed seats are fitted on the 40C13 - Minibus 'Start'.

This vehicle is provided as a finished 17 seat minibus (including driver). Passenger entrance is via a side sliding door with automatic electric step, saloon seating is by MTB and fitted into quick release tracking allowing for subsequent client fitment of Unwin fuck release feet for alternative wheelchair welfare application.

All windowed bus shell variants are supplied with a standard factory fitted roof and side trin but without seats, floor trim and grab rails allowing client choice of final finish. The floor structure includes a full dynamic crash tested floor to M2 with quick release profile track for wheelchair applications, full compliant seats for these applications retaining the full M2 EEC 76/115 conformity are: Restcroft, Richards and Shaw and Cogent. Side sliding door models are fitted with gasket glazed windows whilst slam and plug door models have panoramic saloon windows.



# Finished Minibuses and Coaches



40C13 - Minibus 'Start' (Sliding Door)

50C13 - Minibus (Sliding Door)

# Windowed Bus and Coach Shells

# 40C13 - Minibus 'Start' (Sliding Door)

This model is available in 3950nm wheelbase with a gross weight of 4500kg and is provided with a side sliding passenger door complete with mechanical side step operated automatically when door is opened. Fitted with side door courtesy screen and hand rail assemblies. The seats are M2 seat and seat anchorage system-seni high back seat with all age lapidiagonal belts all dynamically tested to ECE M2 standard for a maximum of 17 people including driver. Cut in side step and courtest lamp.

#### 50C13 - Minibus (Sliding Door)

This model is available in 3950mm wheelbase with a gross weight of 5200kg and is provided with a side sliding passenger door complete with automatic electrically operated step, dependent upon chosen layout, is suitable for a maximum of 17 seats including driver or an appropriate mix of seats and wheelchairs.



#### 50C13 - Minibus (Plug Door)

This model has a choice of wheelbases – 3300 and 3950mm and a gross weight of 5200kgs and comes as factory standard with a coach type electric plug door passenger entrance. Dependent upon chosen layout, it is suitable for up to 18 passenger seats plus driver or a combination of seats and wheelchairs.



## 50C13 Minibus (Slam Door)

This model also has a choice of wheelbases – 3300 and 3950mm. It is available with a slam door for passenger entry and dependent upon chosen layout, is suitable for up to 18 passenger seats plus driver or a combination of seats and wheelchairs.





40C13 MiniBus - Start





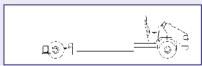
50C13 Shell Plug Door 50C13 Shell Sliding Door



50C13 MiniBus



50C13 & 65C15 Chassis Cowl



65C15 Low Floor MiniBus

#### Note:

All cowls are supplied to full PSV specification and are only released for coach built bodywork to the recommended coach builders identified in the Irisbus brochure.

The configuration details mentioned here are suggested seating arrangements and layouts. They are based on both the weight and size capacities of bodywork and we strongly advise all customer requirements are discussed with the recommended body-builders.

# Chassis Cowls

50C 13:-This model is available with two wheelbases, 3750mm and 4350mm. Dependent upon bodywork and layout, it is suitable for 16-20 passengers plus driver.

65C | 5:-This model is also available in two wheelbases of 4350mm and 4750mm. Dependent upon bodywork and layout, this model is suitable for 20-28 passengers plus driver.

The standard specification has a six speed manual gearbox, but can be made available with an Allison 1000 series 5 speed automatic gearbox.

The 4750mm wheelbase can also be specified with a Telma retarder.

#### 65C15 Low Floor: -

This model is specially designed with its dropped centre frame to be fully compliant with DDA requirements. The 5100mm wheelbase provides space for 17 seated passengers plus additional standees on stage carriage duty. Alternatively. for welfare applications, this model can accommodate up to 17 seats plus 3 wheelchairs dependent upon the chosen layout.

This model is specially designed with its dropped centre frame to be fully compliant with DDA requirements.

# Wrights 65C15 (Low Floor Chassis)

This accessible vehicle provides space for 28 passengers plus additional standees on stage carriage. This version is produced by Wrights and the complete vehicle is known as the Satellite.





#### Welfare 65CI5 (Low Floor Cowl)

Alternatively, the cowl can be made available for welfare where the model can accommodate 17 seats plus 3 wheelchairs dependent upon the chosen layout.



#### Nu-Track 65C15 (Low Floor Bus)

A long wheelbase version
– 5040mm has been bodied
by Nu-Track, the respected
Belfast body-builders.

This version also developed for welfare applications can seat 24 passengers or a mix of seats and wheelchairs.



# What type of vehicle do you need?

Buses and coaches can carry more people than a car, or a convoy of cars, in safety and comfort. This Guide looks at vehicles from 14 up to 30 passenger seats.

- "Bus" is a vehicle constructed or adapted to carry 9 or more seated passengers
  in addition to the driver and designed for local journeys. A bus usually has a
  wide entrance and low-backed seats, suitable for short journeys.
- "Coach" is a vehicle designed for longer distance operations, usually with accommodation for luggage in a separate compartment. Coaches normally have a more comfortable interior standard, including high backed seats.
- "Minibus" is legally defined as:"A motor vehicle which is constructed or adapted to carry more than 8 but not more than 16 seated passengers in addition to the driver."

#### Certain special regulations relating to minibuses are discussed in this Guide.

- "Public Service Vehicle" is a vehicle designed and constructed to carry 9
  or more passengers who pay fares, either individually or as a group. Vehicles
  designed and constructed to carry 8 or fewer passengers are also considered
  PSV's if the passengers are carried at separate fares and the vehicle is used in
  the course of a business carrying passengers. A public service vehicle may be
  a bus, minibus or coach.
- "Accessible" is a term widely used to describe a vehicle which has features which enable it to be used more easily by passengers who are not fully able bodied. On public service vehicles, used on regular local services, the test is that a person in a wheelchair, who has full use of his or her arms and hands, can board a bus unaided. In other ophications, typically transport organised by a local authority, a wheelchair lift or ramp can be provided, so that the driver or an attendant can load a passenger from the ground to the floor of the bus, without the passenger leaving the wheelchair.



#### **Definitions**

The following definitions are regularly used in the industry:

# MI, M2 or M3 standards

All vehicles are subject to strict legislation and testing of safety critical equipment, before they can be approved for use on the roads. Much of this legislation, and the test standards, are now harmonised throughout the European Union and have been adopted by the member states, including the United Kingdom.

MI test standards are more stringent than M2 and M3.

The following table shows the anchorage loads to be applied to seats and seat belts under the test procedure.

The principal concerns of much of this legislation are safety and security of drivers, passengers and other road users. Vehicles are required to go through a whole series of tests, which vary according to their size and vulnerability in the event of an accident. There are three categories which apply to buses and coaches, regardless of their use, whether public or private:

- "M1" is the generic European Union term for vehicles used for the carriage
  of up to 8 passengers, in addition to the driver, and having a maximum gross
  weight not exceeding 3,500kg. Gross weight is the weight of the vehicle plus
  fuel, oil, water, driver, passengers and any luggage.
- "M2" is the term for vehicles used for the carriage of 9 or more passengers, in addition to the driver, and having a maximum gross weight not exceeding 5,000kg.
- "M3" is the term for vehicles used for the carriage of 9 or more passengers, in addition to the driver, and having a maximum gross weight exceeding 5,000kg.

Small buses and coaches offered by Irisbus (UK) come within the M2 and M3 categories.

You are strongly advised against selling or using any bus or coach with less than 9 passenger seats, because that vehicle falls within the definition of MI and would therefore be subject to a different set of test standards for which our products were never designed or intended. This does not apply to a vehicle which is supplied with 9 or more passenger seats, but which, from time to time, operates with less than 9 passenger seats, because some of the seats have been removed temporarily to make space for one or more wheelchair passengers.

Just as the MI test standards are more stringent than M2, so M2 is more stringent than M3. Some manufacturers advertise M3 products, i.e. over 5,000kg gross, as being fitted with seats and seat anchorages which comply with M2 standards. This is permissible, provided that they must have proof that they have carried out the necessary tests to comply with M2 standards. However, it is not legally possible to offer an M2 vehicle with seats and anchorages equipped to the lesser M3 standards.

# The load is applied through the belt in the direction the seat is facing - anchorage must withstand the load for not less than 0.2 seconds.

M2 Vehicles M3 Vehicles M2 & M3 Vehicles (forward facing seats) (forward facing seats) (rear facing seats) Lap belt II.IkN 7.4kN 7.4kN Lap & diagonal belt: 6 75kN 4 5 LN 4 5kN Lap section 6.75kN 4.5kN 4.5kN Diagonal section (hath sections are tested simultan 10 times the 6.6 times the 6.6 times the Additional forward load per seat weight of the weight of the weight of the complete seat complete seat complete seat (integral seat belts only)

On vehicles with 17 or more passengers seats, it depends whether they are being purchased for public or private use, as defined below. If for public use, they must comply with Public Service Vehicle Construction and Use Regulations. Alternatively, they can be certified according to European regulations. Vehicles which are purchased for private use do not need to comply with full PSV regulations, but many customers specify them, because it is beneficial to the residual value of the vehicle.

Until recently, there was a loophole in the law regarding the firment of seat belts on vehicles weighing more than 3,500kg but less than 7,500kg. All vehicles first registered on or after 1 October 2001 must be fitted with seat belts, except those designed for urban use with standing passengers. This will be explained in the section for Seat Belts. Later in this Guild.

Buses and coaches can be bought for public or private use, as explained in the next section. The numbers in use in the United Kingdom need to be put into perspective. There are over 26 million cars in circulation, far outnumbering buses and coaches. However, buses and coaches are highly visible because they are widely used in urban centres.

Small buses are used in many different ways, public and private, including regular services, private hire, social work, schools and clubs, self-drive hire, hotel and airport courtesy, police and armed forces, and purely private for extended foullies.

Legislation on the Construction and Use of small buses and coaches makes an important break point at 16 passenger seats, i.e. excluding the driver's seat.

Those with up to 16 passenger seats are permitted to be built to simpler regulations, without in any way detracting from safety.



## Fitting Seat belts

There was a loophole in the regulations, because it did not apply to vehicles with a gross weight over 3,500kg but not exceeding 7,500kg. The regulations were consolidated under the Road Vehicles (Construction and Use) (Amendment) (No 2) Regulations 2001.

# Do you need seat belts?

Seat belts are mandatory on all buses, except those designed for burban use with the ability to carry standing passengers. The reason for this exception is that passengers are frequently getting in and out of seats and the vehicles are rarely travelling at speed.

British and European legislation is concentrating more and more on the safety of vehicles. That is a trend which we heartily endorse. There is no such thing as being half safe. Vehicles which carry passengers must be as safe as reasonably possible.

Inder the Road Vehicles (Construction and Use) (Amendment) (No 2) Regulations 1996, the Government introduced legislation which required all minibuses, up to 3,500kg gross, and all coaches, with a maximum gross weight of more than 7,500kg, and a maximum speed exceeding 60mph, to be fitted with seat belts, whether new or already in service. It is extremely rare for legislation to be applied retrospectively to vehicles already in use.

weight not exceeding 3,500kg, first used on or after October 2001, except those designed for urban use with standing passengers, must have inertia reel three-point seat belts on forward facing seats and the same belts or retractable lap belts on rearward facing seats. Alternatively, disabled persons seats belts or child restraints may be fitted.

Minibuses with a gross



Buses with a gross weight exceeding 3,500kg, first used on or after I October 2001, except those designed for urban use with standing passengers, must have inertia reel three-point seat belts or retractable lap belts on all forward and rearward facing seats. Lap belts may only be fitted in forward facing non-exposed seats where an appropriate energy absorbing seat or surface is located in front of that seat. Alternatively, disabled persons seat belts or child restraints may be fitted.

Seat belts, apart from disabled person's belts, must be marked to show approval to either a British or European standard. British Standard belts will display a BS Kitemark to be approved to BS3254 Part 1. European Standard belts will either be approved to ECE Regulation 16.04 and marked with an "E" mark, or Community Directive 77/541, as amended by 96/36 or 2000/3, and marked with an "e" mark. These standards give details of how seat belts should be installed, in terms of belt accessibility, fit of belts to wearer, ease of adjustment and release.

The first paragraph of the 1996 regulations said: "No person shall use or cause or permit to be used on a road a coach or minibus wholly or mainly for the purpose of carrying a group of three or more children in the following circumstances unless the appropriate number of forward facing passenger seats fitted to the vehicle meet the requirements of this regulation".

The circumstances are that "(a) the group of children are on an organised trip; and (b) the journey is being made for the purposes of the trip".

This point needs to be clarified. If one or two children happen to be travelling with a party of adults, seat belts are not legally required. The travelling public are unlikely to make such fine distinctions. They expect seat belts to be fitted to all minibuses and coaches, regardless of the purpose of the journey or the age of the passengers.

Although there was a three to four year period in which vehicles over 3,500kg and up to 7,500kg could be supplied without seat belts, many operators fitted them, because of customer demand. If you buy any used vehicle in this weight and capacity band, and if you intend to carry school children, you must ensure that it is fitted with seat belts.

Seat belt anchorages must meet the technical and installation requirements of ECE Regulation 14.04 or 14.05, or EU Directive 76/115, as amended by 96/38. The table on page 4 shows the required anchorage test loads.

Although anchorage Type Approval is not mandatory for the classes of vehicle covered by these new regulations, the manufacturer or convertor has a responsibility to ensure that all seat belt anchorages comply with the above standards. The only sure way of establishing whether a seat belt anchorage meets the required legislative requirements is to have it pull-tested. Manufacturers who are producing a number of vehicles of standard design have been able to assess their proposed anchorages by pull testing. Customers are always recommended to check that approval has been obtained.

Experts in the bus and coach industry are united in their agreement that seat belts cannot be fitted to a seat in isolation. It is fundamentally important that the belt is anchored securely to the seat and that the seat in turn is anchored securely to the floor and/or side walls of the vehicle. Otherwise, there is the very real risk that, in severe frontal impact, the belts might restrain a passenger on a seat, but he resultant force of the seat and the weight of passengers could tear the seat from the traditional plywood flooring. Incredibly, the 1996 regulations actually foresee these circumstances with older coaches, even though the consequences in an accident could be very serious.

With a new minibus or coach, engineers have taken the opportunity to design and manufacture a complete co-ordinated system, so that, in the event of impact, forces are evenly distribued, so that the seats and their belted passengers remain anchored to the floor and/or sides of the vehicle. This has resulted in considerable re-engineering, much of it unseen, beneath the floor of the vehicle. In new models, seats are anchored directly to steel channels, which are strong enough to hold seats in place, even during a severe impact.

In older vehicles, it would be difficult or even impossible to reengineer to the latest standards. Even if possible, in many cases, the work would cost more than the market value of the vehicle.

#### Carrying children

The definition of a child is:"
A person who is aged 3
years or more but is under
the age of 16 years."The
requirement to fit seat belts
applies not just to transport
to and from school, but also
to other school activities, and
to any other trip where the
purpose is to move children
from one place to another.
That includes travel by clubs,
societies, sports teams and
the like.

## Seat belt anchorages

# Warning on retrofitting

This situation is a cause of great concern to the manufacturing industry. Retrospective legislation is almost invariably fundamentally flawed, which is why it is used so rarely. The engineers who designed and built vehicles ten years ago could not have been reasonably expected to foresee that they would now require to be retrofitted with seat belts.

Unfortunately, there are contractors who are taking advantage of the 1996 regulations to offer retrofitting of seat belts which can, at best, be described as cosmetic. We hope they will never be put to the test in a serious accident. This is especially true of older minibuses, where seats were often bolted direct to a obtwood floor.

At the time of writing, there has already been at least one accident, in which the passengers were restrained by their seat belts, but the seats tore free from the plywood floor, pilling up at the front of the vehicle, and causing loss of life.

As responsible manufacturers, with our name - and your good name - on the front of a vehicle and our reputation behind it, we do not condone retrofitting. In fact, we condemn it.

Anyone who is responsible for carrying passengers must be under an obligation to minimise the risk of serious injury to them. We believe that this can only be done by specifying new vehicles which fully comply with the regulations. In addition to the security of properly engineered seat belts, there are the added advantages of the latest generation of vehicles.

Any organisation responsible for carrying passengers, and especially children, publicly or privately, is strongly advised to take old vehicles out of service and to invest in new, safe and environmentally friendly vehicles.

#### Recommendation

It is very important, when specifying any small bus or coach to order only the make and type of seats which have been tested and approved to European M2 or M3 standards.



# Are your passengers paying fares, directly, or indirectly, or not at all?

There are a number of misconceptions about what constitutes public or private use, particularly of minibuses. If you are thinking about buying a minibus or larger vehicle for the first time, it is important to be clear about your proposed operation and to obtain any necessary licences.

As a general rule, legislation recognises a break point of up to 16 passenger seats, for construction and for use. Below that level, simpler legislation often applies. Above that level, the majority of operations require an Operator's Licence and a vehicle which is constructed to comply with public service vehicle construction and use regulations.

The differences are explained:

Any vehicle which is capable of carrying 9 or more passengers for "hire or reward" is considered to be a Public Service Vehicle.

"Hire or reward" does not necessarily mean the payment of separate fares.
 (Vehicles which can carry 8 passengers or less can also be public service vehicles in certain circumstances, such as the charging of separate fares).

A full definition is given in the Public Passenger Vehicles Act 1981, which did not introduce any new legislation, but consolidated a number of previous laws.

 "Hire or reward" is clear if passengers are paying individual fares, or if a group of people club together and pay money to the driver, or the owner, or to an agency, for the transport. It is a mistake to believe that "hire or reward" is related directly to profit and commercial operation.

Here are a number of other examples where an operation falls within the definition of "hire and reward":

- So-called "free" courtesy vehicles, operated by supermarkets, travel agents, hotels and car hire companies, fall within the definition, because payment for the service is made in the course of another larger inclusive payment and offers the right to be carried. This definition applies, even when the service is not used by some eopole who are entitled to use it.
- Where an employer, or an employment agency, uses a bus to carry workers to and from their place of work. He might deduct money from the wages of those using the service. If he does not deduct money, then the service might be considered by the Inland Revenue as a taxable benefit. On the other hand, if employees make their own way to work, then travel by bus to carry out their duties elsewhere, that is not hire or reward. Typical examples are a group of policemen patrolling at a sporting function, or a group of workmen being transported from their base to a work site.
- Where a group of people hire a self-drive minibus and each contributes to the cost of the hire and the fuel.
- Where a driver regularly uses a minibus to carry children to and from school and collects "petrol money" from the children or their parents.

#### Hire or reward

"Hire or reward" is deemed to occur when payment is made for carrying passengers, or for some other service which includes the carrying of passengers, or where a payment is made which confers a right to be carried.



There are many times when private vehicles are used to carry out some of the work described above. This is almost certainly due to lack of enforcement, but poses the very real risk of invalidation of insurance cover in the event of an accident.

Great care has to be taken when deciding whether you need a public service whicle or a private whicle for your type of work. Whicles which have 8 or less passenger seats are usually exempt from PSV regulations. Car and van sharing is legal, but the arrangements for bringing the passengers together must be made before the journey commences.

Vehicles with 8 or less seats are not permitted to cruise and pick up people in the street, except where they are subject to local taxi or hackney regulations governing their use, or in the case of post buses in very remote rural areas

Licences to operate public service vehicles and for public service vehicle drivers are issued by the Traffic Commissioners. There are eight offices around the United Kingdom. If you are in any doubt about hire or reward, you are advised to contact your nearest Traffic Commissioner. Any local bus company will be able to tell you which is the nearest office. You should also consult the company which is going to insure the vehicle, so that you have the correct cover for your type of work.

# Do you need an operating licence or permit?

If you are operating, or plan to operate, a public service vehicle, you must have a PSV Operator's Licence, or a Permit Licence, or a Community Bus Permit. There are

important differences between these three levels. You might be planning a use which does not need a full PSV Operator's Licence, but could be run legally on a Permit.

#### The differences are explained:

This is issued by the Traffic Commissioner for the area in which the vehicle's operating centre is located, but is valid for use anywhere in the country. The Operator's Licence can be a standard national or international licence, or a restricted national or international licence.

The restricted licence applies to PSV's adapted to carry 8 or less passengers, or those carrying 16 or less passengers when the main business is not the carriage of passengers for hire or reward. Normally, a restricted licence is limited to a maximum of two vehicles per operator, but there are exceptions.

maximum of two vehicles per operator, but there are exceptions.

An application for an Operator's Licence must be made at least nine weeks before the planned start-up date. The Licence can only be issued by a Traffic

- details of financial standing.
- confirmation of personal repute (i.e. the absence of any serious criminal convictions).
- arrangements for vehicle inspection, maintenance and reporting of defects by drivers.

Commissioner, who will ask the applicant to provide:



- vehicle carrying capacity.
- arrangements for the keeping of maintenance records.
- an undertaking to report any relevant convictions of the applicant or any employee.

The applicant has to sign a declaration that he will comply with the above requirements and to acknowledge that any breach could put the licence at risk. He or she must also satisfy the Traffic Commissioner about his/her professional competence. The applicant or designated manager(s) must meet the requirements set out in the Public Passenger Vehicles Act 1981. Schedule 1

The professional competence of the applicant or manager is proved either by having gained experience for at least two years prior to the end of 1979,

**PSV** operator's licence



i.e. "grandfather rights", or thereafter by passing RSA examinations or by possessing professional qualifications from a recognised body like the Chartered Institute of Transport. Qualifications may be gained for national or international operations.

An applicant is entitled to ask for as many vehicles as he feels necessary for his operation, but he must be able to satisfy the Traffic Commissioner that he has the financial standing and other qualifications necessary to support that number.

A PSV "O" licence disc must be displayed on each vehicle. The Traffic Commissioner has the power to grant the licence, and also to revoke, reduce or suspend it in event of a serious breach of the terms, such as poor maintenance, or offences and convictions.

This is widely used by schools and other organisations which are carrying their own students or members and are not doing so for profit. There are important distinctions between buses with up to 16 passenger seats and those with more than 16 passenger seats.

A Permit, granted under Section 19 of the Transport Act 1985, allows any size of vehicle to be operated by an Education Authority, but not for the purposes of carrying members of the general public for profit.

The Public Passenger Vehicles Act 1981 permits school buses, which are provided by Local Education Authorities, to offer seas at separate fares and to run registered local bus services without the need for the Local Education Authority to hold a PSV Operator's Licence. These vehicles are not required to meet PSV requirements on certification and inspection, but the driver must hold a PCV driving licence. Some local authorities purchase vehicles which are certified to PSV standards, because this enhances their residual value.

Section 19 permits can also be given to minibuses seating no more than 16 passengers, when operated by "eligible bodies", i.e. those concerned with education, religion, social welfare, recreation, and other activities of benefit to the community. A Section 19 permit cannot be used to operate a local service.

Only one bus can be used on each permit, but eligible bodies are permitted to hold more than one permit. Section 18 of the Act says that a PSV Operator's Licence is not required for any vehicle used under this permit, nor is a PCV driving licence required for any vehicle seating up to 16 passengers. A fire extinguisher and first aid kit must be carried. A permit disc must be visible through the windscreen. Driving licence requirements are explained in another section of this Guide.

A vehicle with 17 or more passengers seats used under this permit will need to be maintained to full PSV maintenance standards. The Permit must be isade by a Traffic Commissioner. The driver will need a PCV licence and he will need to comply with driver's hours regulations, including the use of a tachograph, except on regular routes not exceeding 50km in length.

#### **Permit licence**

#### Schools

# Other organisations

The Department of Transport has published a booklet, PSV 385, 
"Passenger transport provided by voluntary groups". It gives the 
following advice: "Permits issued under Section 19 of the Transport 
Act 1985 allow certain organisations to charge for transport services 
without such a licence. But the services must be provided for their 
own members or for groups of people whom the organisation serves. 
They may not provide services in this way to members of the general 
public. And the charges must be made on a non-profit making basis. 
Permit vehicles cannot be run as part of an activity that is itself carried 
on with a view to making a profit".

"A charge covers more than just the payment of a fare. Any payment in cash or in kind which gives passengers the right to be carried is considered to be a charge. This will include part of a larger payment (e.g. a subscription to a club) even if the payment is not directly related to particular journeys".

A "community bus service" is defined as a local service provided, without a view to profit, by an organisation concerned for the community's social and welfare needs. It is not permitted to have more than 16 passenger seats. The greater financial support given by the Government to rural transport has barely stimulated demand for community buses.

# Use by voluntary bodies

# Community bus permit



A Community Bus permit can be granted under Section 22 of the Transport Act 1985 by the area Traffic Commissioner. The permit will allow a public service vehicle to be used either for providing a community bus service, or for carrying passengers for hire and reward when this will directly help to provide a community bus service by giving it financial support.

The Traffic Commissioner is entitled to ask about facilities for maintaining any vehicle. An organisation can hold more than one permit, but only one bus can be used under each permit. A PSV Operator's Licence is not required for any vehicle used under this permit, nor is a PCV driving licence, because the bus is restricted to a maximum of 16 passenger seats. A disc, issued by the Traffic Commissioner, must be visible through the windscreen.

# Servicing arrangements

If you are applying to a Traffic Commissioner for any of the licences described above, he will want to know about arrangements for servicing. He will be greatly reassured if you can confirm a regular service contract with an authorised Irisbus or Iveco dealer, and a daily driver defect reporting system for faults occurring between services.

#### Control of alcohol

Wehicles which have permits issued under sections 19 and 22, and all other public service vehicles, remain subject to the Sporting Events (Control of Alcohol) Act 1985, which prohibits the owner, driver or passengers from carrying alcohol, collectively or personally, to or from any association football match.

# What kind of public service are you planning to run?

#### Local bus services

Until the Transport Act 1985, it was necessary to have a licence to operate a local bus service. Following the Act, bus services, outside London and Northern Ireland, were deregulated from 26 October 1986. The Act enabled any person, firm or company, holding an Operator's Licence, to run on any route at any time, subject to giving the Traffic Commissioner 42 days notice of the plans. This period of notice was increased to 56 days for applications made on or after I Aoril 2002.



The Transport Act 1985 established two types of bus services. Commercial services are those where the income from passengers is sufficient to meet all operating costs and provide a profit to the operator.

Some services are necessary but uneconomic. Local authorities can invite tenders for those services, usually on the basis of a lowest cost subsidy required by the operator to top up income from passengers. Local authorities are entitled to specify timetables and the type and size of vehicle(s) used.

There are limited opportunities to run public scheduled services, falling into three distinct types of operation:

- Local authority tendered services, on which a smaller local operator sometimes has a price advantage. These can involve evening and weekend services.
- A commercial service which lies on the boundaries of territories of larger operators, and is therefore uneconomic for them to run.
- Community transport services in remote rural areas. This function is sometimes filled by Royal Mail minibuses which primarily deliver post.

Projections of costs and revenues have to be made with great care. Irisbus and its dealers can advise on attractive benefits like leasing and contract maintenance which will enable you to predict vehicle costs with great accuracy, free from worries about unforeseen bills.



# Commercial and tendered services

# Local service applications

If you wish to operate local services, outside London and Northern Ireland, the procedures are contained in the Public Service Vehicles (Registration of Local Services) Regulations 1986, and subsequent amendments. The details of the service will need to be lodged with the Traffic Commissioner for the area where you plan to operate.



There are exceptions for local services in London and special services operated on behalf of rail operators to run temporary rail replacement services. A local service is one which carries passengers at separate fares over distances of less than 15 miles in a straight line. Longer routes can be local services if there is at least one stop each 15 miles. It is advisable to refer to the Transport Act 1985, section 2, for a fuller definition.

A considerable amount of detail must be included with the application, such as terminal and intermediate stopping points, the precise route, the timetable, the commencement date, and even arrangements for turning at each terminus. Once a registration has been lodged, an application must be made to the Traffic Commissioner for any variation in the terms of the licence. Normally an application to start a new service, or vary or terminate an existing one, must be accepted by the Traffic Commissioner at least 56 days in advance. The operator is legally obliged to operate the service according to the terms of the application. Failure to do so can result in penalties or termination imposed by the Traffic Commissioner.

The procedures described above do not apply to local services in Greater London. Under the terms of the London Regional Transport Act 1984, Transport for London has a duty either to provide public passenger transport services directly, or by subcontracting to other operators. There are two ways to start operating buses in London. The first is to win a Tilt, tender. The second is to seek the approval of Tilt, to run a service which is not being provided by or on behalf of Tilt. However, note that practically all contracts in London call for vehicles with a large part of the floor only one step above the ground.

## Coaching

All regular scheduled coach services, i.e. operating a distance of at least 50km, point to point, were deregulated under the Transport Act 1980. It is no longer necessary to have a licence to operate express services, day or extended tours, with two important exceptions:

- An excursion or tour which is operated at least once per week for at least six consecutive weeks.
- If you are planning to operate regular scheduled services, either to other member states of the European Community, or beyond, you will need to comply with EC regulations and in many cases will need approval from the authorities in the country of destination. Specific advice can be obtained from the Department of Transport in London. These requirements do not apply to occasional tours but you will need to be aware of, and comply with, traffic regulations in any countries which you plan to transit or visit. You also need to be sure that your vehicle can be supported abroad if anything unforeseen occurs. It is wise to have the reassurance that help is at hand. Irisbus and lveco have an extensive network of dealers throughout Europe.

Only an Operator's Licence is necessary. No other licence is required to carry passengers for hire or reward on private hire. The passengers must be brought together before the journey commences and may not be charged separate or different fares. Any violation of these terms might well invalidate an insurance policy.

#### Private hire

# Do your drivers have the correct licence?

Depending on the type of work which you are doing, your driver might need a PCV licence, or he might be able to drive on an ordinary car licence. You are strongly recommended to check the licence of any driver before permitting him to use any vehicle.

The Motor Vehicles (Driving Licences Amendment) Regulations 1990 introduced the European Community driver licensing system, under which a unified driving licence is issued to applicants, detailing the categories of vehicles which they are entitled to drive.

The Motor-Vehicles (Driving Licences) (Large Goods and Passenger Carrying-Vehicles) Regulations 1990 took effect on 1 April 1991 and set out the terms for new applicants seeking an LGV or PCV licence for the first time, and for existing HGV and PSV licence holders when renewing their licences on or after 1 April 1991. Since 1991, the vehicle has continued to be known as a Public Service Vehicle (PSV), but the licence has changed to Passenger Carrying Vehicle (PCV).

Before he can apply for a PCV provisional licence, the applicant must have either a full ordinary licence or have passed a category B test, i.e. on a motor vehicle with a permissible maximum weight not over 3.5 tonnes and not more than 8 seats. He may be required to submit a medical certificate.

Under the 1991 Regulations, a driver aged 18 years or over, is allowed, after passing the test to drive a category D vehicle, to drive a permit vehicle and a PSV, although he may only drive the latter within a 50km radius of his base, until reaching the age of 21.

Since July 1996, the concession which allowed drivers without a PCV licence to drive "permit." vehicles has been restricted to those who are aged 21 or over and who have held a full ordinary licence for at least two years. The vehicle must weigh no more than 3.5 tonnes gross, plus an allowance for up to an additional 750kg for any lift or ramp for disabled passengers. The driver must be an unpaid volunteer, who is not entitled to a wage, but is entitled to payment of lost earnings and/or justifiable expenses.

A driver who first passed a category B driving test on or after I January 1970 has been limited to a vehicle with not more than 8 passenger seats and not more than 3.600kg gross weight, but he is permitted to tow a trailer weighing not more than 750kg. After passing the category B driving test, the driver will then need to apply for a category D or D1 driving licence to drive a vehicle with 9 or more passenger seats.

# Public service vehicle driving licence

Anyone who passed a full ordinary licence on or before 31 December 1996 is entitled to drive a motor vehicle up to 7.5 tonnes gross weight, but there are restrictions on passenger carrying vehicles between 3.5 tonnes and 7.5 tonnes gross.

#### The current categories of PCV licence are:

Category

D: Motor vehicle used for the carriage of passengers with more than 8 seats and including a trailer with a maximum gross weight not over 750kg or a single axle trailer of any weight and articulated buses.

Category D+E: A category D vehicle and a trailer with a maximum gross weight over 750kg and more than one axle.

D1: As D, but not more than 16 seats, not used for hire or Category reward and including a trailer, not over 750kg maximum gross weight.

Category DI+E: Category DI vehicle and a trailer, whose maximum gross weight exceeds 750kg but not the unladen weight of the towing vehicle. The combination does not exceed 12 tonnes gross weight.



Formerly, any driver with a full ordinary licence could drive a PSV of any size, provided it was not being used for hire or reward. With effect from I April 1992, the right was restricted to vehicles of not more than 16 seats. There are exceptions for mechanics and service engineers who applied for a restricted licence before 31 March 1992; for historic buses more than 30 years old; and for mobile project buses, i.e. play buses and exhibition buses.

From I September 2003, the practical test associated with the PCV driving test was revised to require drivers to demonstrate or describe their ability to perform random technical checks on their buses relating to:

- Fluid levels
- Steering
- Lighting
- Instruments
- Loading
- Tyres and Wheels
- Brakes
- Audible Warning
- Air Tanks
- Trailer Coupling (D+E test only).

# Do you need to comply with drivers hours regulations and use a Tachograph?

# Are you travelling outside the United Kingdom?

The laws of the United Kingdom and the European Union strictly regulate the number of hours which a driver is permitted to spend at the wheel of a vehicle. The legislation sets out the maximum number of permitted hours of driving per day, rest periods and rest days.

A tachograph is a device, normally mounted on the dashboard, which records the hours when a vehicle is driven, the distance covered and the speed. The hours are recorded onto a disc which must be retained by the driver for seven days, then given to the licence holder. It is a serious offence to exceed the maximum permitted number of driving hours or to fall to take the legal rest periods.

Although vehicles with not more than 16 passenger seats do not normally require a tachograph when operating in the United Kingdom, we strongly recommend that drivers observe the rest periods and maximum hours which a professional driver is obliged to take.

If you are planning to use a vehicle with 9 or more passengers seats outside the United Kingdom, even just a trip across to Calais or Ireland, you will need to comply with European regulations and use a tachograph.



Generally speaking, any vehicle over 3,500kg gross needs to be fitted with a tachograph. There are exceptions for:

- buses used on regular passenger services not exceeding 50km in length;
- vehicles being used by the armed forces or the police;
- vehicles operating exclusively on islands not exceeding 2,300sq km, and not linked by a bridge or tunnel to the mainland; and
- webicles used by public authorities to provide public services which are not in competition with other operators. This last category includes a health authority in England and Wales, or a health board in Scotland, and a local authority to fulfil social services functions, such as the transport of elderly and special needs person.

The regulations on driving hours are set out in European Community Regulation 3820/85 and in British domestic legislation in the Transport Act 1968, as subsequently amended. The laws are not restricted to commercial operations. Private and voluntary users of buses and coaches must comply with the regulations.

## **EC** regulations

The subject is complicated, but basically, EC regulation 3820/85 applies to movements of vehicles with 9 or more passenger seats when used internationally, whether commercially or not. They also apply to vehicles with 17 or more passenger seats when used entirely within the United Kingdom on services where the route length exceeds 50km, on private hire, tours and excursions, and for permit buses.

#### **British regulations**

Vehicles which have to comply with domestic British rules, under the Transport Act 1968, are those which are built to carry not more than 16 passengers, irrespective of the work they are doing, when used solely within the United Kingdom, and vehicles of any size when used on regular services not exceeding 50km in length. This latter definition includes special regular services provided for the exclusive use of school children, workers or the armed forces, provided they do not exceed 50km in length.

British domestic rules also apply to vehicles which are used by public authorities to provide public services, mainly in the social and welfare sector, which are not in competition with professional bus and coach operators.

# Hours of driving

As a general rule, hours of driving start from the moment a tachograph is switched on. They include any positioning mileage, for example from a garage to the point of collection of the passengers, or any empty mileage between the end of one hire and the commencement of another.

Both the EC and British rules define the working week, the working day, breaks and rest periods, and the maximum permitted number of hours of driving, Generally speaking, the maximum permitted driving time must be no more than ten hours in a working day, and rest periods must be taken during that time.

There are some exemptions for part-time drivers who do not drive for more than four hours per day in any week. Drivers are permitted to exceed maximum hours only in circumstances of genuine emergency, which must be fully recorded on their driving records. To be implemented in March 2005, The Road Transport (Working Time) Directive will introduce new limits on the amount of time people in the industry can work. The major elements are an average working week of 48 hours to be calculated over a 4-6 months reference period.

Night workers will be limited to 10 hours work during any 24 hours period, although this can be extended subject to a collective or workplace agreement. Night time is defined as 01.00 -05.00 hours and any daytime worker who "goes as much as one minute into the "night time" period will be deemed to be a night worker for the purpose of the 24 hour period".

Part of the directive is a proposal to make workers who are occasionally subject to the directive covered by it. This would restrict staff primarily engaged on other work, mechanics for example, to the rules of The Working Time Directive should they drive, even for a short period.

Where tachographs are used, the driver must complete the chart at the end of each working day. He must keep with him his charts for the previous seven working or rest days and must return the charts to his employer within twenty one days. The employer is under an obligation to check that drivers are complying with the regulations on hours of work. Employers must keep discs and other working records in good condition, available for inspection, for twelve months. Both drivers and employers can be fined heavily for any breach.

The regulations permit double-manning, where two drivers can operate a longer working day. The vehicle must be fitted with a two-man tachograph, and each driver must be responsible for his own charts.



If a tachograph fails, the driver must record his hours of work manually on the chart or a piece of paper and must arrange to have the tachograph repaired as soon as he returns to his depot. Tachographs can only be repaired, re-calibrated and sealed at approved centres. The current generation of tachographs, which use a paper disc, are likely to be progressively replaced by digital tachographs. Each driver will have his own personal card, like a credit card, which will be inserted in the tachograph whenever he is driving.

# Working time directive

Tachographs

## DDA and DPTAC

You will probably hear reference to DDA and DPTAC when considering the purchase of a new small bus.

The Disability Discrimination Act 1995 was a wide-ranging Act giving much greater recognition to the requirements of disabled people. This was not just those confined to wheelchairs, but any other person of limited mobility or visibility, or even people like mothers with baby buggies. Under the Act, Government Ministers were given powers to introduce legislation to assist disabled people including access to buildines and oublic transport.

Manufacturers of larger urban buses successfully introduced a range of vehicles at competitive prices from 1996 to 1999. Many of these incorporated internal dimensions and features which had originally been recommended by the Disabled Persons Transport Advisory Committee, a statutory body established under the Transport Act 1985. Their work concentrated on accessibility to buses for people with disability, also the design of interior layouts, grab handles, bell pushes and other equipment, so that they could be used more easily by people with limited mobility and poor yessight.

The DPTAC recommendations were probably not intended to have the force of law, but that soon came to have that effect. Tendering authorities frequently said that they were only prepared to award contracts to operators whose vehicles compiled with the DPTAC requirements.

In time, the DPTAC recommendations became embodied in the provisions of the Disability Discrimination Act relevant to buses and coaches. Recommendations for small buses, from 9 to 22 passenger capacity, were published in 2002. There is likely to be a period of consultation with operators and manufacturers before final standards are published.

# Do you need to know about construction legislation?

Before a new PSV can enter service, it must be Type Approved or have a Certificate of Initial Fitness, issued by the Vehicle Inspectorate, a branch of the Department of Transport. The Type Approval and certification procedures are used to confirm that the vehicle complies with Construction and Use Regulations and other relevant legislation.

Under Sections 54 - 62 of the Road Traffic Act, Regulations have been made prescribing "type approval requirements" for the design, construction, equipment and marking of all goods and passenger vehicle chassis and of the determination of weights that must not be exceeded.

Manufacturers apply to the Ministry of Transport for a "type approval certificate" which may be granted after the vehicle has been inspected and it has been determined that:

- (i) the vehicle complies with the relevant type approval requirements and
- (ii) all other similar vehicles manufactured will also comply.

Manufacturers may issue a "manufacturers certificate" for each vehicle produced which must contain specified particulars and design weights together with any plated weights which must also be shown on the vehicle by means of a plate fixed to it.

Section 63 of the Road Traffic Act states that it is an offence to use or cause to be used on the roads, any vehicle which is required to have a certificate, without such a certificate or when the vehicle does not comply with all aspects of the type approval requirements.

Within the concept of the European Community, once one member state has approved a particular specification, that specification is deemed to be acceptable to all other members of the EC.

The next major change to the system is likely to take effect in 2007 when the EC accepts the principle of Whole Vehicle Type Approval. This will incorporate separately manufactured bodywork into the Type Approval Process.

At present, Type Approval only applies to certain aspects of the construction of the motor vehicle chassis. These approved aspects include power units, brakes, noise emissions and exhaust emissions.

The new system, known as "multi stage type approval" will be implemented, on a compulsory basis, from I January 2007 but in successive stages.

## Type approval

New types of Category NZ/M2 and N3/M3 passenger and commercial vehicles built in one stage i.e. where the same manufacturer builds both the chassis and the bodywork, as in the case with passenger cars and some light passenger vehicles, will have to meet the new requirements obligatorily from I January 2008 and existing types from I January 2010.

New types of Category N2/M2 and N3/M3 passenger and commercial vehicles built in two or more stages will have to meet the new requirements optionally for 12 months after the introduction of the Directive and obligatorily for existing types from 1 lanuary 2012.

Under this system, the chassis manufacturer would continue to be responsible for the type approval of the power unit, wheels, suspension, brakes etc., whilst a second manufacturer, normally a body-builder, would assemble the bodywork and superstructure on the chassis and submit the completed vehicle for a final type approval.

This will place greater system and quality pressures on the smaller, local bodybuilder and may well restrict the choice of the final customer. It may also influence the selection of body-builders with whom chassis manufacturers wish to liaise.

A simpler, schedule X, procedure is available for minibuses seating not more than 16 passengers. It is the responsibility of manufacturers to ensure that a vehicle complies with the regulations and can be certified before delivery to the customer.

However, there are cases where, after delivery from the manufacturer, a panel van can be converted by a third party for passenger vehicle operation. In that case, the converter is responsible for certification.

A Certificate of Initial Fitness is issued for an initial period of one year. Thereafter, the vehicle must be submitted for an annual test of its roadworthiness and general suitability to carry passengers. If at any time an owner makes any significant conversion to the vehicle, such as the installation of additional seats, the conversion must be notified to the Vehicle Inspectorate, who may want to re-certify the vehicle.

Minibuses seating up to 16 passengers, and not intended for public service, are exempted from some of the requirements of the Construction and Use Regulations and will not be issued with a Certificate of Initial Fitness. The same applies to larger buses and coaches for non-psv work, typically with education authorities. However, if at a later date, any of these vehicles are required for PSV operation, they will need to be brought up to PSV standards and certified.

The law which governs the construction of buses and coaches comes principally from three sources:

# Domestic regulations

Construction and Use regulations are made by the United Kingdom Government and apply to all kinds of road-going vehicles. These were last consolidated in The Road Vehicles (Construction and Use) Regulations, 1986, which have subsequently been updated by over 60 amendments. By no means all of them refer to buses and coaches.

The Public Service Vehicles (Conditions of Fitness, Equipment, Use and Certification) Regulations 1981 lay down a number of further regulations which are specific to public service vehicles.

The European Community is having a steadily increasing influence on domestic legislation. One of the objectives of the Commission is to harmonise legislation throughout the Member States, so that manufacturers are working on a level playing field. This is eliminating the old practice where each country had the right to check new vehicles against domestic legislation.

European legislation is concerned principally with safety and the environment. The EC has therefore introduced standardised legislation on subjects like braking and lighting, and has also introduced successive rounds of legislation to reduce noise and emissions from vehicles of all shapes and sizes.

Once legislation has been approved by the Commission, it has to be adopted by the Member States and will replace previous domestic regulations. European Community legislation is denoted by the letters EC, often followed by the last two numbers of the year of enacting, and then by further numbers specific to that leeislation, e.e. EC88/77 made in 1988.

The United Nations Economic Commission for Europe, based in Geneva, has done much to introduce standardised legislation across a wide range of automotive features. Many of them have been incorporated into the legislation of the European Community and the Member States. It is confusing, but legislation from this source is denoted by the letters ECE, followed by R for Regulation, then specific numbers, for example, ECE.R66 which sets the standard for passenger survivability in event of a large coach rolling over.

By August 1996, the European Commission had circulated a succession of drafts, popularly known as the "Bus Directive", which seeks to harmonise the construction of buses and coaches, with 9 or more passenger seats, throughout the European Community.

The proposal is currently only in draft form and may well be subject to further modification before it becomes law. It will then need to be adopted by the Member States.

The following points of principle are unlikely to be changed before the Directive becomes law:

- It will apply to all buses and coaches with 9 or more passenger seats, regardless of their use. This means that construction will be harmonised throughout the Member States, but the individual States will be given powers to regulate the use of buses and coaches, provided those powers do not create any restraint on trade.
- There is a greater urge to harmonise the construction of vehicles which can cross international boundaries, especially coaches, in order to ensure free and fair competition.
- There will probably be willingness to accept derogations for vehicles which are required by certain Member States specifically for domestic use. A derogation is the system used to permit limited variations from standardised European Community legislation.
- The legislation will not be applied retrospectively to vehicles which are registered before it takes effect.

Manufacturers are already taking note of the Bus Directive, by incorporating the proposed dimensions in new models.

#### **EC** regulations

United Nations ECE regulations

**Bus directive** 

# What arrangements are you making for maintenance?

Whatever their size, all buses and coaches require regular servicing and maintenance to ensure safe and reliable performance.

This can be provided by all Irisbus dealers. As Irisbus products are a franchise held by Iveco, look out for the Iveco pole sign. You will find one locally.

- IRISBUS DEALERS are appointed to provide operators with the help and attention they need and to make sure that any necessary service work is completed with the minimum time off the road.
- IRISBUS DEALERS have fully equipped service facilities with extended opening hours so that operators can fit their service requirements into a normal operating schedule, without undue fuss or bother.
- IRISBUS DEALERS also have fully trained technicians who know how to
  provide the highest quality of service care. Their skills and knowledge are
  essential because new advanced electronic systems and components demand
  expert and diagnostic skills.
- IRISBUS DEALERS have access to Iveco's industry leading MODUS and MODUS PLUS workshop diagnostic equipment. This enables trained technicians, where necessary, to locate potential problems quickly and accurately, and to identify and apply the appropriate remedial action.
- IRISBUS DEALERS can also access and supply genuine 'original equipment' replacement parts, when they are required. This ensures that top quality parts are used to provide the long term in-service working life and to maintain quality and reliability.



# Best for Local Transport

A minibus range suitable for all Local Community needs

















Within four short years Irisbus has become one of the major manufacturers of Buses and Coaches in the world. A wealth of experience, inherited over years of specialising in passenger vehicles, has given Irisbus a pedigree to be envied.

Every year, Irisbus in the UK has increased its choice of vehicles, and now offers one of the most comprehensive ranges available in the UK today.

Why not visit our Web Site, www.irisbus.co.uk and find out more.

TRANSPORT.



## The Irisbus Operators Guide



#### The Irisbus Support Services

Irisbus acknowledges the arduous nature of the bus market and the demands made upon the products and services offered.

In recognition of this, Irisbus have in place a dedicated, focused Division whose sole objective is to provide all necessary support to the operators of these Bus products

The MiniBus range that Irisbus offer has a team of qualified Field Service Engineers whose role is to minimise the down time of Irisbus products and hence maximise passenger numbers and revenue. This expertise is being progressively extended to key distributors to ensure that parts and service support is even closer to hand

The MiniBus range that trisbus ofter has at its disposal, a massive stock of chassis and bodywork parts at the central warehouse in Winsford but can also call upon the wider stock held at any of livecos warehouses throughout Europe for delivery to any UK distributor within 24 hours.

Distributor orders placed with Winsford by 9 pm will be delivered the next working day.



#### Irisbus (UK) Limited

Iveco House, Station Road, Watford, Herts WD17 1SR

Tel: 01923 259660 Fax: 01923 259623

Web: http://www.irisbus.co.uk

It is the Company's policy to improve vehicles in every way and so whils details set out in this brochure wencorrect at the time of going to press, we are unable to guarantee that changes to specifications have not subsequently taken place. We reserve the right to alled the specification at any time without posterior of the provider of the specification at any time without