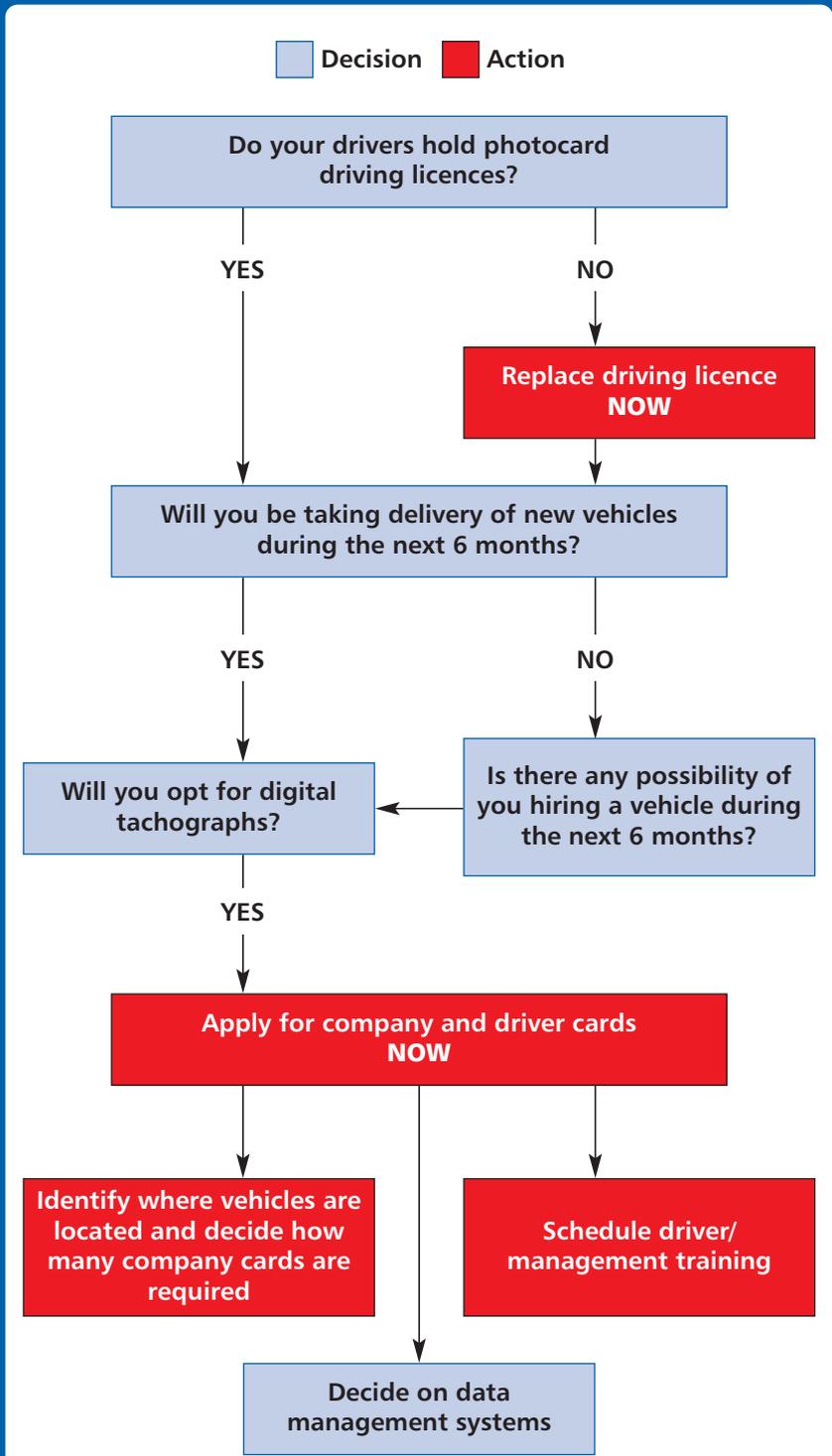




# DIGITAL TACHOGRAPHS

The FTA compliance guide

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## The history

### Why change?

Because of long standing concerns within the EU in relation to issues such as fraud, road safety and competition, revision of the current tachograph legislation has been the subject of general discussion for over 17 years and detailed negotiation for the past eight. New EU legislation was originally tabled in 1998 and this triggered the timetable for introduction of the digital tachograph that was to be installed in new vehicles manufactured from 5 August 2004. Concerns regarding the technical specification and levels of enforcement caused progress on developing the new equipment to be delayed. Tachograph manufacturers advised the European Commission as far back as the beginning of February 2003 that they would not be able to produce satisfactory working models in time for the type approval process that was required by August 2003.

### FTA action

Mindful of the significant advances taking place in the field of vehicle telematics and conscious of the implementation issues referred to above, FTA took the view that it was time for the EU Commission to adopt a more integrated and forward thinking strategy on information technology systems in goods vehicles. FTA wanted to see a single black box for all in-cab telematics functions, allowing for the integration of the tachograph function with road user charging technology and many other commercial applications. FTA invited all of the stakeholders to an event in Brussels in May 2003 to promote this concept and called for the specification for the digital tachograph to be replaced with up to date technology. The event was well attended by interested parties including the Commission, members of the European Parliament, telematics manufacturers and industry representatives. There was general agreement that the technology prescribed by the regulation could be vastly improved without greatly adding to the now obvious delay. However the Commission point blankly refused to re-visit the specification or to change the introduction date that clearly could not be met.

## Implementation date

Despite the fact that the whole legislative timetable had slipped and that the 5 August 2004 implementation date could not be met, the Commission refused to clarify the legal position for vehicle operators beyond that date.

### FTA action

FTA had convinced the UK Government that due to the fact that digital tachographs had not yet been produced it would be impossible to enforce the legal requirement from the specified date. From an EU perspective the uncertainty industry faced could not be tolerated. Therefore on 1 March 2004 FTA instructed its solicitors to write to the Commission warning that we would hold it liable for any wasted costs, expenditure or damage incurred by the industry as a result of the Commission's failure to meet its obligation to produce a timetable for the introduction of digital tachographs.

As a result the Commission wrote to all member states on 21 April 2004 postponing the requirement for fitment and use of digital tachographs in new vehicles for 12 months. However this moratorium did not change the implementation date in the legislation that remained at 5 August 2004. It was decided that a new date for fitment and use of digital tachographs in new vehicles from 5 August 2005 should be inserted into the proposed amendments to the drivers' hours regulations. These regulations have also been subject to delay and will not be in place by 5 August 2005.

### Latest position

The root cause of the problem had been uncertainty surrounding the approval, testing and availability of digital tachograph equipment. Since the equipment received type approval, tachograph manufacturers have been working with vehicle manufacturers on compatibility testing. However, as predicted by FTA back in 2003, digital tachographs have not been made available in sufficient time for industry to prepare and train drivers by August 2005.

### FTA action

FTA's rigorous lobby effort succeeded in convincing the European Parliament that the earliest realistic date for 'mandatory' fitment and use of digital tachographs would be 5 August 2006. The Parliament amendments to the drivers' hours proposal currently include two dates for fitting digital tachographs these are vehicles first manufactured from 5 August 2006 and vehicles first put into service from 5 August 2007.

FTA also pressed UK Transport Ministers to take unilateral action to clarify the position for operators in the UK. On 24 March 2005 the Minister issued a statement that recognised the considerable difficulties that had been created for the transport industry and gave a commitment to facilitate the use of digital tachographs on a voluntary basis in the UK from August 2005 onwards. Importantly the statement confirmed that the UK Government would not enforce the mandatory fitting of digital tachographs until it is clear that any such requirement can be met. The Minister undertook to work closely with stakeholders to ensure a smooth, pragmatic and cost effective transition to digital tachographs. This position has since been adopted by the German Government.

Since a new date cannot now be introduced by the time the moratorium expires on 5 August 2005, the Commission, that to date has steadfastly refused to accept the reality of the situation has, at a meeting of the EU Council of Ministers in late June 2005, advised ministers that it will not penalise/start infringement proceedings against those member states who were not yet in a position to comply with the 5 August 2005 date and would allow a further 'transitional period' until the end of the year, during which new vehicles fitted with analogue tachographs could still be registered in the EU. While this statement is helpful it does not fully clarify the enforcement position of other member states.

It must, however, be remembered that it is for the Council of Ministers and the European Parliament to debate and agree a date for mandatory fitment of digital tachographs in new vehicles during the drivers' hours conciliation process.

## Fitment and use of digital tachographs

As previously mentioned UK transport ministers committed to having systems in place to support 'voluntary' fitment and use of digital tachographs in the UK by August 2005. In mid-June FTA surveyed all of the players involved in delivering and facilitating the use of digital tachographs and the following timetable reflects the information that was provided. FTA will provide updated information on line as it becomes available.

### Timetable

Enabling regulations that allow for enforcement of digital tachographs in GB were laid before Parliament on 13 July and will come into force on 5 August 2005. The Northern Ireland timetable is running slightly later than GB and the target date for introducing similar enabling regulations is October and for driver and company cards in September.

### Driver cards

DVLA has been in a position to supply company and driver cards since mid-June 2005. Application forms are available by contacting DVLA Customer Services or local VRO offices. In Northern Ireland packs will be available from DVLNI HQ, local offices and DVTA test centres. However, as stated previously, these are not yet available. Details on how to apply for cards together with card fees can be found on pages 6 and 7.

### Authorisation of workshops (and fitters)

VOSA (DVTA in NI) is responsible for authorising calibration centres and is working with the tachograph manufacturers on testing workshop equipment and checking qualification of technicians. Training of technicians is underway and it is anticipated that sufficient numbers will be qualified to provide coverage over a wide geographical spread by August 2005 (slightly later in NI). Workshops cannot be authorised until tachograph manufacturers have provided VOSA with a fully functioning system to complete testing of equipment. However, VOSA anticipates completion of these tests by August.

### Tachograph availability

Two of the three tachograph manufacturers have advised FTA that digital tachographs will be available to vehicle manufacturers from July 2005.

### Fitment in new vehicles

Vehicle manufacturers have advised FTA that they will offer a choice of analogue or digital tachographs until a mandatory fitment date is effected by legislation. Information received indicates that they should be in a position to start fitting the new equipment to their production lines from dates ranging between July and October 2005 depending on the individual manufacturer. Your dealership should be in a position to advise on which type of tachograph will be available for delivery dates of new vehicles.

NB – By the end of 2005 some manufacturers may fit digital tachographs as standard unless specified otherwise, therefore it is important to clarify which type of tachograph you want installed.

**While voluntary fitment and use of digital tachographs will be permitted in the UK from August 2005, it should be noted that the fitment and use of analogue tachographs in new vehicles will continue to be a legal option until, as stated by the Minister, it is clear that a requirement for mandatory fitment of digital tachographs can be met.**

### Retrofitting

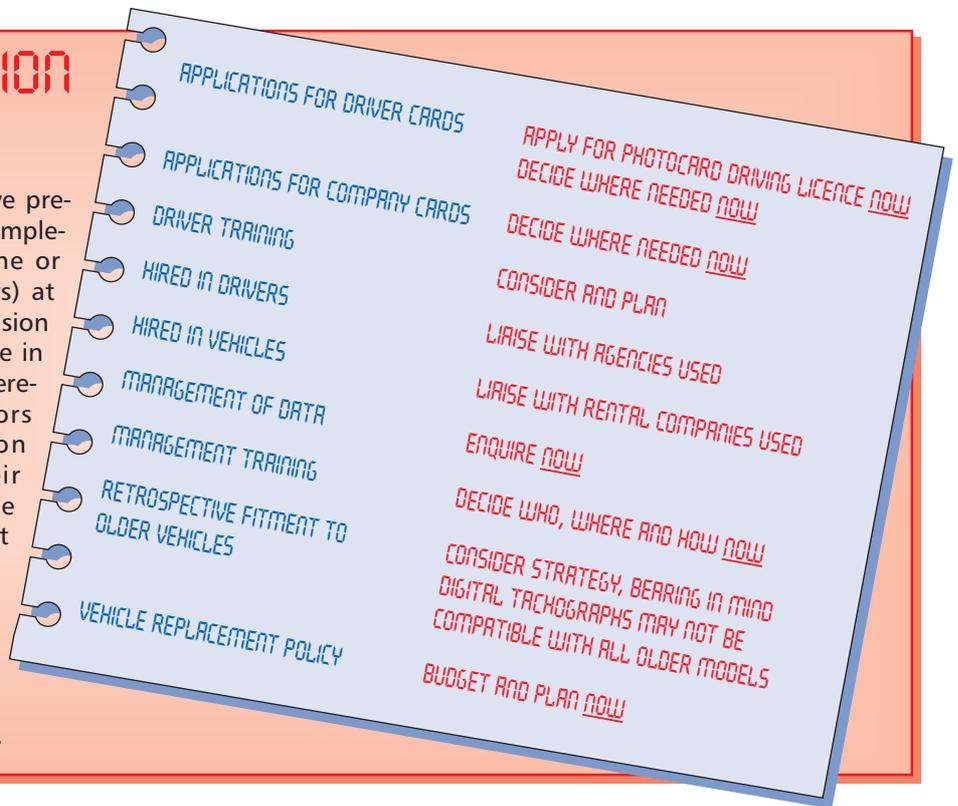
There is no general retrofit requirement in EU legislation. However a new digital tachograph will need to be fitted if the whole tachograph system needs to be replaced in passenger carrying vehicles (with more than nine seats including the driver and with a maximum weight exceeding 10 tonnes) and large goods vehicles (exceeding 12 tonnes) first registered as from 1 January 1996. It is important to note that the whole system would need to fail before retrofit was required. This means that minor replacement or technical problems with individual components will not automatically require complete replacement of an analogue tachograph with a digital one.



## OPERATOR ACTION PLAN

Despite the problems that have previously existed regarding the implementation timetable (and one or two as yet unresolved matters) at least we now know that provision for voluntary fitment should be in place by August 2005. It is therefore important that operators give thought to their action plans now so they and their drivers know how to use the new equipment when it appears.

These plans will depend very much on individual circumstances but as a minimum, most will need to take account of the points opposite.



### APPLICATIONS FOR DRIVER CARDS

As referred to earlier, the preparation of driver cards is on schedule and they are available from DVLA on request. The first card was issued to a member of FTA staff on 8 July within seven days of submitting the application form. Notwithstanding that operators may not be planning to order new vehicles, they would be well advised to at least consider the availability of drivers with driver cards. Hired vehicles may well arrive already fitted with a digital tachograph and these vehicles would not be able to be legally driven by a driver without a driver card.

Will operators have the right drivers at the right depots to deal with the newly equipped vehicles when they eventually do arrive? Operators may choose to locate all new vehicles at one or more depots and plan their driver card application programme accordingly, but whatever they decide, their plans will need to be flexible enough to cope with the 'hired in' driver and vehicle scenarios.

Arrangements will also have to cater for the inevitable 'lost driver card'. The regulations permit the driver to continue to drive without a driver card for a maximum period of 15 calendar days or for a longer period if this is necessary for the vehicle to return to its premises. This is "provided he can prove the impossibility of producing or using the card during this period". In such circumstances of damage, malfunction, loss or theft the driver must apply for a replacement within seven calendar days. There could be a temptation to consider a 'mislaidd' card to be 'lost'. Operators would be well advised not to inevitably set in train a detailed administrative procedure for a replacement when drivers report for work without a card. This could be difficult to keep track of, especially if and when 'missing' cards then reappear. However, they must be careful to ensure that a responsible approach to card security is adopted by drivers and be alert to the regular reporting of 'lost' cards by the same drivers. Importantly, drivers may only hold one valid driver card.

It would make the application process speedier if drivers were already in possession of a photocard licence, as DVLA would already have photographs and signatures on file, and there would be no need to send in identity documents. Operators could and should be doing what they can to assist drivers to at least get photocard licences.



### APPLICATIONS FOR COMPANY CARDS

Companies will need to obtain company cards - the electronic 'key' needed to access data from the digital tachograph - and thought needs to be given to how these will be managed and controlled. Certainly there will be no problem getting sufficient numbers for all depots but operators will need to consider the administrative procedures necessary to monitor and track them. These could prove to be very testing indeed especially if vehicles move from one depot to another. Each depot will need a card to enable the data to be downloaded.



### DRIVER TRAINING

One of the big issues is that of driver training. Whilst the temptation to train before the rush is understood, drivers will need to be able to remember the details when they are first faced with the new equipment. For many this could be years away. Train too soon and the benefit will be lost, arrange training too late and there may be insufficient trainers and/or slots available in good time for your needs.

In any event, there is only so much that can be done before units become available as drivers will want to familiarise themselves with the practical aspects, eg menu scrolling, insertion and removal of print rolls etc.



### HIRED IN DRIVERS

Remember that in addition to vehicles that are hired in to deal with short-term contingencies, so also are drivers. It might therefore be useful for operators to liaise with their regular driver agency to ensure that the drivers brought in will be in possession of driver cards and know how to use them if this is necessary to match them with newly equipped vehicles.



### HIRED IN VEHICLES

Alternatively, operators may feel that they want to try to control this situation by establishing procedures with their vehicle hirers to ensure that vehicles are matched with drivers at stipulated depots until such time as the driver card application programme is completed.



### MANAGEMENT OF DATA

Another important matter to be considered is how operators will manage the data during what will almost certainly be a lengthy changeover period from analogue to digital tachographs, with data in different formats, coming from different directions.

Although the detailed requirements have yet to be announced, it is clear that there will be a legal requirement to download data. In the meantime the current requirement of the O licence that operators must be able to demonstrate compliance with drivers' hours rules implies that the data must be downloaded. For many, the office pc will be the most convenient means but appropriate software will be required. There will also be other options such as electronic readers and even satellite links.

Once again, the non-availability of units at the present time is not helpful but enquiries can be made of existing software providers as to what systems are likely to be available.



### MANAGEMENT TRAINING

Companies will also need to ensure their managers are up to speed regarding the changes and developments since drivers will need support and guidance in the early stages of the transition. In fact, it will almost certainly be the managers who will be formulating and monitoring the action plan itself.



### VEHICLE REPLACEMENT POLICY

Companies also need to look at their vehicle replacement policies and assess when and where the new vehicles will appear and how best to match that arrival with correctly trained and driver card equipped drivers, at least in the early stages.



### RETROSPECTIVE FITMENT TO OLDER VEHICLES

Whatever plans are made regarding the location of vehicles and/or driver card equipped drivers to forestall administrative problems, it must be remembered that if the existing tachograph has to be replaced it must be with a digital tachograph (see Retrofitting, page 3). Where voluntary retrofitting is being considered it should be noted that the new digital units may not be compatible with all older models therefore advice should be sought before finalising plans.

## Digital tachograph cards

There are four types of smart cards in the total system. Drivers will be responsible for completing and signing the application for their individual card. Fleet operators will need to apply for a separate company card to access data in the tachograph memory and to lock data in and out. Calibration centres will have a different type of card, a workshop card, to allow for calibration and data transfer to and from the tachograph. Finally, enforcement authorities will have a control card that will allow them to access the data and produce specific reports.

### Driver card



The driver cards, issued on request by DVLA (DVLNI for Northern Ireland), will identify the driver by way of photograph, home address and signature. In addition, full name, date and place of birth and driving licence number will be shown. This identifying data will also be stored in the driver card memory itself. The driver card will allow for the storage of driver activity data. The card will store approximately 28 days' information on a rolling basis and the information includes:

- vehicles used data such as date and time of first and last use, including vehicle odometer readings at that time and vehicle registration numbers
- driver activity data as per the vehicle unit
- entry of start and finish places
- faults and events data, eg card fault
- card session data such as the date and time that the card was inserted into the vehicle unit

#### TOP TIP

The driver card will store approximately 28 days' information on a rolling basis

The digital tachograph is designed so that the driver card will be locked in position when it is correctly inserted into the card reader and the relevant driver card data is automatically stored in the data memory of the vehicle unit. It will only be possible to release the driver card from the vehicle unit when the vehicle is stationary and after the relevant data has been stored on the driver card.

Cards will be valid for no more than five years. If the driver card is damaged, malfunctions or is lost or stolen, then the driver must print out, at the end of his journey, the information relating to the periods of time recorded by the tachograph and mark the record with details sufficient to enable him to be identified, eg the driver card number and/or name and/or driving licence number. Finally, the driver must sign the printout.

#### TOP TIP

Cards will be valid for no more than five years

#### TOP TIP

If the driver card is damaged, malfunctions or is lost or stolen, then the driver must print out, at the end of his journey

Lost, stolen or malfunctioning cards should be reported in a formal declaration to DVLA within seven calendar days using form D777B for driver cards (form D779B for company cards). The provisions of the covering EU regulation make it clear that "the authority shall supply a replacement card within five working days of receiving a detailed request to that effect".

#### TOP TIP

Lost, stolen or malfunctioning cards should be reported in a formal declaration to DVLA within seven calendar days using form D777B for driver cards (form D779B for company cards)

However, drivers may continue to drive without a driver card for a maximum period of 15 days or for a longer period if this is necessary for the vehicle to return to its premises. During this period, as mentioned above, drivers must print out information relating to the periods of time recorded by the recording equipment.

### Workshop card



A workshop card, valid for one year, will be issued to a recording equipment manufacturer, a fitter, a vehicle manufacturer or workshop approved by the member state.

The workshop card identifies the cardholder and allows for the testing, calibration and/or downloading of the recording equipment. Each workshop card will be allocated a unique PIN and, being the most powerful card, this number should be kept secure at all times. At no time should a workshop card be removed from the approved premises.

### Company card



The company card, issued to the owner or holder of vehicles fitted with recording equipment, identifies the company and allows for display, downloading and printing

of the data stored in the vehicle unit which has been locked in by this company. A company will want to be able to lock data in and out so that when the vehicle is sold or moved on, the new owner or user would not be able to read the data. The company card is valid for a maximum of five years. A renewal reminder should be received three months prior to expiry, however it is not advisable to rely solely on this reminder and renewal dates should be built in to company forward planning procedures. A company may hold additional cards to a maximum of 2,232 cards per company. However, for security purposes it is important to keep control of company cards to ensure you know who is using them and where they are kept.

### Control card



This is the card that will be issued to the police and VOSA. It identifies both the control (enforcement) body and the control officer and allows for access to

the data stored in the data memory or in the driver cards. This can be used for reading, printing and/or downloading. The card will be able to store control activity data such as date and time of control, type of control (displaying and/or printing and/or vehicle unit downloading and/or card downloading).

## Card fees

Transaction	Driver card	Company card	Workshop card	Control card
Card application	£38	£38	Free	Free
Renewal	£19	£19	Free	Free
Replacement - lost/stolen	£19	£19	Free	Free
Exchange - change of details	Free	£38	Free	Free
Malfunction	Free	Free	Free	Free

### First card application

A fee of £38 in respect of driver and company card applications will apply including any additional company cards. The fee covers the cost of setting up the record and contributes to the maintenance of that record.

### Renewals

Driver and company cards will be renewed every five years. Whilst further costs will be incurred in producing renewal cards; given that records will previously have been created these costs will be lower than producing initial cards, therefore a reduced fee of £19 will be payable for subsequent card renewals.

### Replacements if lost or stolen

There will be a fee of £19 for replacement cards. DVLA's view is that if no fee is attached to the card there is a risk that there might be more applications for cards than actually needed, thus presenting a very real security risk to the system.

### Exchanges

Drivers will be issued with a free card on notification of a change of personal details. This is necessary to ensure that drivers' personal details remain accurate and up-to-date on the database and on the driver's card.

There will be a fee of £38 to update any company card with new details. Company card exchanges will be issued following receipt of notification of change of business details, eg company name and/or address.

### Other transactions and card types

All other transaction types and all workshop and control (enforcement) cards will be issued free of charge.

## Applying for a digital tachograph card

Full details of the application procedures are given in DVLA leaflet INF177B (DVLNI leaflet INF177NI), which applies to driver cards (no leaflet exists for company cards). It is worthwhile taking the time to read this leaflet as failure to complete or even sign the form accurately will result in the application being rejected. For instance, signatures must be contained within the specified area to allow it to be scanned onto the card. Fee details are covered in DVLA leaflet INS165B and the rele-

vant application forms are D777B (D777NI in Northern Ireland) and D779B (D779NI in Northern Ireland) for driver cards and company cards respectively.

Applications for driver cards will ask whether a photocard driving licence is held or whether one is also being applied for and will then go on to request full applicant details, including name, date of birth, current address and reason for application. If a photocard licence is not held the driver will be required to provide proof of identity, which must be in the form of an original document. If identity documents other than an up-to-date UK passport/travel document or EC/EEA passport are provided they must be accompanied by a photograph signed by a 'suitable person', details of whom are given on page 8 of the previously mentioned INF177B. The final section includes a declaration and signature as well as details of penalties.

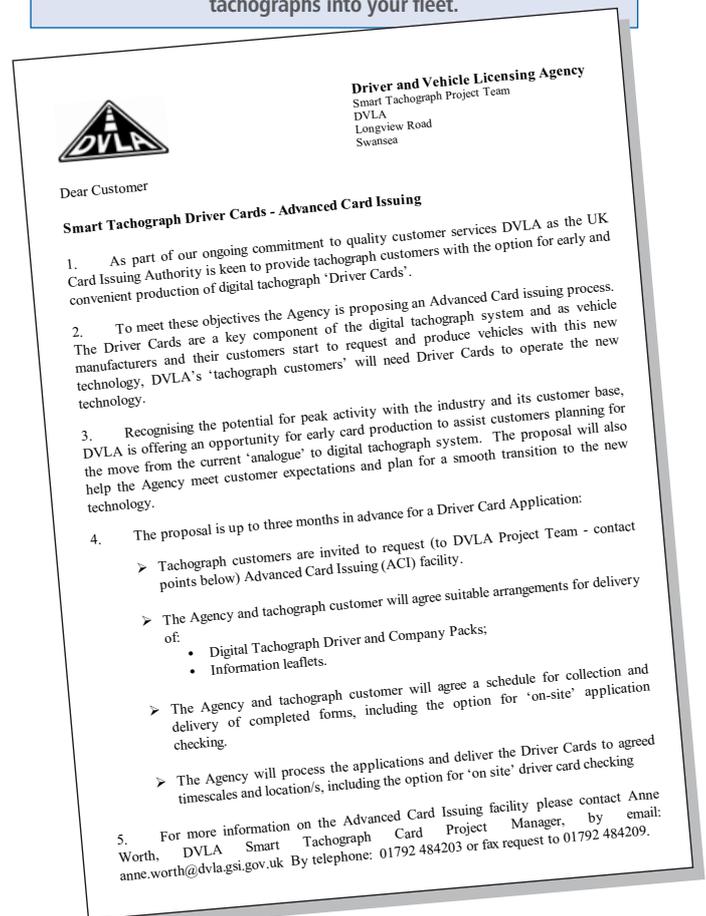
Application forms and leaflets are available on request and can be obtained by phoning DVLA Customer Services on 0870 8501074.

#### TOP TIP

While cards should arrive within 15 working days of the date DVLA receive the application it is possible to apply for a card up to a maximum of 90 days before you wish it to take effect. To ensure all cards are in place when required it is advisable to build the application process into your forward planning programmes bearing in mind that renewal will be required every five years. For companies with larger fleets DVLA is offering to make site visits for checking applications and arrange for delivery of cards to a specific location – see their letter below

#### TOP TIP

It is advisable to ensure at the earliest opportunity that all drivers hold a photocard driving licence, as this makes the application process easier when you decide to introduce digital tachographs into your fleet.



## Drivers' responsibilities

### Drivers will need to

- understand UTC (Universal Time Coordinated)
- be capable of operating both analogue and digital tachographs
- be able to understand the vehicle unit functionality
- be able to understand and use the various pictograms and menu scrolling
- manually enter data - key operation if using VU for recording working time data
- be able to operate the printer and evaluate its output
- understand their driver card responsibilities

Along with the employer they must ensure the printing requests can be carried out correctly. This means spare print rolls would need to be carried at all times.

### Time setting

Drivers will need to understand Universal Time Coordinated as highlighted above. While the clock face can be set at local time (eg GMT) the unit's integral clock will automatically record on UTC. This means that in the UK if a driver is inputting manual entries, for six months of the year, he will need to enter a time that is one hour ahead of the time displayed on the clock face. This could also create confusion when analysing information extracted from both analogue and digital tachographs. If further advice is required contact FTA's Member Advice Centre on 0870 60 50 000.

## Centre field data

The information that we now refer to as 'centre field' data on tachograph charts will be collected electronically. For example the driver's name will be read directly from the driver's smart card - both start and finish locations will be entered by scrolling to UK, the date and time will come from the integral clock and the vehicle identity and odometer readings from the passive memory. Given that 'centre field' errors account for a significant percentage of tachograph infringements, this should be useful for drivers.

### Start and finish location

As indicated above, with the digital tachograph the start and finish locations will be country only (eg UK). This may prove to be problematic for operators used to seeing specific locations. The technical specification does actually provide for up to 20 regions within a country but this would be insufficient for the UK.

### Pictograms

There are 38 single pictograms (the diagram on the next page shows just a sample) but in addition there are 46 pictogram combinations. Given that only a limited number will be in regular use, it is not likely to be as daunting as it might appear at first glance.

### Specific conditions

The vehicle unit will allow the driver to enter, in real time, any 'out of scope' driving at the beginning and end, as well as details of ferry/train crossings.

## Centre field data– electronic



DRIVERS  
NAME FROM  
SMART CARD



Shows the screen that the driver uses to select the begin place of his day's work



Displays UTC date and time

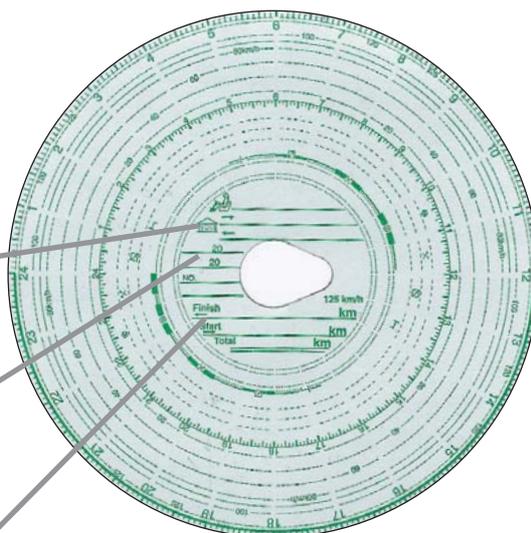


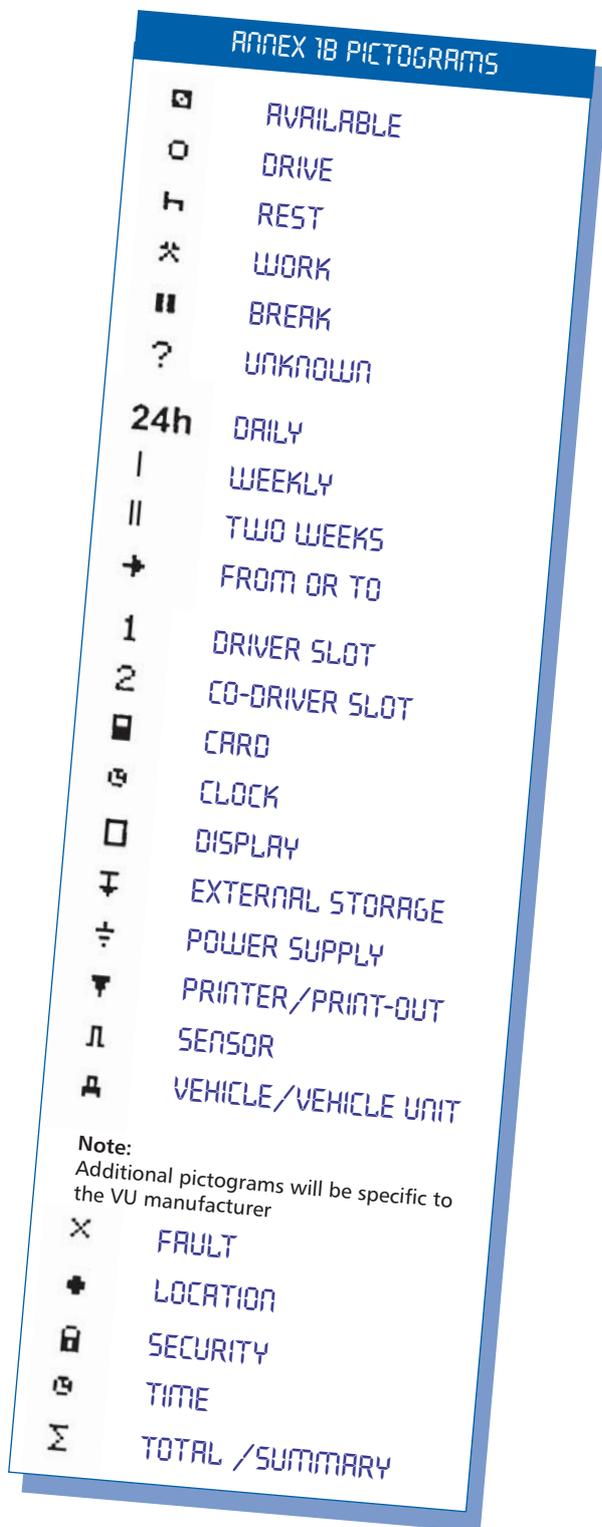
Shows the kms travelled that day and the average speed km per hour, as well as time

START AND FINISH  
LOCATIONS SELECTED  
BY SCROLLING

DATE AND TIME  
FROM INTEGRAL  
CLOCK

VEHICLE ID AND  
ODOMETER FROM  
PASSIVE MEMORY



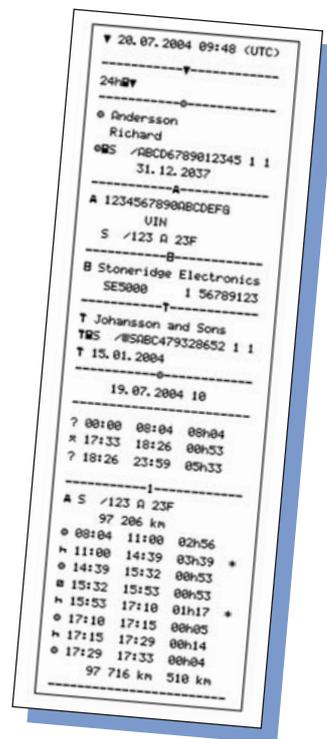


- total of the driving times for the current week and the preceding week and the total times for the two completed preceding weeks
- the other periods of work and availability
- rest periods of at least eight hours' duration for the day and the preceding 27 days in each case with date, time and duration
- registration numbers of current vehicle and other vehicles driven for at least the last 28 calendar days with the distance travelled per vehicle and day, time of first insertion and last removal of the driver card and the time of change of vehicle
- time adjustment with date, time and card issue number
- fault relating to sensors and power supply
- any driving without driver card during last 28 days
- details on the information stored concerning the driver
- recorded data on the places where the daily work period began and ended
- the automatically identified system faults of the recording equipment with date, time and driver card issue number
- the faults in the driver card with date and time and driver card issue number
- control card number with date of control card insertion and type of control (display, printing, downloading). In the case of downloading, period downloaded should be recorded
- exceeding the authorised speed as defined (90 kph for goods vehicles exceeding 12 tonnes), with date, time and driver card issue number for the current week and in any case including the last day of the previous week
- summary reports whereby compliance with regulations (EEC) No 3820/85 and (EEC) No 3821/85 and Directive 88/599/EEC can be checked

**Printout**

The printout will provide the following information:

- driver card issue number, expiry date of the card
- the surname and first name of the driver who is the cardholder
- current driving time since the last break or rest period
- driving time for the day after the last period of at least eight hours
- driving times for the day between two rest periods of at least eight hours for the preceding 27 calendar days on which the driver has driven, with date, time and duration



## Operators' responsibilities

### Operators will need to

- satisfy themselves that drivers are capable of operating both analogue and digital tachographs
- ensure that drivers are managing the driver card correctly, in particular that a card is always available
- give due consideration to correct vehicle usage. Whilst in the past it was important to match the right driver to the right vehicle in terms of driver licensing, the availability of a driver card for a vehicle equipped with a digital tachograph will now prove to be an equally important consideration
- make arrangements for when regulations are made for checking/analysis of downloading data. These arrangements will also need to take account of the management and analysis of printouts for lost cards and other paperwork which would be used in the event of a vehicle unit breakdown

Along with the driver they must ensure the printing requests can be carried out correctly. This means a spare print roll would need to be carried.

### Downloading

Operators will also need to make arrangements for record/data keeping. At the time of publication final details for downloading were not known. DfT intends to consult on frequency for downloading during late summer 2005. There is, however, an implicit requirement to download data in order to comply with the current O licence requirement to demonstrate compliance with drivers' hours regulations. Since driver cards are overwritten after 28 days it will be necessary to download within that timeframe. Until downloading regulations are published FTA current advice is that data from driver cards should be downloaded after a maximum of 21 days and from vehicle units after a maximum of three months. This advice will be updated as information becomes available.

### Availability of data

One year's data is held in the mass memory and approximately one month's data on the driver's smart card. Data is therefore all in one location and easily available. Where vehicles are regularly driven by the same driver, this will be fairly straightforward.

However, if multiple drivers drive the vehicles, administration will be more difficult since one year's data for each of the drivers is being held on what could potentially be a large number of vehicles. If operators want to examine data relating to a particular driver over say the previous three months, it could well be that during this period he had driven 30 to 40 vehicles. To examine continuous and contiguous tachograph data would be extremely difficult, as it would mean downloading data from each of these vehicles.

The enforcement authorities will face similar challenges. In order to evaluate continuous data they would first need to collect data from analogue tachographs using existing tachograph chart analysis equipment such as scanners. For digital tachographs they would either need to download data from the vehicle memory using a laptop/notebook pc or download the data from the driver's smart card using a card reader connected to a pc. This latter procedure would limit the amount of data for a particular driver over a longer period they would have the same difficulties as operators, outlined above.

### Speed

Detailed speed data will be stored in the vehicle unit memory for at least the last 24 hours that the vehicle has been moving (ie 24 hours worth of driving). However speed data will be stored where the maximum vehicle (not road) speed has been exceeded as follows:

- the most serious over speed incidence for each of the last 10 days where the vehicle limit was exceeded (not calendar days)
- the five most serious over speed incidences during the last 365 days
- the first over speed incidence that occurred after the last calibration

### Vehicle unit

The vehicle unit has a display, two smart card slots, a printer and various control buttons.

### Smart cards

As described earlier there are four types of smart cards in total.

### Input of data

Data will be entered into the tachograph via an encrypted signal from the intelligent sender and/or an electronic dashboard.

### Output of data

Data can be output in hard copy form via a printout or in electronic form via the smart card or by access to the vehicle unit memory itself.

The visual characteristics include a display of at least 20 characters, covering default data, data relating to warnings, data related to menu access and other data requested by a user.

The vehicle unit will also be able to download on request, data from its data memory or from a driver card to an external storage media via the calibration/downloading connector. The vehicle unit must also be able to print information from its data memory and/or from tachograph cards and be able to print 24 characters per line.

### Warnings

The vehicle unit will warn the driver when any event and/or fault has been detected, eg interruption of the power supply, however this warning may not show until the power has been restored. The driver will also be warned 15 minutes before and also at the time of exceeding the four and a half hour driving limit.



## The tachograph itself

The digital tachograph is part of a complex system combining vehicle electronics and data. It consists of four elements: vehicle unit, smart cards, input and output of data.

### DIGITAL TACHOGRAPH CAPABILITY - RECORD • DISPLAY • PRINT

- 1 the distance travelled with an accuracy of one kilometre
- 2 the speed of the vehicle – detailed speed for previous 24 hours' worth of driving plus incidence of over speeding as previously outlined
- 3 periods of driving time (time and date) with an accuracy of one minute
- 4 other periods of work, or of availability (times and dates) with an accuracy of one minute
- 5 the driver card issue number with times and dates of insertion and removal
- 6 for each driver card that is inserted for the first time after it was used in another item of recording equipment:
  - current driving time since the last break or rest period
  - driving time for the day after the last rest period or at least eight hours
  - driving times for the day between two rest periods of at least eight hours for the preceding 27 calendar days with date, time and duration
  - total of the driving times for the current week and the preceding week and the total of the driving times of the two completed preceding weeks
  - rest periods of a least eight hours' duration for the day and the preceding 27 calendar days, in each case with date, time and duration
  - the vehicle registration number of vehicles driven
- 7 date, time and duration of driving without an inserted or a functioning driver card
- 8 data recorded on the places at which the daily work period began and ended
- 9 automatically identifiable system faults of the recording equipment with date, time and driver card issue
- 10 faults in the driver card with date and time and driver card number
- 11 workshop card number of the authorised fitter or workshop with data of at least the last installation inspection and/or periodic inspection of the recording equipment
- 12 control card number with data of control card insertion and type of control (display, printing, downloading). In case of downloading, period of download should be recorded
- 13 time and adjustment with data, time and card issue number; driving status (single/crew driving - driver/co-driver)
- 14 driving status (single/crew driving - driver/co-driver)

## Enforcement powers and penalties

A series of amendments to UK legislation must be made to enable voluntary introduction of digital tachographs and ancillary enforcement provisions. Legislation to introduce card fees in GB came into force on 1 June 2005 and the GB enforcement regulations that were laid before Parliament on 13 July will come into effect on 5 August 2005. Similar legislation will be introduced in Northern Ireland and the target date for card fees regulations is late August and for enforcement regulations October 2005.

### Tachograph checks

If a driver is stopped at a future roadside check, the records he will have with him will depend on the vehicle being driven.

**If a driver is driving a vehicle fitted with an analogue tachograph he will require:**

- record sheets for current week and the sheet for the last day on which he drove during the previous week
- the driver card if holds one
- printout from digital recording equipment for days where the driver card was not inserted. However drivers undertaking a journey outside of the UK will need to carry printouts for all days on which they drove a vehicle fitted with a digital tachograph during the relevant period regardless of whether or not the driver card had been inserted. This latter requirement will cease early 2006 when the new EU drivers' hours amendments have been agreed

**If he is driving a vehicle fitted with a digital tachograph he will require:**

- the driver card of which he is the holder
- record sheets for the current week and the sheet for the last day on which he drove during the previous week, if he drove a vehicle fitted with an analogue tachograph

In respect of international operations only, when using a vehicle fitted with an analogue tachograph outside of the UK drivers may be required to produce printouts for the current week and the last day of the previous week for any day on which they used a vehicle fitted with a digital tachograph. On some occasions these drivers may not know what vehicle they will be required to drive over the next seven days therefore in these circumstances, in practice, drivers would need to generate and retain a printout from the digital tachograph each day to ensure these records were available if required.

## FTA can help

FTA's view is that whilst there is only so far operators can go in terms of preparation until such time as some of the currently outstanding issues are resolved, there is no reason why the foundation of a digital tachograph strategy, if not the detail, cannot be laid down now.

Remember, FTA is there to assist you. With over 80 drivers' hours experts, more than anyone else in Europe, FTA carries out in excess of 3,000 inspections every week and analyses over 2.5 million tachograph charts and conducts over 400 drivers' hours procedure audits every year.

## Analysis and advice

FTA has been offering an effective analysis and advice service for nearly 25 years, giving you the confidence that your drivers are complying with the legal and safety requirements necessary to secure your O licence. Once the digital tachograph is introduced the position will not change. With the recent development of our own drivers' hours and working time analysis software, and driver card and vehicle unit downloading hardware, Tacho**fta** will be able to continue satisfying all your requirements so that you can conform to the latest legislation changes.

We can analyse 100 per cent of your data, whether you have analogue tachograph charts, vehicle unit data, driver card data or a combination of both. Analysis can be carried out on site, remotely via our bureaux, or you may decide to purchase the software and hardware and carry out the analysis yourself.

However, FTA provides more than just an analysis and audit service. We can also provide valuable management information, pinpointing the areas where action is needed to increase the effectiveness of your driver utilisation, to manage your risks and to ensure your compliance within the wide range of regulations, including drivers' hours rules and the Working Time Directive. We also offer the ability to benchmark your driver and depot performances against sector and national averages.

## Training

Training on digital tachographs will be an important issue for all operators as soon as the tachograph is fitted. FTA is offering a portfolio of training solutions in partnership with Stoneridge Electronics, designed to ensure that companies are prepared for the digital tachograph revolution.

FTA has a team of qualified and experienced trainers who will deliver training throughout the UK, helping

operators and drivers deal with the impact of the digital tachograph. Hands-on practical experience, using real tachographs, company and driver cards, will help to equip delegates with all the operational and data handling aspects of the digital tachograph.

Initial awareness will assist operators understand their responsibilities, helping them to plan for the introduction and changes in the legislation. Even if a company doesn't intend to introduce the digital tachograph immediately, remember that hired vehicles may arrive, already fitted with a digital tachograph. This will impact on both drivers and your company. Management accountability and data handling/protection issues will be discussed during initial awareness workshops.

## Operator workshops

Operator workshops will provide theoretical and practical training giving a more detailed overview of legal responsibilities, providing a comprehensive understanding of the digital tachograph including problem solving. Again, hands-on practical experience will be invaluable ensuring operators can deal with the essentials in the operational and data handling aspects of the digital tachograph.

## Driver training workshops

Driver training workshops provide practical training, equipping the drivers with the fundamentals needed for their daily work using the digital tachograph.

All in all, FTA training will ensure operators and drivers understand how to deal with the digital tachograph, how to deal with a mix of analogue charts and smart cards and what to do in the eventuality of any problems. FTA's quality training will provide the digital tachograph solution. Tailored in-company training can also be arranged to suit operators' specific needs.

## Conclusion

The legislators responsible for the introduction of digital tachographs throughout the EU have not done so in a way that has paid much regard to the practical needs of operators.

While FTA's survey in June 2005 gathered provisional information from the various bodies involved, at the time of writing this guide there were still some outstanding issues:

- will the workshops be ready in time?
- will drivers be able to purchase their cards in time?
- will companies cope with the requirements to train and to introduce new data analysis systems?
- when do vehicle manufacturers intend to fit digital tachographs?

Members are advised to review progress on these matters by reference to [www.fta.co.uk](http://www.fta.co.uk) or by ringing the Member Advice Centre on 0870 605 0000.

*For the answer to any compliance issue, call FTA's Member Advice Centre*

**Member Advice Centre: 0870 605 0000 • Member Service Centre: 08717 112222**

FTA would like to thank Stoneridge for giving their permission to reproduce all digital tachograph images used in this document

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