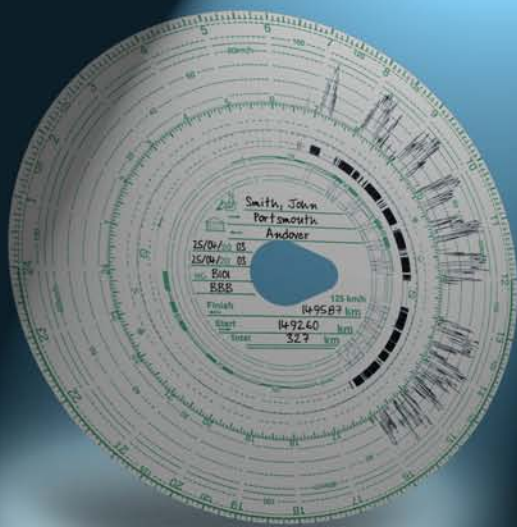


Tachomaster

Drivers' Guide to the Correct Use of the Analogue Tachograph



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All the regulatory information given in this guide is available through the European Commission and the UK Department for Transport. All of the information specifically relating to Siemens, Stoneridge and Actia Digital Tachograph Vehicle Units has been sourced from specification sheets and user manuals.

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This Tachomaster Driver Guide has been compiled by Steve Williams.

Steve Williams has been involved in the road haulage sector for over 30 years, beginning as an employed lorry driver then moving on to become an owner-driver, before setting up his own haulage company in 1982.

From 1997 until 2007, Steve worked for the Road Haulage Association, setting up the Association's first regional help desk, before moving on to become Project Manager within the newly formed 'National Operations Centre'.

Steve then joined the Policy Department at RHA Head Office, representing the Trade Association and the wider Road Haulage sector at meetings with Government bodies and agencies. During this time Steve was directly involved at Government level with the introduction of the Digital Tachograph and the EC Drivers' Hours Regulations which came into force in 2006.

Thanks to this work, Steve is now widely considered to be one of the foremost authorities on Digital Tachographs and Drivers' Hours Regulations.

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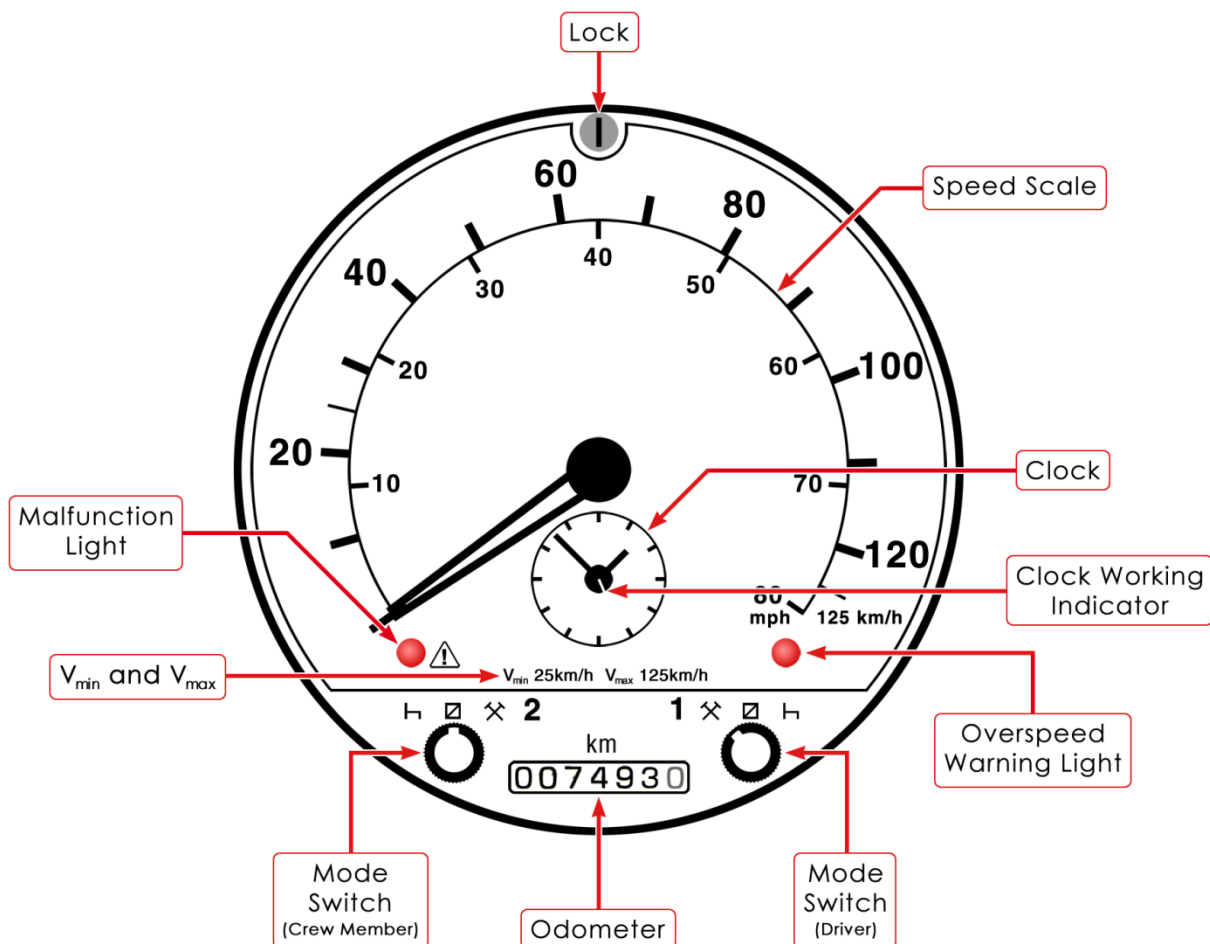
1 The Analogue Tachograph

1.1 Introduction

The Analogue Tachograph is a calibrated instrument, specified in vehicles operated under EC drivers' hours rules and registered up to May 2006, which is capable of recording time, speed, distance and the driver's various activities onto a circular paper chart covered in wax. Each Tachograph Chart can record a period of twenty-four hours. When the chart is inserted into the head of the Analogue Tachograph instrument, the device should be closed and locked. Metal styli (needles) press against the chart, allowing information to be recorded in response to inputs from the vehicle's gearbox and the activities recorded by the driver, as set through the activity mode switches.

1.2 The Analogue Tachograph Face

There are specific requirements with regard to the face of the Analogue Tachograph head. The diagram below shows a typical Analogue Tachograph.



1.3 Locking Device

The case containing the chart and the mechanism for resetting the clock must be provided with a lock and key.

1.4 Mode

Individual control switches are provided for the driver and crew member. The driver must select the correct activity by turning the switch to the appropriate symbol/mode.





The regulations provide for four activity modes, with every Analogue Tachograph produced since 1st January 1996 automatically defaulting the driver's mode to 'Driving' whenever the vehicle is in motion.

When a chart is placed in the Analogue Tachograph in the crew member position, it can record 'Other Work', 'Availability' and 'Break/Rest'. This means that in the case of double-manned vehicles, charts must be swapped when the crew member and the driver exchange duties, in the same way that the Driver Cards must be swapped between slot 1 and slot 2 when using a Digital Tachograph.

NOTE: Just like the Digital Tachograph, the Analogue Tachograph is unable to record 'Driving' for the crew member.

Since 1st May 2006 the regulations put a legal obligation on drivers to distinguish between duties that are classed as 'Other Work' and 'Availability'. Furthermore, drivers **must not** leave the mode switch on 'Break' if they are not taking a break or rest period.

The activity mode symbols used by both Analogue and Digital Tachographs are:

- | | | | |
|---|--------------|---|---|
|  | Driving | - | Selected automatically as the driver's activity whenever the vehicle is in motion. |
|  | Availability | - | For periods of work when a driver or crew member knows in advance how long they will have to wait to carry out some other form of activity. |
|  | Other Work | - | Periods where the driver or crew member is not driving, waiting to work or taking a break or rest period. |
|  | Break/Rest | - | Time within a working day when a driver or crew member takes a 'break' and can do whatever they like, or when taking a 'rest' between one working day and the next. |

Drivers can select 'Other Work' (⊗), and driving will automatically be recorded whenever the vehicle is in motion. If either 'Availability' (◻) or 'Break/Rest' (┌) is required, this must be selected explicitly.

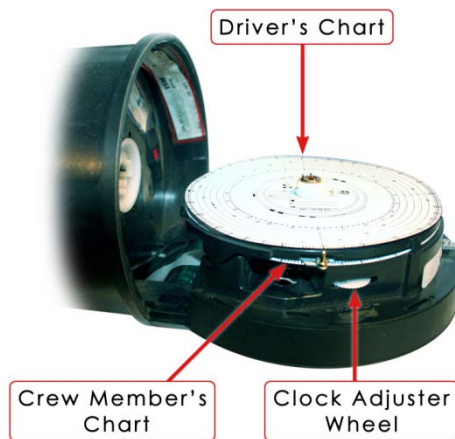
It is the driver's responsibility to ensure that the correct mode of duty is always being recorded by the Analogue Tachograph recording equipment.

2 Using the Analogue Tachograph

2.1 Positioning the Charts

Analogue Tachographs are designed for use by one or two drivers. If a driver places a chart in the crew member position, only mode and time will be recorded. There are two basic types of Analogue Tachograph that you may encounter: the 'Head' type and the 'Modular Cassette' type, as shown below.

When using the 'Head' type of Analogue Tachograph, the chart must be placed with the front of the chart facing down against the styli. When using the 'Modular Cassette' type, the chart must be placed face upwards.



Analogue Tachograph 'Head' recording equipment



Analogue Tachograph 'Modular Cassette' equipment

2.2 Overspeed Warning Light

If fitted, a light on the face of the Analogue Tachograph instrument illuminates when a selected speed is reached. The speed setting can be altered by the driver from within the instrument.

NOTE: There is no **requirement** in the regulations for an overspeed warning light to be fitted to an Analogue Tachograph.

2.2.1 Setting the Overspeed Warning Light

On most Analogue Tachograph heads, the overspeed warning light is set from inside the head by a screw or slider on the back plate. Other types of Analogue Tachograph require the driver to drive up to the desired speed then push a button to set the speed. Once set, the lamp will illuminate whenever that speed is reached or exceeded.

2.3 Time

A requirement of the regulations is for the Analogue Tachograph clock to be clearly visible to the driver when sitting behind the steering wheel. It must not be possible to alter the time on the clock when the head is closed. The regulations require that the clock is electronic. The driver is responsible for ensuring that the time on the clock is set to the official time of the country in which the vehicle is registered.

2.3.1 Clock Adjustment

The Analogue Tachograph clock is adjusted from inside the 'head' instrument, with the head in the 'open position' - most Analogue Tachographs have a thumb wheel device to adjust the clock. Care needs to be taken when setting the time, as the clock on the face of the instrument is a 12 hour clock, but the chart covers a period of 24 hours, therefore the clock has to rotate twice throughout 12 hours for one turn of the chart. When you reset the clock to 3.00am for example, you must ensure that the chart is correctly positioned to record at 03.00hrs, not 15.00hrs.

The clock must always show the official time in the country of origin of the vehicle, so UK based drivers are required to make adjustments to the clock when the hour is added to Greenwich Mean Time (GMT) in the Spring each year and then subtract an hour in the Autumn. This is one of a few differences between using the Analogue and the Digital device. (Digital tachograph vehicle units always record in Universal Time Co-ordinated (UTC)).

Care must be taken when setting, to ensure that the clock is correctly adjusted to record the correct meridian (am or pm).

2.3.2 Clock Working Indicator

An indicator, visible to the driver, shows that the clock is working is required.

2.4 Malfunction Warning Light

The malfunction warning light is commonly known as the "Head Open" or "Chart Missing" warning light. The lamp will illuminate when either there is no chart in the head, or the head is not shut properly.

2.5 Speed Scale

The regulations require the speed to be marked in kilometres per hour. Vehicles provided for the UK market also have miles per hour shown on the face, but regardless of this, the vehicle speed is always recorded in kilometres per hour on the chart.

2.6 Odometer/Speedometer

The Analogue Tachograph must display the distance travelled by the vehicle in kilometres. The shortest discrete distance recorded by an Analogue Tachograph is 1/10th of a kilometre.

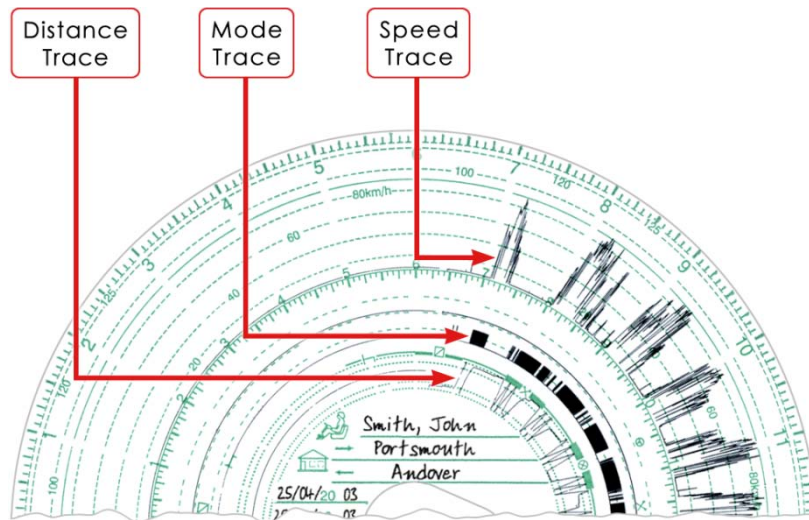
2.7 The Measurement Range

This is given in the form 'Vmin. km/h' and 'Vmax. km/h'. If not marked on the face of the tachograph, they can be shown on the descriptive (manufacturers) plaque. Vmin and Vmax show the speeds between which the instrument records speed accurately.

3 Inside the Analogue Tachograph Head

Not all Analogue Tachographs are made in the same way, but they do share common features.

Analogue Tachographs have a minimum of three styli, configured as follows: the outermost stylus records **speed**, the next stylus records the **mode** and the innermost stylus records **distance**. Some manufacturers fit additional styli to record other data (such as engine speed), in which case the manufacturer's documentation should be consulted for a description of the additional traces.



3.1 Speed Trace

Speed is recorded in response to inputs from the vehicle's gearbox. The faster the vehicle travels the higher the stylus is driven.

3.2 Mode Trace

'Other Work', 'Availability' and 'Break/Rest' are recorded in response to the position in which the driver has placed the activity mode switch.

3.3 Distance Trace

Distance is recorded in response to inputs from the vehicle's gearbox and the distance stylus travels up and down as the chart rotates. The speed at which it travels depends on the speed of the vehicle. This produces a series of linked 'V's. Each complete 'V' represents 10 kilometres and this sequence of 'V's is clearly visible when the completed Tachograph Chart is analysed.

3.4 Recording Time

The chart is linked to the clock by fitting it over a pear-shaped cam inside the tachograph. The mechanism operating the clock turns the cam and therefore the Analogue Tachograph chart. Accordingly, as the chart rotates, the styli press against the wax on the chart and record the required events and activities at the given time.

4 Keeping a Record Using an Analogue Tachograph

Even though Analogue Tachograph recording equipment has been used across Europe for over twenty years, there are still many drivers who do not use the equipment in the correct and legal way. One of the worst problems encountered when operators carry out drivers' records checks is incorrect completion of the Tachograph Chart centrefield. See Appendix 1 of this document for an example of correct centrefield completion.

At the start of your duty period, you **must** complete the entries in the centrefield:

- Your **full** name (first name and surname – it doesn't matter in what order).
- The **start location** of your duty period.
- The **start date** of your duty period.
- The **registration number** of the vehicle.
- The **start mileage**, as shown on the vehicle odometer.

It is not correct to write entries that extend outside of the centrefield area, as they may be seen as obscuring the tachograph record. If, for example, the start location is so long that it must be abbreviated in order to fit in the space provided, the full entry should be written on the reverse of the chart rather than obscuring the stylus trace on the front.

Make sure the clock in the tachograph head is correctly set to display the current time **in the country of origin of the vehicle**. The correct time must be shown, taking into account adjustments when changing to or from British Summer Time (for vehicles registered in the UK), and remember to ensure that the clock is correctly set for am or pm, noting that both times are displayed identically on the 12-hour clock face of the Analogue Tachograph.

Once the manual record has been completed and the time has been checked, the chart must be inserted into the tachograph head or cassette, as appropriate, and the tachograph **must** be locked closed.

The day's duties must then be recorded by using the mode switches to ensure that the appropriate type of work or rest activity is shown.

Tachograph charts must provide space on their reverse side for the driver to manually record any additional information that is required to be completed in connection with any change of vehicles or in the event that tachograph equipment develops a fault. Details of how to correctly enter manual entries are given in Appendix 1 of this document.

At the end of the day, you must unlock the tachograph head or open the modular cassette and remove the tachograph chart. You must then complete the manual record in the centrefield by entering the following:

- The **finish location** of your duty period (even if it's the same as the start location).
- The **finish date** of your duty period (even if it's the same as the start date).
- The **finish mileage**, as shown on the vehicle odometer. *NOTE: There is no legal requirement to calculate the distance travelled during the day.*

You must then keep the completed chart safely and for the next 28 calendar days and must carry it with you at all times when driving. During this period, it must be available, on request, to any authorised enforcement officer. Once the 28 day period is up, and **within 42 days of the record being completed**, the record **must** be handed in to the Vehicle Operator. The operator must then safely store it with your records for at least twelve months, making it available for inspection upon request from the enforcement authorities.

The above routine needs to be consistently carried out to ensure compliance with the regulations for the recording of drivers' hours. Since April 2009, any driver working within Great Britain and who fails to comply with the requirements outlined above, is liable to prosecution by the issue of a graduated fixed penalty at the roadside. The penalty charge can range from £60.00 up to £250.00, dependent on the seriousness of the offence committed. This penalty can be issued by both the Police and VOSA.

5 Common Questions and Answers

5.1 Why is there a Need to Use Tachographs to Record Drivers' Hours?

It is required under the following legislation:

- European Law: (EC) regulations 561/2006 & 3821/85.
- Domestic Law: The Road Traffic Act.

5.2 What do I Need to Know about Tachographs?

Drivers need to know what the tachograph can do. It must record distance, speed, activity (Driving, Other Work, Availability and Breaks/Rest) and it must automatically record when the head or cassette of an Analogue Tachograph has been opened. The Digital Tachograph keeps a record of every occasion that a Driver Card has been inserted or removed.

5.3 What are My Responsibilities in Respect of Tachographs?

You are responsible for keeping a record for every day on which you carry out work. This includes keeping a manual record for all days on which you work but do not actually drive a vehicle.

You must correctly complete the centrefield whenever you use an Analogue Tachograph and at all times when driving you must carry with you all records for the current day and for work completed in the previous 28 calendar days.

You must return your completed work records to the Vehicle Operator within 42 days. If you also use vehicles equipped with a Digital Tachograph, you must ensure that you make your Driver Card available to the Vehicle Operator for download at least every 28 days. Comprehensive guidance to using a Digital Tachograph can be found in the companion guide, "The Tachomaster Drivers' Guide to the Digital Tachograph". This can be downloaded from the Tachomaster website at www.tachomaster.co.uk.

5.4 What are the Vehicle Operator's Responsibilities?

The Vehicle Operator **must**:

- Issue sufficient analogue charts and printer rolls for each driver's needs.
- Ensure that their drivers understand all relevant regulations.
- Organise work so that drivers can legally comply with the regulations.
- Undertake periodic checks of work records and take steps to avoid repetition of any errors.
- Ensure that drivers hand in completed records within 42 days of use and retain all such records, in chronological order, for at least twelve months after completion.
- Ensure that all Driver Cards held by their drivers are downloaded at least once every 28 days.

5.5 What Happens if I Don't Follow the Rules?

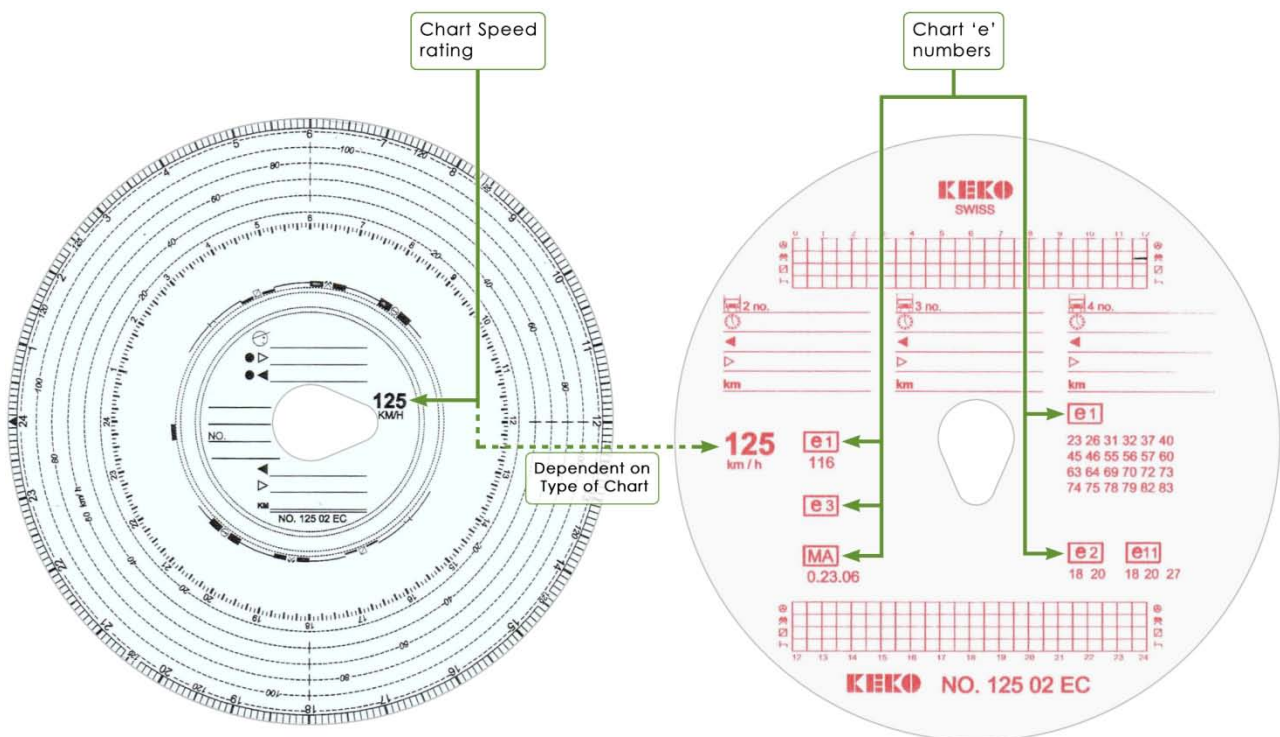
If you are found to be failing to comply with the regulations, you run the risk of losing your vocational entitlement (lorry/bus categories on your Driving Licence) and the Vehicle Operator could lose their Operator's Licence.

Both you and the Vehicle Operator could be faced with a fine up to £2,500 or, in the worse case, imprisonment up to a maximum of 2 years.

5.6 How do I Know Which Chart is the Right One to Use?

All Analogue Tachograph equipment has a Type Approval (or 'e') number, for example 'e1 23', and a V_{max} rating, typically 125km/h. These are clearly displayed on a plate that is visible when the head or cassette (depending on the type of tachograph) is opened.

It is your responsibility to ensure that the chart you use in the tachograph is of the correct type. The chart speed rating is usually shown in the centrefield area of the chart. On some charts, this also appears on the reverse. A list of 'e' numbers for which the chart is compatible will be listed on the reverse of the chart.



5.7 What if I Need to Change Vehicles During a Shift?

If you need to change vehicles during your shift, and you are using a vehicle fitted with an Analogue Tachograph recorder, remove your part-completed tachograph chart from the first vehicle, manually write in all the details required on the reverse of the Analogue Tachograph chart and then re-insert the part-completed chart into the next vehicle's Analogue Tachograph - providing that it uses the same type of chart. If it does not (or you are not sure), use a new Tachograph Chart compatible with that type of Analogue Tachograph. You must ensure that **all** tachograph charts used on a

working day are kept together **at all times** and **all records** must be handed to the Vehicle Operator within 42 days. Similarly, you must make and store manual entries for all periods of work not recorded on your tachograph charts.

5.8 What Happens if the Tachograph Breaks Down or 'Chews-up' My Chart?

In the event of a failure of the Tachograph or your current chart becoming unusable in the tachograph recording equipment, you **must** keep a manual record of your activities on the reverse of a tachograph chart. This record must show Driving times, Other Work, Availability and Breaks/Rest as appropriate (See Appendix 1 of this document for further details).

If the tachograph equipment is faulty or develops a fault during a work period, you must inform the Vehicle Operator who, in turn, must arrange for the equipment to be repaired as soon as possible. You may continue to use a vehicle with a defective Tachograph for **up to seven days**, but you must use a new chart for each day's work and ensure that you keep comprehensive manual records on the reverse for every day that the tachograph equipment is not working.

5.9 What if an Enforcement Officer Stops Me?

If stopped by an authorised enforcement officer, you **must** make available all records relating to your current working period and **all** records relating to any work you have undertaken during the preceding 28 days.

Authorised enforcement officers have the right of entry to a vehicle, the right to inspect all driving records that are being made and the right to inspect all completed records that are being carried. They also have the right to inspect any vehicle for evidence that the required daily checks are being completed and that regular and effective maintenance is being undertaken. In addition, they have the right to ensure that there are no vehicle defects - whether related to the tachograph recording equipment or otherwise.

As the driver, you are liable to be issued with a graduated fixed penalty at the roadside if it is believed that you are failing to comply with the EC drivers' hours rules. This type of penalty is specifically issued against the driver rather than the operator.

6 Pointers for Good Record Keeping

There are a few basic principles that should be adhered to at all times when using Analogue Tachograph charts to ensure that clear and accurate records are kept:

- Always ensure that the centrefield is completely and correctly filled in at the start and end of your duty period and that any change of vehicle is correctly recorded. It is **essential** that the time of any vehicle changeover is correctly recorded.
- Under normal circumstances, **do not** drive without a chart in the tachograph head or cassette.
- Remember, there **must** be written records to account for the whole of each shift, not just the time covered by the traces on the tachograph chart.
- When entering manual information on the reverse of a tachograph chart, ensure that you do not deface the record on the front by pressing too hard. Similarly, do not use a felt tip or any other type of pen that may 'bleed through' and obscure the front of the chart.
- **Do not** bend or fold analogue charts and **never** staple completed charts together. Completed charts should be stored in a suitable manner, ideally in a Weekly Chart Envelope.
- **Always** carry records for your current duty period and **all** work that you have completed in the previous 28 calendar days (whether driving or otherwise). If you have been issued with a Driver Card for use in Digital Tachographs, you **must** also carry this at **all** times when driving.
- Ensure that completed records are passed to the Vehicle Operator **no later** than **42 days** after completion.
- **Always** report a faulty tachograph unit to the Vehicle Operator as soon as possible, both verbally and by completing a written defect report.

Finally, although tachograph records can be used to substantiate speeding offences, the authorities in the UK do not at present prosecute on the evidence of the tachograph record alone. But remember, it is your responsibility to ensure that you keep within the speed limit at all times.

7 Analysing the Data

Once passed to the Vehicle Operator, the chart needs to be analysed and stored, to ensure compliance with the regulations.

The industry standard solution for Digital and Analogue Tachograph analysis is Tachomaster, which enables instant analysis for both types of Tachograph and provides an immediate, comprehensive and transparent view of both Driver and Vehicle activity.

Using a scanner, the chart is uploaded to Tachomaster and analysed in under a minute. The chart image can then be viewed in its natural form, as a graphical representation or as a breakdown of the events – see below. As scanning is immediate, Tachomaster gives the Vehicle Operator the option to scan charts on a daily basis and then pass them back to the driver to hold for the mandatory 28 days, thus making the driver's records immediately available to the operator.

The screenshot displays the Tachomaster software interface, titled "Tachomaster - [Tacho Analyser]". The interface is divided into several sections:

- Left Sidebar:** Contains navigation buttons for "Digital Card Reader", "Vehicle Unit Import", "Chart Scanner", "Worker List", "Worker Calendar", "Tachograph Reports", "RTD Reports", "Run Synchroniser", "Supplies", "Frequent Questions", "Web Site", and "Help".
- Top Menu:** Includes "File", "View", "Tachograph", "Visitors", "Reports", "Tools", "Window", and "Help".
- Details Panel:**
 - Driver: Smith, John
 - Vehicle: B101 BBB
 - Chart Date: 25/04/2008
 - Place: Portsmouth
 - Finish: Andover
 - Odometer: Start 149260, Finish 149587, Distance 0
- Events Table:**

Time	Length	Activity	Crew	Source
06:31	-	Start		Analysar
06:31	00h 01m	Driving	DS	Analysar
06:32	00h 21m	Work	DS	Analysar
06:53	00h 37m	Driving	DS	Analysar
07:30	00h 03m	Work	DS	Analysar
07:33	00h 01m	Rest	DS	Analysar
07:34	00h 01m	Driving	DS	Analysar
07:35	00h 01m	Work	DS	Analysar
07:36	00h 01m	Rest	DS	Analysar
07:37	00h 29m	Work	DS	Analysar
08:06	00h 01m	Driving	DS	Analysar
08:07	00h 01m	Work	DS	Analysar
08:08	00h 06m	Driving	DS	Analysar
08:14	00h 01m	Rest	DS	Analysar
08:15	00h 01m	Available	DS	Analysar
08:16	00h 13m	Driving	DS	Analysar
08:29	00h 01m	Available	DS	Analysar
08:30	00h 24m	Driving	DS	Analysar
08:54	00h 05m	Work	DS	Analysar
08:59	00h 01m	Rest	DS	Analysar
09:00	00h 01m	Work	DS	Analysar
- Tachograph Chart:** A circular analogue tachograph chart showing speed and time. The central display includes:
 - Driver: Smith, John
 - Location: Portsmouth
 - Destination: Andover
 - Date: 25/04/2008
 - Vehicle: B101 BBB
 - Odometer: 149587
 - Previous Odometer: 149260
 - Speed: 125 KM/H
 - NO. 125 02 ECG
- Bottom Status Bar:** Company: Fishers Transport, User: Walter Trout, Version: 2.3.6.2, Client ID: 9999.

With a secure Internet connection to Tachomaster, the Head Office sees the whole operation at a glance and each Depot Manager can see the information relevant to their depot. Should the company wish to, they may issue each of their drivers with their own personal login, which allows them to view their own Tachograph records online.

Below, you can see one way that Tachomaster clearly shows any infringements on a Driver's Diary with the exact details of the day in question easily viewed simply by clicking on the date.

Working Times for John R Hartley

Working Time Summary for Current Reference Period

Reference Period:	2 weeks	Total time worked:	58hrs 56mins
Weeks:	44 - 45	Average time/week:	29hrs 28mins
Total time available this week:	51hrs 59mins	Time available next week:	60hrs
Fortnight Drive Available:	57hrs 56mins	Week Rest Required:	

Digital tachograph card was last read...

Start Time	Duration	Activity	Driver	Notes
08:16	10m	Availability	Driver - Single	
08:26	59m	Driving	Driver - Single	
09:25	2m	Work	Driver - Single	
09:27	3m	Driving	Driver - Single	
09:30	2m	Availability	Driver - Single	
09:32	1h 01m	Driving	Driver - Single	
10:33	13m	Availability	Driver - Single	
10:46	1m	Driving	Driver - Single	
10:47	16m	Availability	Driver - Single	
11:03	31m	Driving	Driver - Single	
11:34	20m	Rest	Driver - Single	
11:54	1h	Driving	Driver - Single	
12:42		Insufficient Breaks in Driving Period #		
12:54	33m	Rest	Driver - Single	
13:27	1h 17m	Driving	Driver - Single	
14:44	6m	Availability	Driver - Single	

In addition to the Driver Diary, there are many other useful reports available to all drivers. For example, each driver can view their own 'Time Usage Breakdown', which gives comprehensive details of all hours they have worked, driven etc.

When a vehicle equipped with a Digital Tachograph is used, Tachomaster combines the details from the driver's digital smartcard with the information downloaded from Vehicle Units, to provide operators with a wealth of management reports. It is therefore possible to know when the vehicle was driven and by whom, as well as how it was driven. Tachomaster's configurable Vehicle Diary allows operators to fully understand how their vehicles are being used at all times.

Below, you can see one way that Tachomaster lets you to view this information in a clear and concise format. Operators can look through this information or click on a particular day to see a full breakdown of the vehicle's activity on that day.

Tachomaster by RoadTech **RoadTech** Computer Systems Ltd

Vehicle times for AB12CDE [Edit Vehicle](#)

Month Summary

Total on Duty:	551hrs 22mins	Average Duty per day:	18hrs 23mins
Total Driven:	284hrs 57mins (52%)	Average Drive per day:	9hrs 30mins
No. of Drivers:	24	Average Duty (worked days):	17hrs 14mins
Odometer:	17057 -> 35421	Average Drive (worked days):	8hrs 54mins

Driven: less than hours, less than hours, more than hours [Update](#)

Vehicle unit last read 5 weeks and 2 days ago (18-10-2008 14:44)

September 2008 <go to current month>

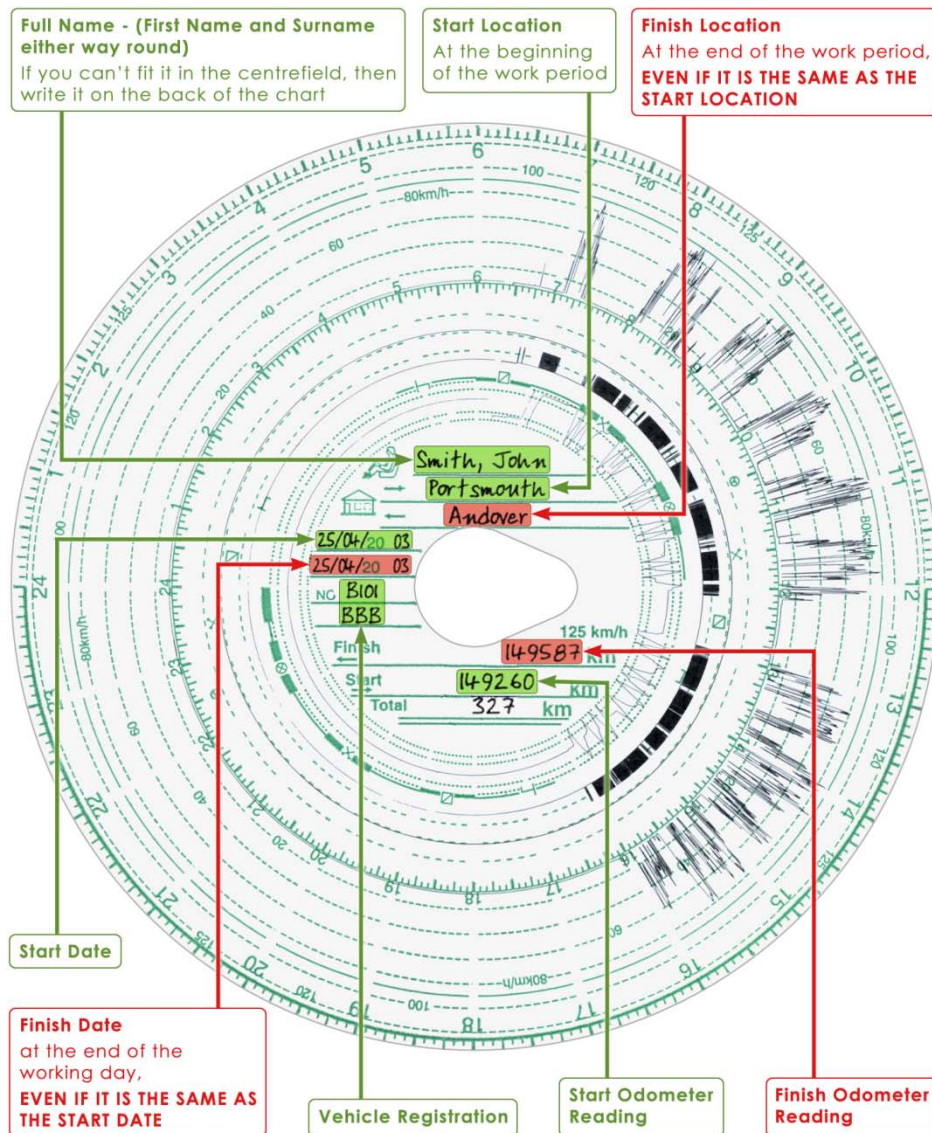
Mon	Tue	Wed	Thu	Fri	Sat	Sun
17h 46m 10h 10m	22h 09m 10h 17m	20h 58m 08h 00m	01:23 2m	01:30 1m	01:38 1h 03m	02:43 1h 02m
20h 12m 10h 50m	24h 25m 14h 50m	03:47 3m	03:52 2m	05:52 2m	06:12 3h 20m	09:41 3m
24h 00m 13h 04m	23h 00m 11h 00m	10:45 41m	12:16 33m	14:04 2h 39m	16:48 5m	16:53 34362
23h 08m 10h 20m	19h 27m 08h 23m	18:35 2m	18:40 1m	1h 43m Watson, David Mark		
21h 26m 13h 19m	13h 33m 09h 47m	21h 24m 10h 44m				

Comprehensive cross-company reporting is, of course, standard with Tachomaster. Operators may compare drivers, vehicles and depots for compliance, infringements and productivity, drilling down to driver and vehicle level as required.

If you would like to find out more about *any* aspect of Tachomaster, please visit www.tachomaster.co.uk or email feedback@tachomaster.co.uk for further information.

Appendix 1: Manual Tachograph Entries

1 Correct Centrefield Completion of an Analogue Chart



Fields you must enter – at the start of the day / at the end of the day

Complete the centrefield clearly, so that anyone can read and understand what has been written. Just because you can understand and read your writing, it doesn't mean others can!

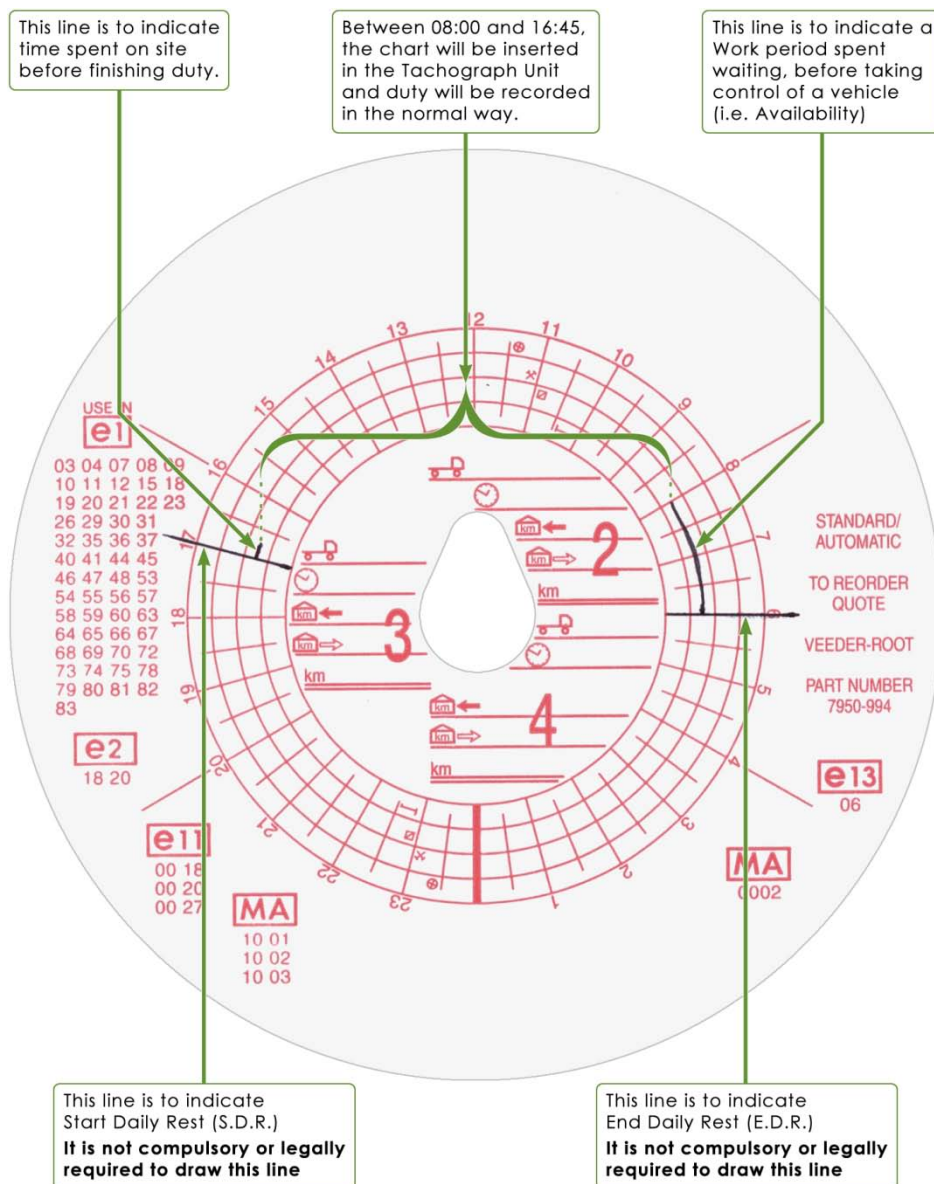
If you are stopped at a routine roadside check and an enforcement officer looks at your work records, they will expect to see clear and legible entries for **all** centrefield and manual data.

If your normal handwriting is not clearly legible, you should complete the centrefield and any other manual entries using capital letters.

2 Additional Manual Entries

Start and finish lines can be drawn on the reverse of an Analogue Tachograph record and although they are not compulsory, many Vehicle Operators will request that you do this.

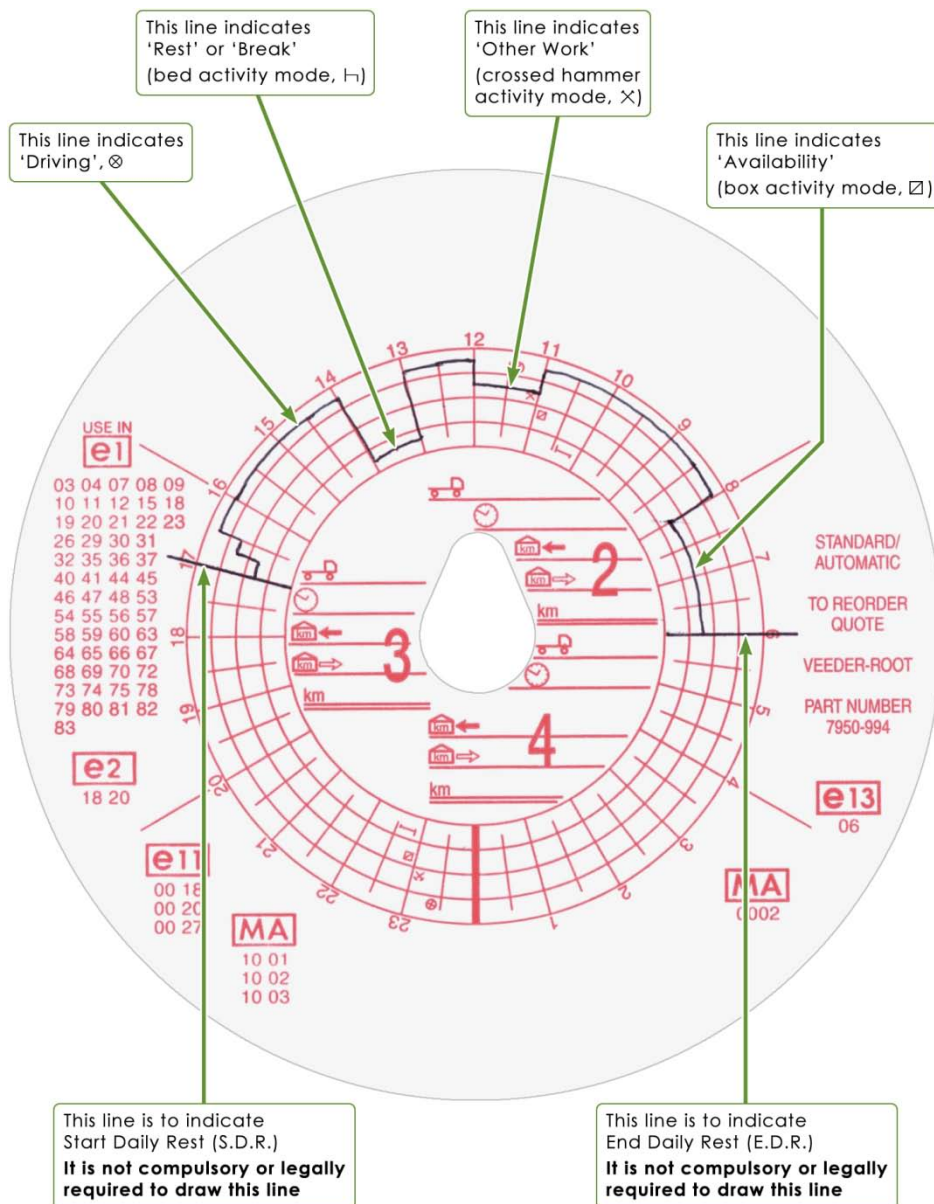
If you clock on at 06:00 hours and you are told that there is no vehicle available for you until 08:00 hours, those two hours activity (be they Availability, Other Work or Rest) must be manually recorded on the reverse of the tachograph chart (See diagram below).



3 Completing a Manual Tachograph if Equipment Fails

If Analogue Tachograph recording equipment breaks down or a chart is damaged, you must fill in the centrefield information on the front of the tachograph chart in the normal way and use the reverse of the chart to keep a manual record of your activities (see diagram below).

You must also make a manual record on the reverse of the chart of **any work** done on a driving day that cannot be recorded in the normal way, for example you are awaiting the return of a vehicle from maintenance or you are carrying out other non-driving duties for the Vehicle Operator. Manual recordings must be easy to read and care must be taken that the front face of the chart is not damaged or defaced in any way when entries are made on the reverse.

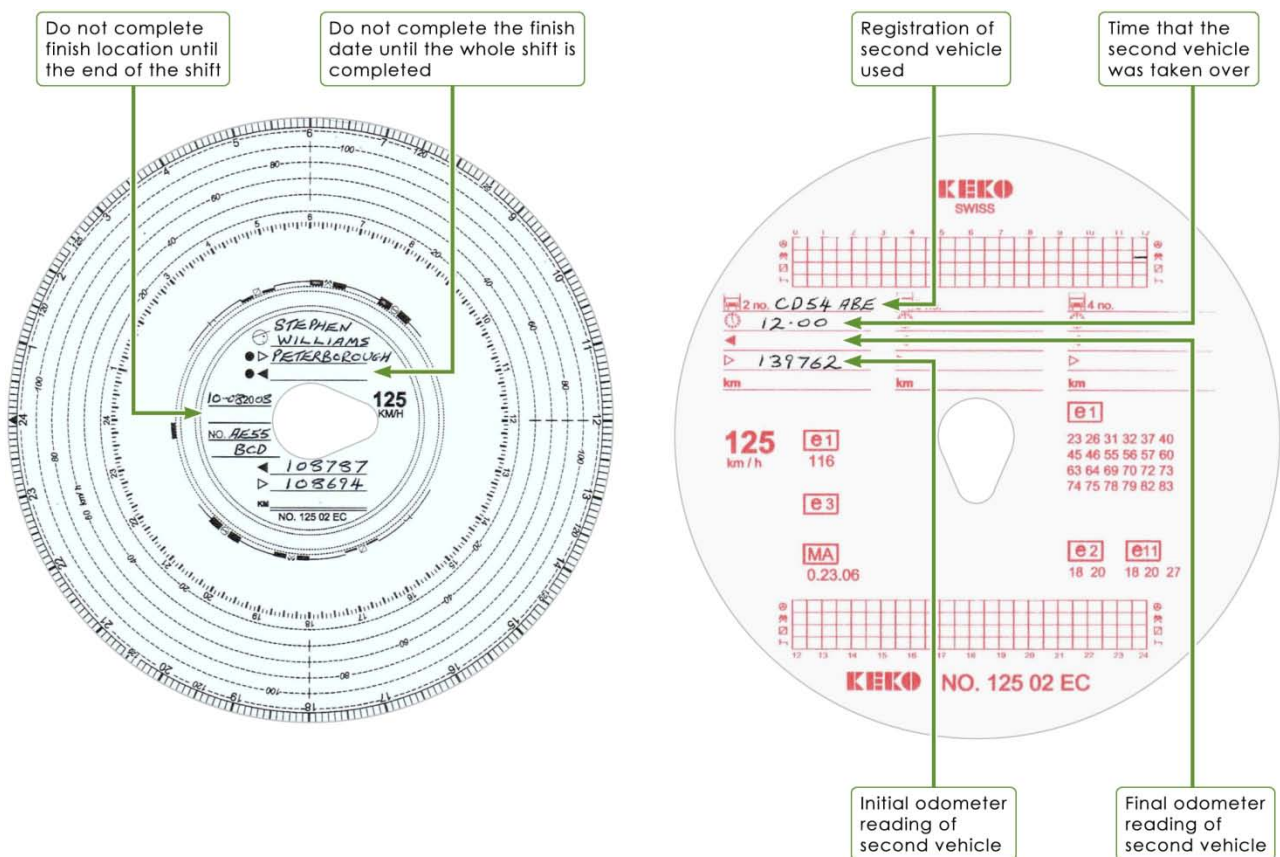


4 How to Complete a 'Multi-Vehicle' Record

If you change to another vehicle during your working day, you must take your chart with you and manually record any time lapsed between vehicles on the reverse of the chart. You must record the time, the registration number vehicle and the current odometer reading in the appropriate spaces on the rear of the chart before taking control of the next vehicle (see diagram).

Provided that the chart is of a compatible type – check the 'e' number and V_{max} – it should be inserted into the next vehicle's tachograph in the normal way to record further periods of Driving, Other Work, Availability and Break/Rest. This procedure must be repeated each different vehicle that you may drive during a single day of duty, so that the one chart shows a complete record of your day's activities.

If the chart is not of a compatible type with the new vehicle, the correct type of chart **must** be used and all charts used within a duty period must be stored together to provide a complete record.



Appendix 2: Drivers' Hours Records

1 General Rules for Recording Hours of Work

Article 26 of (EC) No 561/2006 stipulates that 'Other Work', including work for another employer within or outside the sector, is recorded under the ✕ symbol and that periods of 'Availability' must be recorded under the ☐ symbol.

Whether you are using Analogue Tachographs, Digital Tachographs or a combination of both, the following rules must be adhered to at all times:

- 'Other Work' must be recorded under the cross hammers symbol, ✕
- 'Availability' must be recorded under the box symbol, ☐, to ensure compliance with the Road Transport (Working Time) Regulations 2005

2 Recording Hours of Work Using an Analogue Tachograph

It is YOUR responsibility to operate the tachograph correctly in order to record activities accurately and fully.

ALWAYS complete the centrefield of a tachograph chart.

At the Start of the Day:

- **Name** - Write in clear block letters (capitals) your FULL name – surname and first name. It doesn't matter which way round it is written (i.e. John Smith or Smith John), but it **must** be written in full; an initial for your first name is **not** sufficient. If your name is too long to write on the front of the chart in the place specified then it should be written on the reverse of the chart.
- **The Start Date** – whatever the date is when your duty period is started **must** be written in the specified position. The day (e.g. 02), the month (e.g. 04) and the year (e.g. 2008) must all be shown in an easily understandable way.
- **The Start Location** – the start location **must** be shown **accurately** and **clearly** (e.g. PETERBOROUGH, **not** 'The Yard' or 'High Street'). If the name of the location is too long to write on the front of the chart in the place specified it **must not** be abbreviated, but should instead be written in full on the reverse of the chart.
- **The Vehicle Registration Number** – the registration number of the vehicle **must** be clearly and correctly recorded in the specified space provided on the front of the tachograph chart.
- **The Start Mileage** – The start mileage **must** be written clearly and in the correct position.

At the End of the Day:

Once you have completed your day's duty, have arrived at the final location for the day and are about to finish work you **must** take the tachograph chart out of the tachograph recording equipment and manually enter the following information onto the centrefield:

- **The Finish Date** – it is a legal requirement that you enter **both** the start and finish date, even if they are the same.
- **The Finish Location** – again, even if you are finishing at the same location that you began work, you **must** write this onto the tachograph chart.
- **The Finish Mileage** – the finish mileage **must** be written onto the tachograph chart clearly and in the correct position at the finish of the day.

There is no **legal** requirement to work out the distance travelled during the day.

If you have been issued with a Digital Tachograph Driver Card by the relevant authority – in Great Britain it is the DVLA and in Northern Ireland it is the DVLNI - you MUST ALWAYS CARRY IT WITH YOU and make it available for inspection by enforcement officers, on request.

Even if you have never used your Driver Card, you MUST still keep it with you.

3 Production of Records at the Roadside to Enforcement Officers

Whenever an authorised enforcement officer so requests, you **must** be able to produce the following at the roadside:

Drivers using vehicles fitted with Analogue Tachograph recording equipment:

- Record sheets (i.e. Tachograph Charts) for the current day and any completed during the previous 28 calendar days.
- Your Digital Tachograph Driver Card (if you have been issued with one) **even if never used**.
- Any manual records and/or printouts that you have made during the current day and the previous 28 calendar days.

Drivers using vehicles fitted with a Digital Tachograph Vehicle Unit:

- Your personal Digital Tachograph Driver Card,
- Any manual records and/or printouts made during the current day and the previous 28 calendar days,
- Any Analogue Tachograph Charts for the same period (i.e. covering occasions where you have driven an Analogue Tachograph equipped vehicle).

You MUST hand in completed Tachograph Charts and any other written work records to the Vehicle Operator within 42 days of completion.

Digital Tachograph Driver Cards should be downloaded by the Vehicle Operator at least every 28 days.

Appendix 3: The Traffic Commissioner's Guidelines for Dealing with Driving Offences Committed by Vocational Drivers

If you hold vocational categories on your driving licence to drive commercial vehicles, buses and coaches, you are liable to have action taken against you by the Traffic Commissioner if you commit **any** driving offences, whether in your private car or while employed as a commercial vehicle driver.

Although the courts initially deal with such offences as speeding, dangerous driving, drink-driving etc., the Traffic Commissioner can decide to take additional action over and above the court decision if it is felt that a vocational driver should be dealt with in a harsher way. The Traffic Commissioner has unlimited powers to take action against vocational drivers and Goods Vehicle Operators.

The Senior Traffic Commissioner has published guidelines on action to be taken with regard to various driving offences. Here is a brief summary of the guidance:

Offence	Action
Defective Speed Limiter (not reported)	One-month suspension
Interference with Speed Limiter	Suspension of driving licence for 2-4 months / revocation or disqualification of driver.
Use of device to disable the speed limiter	Revocation or disqualification of 6-12 months.
Tachograph offence	Employers may treat this as a case for dismissal. Courts may decide upon a prison sentence.
Failure to keep a suitable record of drivers' hours	From a formal warning to a one-month suspension of vocational driver.
Deliberate falsification of drivers' hours records	Suspension / revocation / disqualification dependent on scale or degree: <ul style="list-style-type: none"> • One-month suspension per offence for up to three offences. • Revocation or disqualification for up to six months for up to five offences. • Revocation or disqualification for up to 12 months for six or more offences.
Use of any device to interfere with tachograph equipment	Revocation or disqualification of driving licence for 12 months.
Drivers' Hours offences (isolated or infrequent)	Formal warning.
Drivers' Hours offences (persistent or habitual)	Minimum of four weeks' suspension to be increased according to the number of offences.

Offence	Action
Breach of Traffic Commissioner's orders (driving under suspension / disqualification / revocation)	Revocation and disqualification for an indefinite period will be considered.
Penalty-point endorsements (new applicants and renewals)	The Traffic Commissioner will decide how long a driver will have to wait to reapply if disqualified. This depends on the nature of the endorsement or conviction. Offenders under the New Drivers Act will have their application refused/delayed but be given a chance to appeal to the Traffic Commissioner directly.
Drink-driving (new applicants and renewals)	An application following a first disqualification for 12 months or less will normally be granted. A first disqualification for more than 12 months, but less than three years, will result in a refusal/delay with the right to a formal hearing. For a second and subsequent disqualification, the Traffic Commissioner will review matters individually.

NOTE: The Traffic Commissioner has the authority to require a vocational driver to take a re-test if an LGV or PCV has not been driven for five years or longer.

Graduated Fixed Penalties issued at the roadside

Since April 2009 VOSA examiners have been able to issue fixed penalty notices to drivers of heavy goods vehicles from both the UK and abroad, in addition to immobilising vehicles where offences under driving hours rules are detected.

The level of fixed penalty ranges from £60.00 to £200.00. Drivers' hours offences will be subject to graduated fixed penalties, which are dependent upon the seriousness and circumstances of the offence. The penalties that may be imposed are set out in the Fixed Penalty (Amendment) Order 2009 (S.I. 2009/488, which amends the Fixed Penalty Order 2000).

Appendix 4: The New Drivers' Hours Regulations – A Brief Update

The recognised European Drivers' Hours Rules, (EC) Regulation 3820/85, were replaced in May 2006 by (EC) Regulation 561/2006.

1 Basics Driving Times and Breaks Remain the Same

The basic limits to driving are unchanged; although it should be remembered that all driving, whether on road or what was previously seen as 'off road', now counts towards the daily and weekly driving limits. Only journeys that take place from start to finish entirely off road can be recorded as 'out-of-scope'. For instance, if a load is picked up in one area of a distribution depot or quarry and is transported to another part of the same distribution depot or quarry and no part of the movement of the vehicle takes place on the public highway, then that period of movement can be recorded and calculated as 'Other Work' / 'out-of-scope' rather than driving. Any journey that involves movement on the public highway, however brief, must be recorded and calculated as 'driving'.

The maximum continuous or accumulated driving period is still 4½ hours, after which a 45-minute break must be taken. **This break can no longer be split into 3 X 15 minutes sections.** From 11th April 2007, if the 45 minute break requirement is to be split up the first period of break must now be at least 15 minutes and the second period must be at least 30 minutes, in that order. Breaks must also be distributed throughout the driving period. The only other alternative is to take the whole 45 minutes once 4½ hours driving has been completed.

The daily driving limit is still 9 hours, which may be extended, twice in a week (a week runs from 00:00 Monday to 24:00 Sunday), to no more than 10 hours. A new weekly limit of 56 hours has been introduced. The fortnightly limit of 90 hours' driving remains unchanged.

2 Daily Rest Periods

Daily rest remains unchanged at 11 hours within the 24-hour period from the end of the previous rest period. A driver may reduce their daily rest to no less than 9 consecutive hours, up to 3 times between weekly rest periods. 'Compensation' is no longer required for this 'reduced daily rest', although compensation for reduced 'weekly rest' is still required – see below.

If working a 'split shift', drivers must have 1 period of at least 3 hours of rest followed by an additional 9 hour rest period within the 24-hour cycle. Where a vehicle is double manned, the daily rest requirement is now 9 hours in 30 hours. An additional point to note with crewed vehicles is that during the first hour, the presence of the second driver is optional. After that first hour it is mandatory for both drivers' to be present in the vehicle throughout the whole period.

3 Weekly Rest Periods

After no more than 6 X 24 - hour periods – following the end of the last weekly rest period – a new regular weekly rest period must be started. A regular weekly rest period is at least 45 hours. **It may be reduced to no less than 24 hours – a reduced weekly rest**

period. If a reduced rest is taken one week, the next weekly rest period must be at least 45 hours.

Additionally, any reduction in weekly rest from 45 hours down to at least 24 hours must be compensated by taking an equivalent amount of rest 'en bloc' by the end of the third week following the week of reduction. This compensation can be taken added on to either a daily or weekly rest period.

4 Keeping Records Correctly

All drivers, irrespective of what type of recording equipment they are using, shall make available, on request at the roadside by authorised inspecting officers, records sheets for the current day and those completed in the previous 28 calendar days.

NOTE: *This isn't the previous 28 working days, it is records for the previous 28 'calendar days'*

Records of drivers' hours, including analogue charts and printouts from digital tachograph vehicle units, **must be kept** by operators for at least twelve months, **in chronological order***, and made easily available for inspecting officers.

*Article 26 requires that records and printouts are kept in chronological order. In the case of a damaged Driver Card the regulation requires the driver to print out the details of the vehicle at the start of the journey and enter the details to enable the driver to be identified and signature; at the end of the journey print out the information relating to the period of time recorded by the equipment and again enter details that will identify the driver and signature.

All drivers, irrespective of what type of recording equipment they are using, must record '**Other Work**' under: ✕ *

'**Availability**' must be recorded under: ☑ to ensure compliance with the Road Transport (WTD) Regulations 2005.

*Article 26 stipulates that 'Other Work', including work for another employer within or outside the sector, is recorded under the first symbol shown above and that 'Availability' is now recorded under the second symbol.

5 EC Drivers' Hours – Since 11th April 2007

Daily Driving	<p>The daily driving time shall not normally exceed 9 hours, although the daily driving limit may be extended to at most 10 hours, not more than twice during the week.</p> <p>Increases to 10 hours daily driving no longer require any compensatory daily rest to be taken.</p>
Weekly Driving	<p>The weekly driving time shall not exceed 56 hours and shall not result in the maximum weekly driving time laid down in the Road Transport Directive 2002/15/EC being exceeded.</p> <p>Previously (before 11.04.07) no weekly driving limit was specified as part of EU drivers' hours legislation.</p>
Fortnightly Driving	<p>Maximum 90 hours in any two consecutive weeks.</p> <p>Previously (before 11.04.07) maximum 90 hours in any fortnight - just a wording change.</p>
Breaks from Driving	<p>45 minutes break in or immediately following 4½ hours driving – can be broken down into an initial minimum period of at least 15 minutes, followed by at least a 30 minute break period, in that order.</p> <p>Previously (before 11.04.07) could be broken down into 3 minimum periods of 15 minutes. Not any more.</p>
Daily Rest	<p>11 hours daily rest, may be replaced by a reduced daily rest of it is at least 9 hours – a reduced daily rest may be taken up to 3 times between any two weekly rest periods – no compensation required.</p> <p>Previously (before 11.04.07) compensation for reduced daily rest was required.</p>
Weekly	<p>A regular weekly rest period is at least 45 hours, which can be reduced to a reduced weekly rest period of at least 24 hours, in alternate weeks. Any rest taken as compensation for a reduced weekly rest must be made up by the end of the 3rd week following, attached to a rest period of at least 9 hours.</p> <p>Previously (before 11.04.07) 45 hours regular weekly rest could be reduced to 36 hours at base or 24 hours away from base, with compensation made up by the end of the 3rd week, added to a rest of at least 8 hours.</p>
Multi-manning	<p>9 hours rest in 30 hours permitted, with further allowance for a driver to operate the 1st hour solo.</p> <p>Previously 8 hours rest in 30 hours for each driver, with the need for all crew members to be present with the vehicle at all times within that period.</p>

THE ABOVE EC DRIVERS' HOURS HAVE BEEN LEGALLY BINDING SINCE 11TH APRIL 2007

The requirement to be able to produce records for the current day and any completed in the previous 28 calendar days became a legal requirement on 1st January 2008.

The requirement to be able to produce a driver card if one has been issued, even if it has never been used, came into force in May 2006. Failure to do so can lead to prosecution for 'failing to produce sufficient records'.

ALWAYS USE THE CORRECT MODE SWITCH ON THE TACHOGRAPH.

IT IS INCORRECT TO LEAVE A TACHOGRAPH ON THE 'BED' MODE WHEN YOU ARE CARRYING OUT OTHER DUTIES, WHATEVER TYPE OF TACHOGRAPH RECORDING EQUIPMENT YOU ARE USING.

DIGITAL TACHOGRAPH VEHICLE UNITS DO NOT RECORD BREAK OR REST UNLESS YOU EXPLICITLY CHOOSE THE 'BED' MODE WHEN YOU STOP THE VEHICLE.