DIGITAL TACHOGRAPHS

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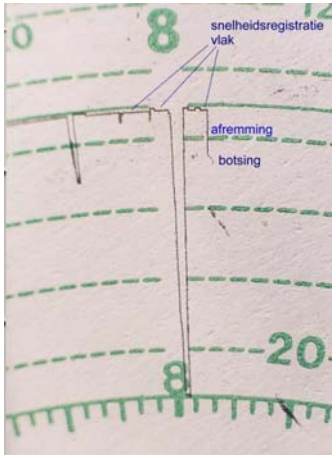
CHRONOLOGY



INTRODUCTION

Digital recording equipment is the replacement for all the current versions of analogue recording equipment and will be fitted to all vehicles that are subject to Regulation (EEC) 3820/85 from the mandatory fitment date – 1st May 2006.

There are no requirements to retrofit existing vehicles.

Penetration grade digitach NL at the moment 30 to 35 %

INTRODUCTION II

Why is the (digital) tachograph introduced?

- To ensure drivers' social needs are met
- To give a level playing field across the transport sector
- To improve road safety

INTRODUCTION III

Why Digital Tachographs?

The EU want to stem the constant manipulation of either the recording equipment or records made by it and to assist in driver and vehicle monitoring.

Different types of digital recording equipment

ACTIA

Stoneridge Electronics

VDO

T•I•S•P•O•L
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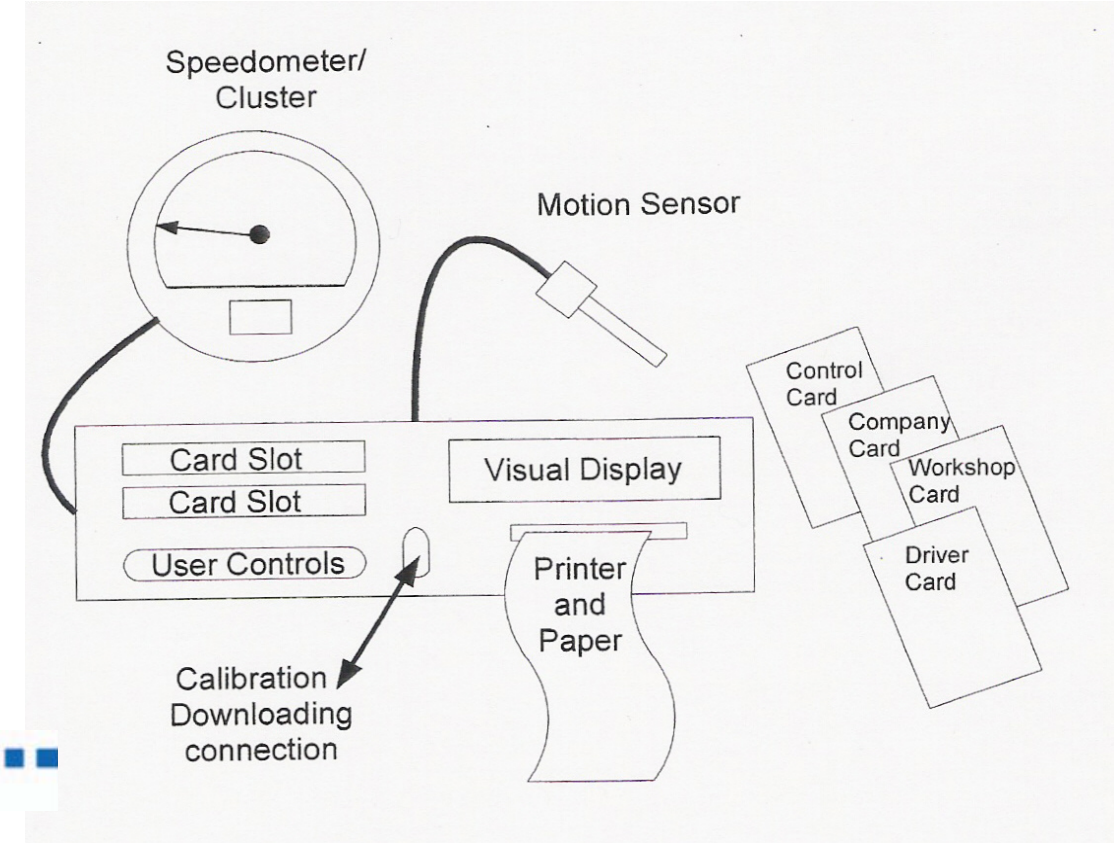
Technical lay-out

Recording equipment is clearly shown to include cables, a motion sensor and a vehicle unit .

The diagram shows the basic components and layout

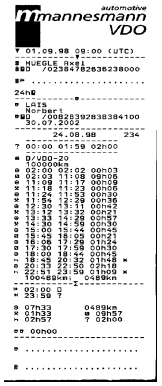


Technical lay-out II

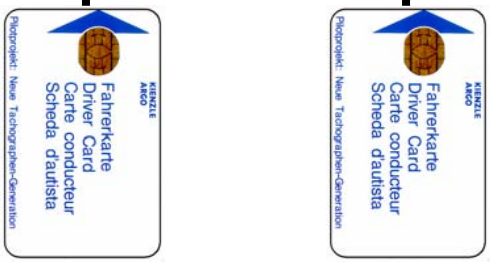
Electronic Speedometer

KITAS Intelligent Sensor

Printout

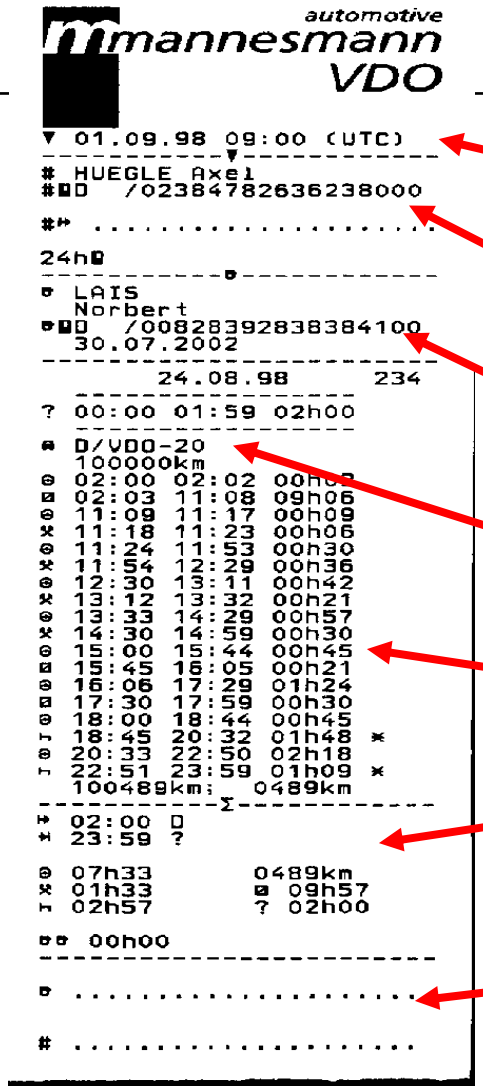


Download



Driver Cards

Reading the print-out



Date and time at which the document is printed

Controller identification

Card holder identification

Vehicle Identification

Mode Activities

Card daily summary

Control Place

Controller's signature

Driver's signature

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SMART CARDS

There are four types of Smart cards available:

- Driver Card
- Company Card
- Control Card
- Workshop Card

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Advantages in general

Keeps drivers' hours data for at least one year

Stores details of attempts to tamper & faults

Records periods of overspeeding

Stores calibration information

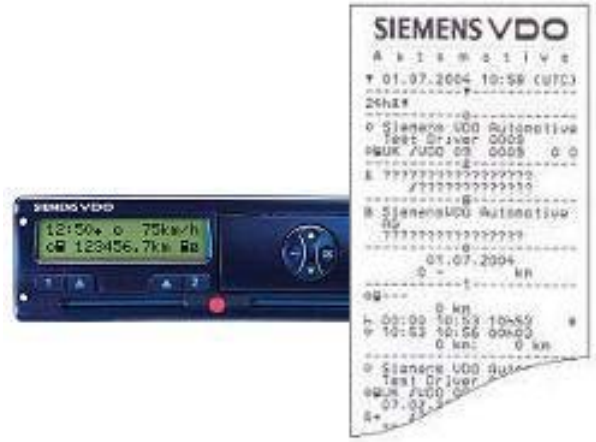
Charts replaced by smart cards

Remote (GPRS / UMTS) downloaden allowed & possible

Advantages transport company

- Adequate and swift checks, less time consuming
- Better enforcement performance (from 1% to 4% in 2012)
- Adequate records for own use
- Automated analyses have a positive influence on unambiguous interpretation

Enforcement tools



Print-out and display

TPC Appliance
from IVW/NL

Download key by
Continental / Siemens

Download aid by Actia

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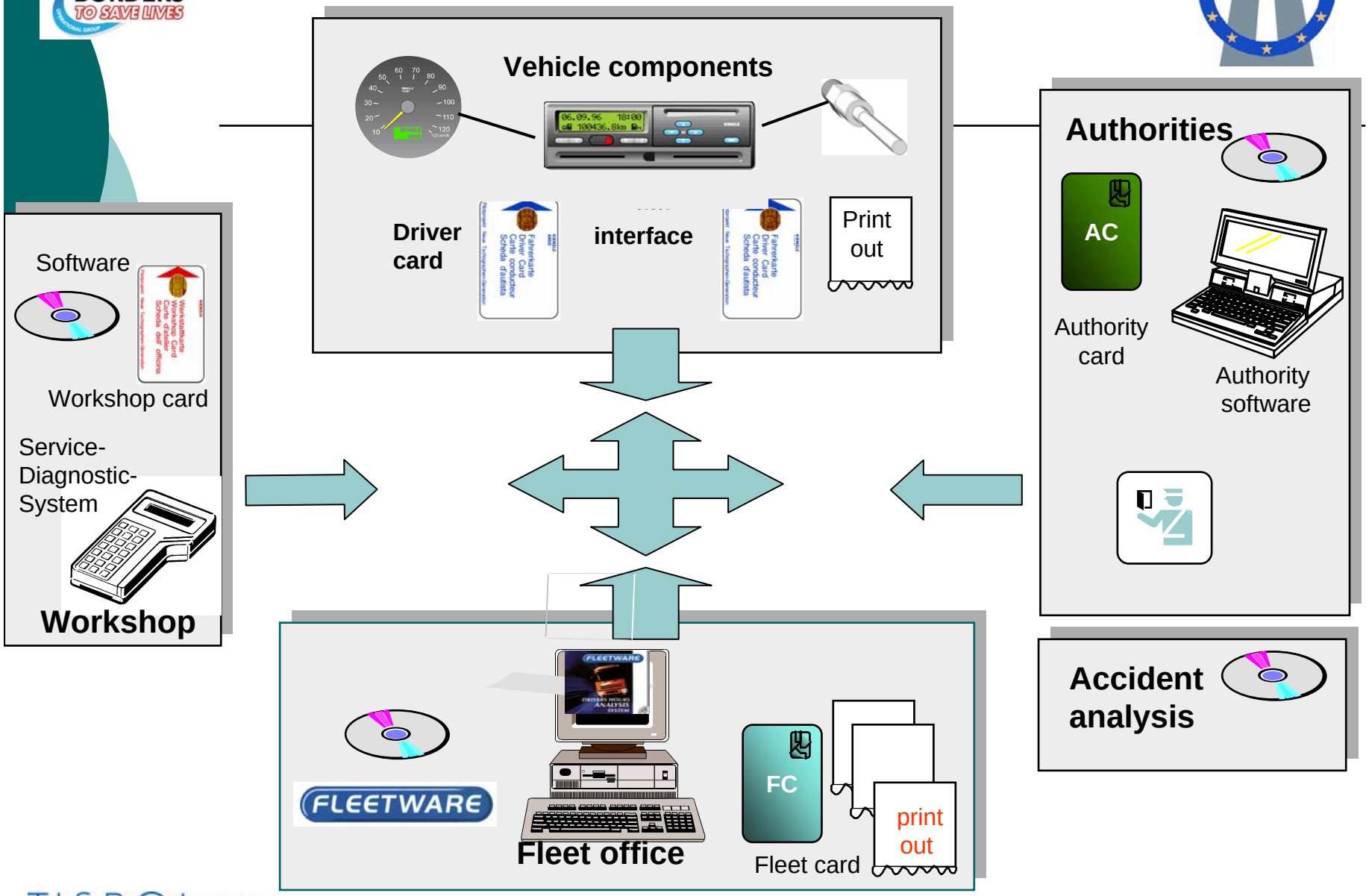
DTCO Digital Tachograph Summary



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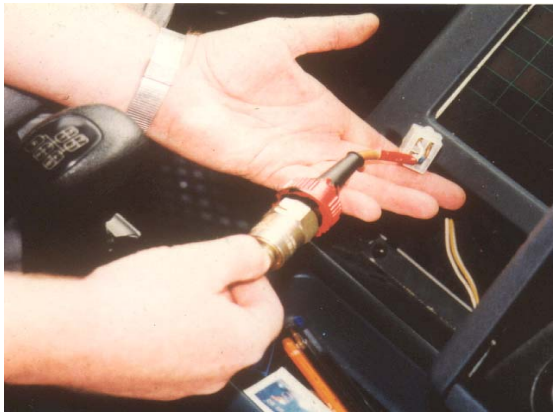
ESTIMATE ANNUAL COSTS NL

De bedragen zijn hieronder onderverdeeld in bedrijfseffecten (nalevingskosten) en administratieve lasten op jaarbasis in euro's:

Bedrijfseffecten:		Administratieve lasten:	
Kosten bedrijfskaart:	1 670 000	Aanvraag bedrijfskaart:	75 000
Kosten kaartlezer:	1 380 000	Aanvraag best. Kaart:	74.500
Kosten best. Kaart:	2 673 000	Ophalen best. Kaart:	661 500
Cursuskosten verv.:	315 000	Gederfde werktijd verv:	1 039 360
Kosten wkp kaart:	210 100	Gederfde werktijd wkp:	376 800
Cursuskosten wkp:	70 650	Aanvraag wkp kaart:	7 225
TOTAAL	6 318 750	TOTAAL	2 234 135

THREATS

Although the digital tachograph was introduced as tamper-proof, it soon showed that it was sometimes quit easy to manipulate.



Thanks for your attention!

Questions?

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www.euro-controle-route.eu