

Digi Tacho User Guide

What is a Digi Tacho? – the Digital Tachograph (Digi Tacho) is an electronic recording device that must be fitted in any goods vehicle over 3.5 tonnes CAN first put in use after 01/05/2006. It is sometimes referred to as the 'tacho head' or 'VU' (Vehicle Unit).



A driver operating under EU or Domestic Driving Rules is issued with a Smart Card which he puts into the VU whilst operating the vehicle to record all his activities. The events through the working day are stored on the card and must be downloaded and analysed at regular intervals.

What does it give us? – Each card has a unique Driver Card ID which is sent to the BigChange® website when inserts the card. This enables us to associate the driver with the vehicle and attribute all activities to him for that period.

As the driver moves between modes (driving, rest, period of availability, other duty/work) an event is sent to the BigChange® website which is processed to calculate the amount of each activity. The Driving Rules put limits on the length of the activities and the website calculates and displays them.

How do we get to the data? – collecting, processing and delivering Digi Tacho data requires the same piece of additional hardware as CANbus, a Squarell 'Flex' device. An additional wire is run from the VU to the Flex providing the live feed of events. This feed is often referred to as k-line (after the type of signal) or D8 (after the connection pin on the VU).



Squarell FLEX device

How is it set up? – the Driver Card ID must be entered against 'Tacho card' in the 'Edit' pop-up in 'Administration/Manage your resources' under 'My Account' (on the Navigation Bar).

| | |
|--------------|---|
| Business key | <input type="text"/> |
| Private key | <input type="text"/> |
| Tacho card | <input type="text" value="DB06269167234303"/> |
| Fuel card | <input type="text"/> |

i The clock in a VU is set when the VU is calibrated and is not related directly to GPS time or mobile phone network time. The VU assigns the driver's Work State to each 'Tacho Minute' according to this internal clock. This concept of 'Tacho Time' is very important as all calculations involving the amount of time in the various work states use Tacho Time.

What happens to the data? – Each time an event is received from the tacho the BigChange® website updates records kept for that driver. The processing of events is complicated as there are several EU rules that need to be followed:

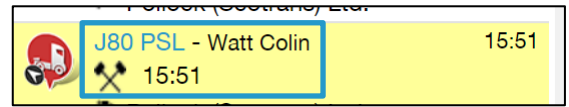
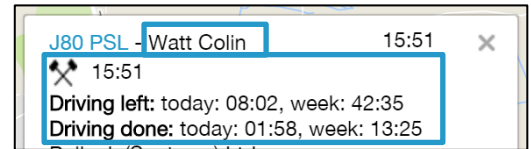
- Requirement 038 - The first change of activity to REST or AVAILABILITY arising within 120 seconds of the automatic change to WORK due to the vehicle stop shall be assumed to have happened at the time of vehicle stop (therefore possibly cancelling the change to WORK).
- Requirement 041 - Given a calendar minute, if DRIVING is registered as the activity of both the immediately preceding and immediately succeeding minute, the whole minute shall be regarded as DRIVING.
- Requirement 042 - Given a calendar minute that is not regarded as DRIVING according to the previous requirement 041, the whole minute shall be regarded to be of the same type of activity as the longest continuous activity within the minute (or the latest of equally long activities).

After processing the records contain daily and weekly totals for driving time, duty/work time, break time and periods of availability.

Where can I see the data in BigChange? – The tacho records are displayed in many places; on the website and in reports.

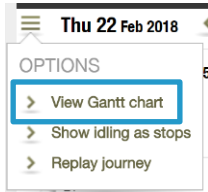
Map pop-up: when the user clicks on a vehicle on the map the pop-up shows:

- Current driver resource (identified by his Driver Card ID)
- Current tacho Work State as a pictogram (this example is 'Work')
- Work state start time (15:51)
- Driving left – calculations for today and current week based on
- Driving done – totals from the stored records



Map Vehicle List: this also shows the driver, mode pictogram and event time

Map Journey View: when 'View Gantt Chart' is selected from the resource journey toolbar the tacho timeline is displayed underneath the journey timeline.



Driving is shown in blue, breaks in grey and other work in violet

Tachograph Report: This shows the individual work state events and also summarises the total time in each them over the required period.

| Resource | Vehicle | Time | Duration | Position | Location |
|-----------------------|---------|----------|------------------------|----------|----------------------------------|
| GROUP BATHGATE | | | | | |
| ALLAN Stuart | | Summary | Break | 02:24 | Other Work 01:48 |
| | | | Period of Availability | 01:29 | Driving 08:52 |
| | | | Daily rest | 01:48 | Distance 0 |
| 06/02/2018 | | | | | |
| | | | Break | 02:24 | Other Work 01:48 |
| | | | Period of Availability | 01:29 | Driving 08:52 |
| | | | Daily rest | 01:48 | Distance 0 |
| P90 PSL | | 05:30:00 | 00:19:00 | 🚧 | Other Work |
| P90 PSL | | 05:49:00 | 00:01:00 | 🚗 | Driving |
| | | | | | Cobham KT11 3DB |
| P90 PSL | | 05:50:00 | 00:03:00 | 🚧 | Other Work |
| P90 PSL | | 05:53:00 | 00:52:00 | 🚗 | Driving |
| | | | | | Cobham KT11 3DB |
| | | | | | Forstal Road, Aylesford ME20 7AE |
| P90 PSL | | 06:45:00 | 00:04:00 | 🚧 | Other Work |
| P90 PSL | | 06:49:00 | 00:01:00 | 🚗 | Driving |
| | | | | | Forstal Road, Aylesford ME20 7AE |
| P90 PSL | | 06:50:00 | 00:01:00 | 🛑 | Break |
| P90 PSL | | 06:51:00 | 00:34:00 | 🛑 | Period of Availability |

Timesheet Reconciliation Report: This compares the activity durations collected from the vehicle journey, timesheet and tacho work states.

Driving is shown in blue and other work in violet

