## **DL1 Club Data Logger**





## Configure the unit over USB with the user friendly configuration software

What is the DL1 CLUB?

The DL1 CLUB is a completely updated version of the DL1. It is a state-of-the-art vehicle data logging and control system. Put in the simplest terms, it stores a wide range of vehicle data for later analysis on a computer - the system does not include an invehicle display, Race Technology has a number of dashboard solutions available for the DL1.

Who is the DL1 CLUB designed for?

The DL1 CLUB is designed for autosport applications including drag racers, single seater racing cars, rally cars or road cars - however it is also ideal for use on power boats, go karts and motorbikes. It is also an ideal platform for use in the auto industry for car testing of all types, from long term monitoring to competitor benchmarking.

What does the DL1 CLUB do?

The DL1 CLUB can store data from a number of sources including its built in high accuracy GPS and accelerometers, wheel speeds, shaft speeds, engine speeds, temperatures, pressures, lap times, sector times etc. The DL1 comes packaged with the excellent Race Technology data analysis package for Windows. The software allows super accurate track mapping, user defined channels, powerful graphing and allows direct comparison of up to 10 data sets (races) simultaneously with almost unlimited laps. The DL1 CLUB can also be used to supply data to dashboard displays and to drive auxiliary outputs to control fans, pumps, or lights.

Why use GPS?

One of the key features of the DL1 CLUB is its built in high accuracy GPS system - this gives the DL1 advantages over other data loggers in 2 key areas - greatly improved track maps and far more accurate speed data.

Track Mapping

Conventional data loggers require a "closed circuit" to enable them to calculate the track map; the shape of the track is estimated from a combination of the lateral acceleration and speed. This works adequately in some situations but it becomes increasingly inaccurate for long tracks and impossible for open circuits, motorbikes or boats. In contrast, the GPS will produce high accuracy track maps in almost any situation.

Speed Measurement

While speed is probably the most important parameter that anyone wants to measure using the data logging system, it is also the most inaccurate in a "conventional" system. The normal way to measure speed is to simply attach a pickup to a wheel to detect how fast it is rotating - but the rolling circumference of a tyre changes by 4% just with wear and temperature. Even worse, the error increases significantly under race conditions where the tyre is under load - typically the tyre slips by up to 20% under hard braking going into a corner. Measuring speed using GPS is now common practice in high-end systems - under typical conditions speed error is well under 1%!



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