

# the Case Study

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Keeping you up-to-date with the world of **noise measurement**

## Accelerating with Bugatti

When the Bugatti Owners' Club established itself in 1929, its members didn't really have too much to worry about when it came to issues such as road congestion and noise.

But just as cars have moved on with the times so has the Club. The Club applies a strict noise level threshold for competing cars at their renowned meetings on Prescott Hill near Cheltenham, Gloucestershire.

Cirrus Research plc has been working closely with the Club over recent years using a CR:245/3 environmental noise monitor to record noise levels on their challenging hill climb track. This necessitates maximum engine output – as well as driver expertise to complete.

Recommended by the Environmental Manager for Brands Hatch, the Club knew that the CR:245/3 had already worked effectively at a number of other high profile race tracks in the UK, but had not been applied to HillClimb or Sprint venues in the UK.

The monitor is positioned at the point where there is likely to be maximum acceleration – approximately 80 meters from the start line – with the noise monitoring equipment linked to the venue's timing software which automatically provides a noise measurement of each competing vehicle.

The Club currently applies a 'drive-by' limit of 104 dB(A). Any cars going over this limit are subject to an individual static half-metre test with failing cars not permitted to compete at the venue.



The equipment is  
simple to use, heavy  
duty and reliable

Justin Barker, Sales Manager from Cirrus Research plc, says: "The Club is being very proactive rather than reactive and making sure that they avoid excessive noise levels. Any member's cars that exceed their limit don't get to race – it is that simple."

Cirrus Research plc ensured the noise measuring equipment was bespoke for the Club, particularly in the way it communicates the data. "The software was set up to record all the activity from the noise monitor and had to be connected to the existing software with all the timings for the track," added Justin. "This ensured that there was no disruption at all with the link up of the existing software."





Cirrus Research plc was also able to offer added value with initial training for the Club to ensure organisers had a full understanding of how the product works from day one.

Ian Patton, General Manager from the Club said: "We like using the equipment on many levels as it is simple to use, heavy duty and reliable. It minimises the amount of work that we have to do when it comes to measuring noise and provides a robust and accurate record of each event's noise levels."

Robust and accurate record of each event's noise

Other advantages of the CR:245/3 is that it is fully weatherproof, so even when it is raining the equipment can be used – a distinct advantage with the English climate. It can also operate in temperatures as low as -10 °C but up to +50°C.

**The CR:245/3 is a versatile instrument and, as well as race circuits, can be used in a wide range of measurement situations including:**

- Construction Sites
- Power Stations
- Airport & Aircraft Noise Monitoring
- Factories and Large Industrial Sites
- Product Development & Research

When testing in these situations the CR:245/3 can be used as both a semi-permanent noise monitor to provide medium term measurements or as a fully mobile instrument to respond to specific noise complaints and problems. As well as monitoring levels generated by specific noise sources, the CR:245/3 is used for the measurement of continuous noise levels such as urban road traffic and city noise.

The CR:245/3 has been so successful at Prescott Hill that the Club are considering the purchase of a second portable monitor.

## Cirrus Products used in this case study

- CR: 245/3

### About the Club:

The Bugatti Owner's Club was established in 1929 with the express objective of promoting motor sport and the 'new' pastime of motoring by holding and arranging races, matches and time trials.

The Bugatti Owners' Club bought the Prescott estate in 1937 and started converting the muddy, rutted drive into a speed hill climb ready for the opening rally in April 1938. The Club President, Earl Howe, opened proceedings by driving his type 57 Bugatti up the hill. Today Prescott is still the home of the Bugatti Owners Club and they hold a wide variety of clubs and events throughout the year, both at Prescott, across the UK and overseas.