

## Airbag Control Modules May Contain Useful Information.

Q - Do airbag control modules contain useful information, even if the air bags did not deploy?

A – Yes. Airbags are controlled by a computer called the airbag control module generally found under the driver's seat. It constantly monitors the vehicle sensors and stores this information in a temporary file. In a minor impact, the sensors "wakeup" the computer and it stores the information from up to 8 seconds before impact in a memory that can be downloaded.

Information that may be obtained from up to 8 seconds before impact:

- Vehicle speed
- Brake light switch (On/Off?)
- Engine speed
- Throttle position.

It may also record:

- Impact speed change or  $\Delta V$
- Seat belt use
- Airbag deployments
- Seat belt pre-tensioner deployments.

Q - How does an accident reconstructionist use this information?

A - The information when taken with the other physical evidence helps complete the picture of what happened in the collision. In many cases, the information may tell a different and more reliable story than eye witnesses. The data stored may include two different impacts and even help determine which impact came first – front collision or rear.

Q - How can the information be retrieved?

A – The data can be retrieved by a certified technician using equipment supplied by Bosch.

Q - How can the information be interpreted?

A – The data should be analyzed by a certified engineer trained to read the information contained in the module.

Q - What cars have airbag control modules?

A - Most cars produced for the US since 1998 have them. However, only certain models can be downloaded. General Motors cars from as early as 1994, Fords from as early as 2001, and Chryslers from 2004 can be downloaded. Starting in 2009, many car manufacturers are scheduled to provide means to download the information.



Typical Air Bag Module

Q - Is it legal to download the information?

A - Clearly, if you own the car, the information is yours. If you do not own the car, but the car is evidence involved in a legal matter, then the information contained in the airbag control module is part of that vehicle and should be part of the evidence as much as any damaged part. As with any accident investigation, permission to inspect the vehicle should be obtained, preferably in writing.

Q - Is the information admissible in court?

A - The answer is generally, yes. Admissibility hearings challenge the following:

Is the technique new or novel?	No.
Is the technique tested or testable?	Yes
Is there a reasonable error rate?	Yes
Are there standards for application?	Yes
Acceptance in the relevant community?	Yes
Has it been published or peer reviewed?	Yes

Some states have treated the issue as a privacy infringement, but in general, it is considered as part of the discoverable evidence.

A thorough accident investigation should include retrieval and analysis of the available information from the air bag module by a certified person.