



Reward 2010

Citroën Localized Emergency Call



Citroën Localized Emergency Call system is designed to connect the vehicle automatically with an emergency call centre immediately following an accident. Crash sensors detect when a car has been in an accident, based on vehicle decelerations and the firing of pyrotechnic safety devices like airbags. If an accident is detected, Citroën Localized Emergency Call first sends an SMS message to a Citroën call centre, giving the precise location at the time of impact and the last ten known positions of the vehicle to establish the direction of travel. The system then establishes a voice connection between the car and the call centre, allowing the vehicle's occupants to communicate with a trained operator. If the occupants of the car are unconscious or otherwise unable to communicate, the call centre immediately notifies the emergency services and provides information about the location of the accident. Otherwise, the operator establishes the extent of the occupants' injuries and decides whether or not the emergency services should be notified.

Citroën Localized Emergency Call can be used in all parts of Europe where there is adequate GSM coverage. Customers who bought the system in France, Germany, Spain, Portugal, Italy, Austria, Switzerland, Belgium, Luxembourg and The Netherlands will be connected to a call centre in their home country and will be able to communicate in their native language. Customers who bought the system in other European countries will be connected to the local emergency services via a '112' call. If a mobile phone connection cannot be established owing to insufficient GSM coverage, in most cases the SMS is still sent as that requires a much weaker signal.

Once Citroën Localized Emergency Call bought, the service is free and remains operational for the life of the vehicle. However, owners can choose to delocalize the system if they are concerned about privacy. In such cases, Citroën Localized Emergency Call cannot provide information about the location of the accident, and will dial the local 112 number.

What is the safety benefit?

In accidents which involve a fatality, around a third of mortalities occur within the first ten minutes. Citroën Localized Emergency Call cannot help these people. However, of the remaining two thirds, currently around half of the mortalities occur within 90 minutes of the accident and the other half at a time later than that. Citroën

Localized Emergency Call has the potential to assist these two groups by delivering faster emergency assistance. While it is anticipated that Citroën Localized Emergency Call will benefit low severity injuries, its primary focus is on severe and fatal injuries, especially in remote areas. Broader use of mobile phones means that occupants who have only minor injuries are increasingly able to notify the emergency services of the accident.

It is estimated by the European Commission that, if all cars were equipped with an emergency call system, some 2500 lives could be saved every year in Europe and the number of people severely injured reduced by 10-15 percent.

How has the system been assessed?

Several different crash test configurations were used to ensure that the Citroën Localized Emergency Call hardware (sensors, control unit etc) were sufficiently robust to stand up to severe impacts and that the system recognised the accident and notified the call centre. The efficiency of the system at connecting to an available network was established in areas where network coverage was low. Call centre staff are routinely tested for their efficiency and knowledge to ensure that they can react appropriately in case of an emergency call.

What are the limitations?

Only Citroën customers in some countries can choose the option when buying their cars. Citroën is working to try to broaden the availability, which depends on agreement of the local PSAPs (Public Service Answering Point) to receive notifications from the manufacturer's call centres.

The system relies on mobile network (GSM) coverage in order to be able to work. Citroën Localized Emergency Call can roam and connect to any available network, unlike most personal mobile phones. While most of Europe is served by at least one network operator, there remain some areas where no such connection is possible. Such areas are likely to be remote and poorly populated, precisely the sorts of areas where an automatic emergency call system could provide the greatest benefit. Nevertheless, it may be possible to send an SMS even when no phone connection can be established, as text messaging requires much weaker network coverage.

GENERAL NOTE ON EMERGENCY CALL SYSTEMS:

Please note that the eCall legislation under discussion at the European Commission will require the automatic message to be sent to the 'Public Safety Answering Point'. As this system is not yet standardised in all European countries, this manufacturer has chosen to anticipate and propose an eCall service where the message is directed to its own emergency call centre, filtering calls to be forwarded to the public service call centres. The filtering and forwarding of emergency calls may lead to a loss in response time but, on the other hand, calls not related to emergencies will be handled by the manufacturer's call centre. Therefore this proprietary eCall system may not ensure the same standards regarding response time as the eCall system proposed by the European Commission, but it may handle today's filtering issues.

The system may also require a subscription to the manufacturer's services. It may prohibit the consumer's choice of calling on other services and may prohibit other service providers to offer their services to the vehicle owner. However, it allows the urgency and assistance services to be informed via a single call.



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