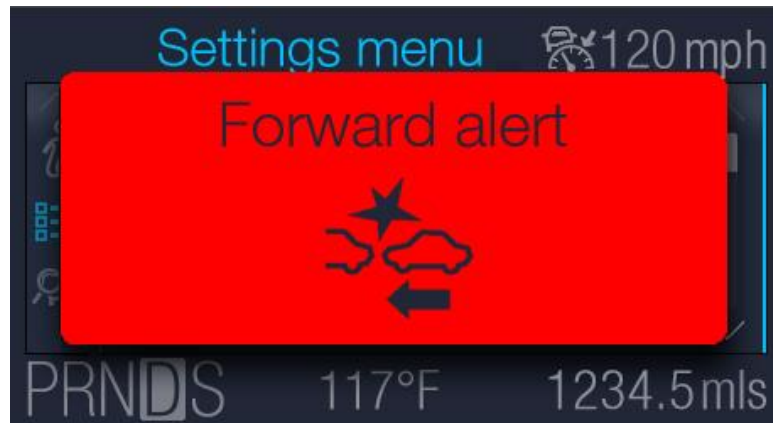




Reward 2011

## Ford Forward Alert



Forward Alert is a forward collision warning system including collision mitigation by braking (CMbB) which uses a front radar sensor to help identify critical situations. At speeds between 7km/h and 180km/h, a distance some 200m ahead of the car is scanned for radar reflective obstacles. Some two and a half seconds before impact, the driver is warned of a potential danger. A second later, the CMbB functionality kicks in so that when the driver lifts the gas pedal, the car automatically delivers a moderate brake force. As soon as the driver applies the brake the maximum brake force is applied, regardless of the pressure applied by the driver.

### What is the safety benefit?

It is estimated that around 17 percent of all accidents with personal injuries in Germany are rear end collisions in longitudinal traffic. The main causes of such accidents are driver distraction or inattentiveness, and driver misperception where a driving situation is misjudged. Forward Alert operates at speeds between 7km/h and 180km/h. A decrease of over 25 percent for both slight and severely injured occupants in front to rear collisions is thought possible in cars equipped with Forward Alert. If all cars on the road were equipped with such a system, this would be equivalent to Forward Alert providing some measure of protection in accidents where, currently, around 8,500 people are severely injured and 63,500 are slightly injured in EU 27.

### How has the system been assessed?

In addition to the in-house work done for the Forward Alert system, extensive track testing was done by one of the independent Euro NCAP laboratories to ensure that Forward Alert met targets for when warnings were given to the driver, and the points at where brake support was initiated. These track tests established the degree to which the impact speed was reduced in different accident scenarios against a simulated 'target' vehicle. Ford's accident research group carefully monitors the real-world crash performance of its vehicles and has extensive data on the performance and effectiveness of its advanced safety features.

**What are the limitations?**

Forward Alert can be switched off by the driver. If it switched off, it remains off until it is turned back on again and does not default to 'on' at the beginning of a new journey. The status of the system is constantly indicated with an illuminated pictogram in the instrument panel. The Forward Alert system predicts when an accident is likely to happen. To do this, Forward Alert requires a sufficient radar reflectance of objects which the car is approaching. Also, the radar sensor needs a clear 'view' of the road in front and its efficiency is compromised by contamination such as snow, mud or leaves. In other specific situations, the system may not be able to support the driver, i.e. small radius corners and in case a vehicle cuts in to the lane.

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