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Animal detection coming to Audi, BMW, Mercedes as early as 2013

The German automakers upgrade their night-vision systems to watch out for wildlife.

By Clifford Atiyeh Nov 20, 2012 6:44AM

Audi, BMW and Mercedes-Benz will offer animal detection on their night-vision systems as early as 2013, MSN Autos has learned.

Current night-vision systems use infrared cameras to detect pedestrians walking in the driver's field of view – outlined by body heat – and project a black-and-white image on a car's dash or instrument panel. Now, Audi will be among the first to use animal detection to spot deer, moose, horses, cows and other large animals, according to Autoliv, a Swedish safety supplier.

The A6, A7 and A8 will offer animal detection, including the S models, likely for the 2014 model year. BMW will also upgrade its 5-, 6- and 7-Series, either before or after Audi debuts its new models.

Here's a five-second glimpse of the system in action (black rectangles are blocking Autoliv's test data):

When the system spots a person or animal, it can send both a visual and audible warning of an impending collision and outline the object in yellow, even in the dead of night. The software can't detect dogs, cats or other small mammals such as raccoons or possums. The reason? It's awfully tough to program night-vision software and train it to work properly, so that customers aren't annoyed by "false positives" and switch it off. We'll have to wait for the next-next generation of night-vision systems that will arrive within the next two to four years.

Autoliv developed the first night-vision system with pedestrian detection for the 2009 BMW 7-Series. By the company's estimates, there are more than 2 million vehicle collisions with deer each year in the U.S. and Europe.

However, modern night-vision systems function only within certain parts of the infrared spectrum and can't see everything. Both BMW and Audi use Autoliv's far-infrared cameras, which can see farther down the road and show excellent low-light contrast. However, the overall image is dark.

Mercedes-Benz prefers near-infrared cameras, assisted by a small infrared light, which offer bright, high-contrast images for objects that are closer. However, these cameras tend to be washed out by passing headlights and other glare. We hear Mercedes is working on a hybrid night-vision system for its 2014 S-Class that would combine both near- and far-infrared cameras. The result would deliver greater clarity in both lighting conditions and allow a more natural image.

Cadillac was the first to offer night vision, on the 2000 DeVille, although it was green-tinted and blurry. Both BMW and Mercedes-Benz used Autoliv's first-generation system in 2005, and Audi came on board in 2010. Lexus is the only non-German automaker to use night vision in the U.S. market; it's offered on the 2013 GS.