Adaptive Driving Beam (ADB)
- Test Drive Geneva 30.03.2010 -

Bernd Woltermann, Friedrich Mueller, Daimler AG
24.03.2010
Timetable

- 08:30pm Pickup at Gare de Cornavin, transfer to Begnins
- 09:00pm Start night time test drive in Begnins
- 10:30pm Transfer Begnins to Gare de Cornavin
- 11:00pm Arrival Gare de Cornavin
8:00pm Meeting point: Gare de Cornavin, Exit to Rue de Mont Blanc
08:30pm: Begnins

- Meeting Point Begnins: Route de Gland, Bus station
Test Drive Route

Route:
http://maps.google.de/maps?f=d&source=s_d&saddr=46.44059,6.247164&daddr=46.541565,6.259975&hl=de&geocode=F
Y6gxAl_d_FjfAA%3B&mrco=0&msr=1&sz=14&ll=46.52038,6.267357&spn=0.041739,0.093985&ie=UTF8&ll=4
6.504537,6.2677&spn=0.167069,0.375938&z=12
## Test drive - Timetable

<table>
<thead>
<tr>
<th>Departure Begins</th>
<th>Schneider, Wolfgang</th>
<th>Pernkopf, Michael</th>
<th>Laurent, Vincent</th>
<th>Outward journey</th>
<th>Return journey</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00pm</td>
<td>09:05pm</td>
<td></td>
<td></td>
<td>Mercedes Class S</td>
<td>VW Touareg 1</td>
</tr>
<tr>
<td>Joshi, Madhusudan</td>
<td>Karkkainen, Timo</td>
<td></td>
<td>Langhammer, Gert</td>
<td>VW Touareg 1</td>
<td>Mercedes Class S</td>
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<tr>
<td>09:10pm</td>
<td>Tsukada, Yuki</td>
<td>Shamsundara</td>
<td>Blousseau, Eric</td>
<td>Opel</td>
<td>Hella</td>
</tr>
<tr>
<td>Genone, Valter</td>
<td>van Laarhoven, Wilfried</td>
<td>Kellermann, Gerd</td>
<td>Hella</td>
<td>Opel</td>
<td></td>
</tr>
<tr>
<td>09:15pm</td>
<td>Suzuki, Nobuatsu</td>
<td>Suzuki, Tadashi</td>
<td>Prigent, Jean-Marc</td>
<td>Audi A8</td>
<td>Gentex</td>
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<tr>
<td>09:20pm</td>
<td>Leveratto, Daniela</td>
<td>Tmbalaraman</td>
<td>Terburg, Bart</td>
<td>Gentex</td>
<td>Audi A8</td>
</tr>
<tr>
<td>Figuiere, Stéphanie</td>
<td>Virendra</td>
<td>Kunieda, Hirotsugu</td>
<td>VW Touareg 2</td>
<td>Mercedes Class E</td>
<td></td>
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<tr>
<td>09:25pm</td>
<td>Kubota, Hidenobu</td>
<td>Binani</td>
<td>Fujita, Teruyoshi</td>
<td>Mercedes Class E</td>
<td></td>
</tr>
<tr>
<td>09:30pm</td>
<td></td>
<td></td>
<td></td>
<td>VW Touareg 2</td>
<td></td>
</tr>
<tr>
<td>09:35pm</td>
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</tbody>
</table>

In addition to the test cars, Mr. Rovers will provide a rental car to experience the different system as „another road user“. 
Test vehicle 1: Mercedes Benz Class S
Advisor: Bernd Woltermann

**Mercedes-Benz Automatic High Beam Assist with Adaptive Low Beam**

- Automatic soft switching between low and high beam
- Adaptive low beam: the range of the low beam light is increased up to the next vehicle on the road
- World wide market introduction 04/2009

**Operation**

- Set Rotary Light Switch to “Auto”
- Push steering column lever in high beam position
  ➔ Full Automatic low and high beam light
Volkswagen Dynamic Light Assist Launched to Market with the New Touareg

Volkswagen Dynamic Light Assist (DLA) is a high sophisticated High Beam Assist (HBA) controlling the high beam light distribution adapted to the actual traffic situation via a camera signal. The main difference to already existing HBA is the use of partial high beams as shown in figure 1 and 2 exemplary.

**Operating DLA:**

a) Ignition on  
b) Set Rotary Light Switch to „Auto“  
c) Push High Beam Lever  
d) manual control by using the high beam lever possible at any time

**Telltales DLA:**

a) white telltale, when DLA is ready  
b) blue telltale for high beam, when the light distribution doesn't comply with low beams.
Opel High Beam Assist

- High beam automatically on at night when vehicle speed is above 40 km/h.
- Assist is switching automatically to low beam when the camera detects lights of oncoming or preceding vehicles, vehicle speed is below 20 km/h, or if it is foggy or snowy.
- A green control indicator illuminates continuously when the assist is activated, the blue one illuminates when high beam is on.

Operation
Turn the knob for the light control into the “Auto” position and push the “indicator lever” twice.
Test vehicle 4: Audi A8
Advisor: Benjamin Hummel

- High Beam Assist Plus in the new AUDI A8
  - Automatic switching between low and high beam
  - The headlight range is adapted to the next vehicle on the road

- Operation
  - Set rotary light switch to “Auto”
  - Push steering column lever in high beam position

  ➛ Automatic adaptation of the headlight range is activated
The Hella system is a basic development for OEM applications

- Hella ADB System shows an advanced headlamp system combining High Beam Assist (HBA) and partial high beam.
- The distribution adapts to the actual traffic situation via camera signal.
- The figure below shows some possible distributions for the partial high beam.

Operating ADB System:

- a) Ignition on
- b) Set Rotary Light Switch to „Auto“
- c) Push High Beam Lever
- d) Manual control by using the high beam lever possible at any time

Information about ADB System:

Information about the system status are displayed in an additional display
Test vehicle 6: Gentex (Audi Q5)
Advisor: Hoerg Olbort

**High Beam Assist**

- Automatic switching between high beam and low beam and vice versa
- Available for all types of headlamps – Xenon, Halogen and Mixed bulbs
- Introduction for Xenon in 2005, Halogen in 2009

**Operation**

- Ignition on
- Main light switch to auto
- Push stalk switch forward to activate system
- Manual override possible by pulling towards driver
Test vehicle 7: Volkswagen Touareg ➔ Page 8
Advisor: N.N.

Test vehicle 8: Mercedes-Benz Class E ➔ Page 7
Advisor: Friedrich Müller