



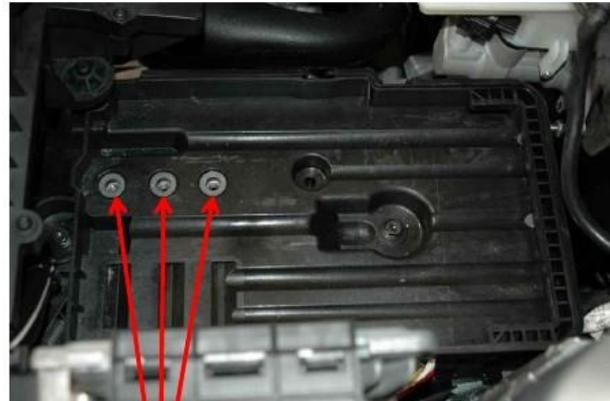
# News - wiring

## Contents:

- Variable battery holder
- Alternator
- Relay and fuse box
- New E-box
- Thermal fuse (J-Case)
- The new position engine control unit
- Connection box
- Socket 230



# Battery



the position of the battery holder



# Alternator



As for vehicles with start-stop is controlled alternator LIN Bus ride

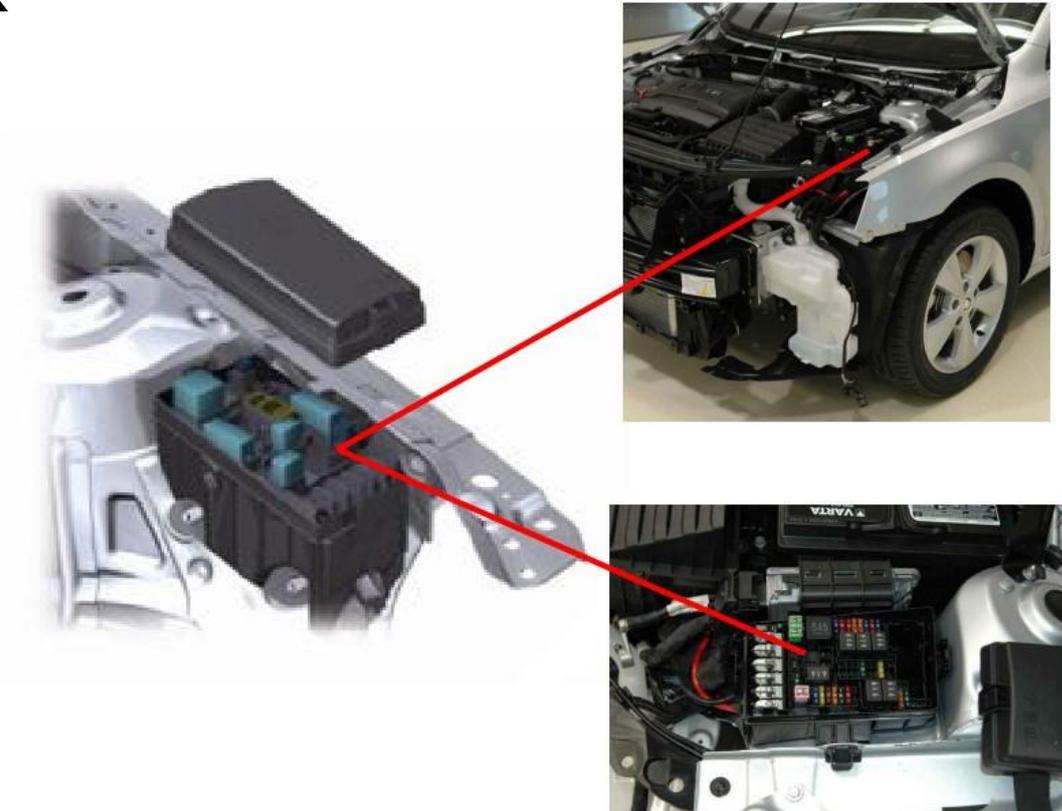


## Relay and fuse box





## E-Box





## New fuses JCASE



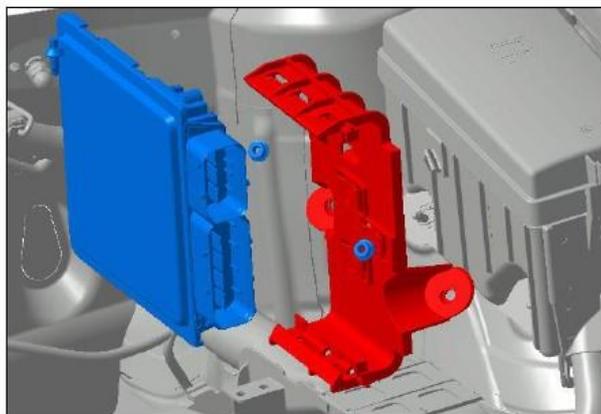


## CU BCM

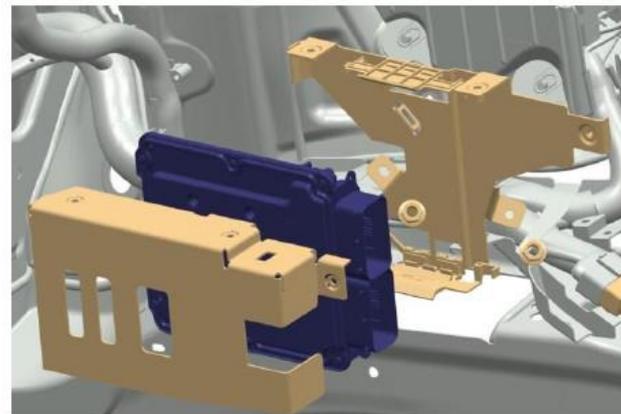




## Engine control unit



plastic holder nezakrytovaná

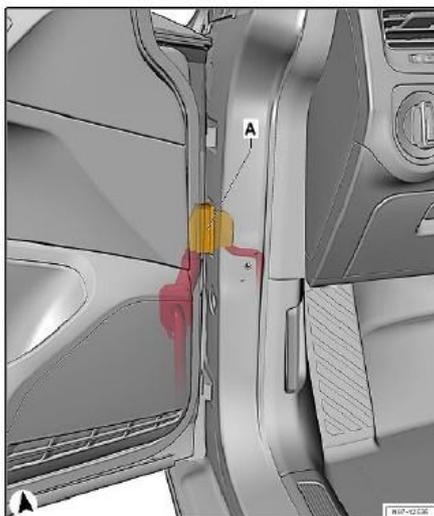


metal holder protector for

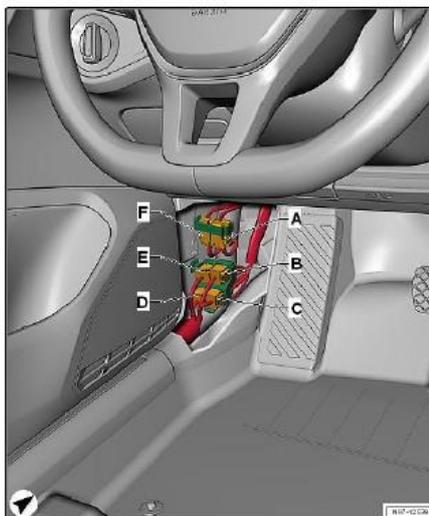


## Connection box

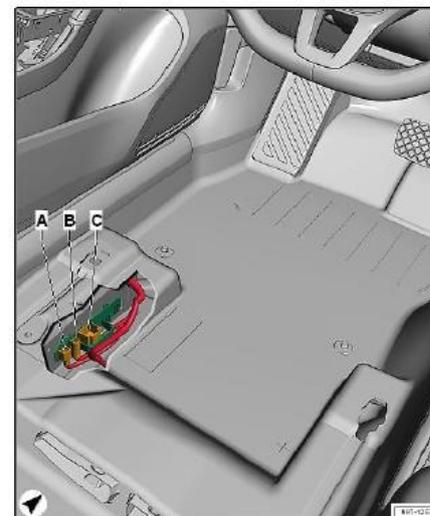
### Modular wiring harness



Connecting door beam



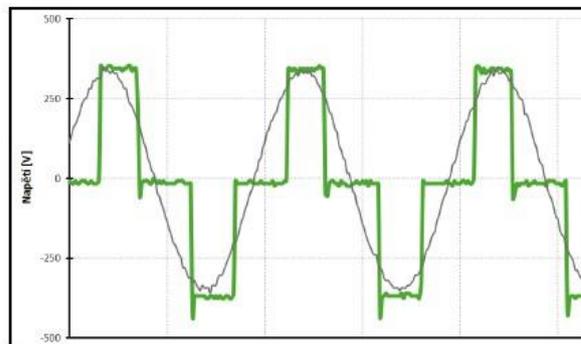
Connecting space  
A post on



Linking the front seat



## Socket 230 - Basic Information





## Operation 230V outlet

### Inactive

- Ignition is switched off or unplugged any appliance - without plug 230V

### Active

- Ignition and appliance plugged in - Power at 230V

### Temporarily inactive

- Ignition on, the appliance plugged in, but the auto protection - without plug 230V

### ➤ Error condition

- Long-term overload (current long-term greater than 18A) - 230V socket without



Inactive



Active



Temporarily inactive



Error condition



## Examples of use





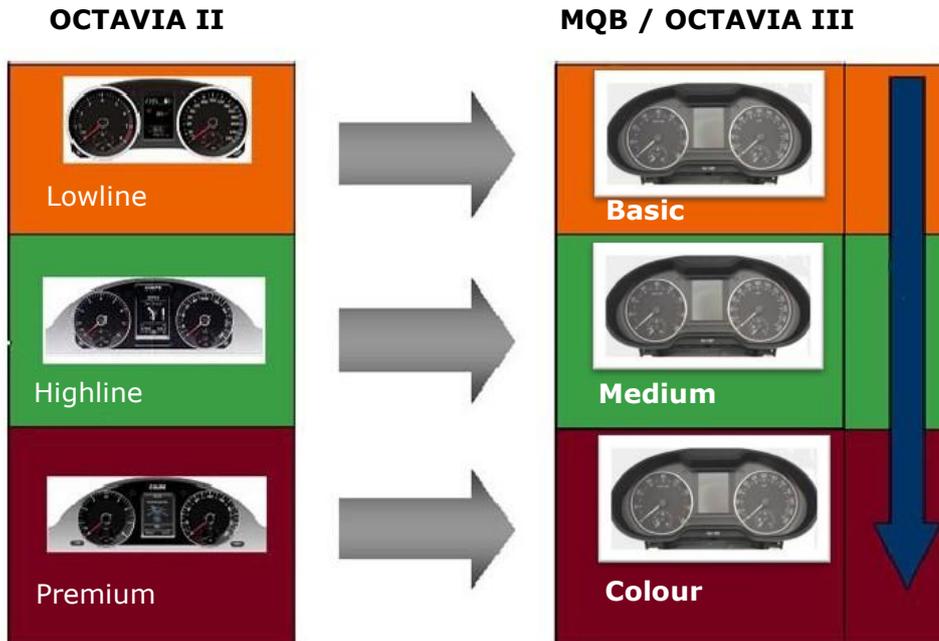
# COMFORT SYSTEM

## Contents:

- Instrument cluster
- Immobilizer 5th generation
- Radar (ACC)
- Assistance systems
- Lights
- BCM
- Door Systems
- Memory seat
- 5.dvere OCTAVIA COMBI
- Kessy
- DRIVE MODE



## Instrument cluster - MQB





BASIC without MFA	BASIC with MFA	MEDIUM	COLOUR
<input type="checkbox"/> Display White 480 Segments	<input type="checkbox"/> Display White 480 Segments	<input type="checkbox"/> Display 3.5 "TFT monochrome (black / white)	<input type="checkbox"/> Display 3.5 "TFT color
Manufacturer: <input type="checkbox"/> JCI	Manufacturer: <input type="checkbox"/> JCI	Manufacturer: <input type="checkbox"/> JCI <input type="checkbox"/> Continental	Manufacturer: <input type="checkbox"/> Continental
<b>Equipment:</b> Comfort  	<b>Equipment:</b> Ambiente, Elegance <b>Optional:</b> Comfort  	<b>Equipment:</b> Laurin & Klement <b>On request:</b> Comfort, Ambiente, Elegance  	<b>Optional:</b> Ambiente, Elegance, Laurin & Klement  
<input type="checkbox"/> It will release LPG / CNG - Separate fuel indicator - Analog			



# Comparison MQB Basic

Lowline



240 Segments

Octavia II

Basic



480 Segments

Octavia III





## Comparison

Highline / MQB Medium / MQB Colour

### Highline



110 x 166px

Octavia II



### Medium



Black / White

240 x 320px

Octavia III

### Colour

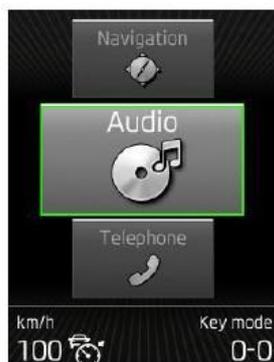
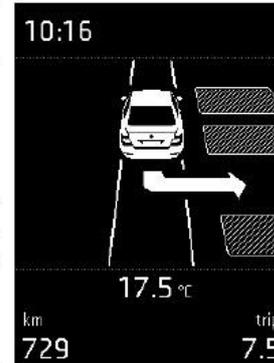
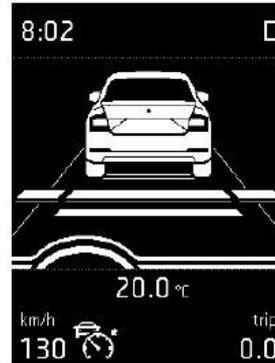
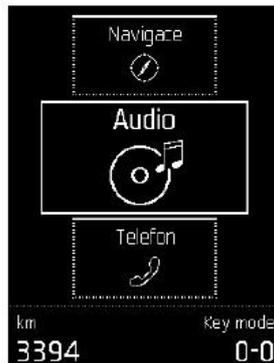
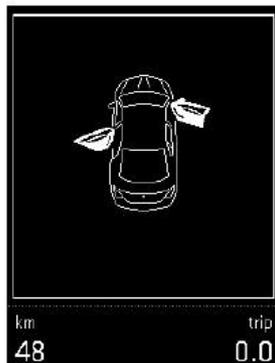


colored

240 x 320px



## Display - Graphics - examples

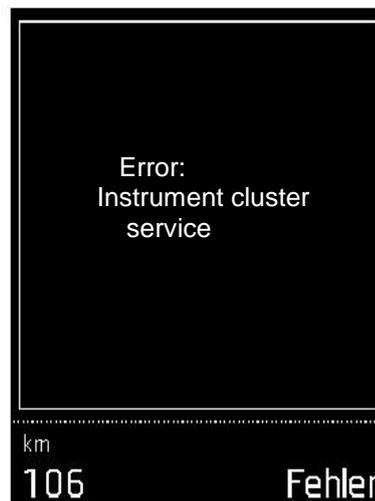




# Speaker



The speaker is an important signaling element in the failure of the defect listed on the display.





## Immobilizer 5th generation

- From the customer's perspective, nothing changes.
- From the perspective of service is an entirely new generation of security.
- Data in the vehicle are quite different - it works as a whole.
- Data are dependent on the equipment, the number of units, these units etc.
- All adapts and stores across FAZIT.
- Replacement units - need access GEKO.
- **Newly in FAZITU** - RJ automatic transmission (such as engine control unit)

**FAZIT** - Contains the correct version of the combination of vehicles and allow them to proper function - to indicate the operating status

- Enrollment key
- Folds to adapt the code - depending on the equipment
- If the new part and the new data to all units

**POLICE** - Receives data (the database is in Germany)

- Within 24 hours after the theft block access
- Get info on stolen car parts or

**5th generation** - Now in cars on the MQB platform and then all the new models.

Customize online only

If you try to adapt **Part of a stolen car** - The diagnosis message system inaccessible



# FAZIT

## Principles of operation - links





## PROTECTION COMPONENTS

- It will not prevent stealing, but limit use in another vehicle
- The components are adapted over FAZIT - ON-Line - GEKO
- Only diagnosis ŠKODA - ODIS
- Each part has a unique number - FAZIT
- To customize - like IMMO through the exchange control unit.
- Can be customized and used a new control unit.

When customizing:

- Quick message - error message "active protection components"
- Check every 15 min and driving and if you do not adapt to the limit function



# PROTECTION COMPONENTS





# PROTECTION COMPONENTS

MASTER DRIVE - GATEWAY





## SWaP

Activation of safety and comfort features for a fee.  
(Software for a fee)

Examples:

- Navigation data
- Recognition of fatigue
- Cruise control
- Selecting the Drive Mode

Units that allow swaps:

MIB - navigation, RADAR - ACC, GATEWAY

It will also free software - such as BLUETOOTH - will be updated  
database of mobile phones

When can implement SWaP:

- A new car
- After Sales





## Driver assistance systems

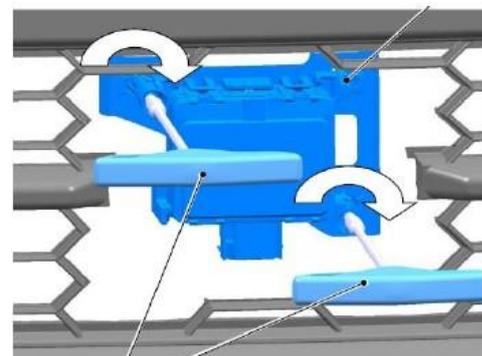
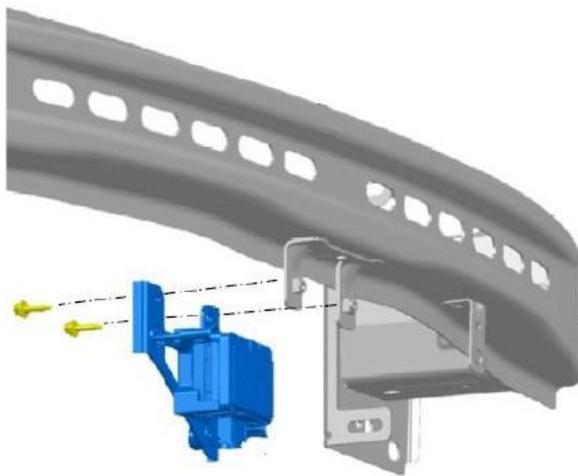
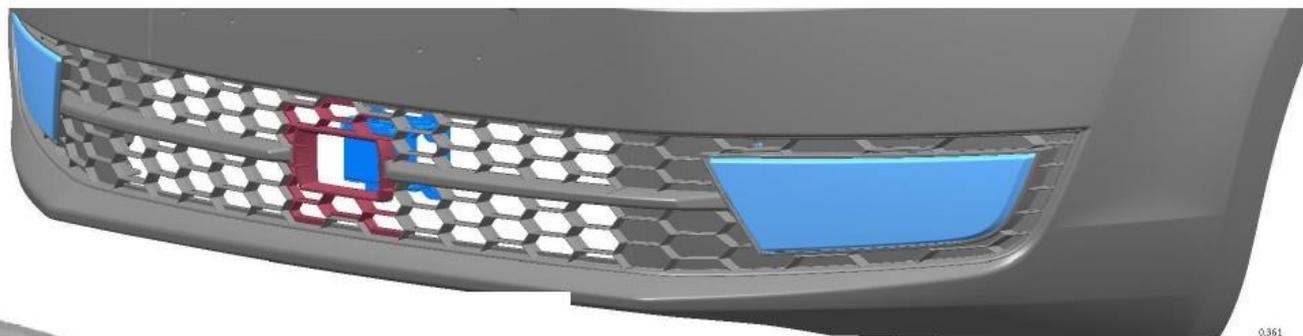
In modern coaches with driver assistance systems use (Fahrerassistenzsysteme - FAS) to support the driver while driving, but also in comfort, safety and infotainment systems deployment. These systems support driver either visual, haptic (tactile) and acoustic signals, which the driver warn of potential hazards or assists the driver by automatic intervention.

For Octavia III, these assistance systems:

- Adaptive cruise control
- Front Assist
- Assistant holding in the lane
- Daytime running lights
- Recognition of traffic signs
- Second generation Park Assist
- Detection of fatigue
- Multikolizní braking
- Pre-Crash Basis



# Radar



2 1



# Adaptive Cruise Control (ACC)



Controlling third beneath the switch



Only the ACC

Views on the Maxi-DOT

Recommendation shift

Detected vehicle

Time gaps

The set speed  
+  
Current status of ACC

23:16 ΔN 5-2

10.0 °C

km/h 133

trip 123.4



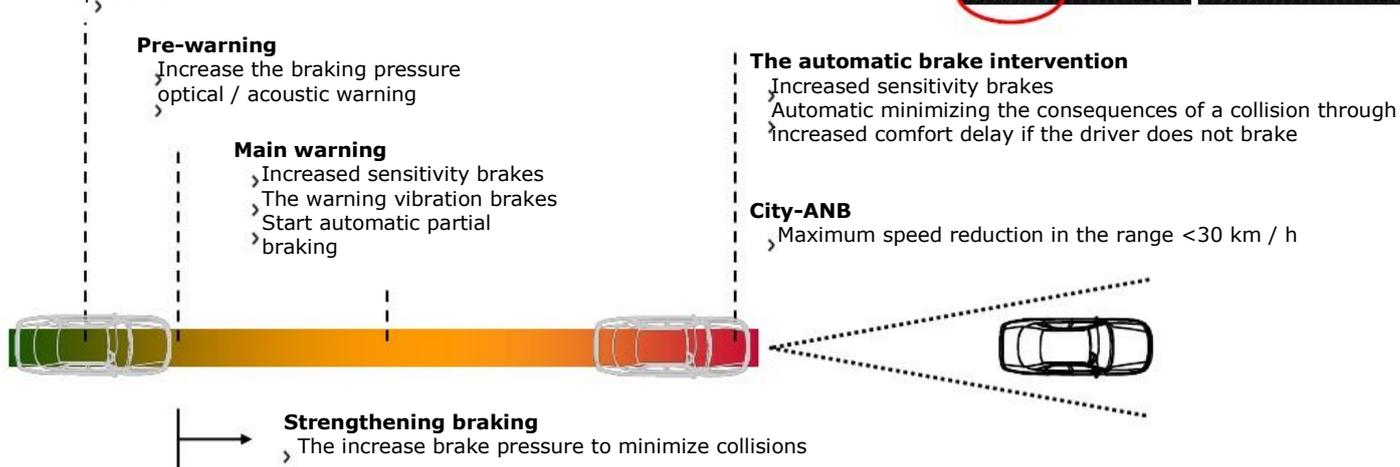
## Front Assist

- The system uses a radar sensor detects a critical situation in the distance from obstacles and help shorten the braking distance.
- Front Assist is part of the automatic cruise control (ACC) works but independently even when off control speed and distance.



### Warning distance

Optical notice



Display the Maxi-DOT



ANB = automatic emergency brake



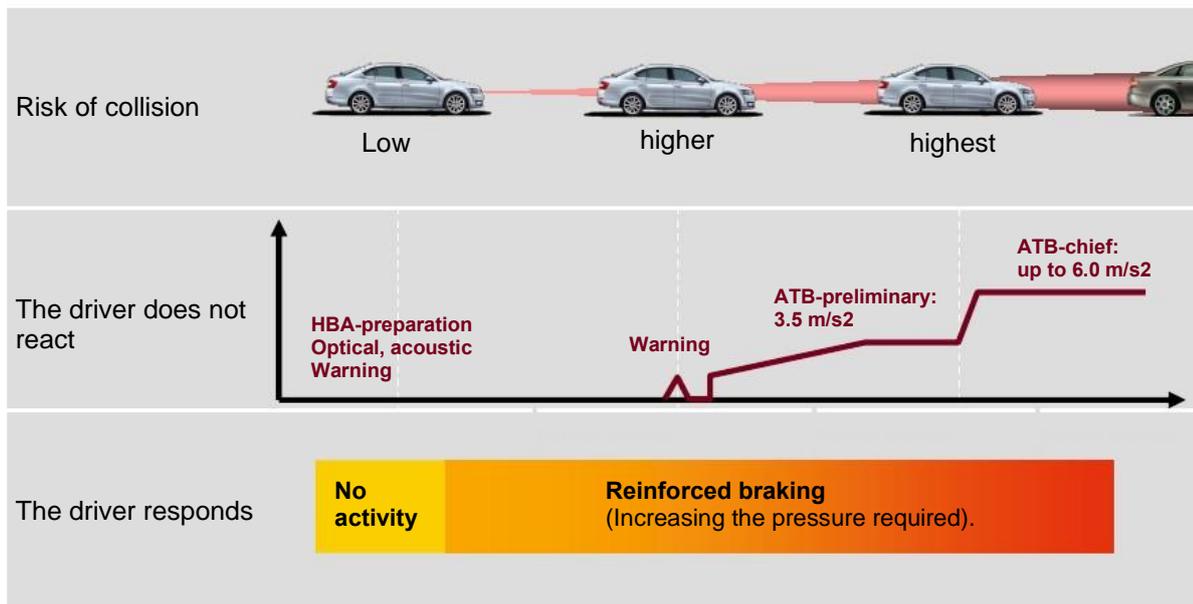
## Front Assist above 30 km / h

Risk of collision			
The driver does not react	<p><b>Warning</b> (Optical, acoustic) <b>HBA-state 1</b></p>	<p><b>Main warning</b> (Shock), <b>ATB-preliminary</b> <b>HBA-State second</b></p>	<p><b>ATB-Main stage</b></p>
The driver responds	<p><b>No activity</b>      <b>Reinforced braking</b> (Increasing the pressure required).</p>		

HBA = Hydraulic Brake Assist  
ATB = Automatic braking



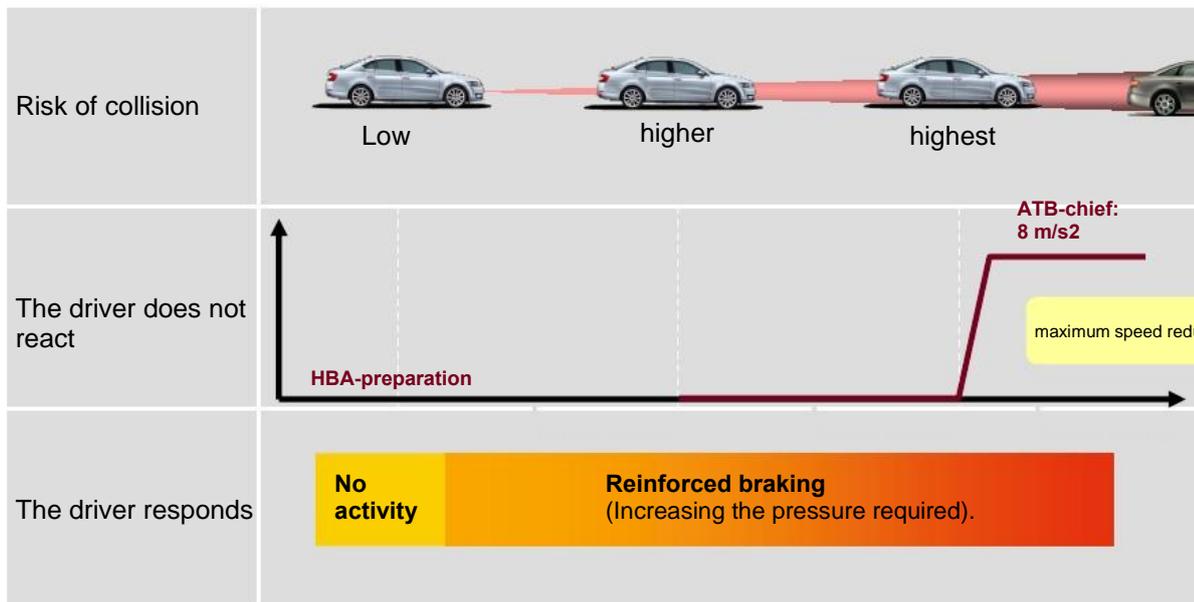
## Front Assist above 30 km / h



HBA = Hydraulic Brake Assist  
ATB = Automatic braking



## Front Assist up to 30km / h (CITI)



HBA = Hydraulic Brake Assist  
ATB = Automatic braking



## Second generation Park Assist (PLA 2.0)

The driver supports single optimal movement of the steering wheel to perform parking at the ideal line. The driver just accelerates and brakes. In doing so, must constantly control of the vehicle.

### Features:

- › **Parallel parking**
- › **Cross parking**
- › **Vyparkování (Longitudinal parking space)**
- › **Emergency braking function**
- › **Privacy hips and OPS 360 °**
- › ☹ ☘ ■ ☘ ♁ **track**
- › **Automatically activated**



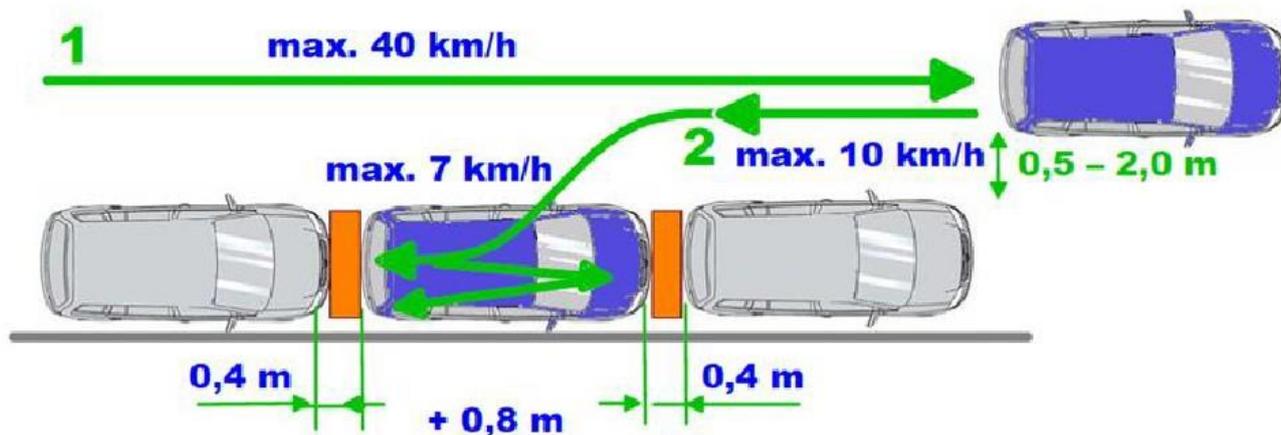
› Number of sensors - **12**



## Second generation Park Assist (PLA 2.0)

### Parallel parking

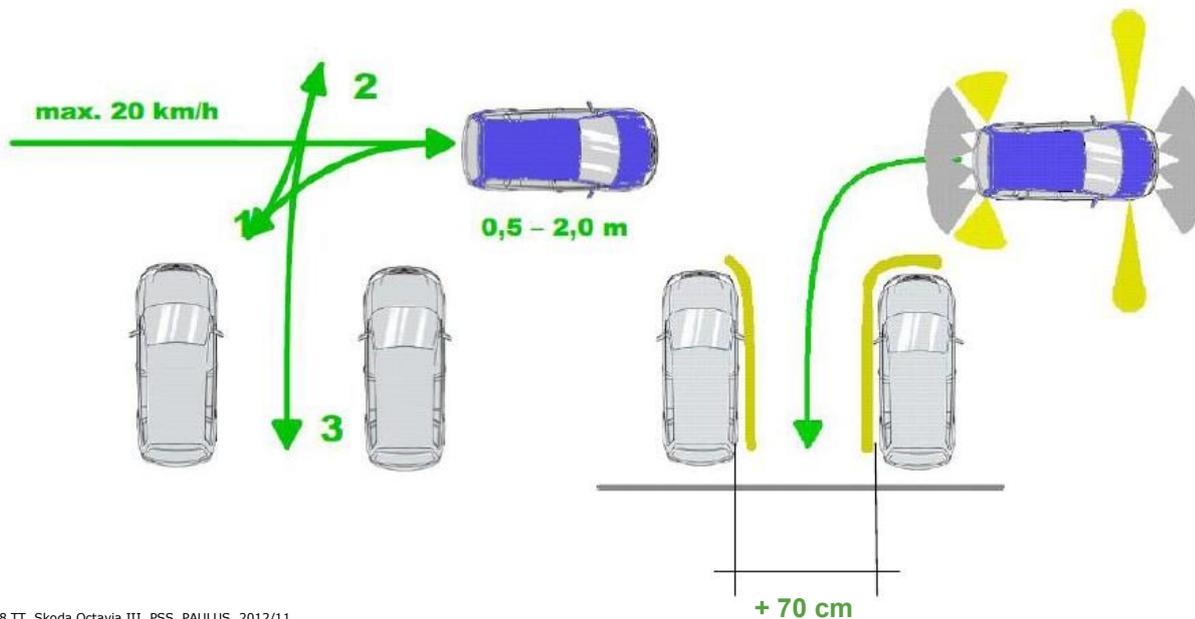
- › Parking the smaller objects (trees, containers)
- › Parking in turn
- › Indicator determines the side on which the park





## Second generation Park Assist (PLA 2.0)

### Cross parking





## Second generation Park Assist (PLA 2.0)

### Privacy hips and OPS 360 °

- Extends the current OPS of sectors on the side of the car
- U "protection of the hips" is the measured distance from obstacles on the sides of the car

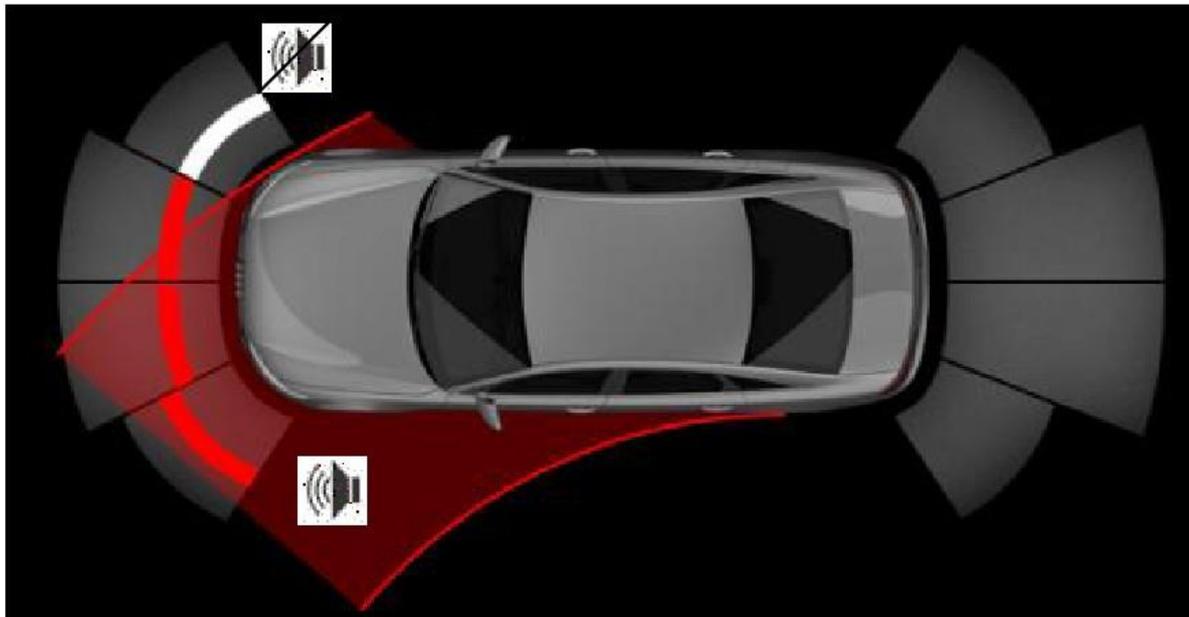




## Second generation Park Assist (PLA 2.0)

### Line track

- Obstacles are reported optically and obstacles in the driving the track also acoustically (reduced sound output)





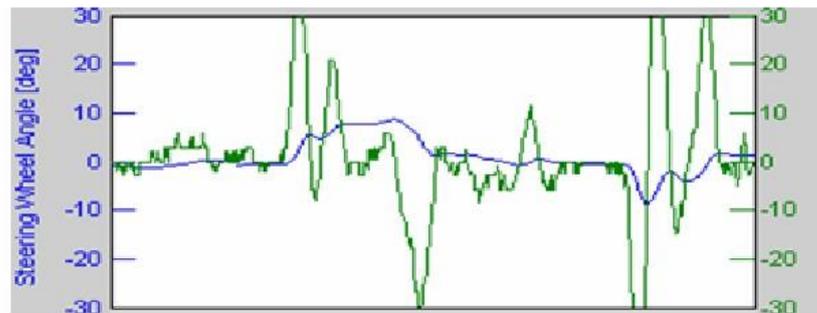
## Pre-Crash Basis (PCB)



You can enable or disable the MIB.



## Recognizing fatigue (MKE)

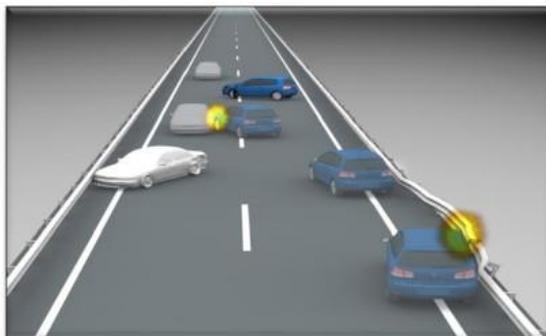


Information about the steering angle of the ESC

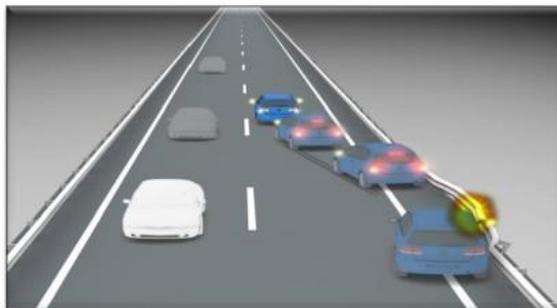
Display the Maxi-DOT



## Multikolizní brake (MKB)



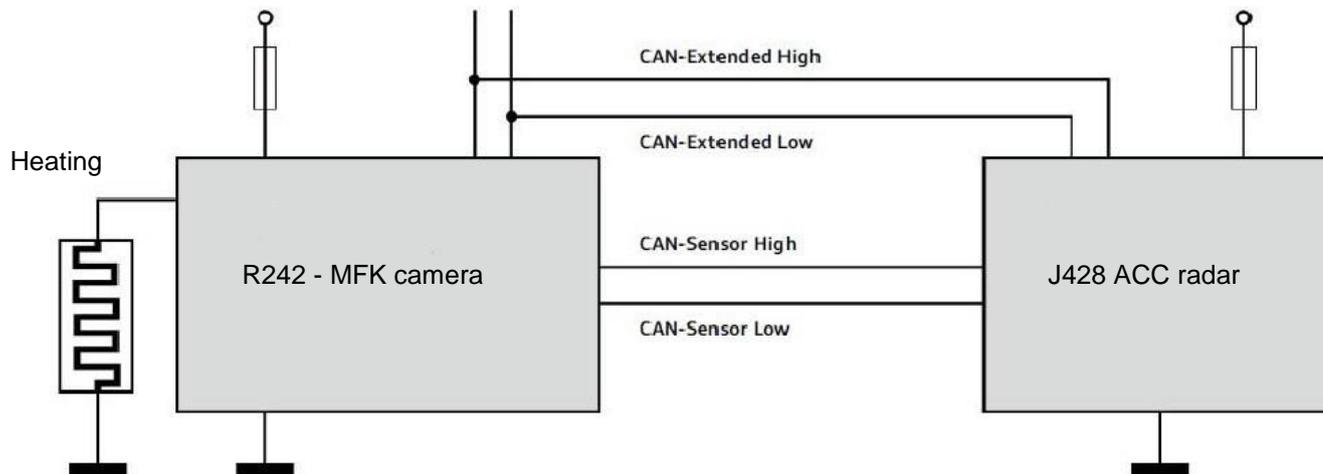
Without braking multikolizního



S multikolizním braking



## MFK - Camera

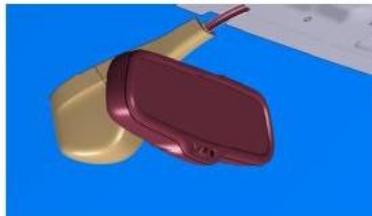




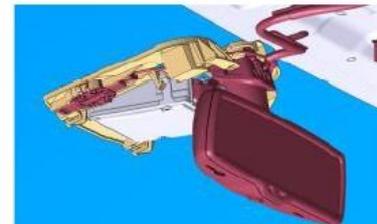
# Beam assistant (FLA)



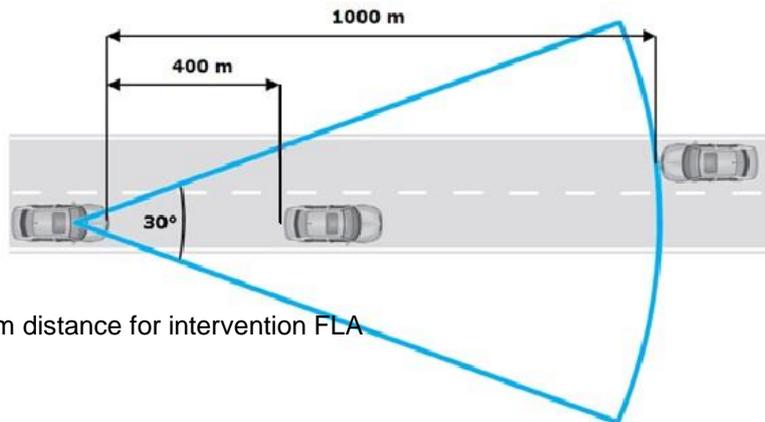
Display the Maxi-DOT



FLA as a separate part



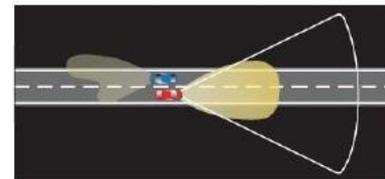
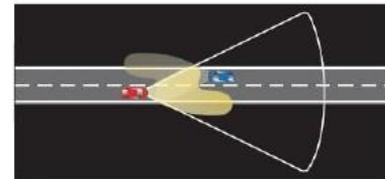
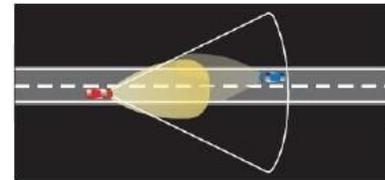
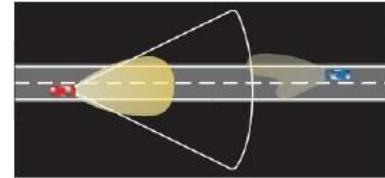
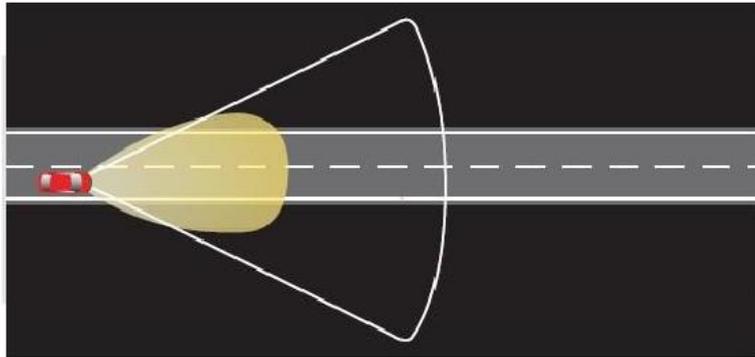
FLA as an integrated feature MFK



Minimum distance for intervention FLA



## Beam assistant (FLA)





## Assistant holding Lane "Lane Assist" (LA)



Views on the Maxi-DOT



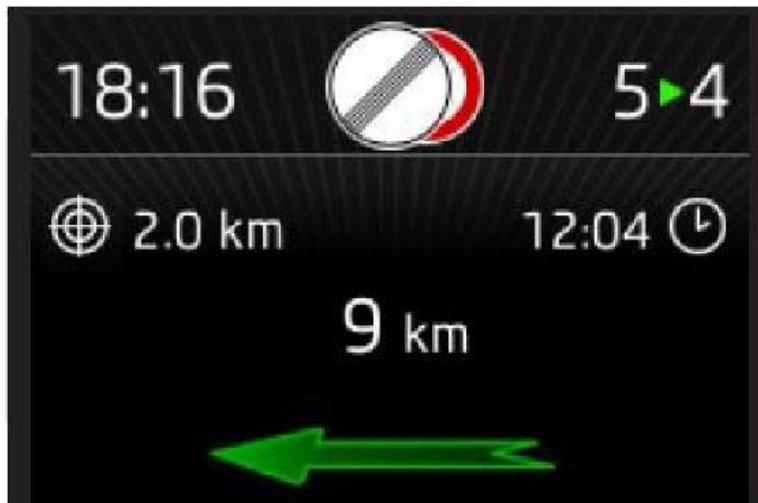
Required equipment:  
MFK





## Recognition of traffic signs (VZE)

Required equipment: MFK



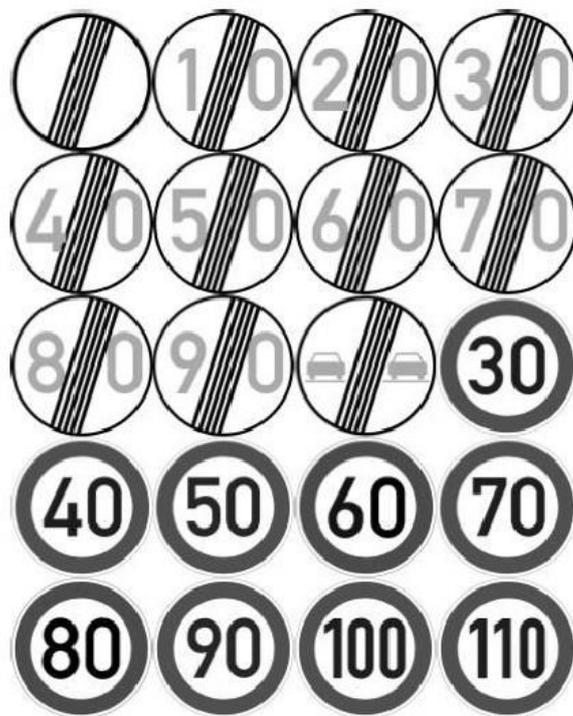
Views on the Maxi-DOT





## Example of brand recognition CR

Base:



Additional:





## CU BCM





## BCM

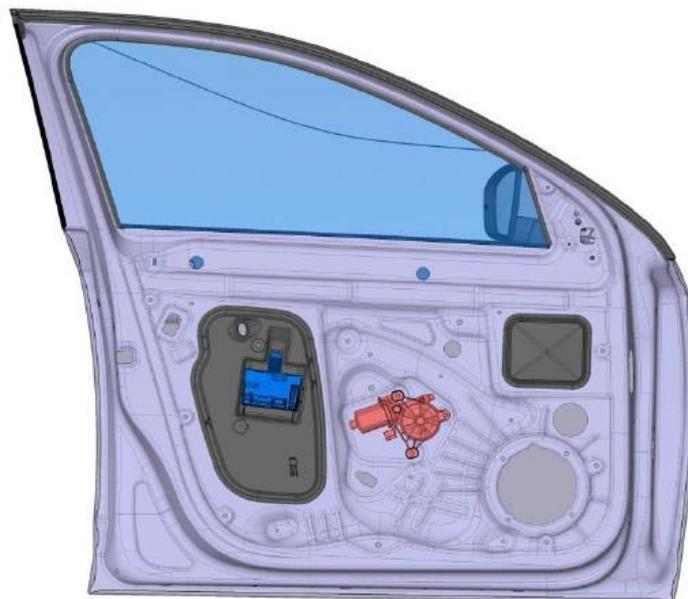
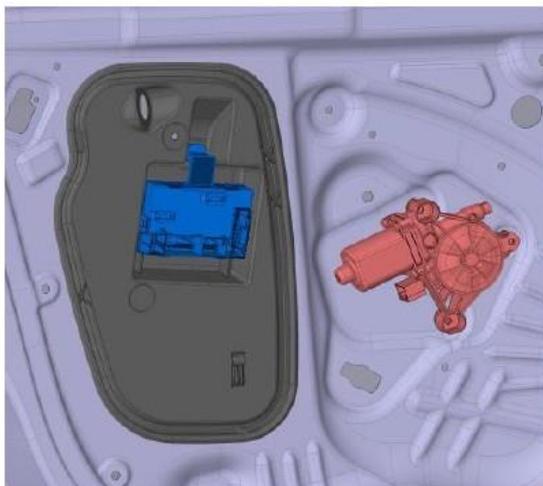
### New features:

- CAN Bus Comfort with a transmission rate of 500 kbit / s
- new separate LIN Bus
- direct control of the heating of the front seats
- sensing of fluids (coolant, brake, washer)
- shooting brake pads wear
- new wireless communication encryption key
- lock / unlock button uses the Toggle and is controlled by central unit, one button
- concept dimování - Ambient lighting for the door opening
- controls the rear side door locks
- new keys as Kessy



## Door Systems

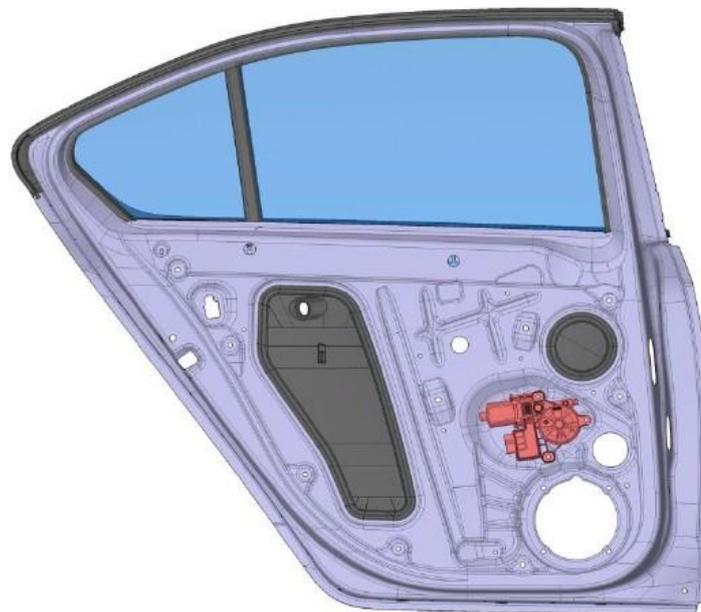
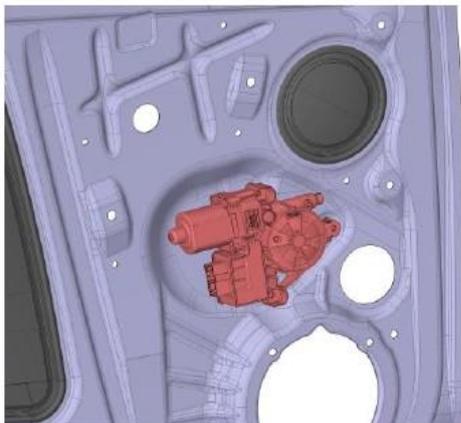
### Installation of the front





## Door Systems

### Installation of the rear



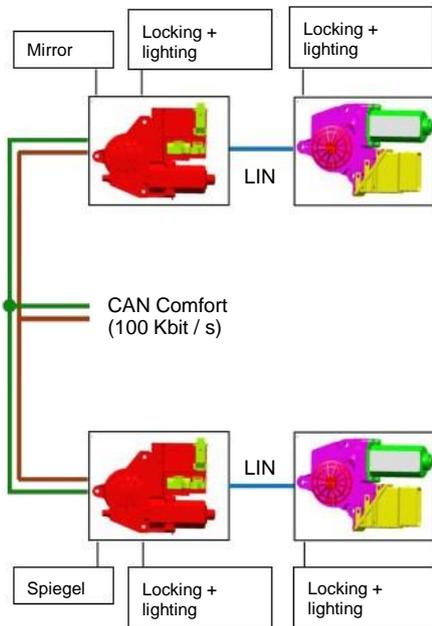
Note: The rear doors do not own diagnostic address.



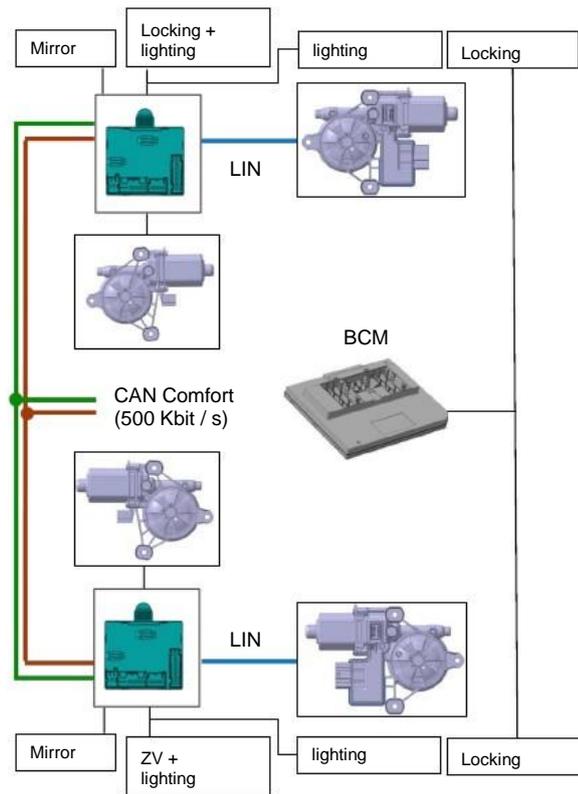
# Door Systems

## Comparison:

### Octavia II



### Octavia III





# Door Systems

## Basic functions - windows

### Trap protection (EKS)

- When in force limiter to recognize obstacles, the window stop and fall a few inches below (valid only for the direction of closing)

### Evaluation of the current position of the window

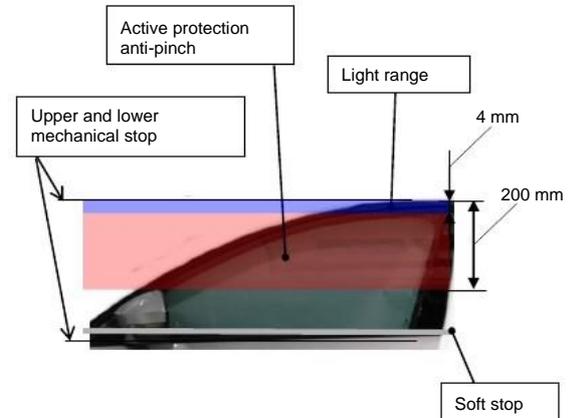
- system evaluated by measuring the current actual position of the window

### Soft stop

- because of the stress of the boot drive window stops a few millimeters above mechanical stop

### Sanfteinlauf (light range)

- because of the stress of the boot drive unit stops the window immediately after detecting the upper mechanical stop on the basis of current measurement





# Door Systems

## Basic functions - windows

### Convenient opening / closing windows

- controlled by the central electronics (BCM)
- Control sites:
  - Lock cylinder
  - Remote control
  - Kessy

### Preocrash

- evaluate if the car approaching the accident and windows are more open will pinch on their value (approx. 55 mm)



# Door Systems

## Basic functions - mirrors

### Folding mirrors (via joystick)

- mirror can be folded up to a speed of 50 km / h (previously up to 15 km / h)
- mirror tilts independently of the speed

### Comfortable folding mirrors

- controlled by the central electronics (BCM)
- activation comfortable folding exterior mirrors, parking position via remote control
- for comfortable lifting into the driving position will unlock the car, open the door and turn on the ignition
- If the mirrors are folded over the joystick, you can only take off over the joystick
- If the mirrors are folded over the "tipping Comfortable" can be avoided by setting their lifting the joystick to position the tilt before ignition

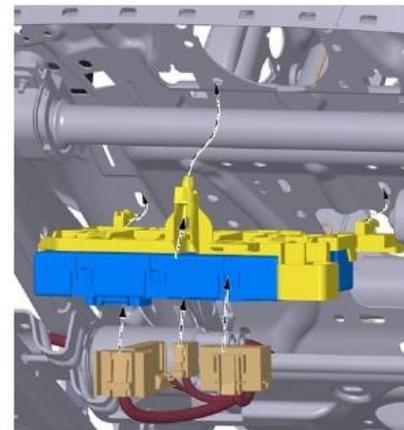
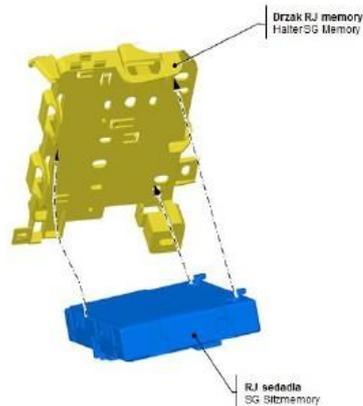
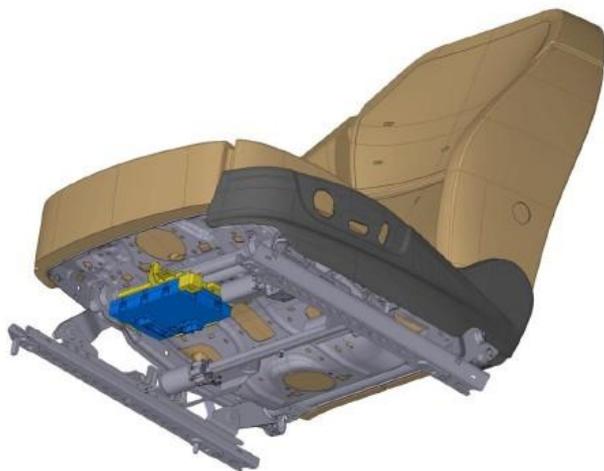
### Heating of mirrors

- calorific value can be switched on when the outdoor temperature to 35 ° C (previously up to 20 ° C)



# Electronics Memory seats

## Development





# Electronics Memory seats

## Basic functions

### Memory electrically adjustable seats

- allows you to save the driver seat and exterior mirrors to control the position for driving forward and allows you to adjust the exterior mirror on the passenger side for reversing
- each of the three memory buttons can be assigned to one position seat

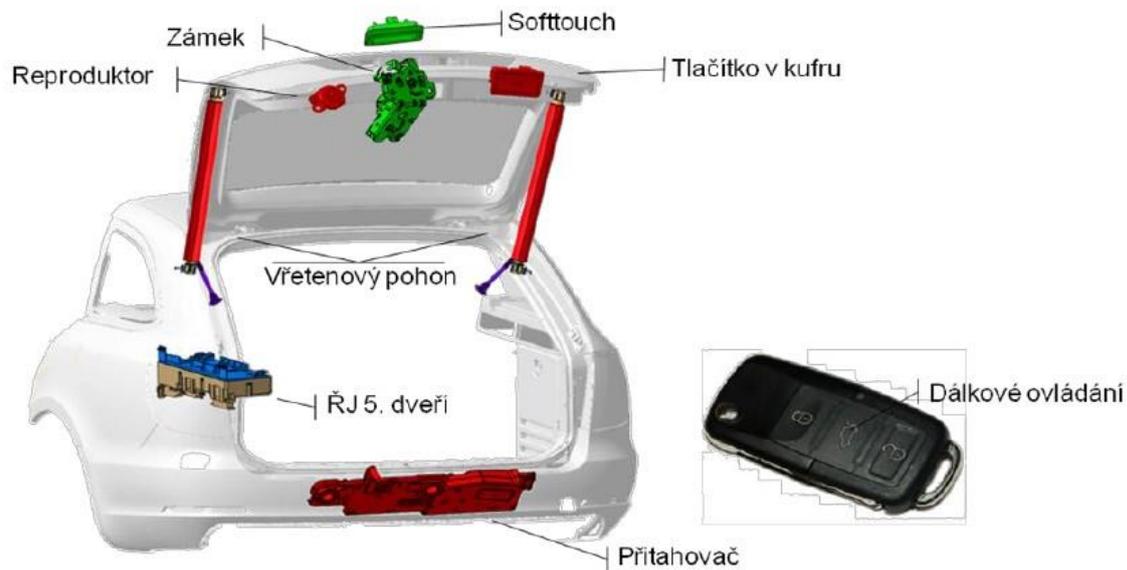
### Memory keys with remote control

- FCE. Autosave position driver's seat and mirrors when locking vehicles
- seat and mirrors will be reset after the vehicle is unlocked with the same key in which they were  
Locked up after opening door
- fci.lze activate / deactivate the remote control key and using CAR menu in Infotainment



## Electronic system boot lid

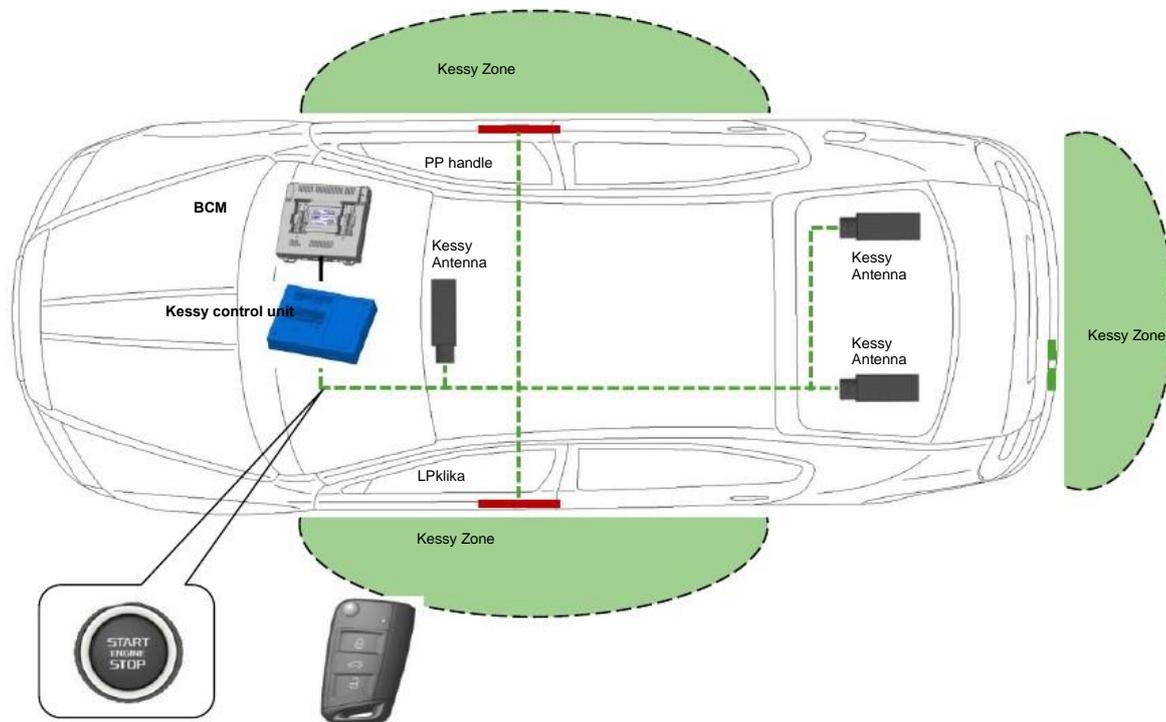
### Description of the system





# Kessy

## Architecture





# Kessy

## Basic functions

- allows comfortable unlocking and locking the vehicle and its starting without active use the remote control key
- unlock / lock needs to be a valid key was located about 1.5 m from the handle Front door handle or tailgate

## Unlocking

- to unlock occurs when grasps the handle of the front door or covers the whole palm sensor on the front door

## Lock

- to lock eventually burns when touched fingers sensor on the front door
- before locking the door must be closed driver and passenger
- the lock can not be unlocked car 2s (you can check locking)

## Unlocking the tailgate

- cover the 5th door is unlocked by pressing the handle of the boot lid (Softtouch)



# Kessy

## Basic functions

### Protection against accidental lock the keys in the vehicle

- If you remain key after locking the entire car inside the vehicle protection is activated lock your keys in the car and the car unlocks
- for vehicles equipped with anti-theft alarm system with extra beep sounds

### Report on the instrument cluster display

- **KEY IN CAR** - Key remained inside the car after locking
- **NO KEY** - The system does not find a valid key when attempting to start the vehicle
- **KEYLESS DEFECTIVE** - Error in the system Kessy
- **BATTERY IN KEY** - Low battery voltage remote control key

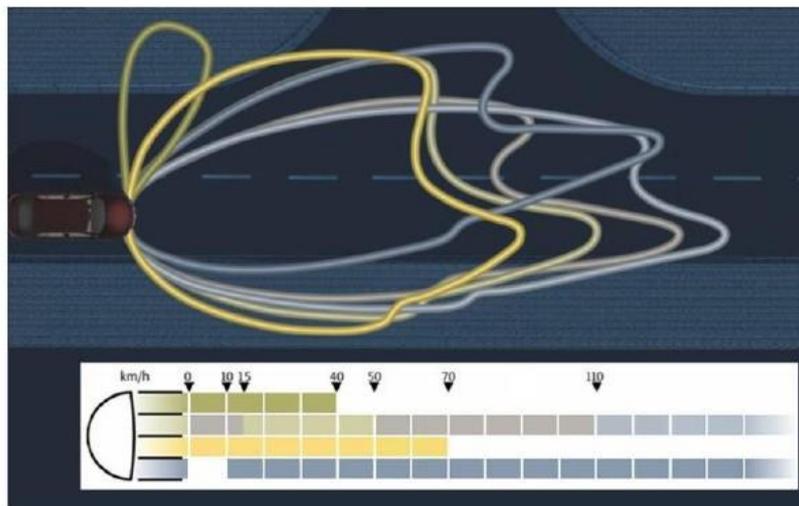
Also new is the automatic start without holding the start button for starting.



# AFS - Adaptive headlights

## CONTENTS:

- Version xenon headlights
- Description of the system





## Version headlamps

Halogen H 15



Bi-xenon D3S



Bi-xenon D3S with LED





## Adaptive Bi-Xenon headlights

### TOP1

- Adaptive bi-xenon module
- Halogen lamp day



### Controls:

- EVG
- Power module

### TOP2

- Adaptive bi-xenon module
- LED - daytime running lamp / parking lights



### Controls:

- EVG
- Power module
- LTM



## Version fog lights





## Version taillights



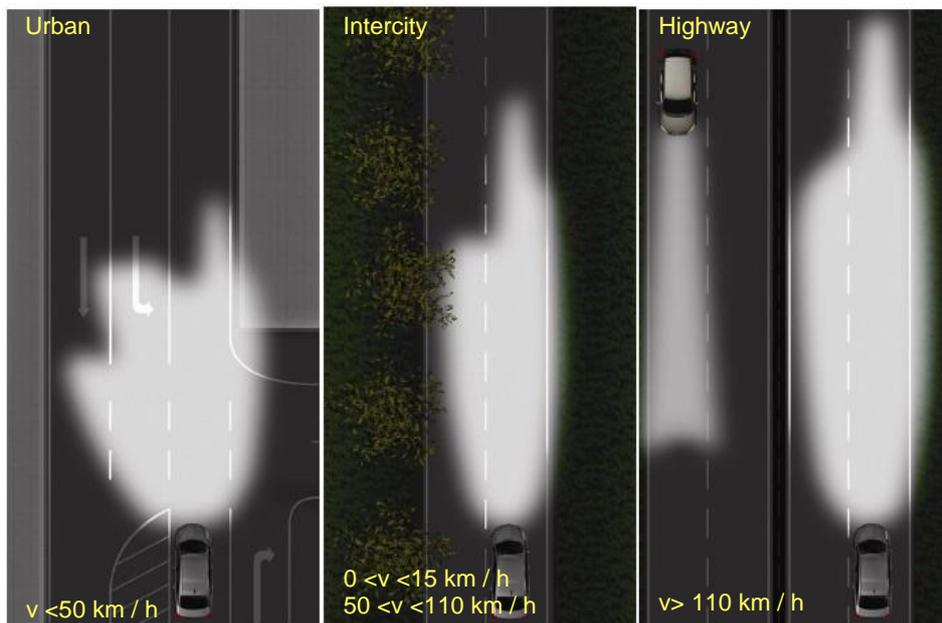
Rear light with bulbs



Equipped with LED rear light



# AFS - Adaptive headlights světlomety

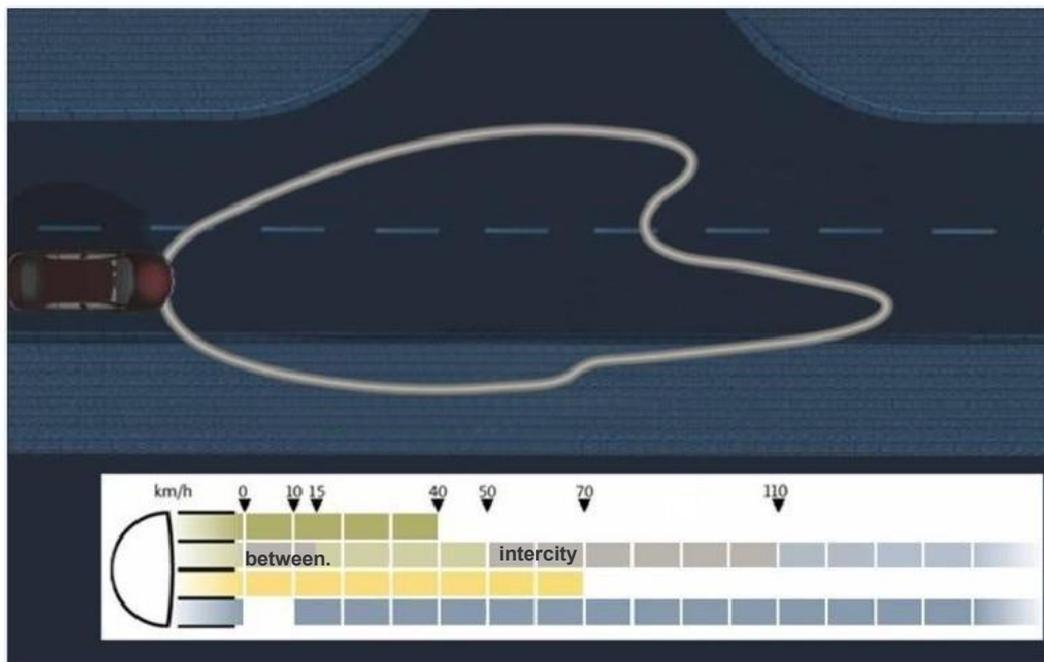




# AFS - Adaptive headlights světlomety

**Intercity light:**

from 50 km / h to 110 km / h

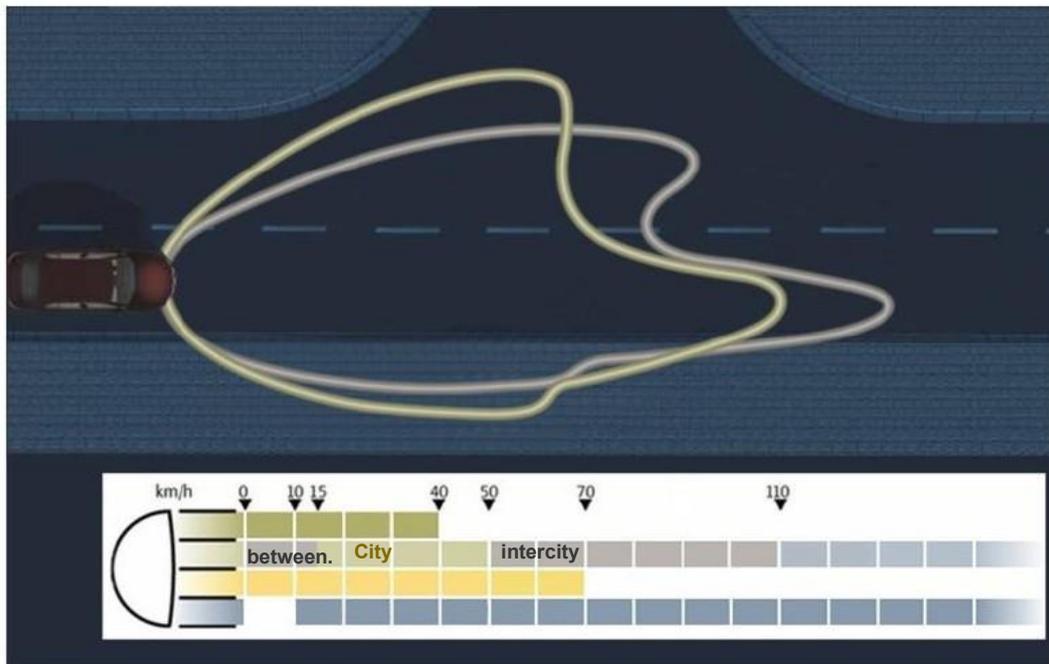




## AFS - Adaptive headlights světlo mety

**City Light:**

from 15 km / h to 50 km / h

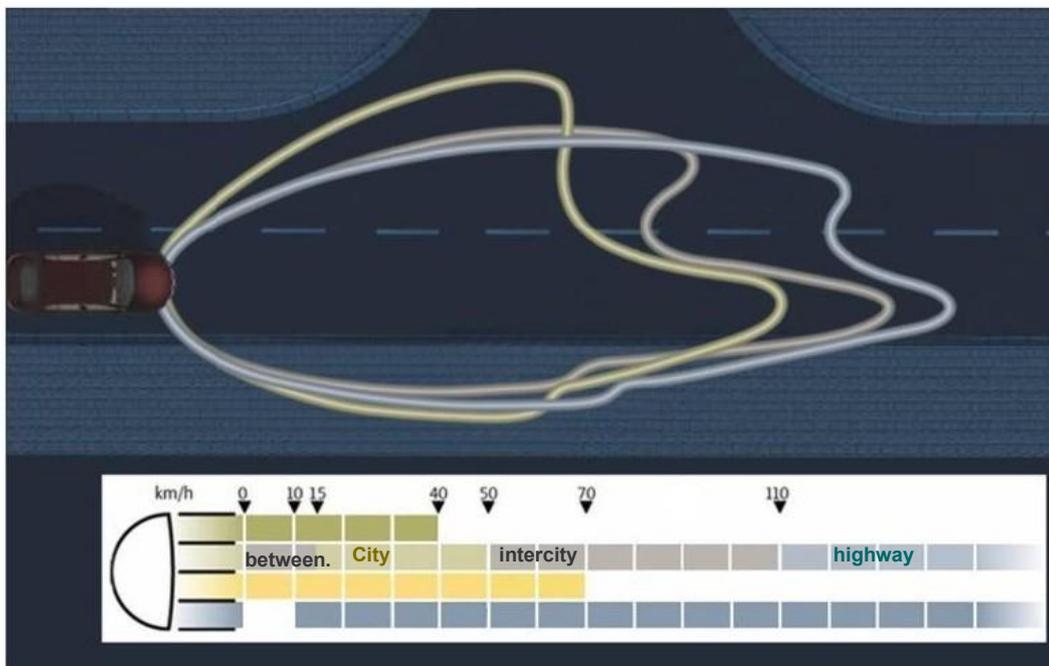




## AFS - Adaptive headlights světlo mety

Highway light:

from 110 km / h

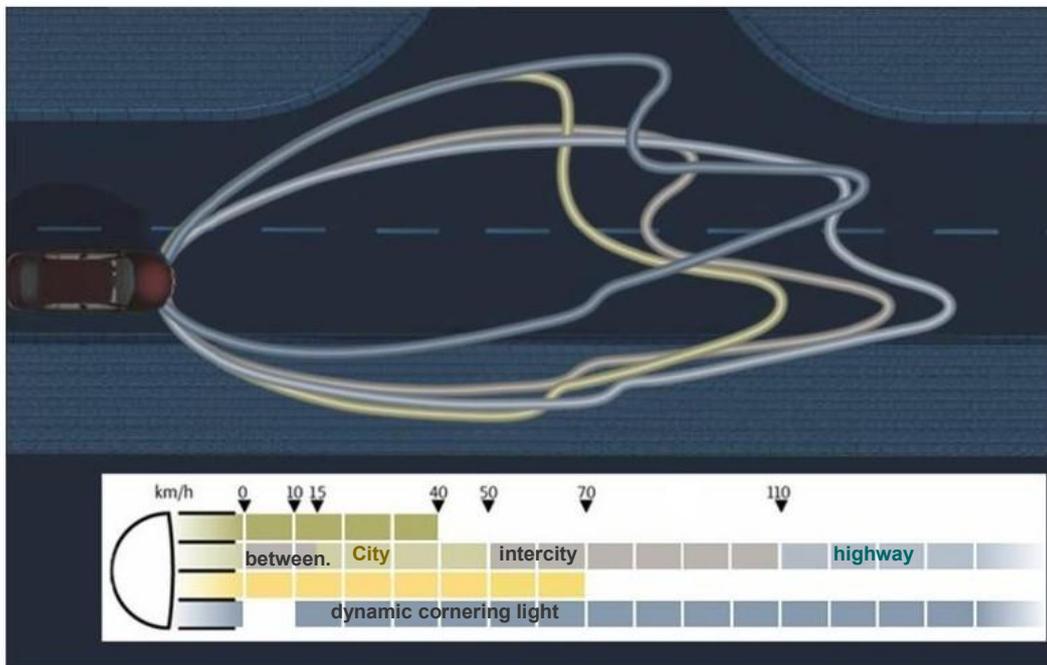




## AFS - Adaptive headlights světlomety

The dynamic cornering light:

Shooting outside  $+ / - 15^\circ$ , inside  $+ / - 7.5^\circ$

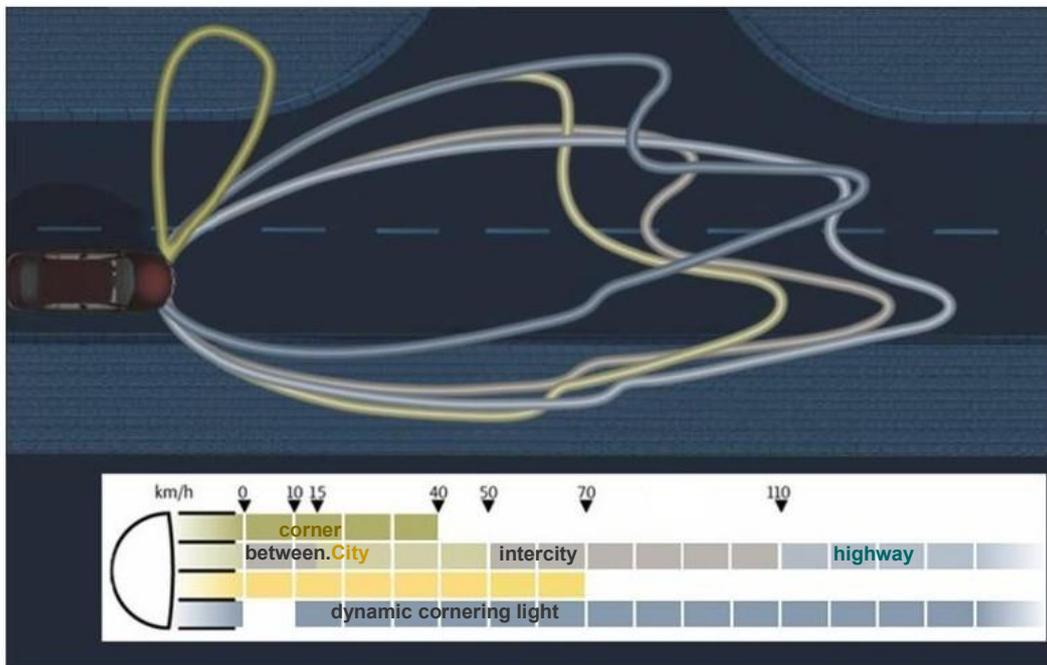




## AFS - Adaptive headlights světlo mety

**Cornering lights:**

statically dialed outside  $+ / - 60^\circ$ , inwards  $+ / - 30^\circ$

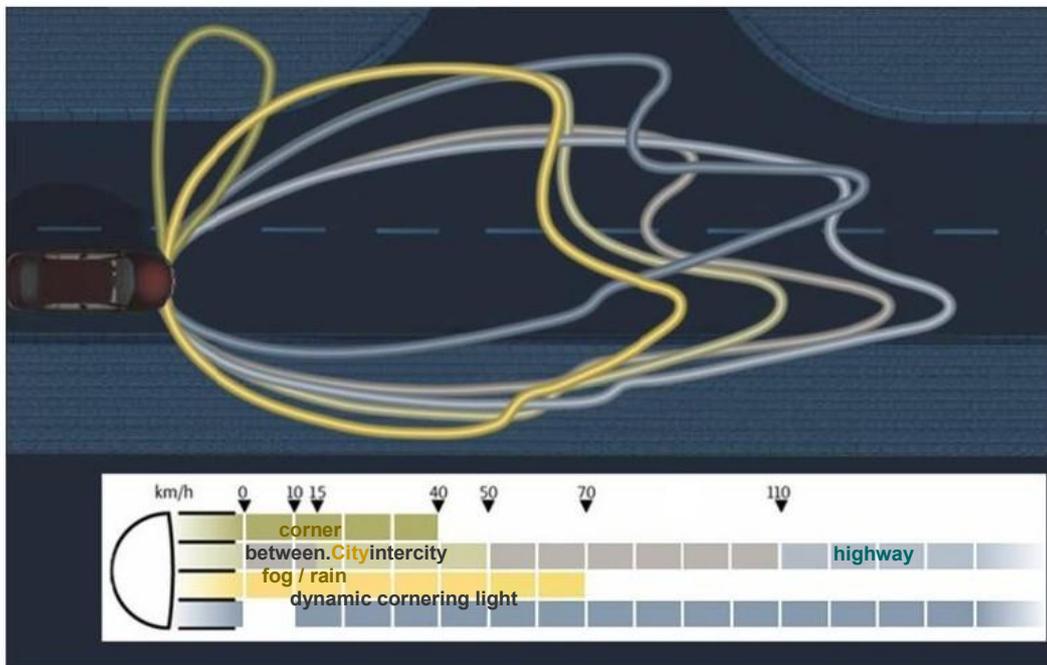




## AFS - Adaptive headlights světlo mety

**Light fog:** from 15 km / h to 70 km / h

**Light rain:** from 20 km / h to 70 km / h





## AFS - Adaptive headlights světlo mety

### Activation of AFS

LDS switch



#### Activation conditions AFS

- LDS in the "Auto"
- The intensity of ambient light is so low that light sensor activates the full external lighting
- no reverse gear
- is not enabled "tourist / travel mode"
- speed greater than 15 km / h

#### Terms of activating shooting

- speed higher than 10 km / h
- steering wheel

Filming lamp is possible in each mode AFS outside the travel mode

#### Disabling the AFS and shooting

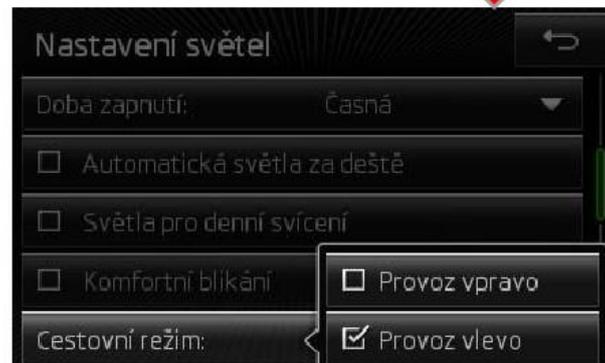
- LDS in the "low beam"
- This is a legal requirement for AFS system



## AFS - Adaptive headlights světlomety

### Tourist / Travel arrangements

- designed for drivers who are going to a country with **opposite** operation
- modules in the headlights tilts and rotates slightly so that it does not dazzle oncoming drivers
- i AFS shooting modes are disabled
- in the error memory RJ AFS (diag. address 55) report - 'function is switched on left / right mode active "
- When the ignition light flashes 10s shooting lights on the unit combi + reports activated cruise
- activation by MIB (Lights -> Cruise - operation right / left operation) or using the diagnostic SW (adaptation)





## Cornering lights - corner light

### Corner

- static nenatáčecí light - Lighting angle (+30 ° to -60 °)
- fog-corner is a bi-functional headlamp: 1) function fog lights  
2) Function Corner
- 1 used bulbs → fog lamp and corner can not be activated simultaneously  
is progressively switching on and switching off the lamp when the function corner controlled by RJ BCM

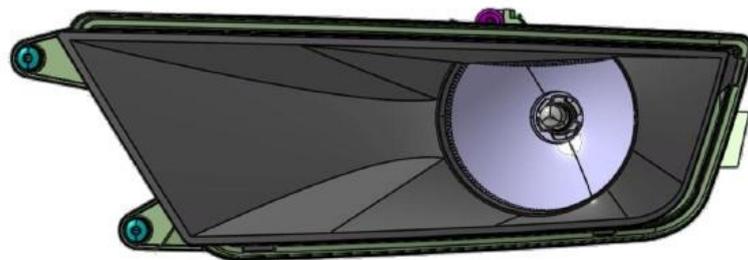
### Activation conditions

#### Vehicle:

- is started and runs at a maximum speed 40 km / h
- the light on low beam
- fog lights are turned on (LDS)

### Corner comes on when the

- steering angle more than the activation angle
- or closing the turn signal in the desired direction
- or **inclusion of reverse gear** (Both corner lights simultaneously)





# AFS - Adaptive headlights světlo mety

## The architecture of AFS





## DRIVE MODE



NORMAL

SPORT

ECO

INDIVIDUAL



## Infotainment - information and multimedia system



 **Bluetooth**





# Infotainment

Contents:

- **MIB** - Modular information system

Equipment:

- **ENTRY**
- **STANDARD**
- **HIGH**

- Amplifier
- Antennas
- MOST
- Handsfree
- Map data
- Phone box



## MIB - (Modular **Infotainment Baukasten**)

Infotainment or multimedia information system.



Controls and displays panel



On-board computer



Mobile devices  
(Phone, iPod, MP3, etc.)



## Characteristics of options (Škoda)

Entry	Standard	High
<p data-bbox="292 353 569 409"><b>No Touch</b></p>  <p data-bbox="292 678 569 745">MP3, SD-card, USB, Car Menu, WMA, CD, AUX-IN, FM Div, Phone</p>	<p data-bbox="616 353 893 409"><b>5.8 "Touch</b></p>   <p data-bbox="616 678 893 869">2D navigation USB, proximity sensors, DAB, 2 SD cards JPEG viewer, iPod-support comfort telephony, Voice Control sound system</p> <p data-bbox="616 880 893 941">Entry</p>	<p data-bbox="940 353 1217 409"><b>8 "Touch</b></p>   <p data-bbox="940 645 1217 813">3D navigation, USB, proximity sensors, DAB, 2 SD card, JPEG viewer, iPod-support comfort telephony, Voice control, High sound system</p> <p data-bbox="940 829 1217 941">Standard, Entry</p>
Radio - Basic Functions	+ Navigation	+ 3D Navigation / Video



## MIB ENTRY

	Blues	Swing
		
<b>Display</b>	Monochrome (white letters on black background) type TFT, resolution 310 × 70px	
<b>Media</b>	Aux-in USB input *	Aux-in USB input * CD drive SD drive
<b>Supported audio formats</b>	MP3, WMA, CD-DA	
<b>Tuner</b>	AM / FM tuner	
<b>Car menu</b>	Display and setting of comfort features of the car	
<b>Output Power</b>	4 × 20W	
<b>Optional Items</b>		<ul style="list-style-type: none"> <li>• Bluetooth</li> <li>• Phonebox</li> </ul>



# MIB STANDARD

	Bolero	Amundsen
		
		
<b>Display</b>	The capacitive touchscreen supporting "Multitouch" color TFT, diagonal 5.8", resolution 400 × 240 pixels (WQVGA) Size 127 × 76.6 mm, proximity sensor	
<b>Inputs and Media</b>	Aux in USB input CD drive SD slot	Aux in USB input CD drive 2 × SD slot Bluetooth audio streaming
<b>Supported audio formats</b>	MP3, WMA, CD-DA, AAC, OGG, FLAC	
<b>Supported image formats</b>	JPG, JPEG, PNG, BMP, GIF	
<b>Tuner</b>	AM / FM tuner	
<b>Navigation</b>	-	Viewing 2D and 2.5 D (bird's eye)
<b>Wireless</b>	-	Bluetooth
<b>Internal memory</b>	-	-
<b>Car menu</b>	Display and setting of comfort features of the car	
<b>Output Power</b>	4 × 20W	
<b>Possibility to add:</b>	<ul style="list-style-type: none"> <li>▪ DAB</li> <li>▪ Sound system CANTON</li> <li>▪ Voice Control</li> <li>▪ Apple connectivity</li> <li>▪ Bluetooth</li> </ul>	<ul style="list-style-type: none"> <li>▪ DAB</li> <li>▪ Sound system CANTON</li> <li>▪ Voice Control</li> <li>▪ Apple connectivity</li> </ul>



# MIB HIGH

<b>Columbus</b>	
	
<b>Display</b>	The capacitive touchscreen supporting multitouch, color TFT, diagonal 8", 800 x 480 pixels (WVGA), size 175 x 15.4 mm proximity sensor
<b>Inputs and media</b>	Aux in USB input DVD Drive 2 x SD slot Bluetooth audio streaming Apple (audio, video socket MEDIA-IN) Internal memory
<b>Supported audio formats</b>	MP3, WMA, CD-DA, AAC, OGG, FLAC
<b>Supported video formats</b>	MPEG, WMV, DivX, Xvid, ...
<b>Supported image formats</b>	JPG, JPEG, PNG, BMP, GIF
<b>Tuner</b>	AM / FM
<b>Wireless</b>	Bluetooth
<b>Internal memory</b>	64 gigabytes (freely accessible to users 12 gigabytes, the rest reserved for navigation data and database Gracenotes)
<b>Car menu</b>	Display and setting of comfort features of the car
<b>Output Power</b>	4 x 20 W
<b>Featured navigation function</b>	2D, 2.5D "bird's eye" 3D City model selected cities, pronouncing street names maneuvers, real Intersection in transit The lack of fuel - the option to navigate to the next / select pumping station
<b>Map data</b>	Map data stored on the internal memory Free update for 3 years
<b>Special Features</b>	Media Library (Manage files in internal memory), voice control, browser images, video player, database Gracenotes
<b>Optional Items</b>	<ul style="list-style-type: none"> <li>• Dual DAB tuner</li> <li>• Sound CANTON system</li> <li>• Recognition traffic signs</li> </ul>



## Overview of navigation features MIB



### MIB Amundsen

- Color display **5.8"**
- Distinction **400x240**
- Capacitive TFT screen
- Proximity sensors
- **CD** mechanics, 2xSD
- Navigation 2D or **2.5 D**
- TMC traffic reports

#### Expansion options:

- DAB
- MOST - Brand Sound System
- Voice control



### MIB Columbus

- Color display **8"**
- Distinction **800x480**
- Capacitive TFT screen
- Proximity sensors
- **DVD** mechanics, **Audio + Video**, 2xSD
- Navigation 2D or **full 3D**  
function **Real city view**  
TMC traffic reports
- **JPEG Viewer**
- **Internal Memory 64 gigabytes**
- **Gracenotes**
- **Personal POI's**
- **Throw voice address entry**
- 

#### Expansion options:

- Dual DAB Tuner
- MOST - Brand Sound System



## 2D map view

2D map view



**MIB Amundsen**

2D map view



**MIB Columbus**



## 3D map view

2.5 D display  
Maps



**MIB Amundsen**

3D map display + Real city view



**MIB Columbus**



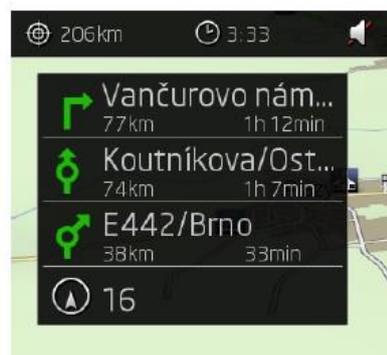
## Additional window

- Additional window "Maneuver"

### MIB Amundsen



### MIB Columbus





## Additional window

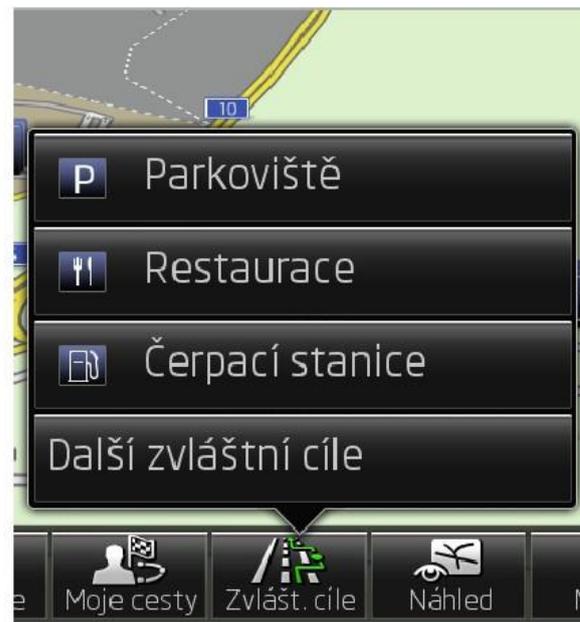
- Additional window "road signs"





## Entering goals

- Ways of entering a destination address, POI (Point Of Interest), business cards on SD card selection of maps or all of the saved route (my dates), contacts from your mobile phone





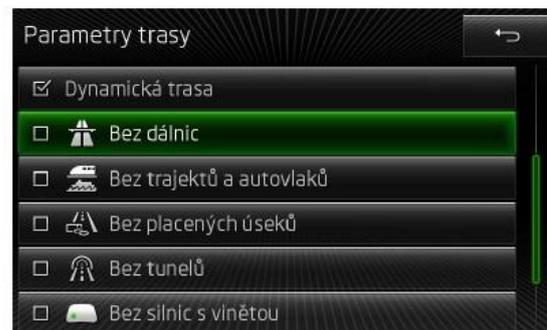
## Entering a destination by parameters

- A choice of three routes: - short
  - Economic
  - Fast

ability to move around the map and in this context,



- Able to plan routes according to its parameters





## Entering a destination by parameters

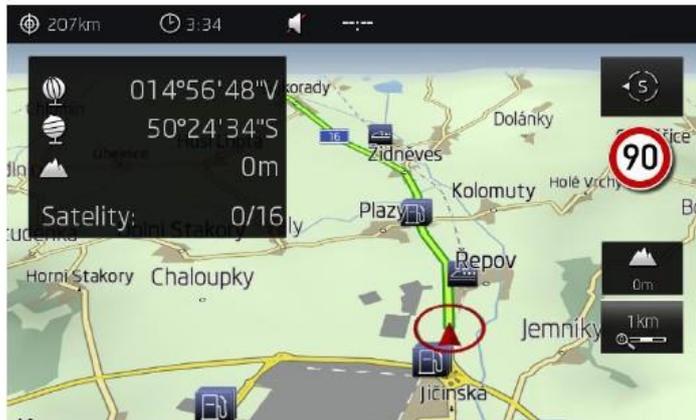
- Route planning according to the available vignettes (vignettes)





## Proximity sensors

- When approaching hand in front of the display responds proximity sensor
- Enlarges the POI on the map to facilitate the selection
- Displays the control menu





# Fuelling





## TMC traffic information

- Free-TMC
- Pay-TMC - paid traffic information, DE, FR, EN, IT

Dopravní hlášení: 48 Vše

E44z	Ústí nad Orlicí, E442 Zámorská práce na silnici	
55	Přerov, 55 Hamerská práce na silnici	
1	D1: 3 Dopravní hlášení	
2	D2 Podivín práce na silnici	
1	R1 Třebonice zúžené jízdní pruhy	
6	R6 Sokolov-jih práce na silnici	

Dopravní hlášení 2/41

Olomouc  
Lipník  
Přerov

Přerov, 55  
Olomouc Přerov  
mezi Hamerská a  
Přerov-Předmostí  
v obou směrech  
práce na silnici

00:00:00, JSDI-CRo



# MAPS MIB





# The maps in MIB

UNIT

**AMUNDSEN**

**COLUMBUS**

CAPACITY



SD (CID-chip)  
8 gigabytes

SSD  
64 gigabytes  
(33GBmap)



SIZE

Currently 5  
gigabytes

Currently 18  
gigabytes

SECURITY



SWAP

SWAP



OPTIONS

SD Europe

SD World

HIGH Europe

HIGH World



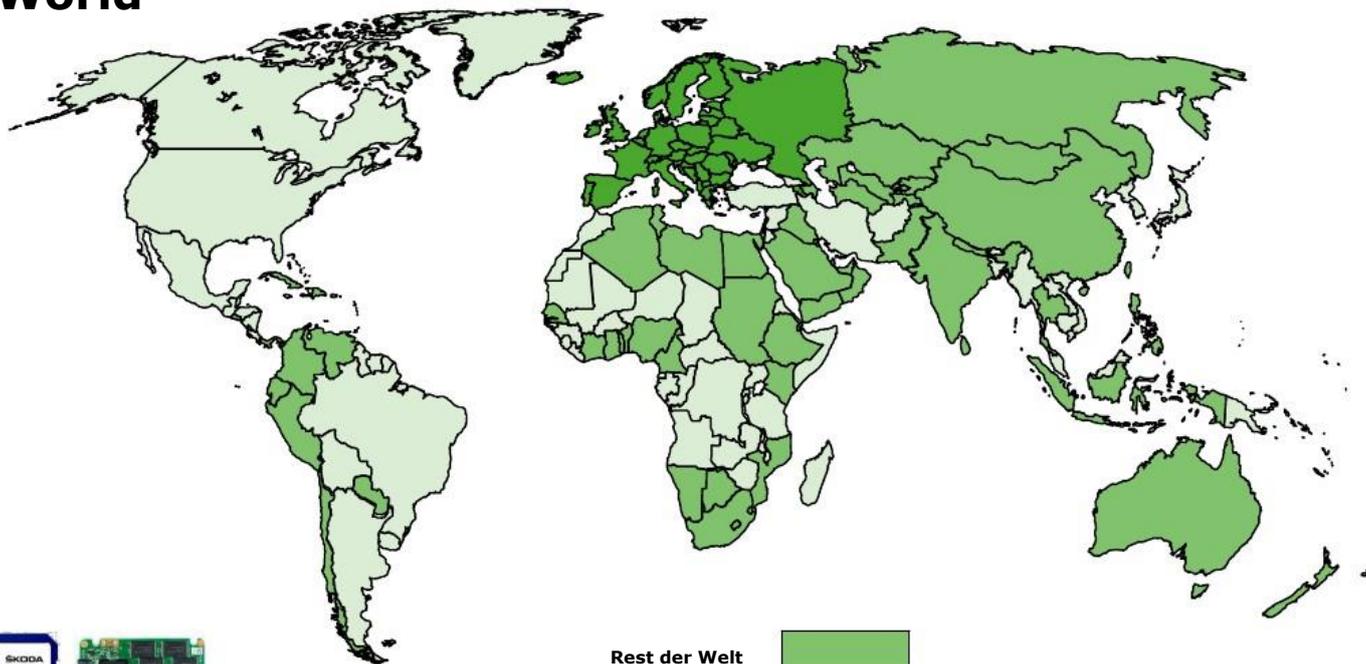


## Coverage of Europe





# Covering the World

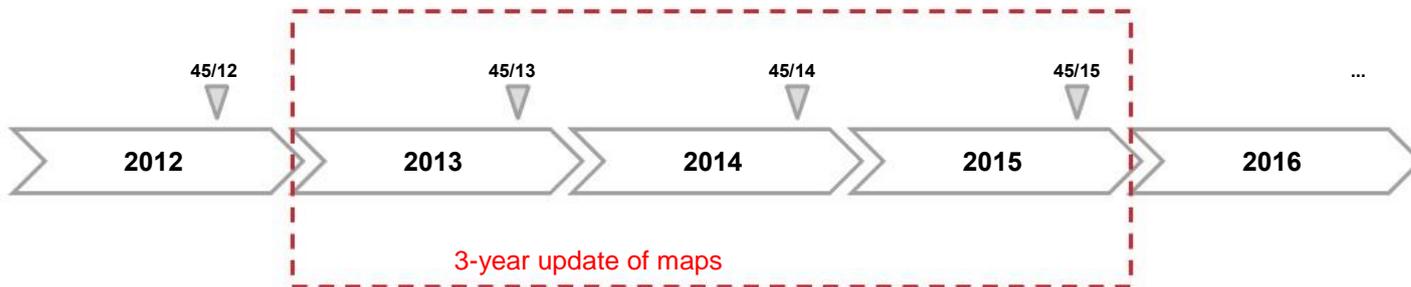


Rest der Welt	
Europe	
other countries	



# MapDate - 3-year update of maps for navigation

The basic functioning updates



**MIB Standard Nav**



SD part nav.systemu

**MIB High**



Data recorded on int.paměť



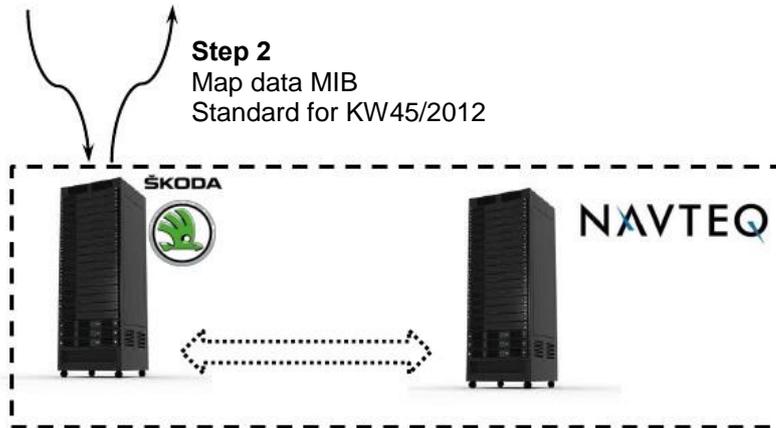
# Server for map data

The concept of 45/2012



**Step 1**  
Request for download  
map.podkladů

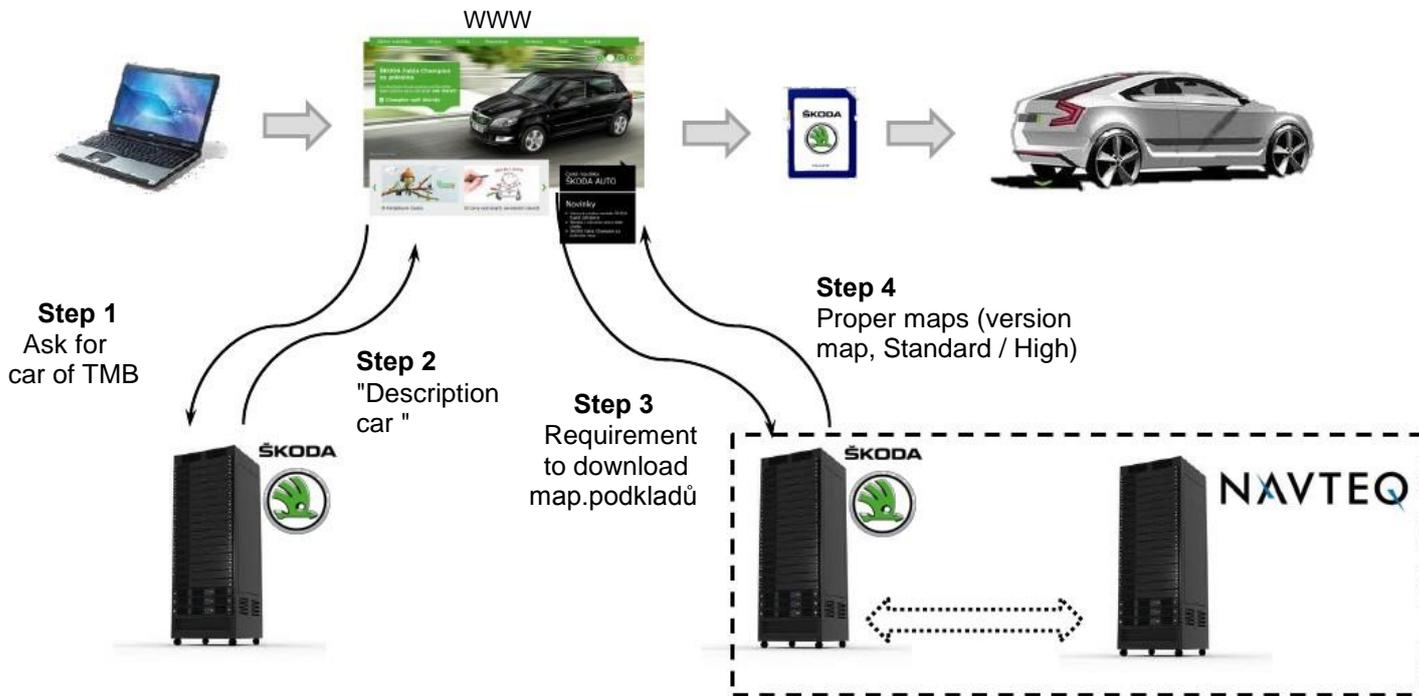
**Step 2**  
Map data MIB  
Standard for KW45/2012





# Server for map data

The concept of 22/2013





## MDI - Mitsumi





## Media and codecs

### Connecting external memory and resources audio and video signal

- › Connect audio and video source signal and the external memory:
    - ↳ Through linear AUX-IN input (standard)
    - ↳ Through the USB connector (standard)
    - ↳ Through Connector MITSUMI (MEDIA-IN)
    - ↳ Using wireless Bluetooth
    - ↳ CD / DVD
    - ↳ SD Memory Card
- The panels are located at the same point for all grades MIB - the central console on the right.

›

	Blues, Swing	Bolero, Amundsen	Columbus
Aux	●	●	●
USB	●	●	●
MEDIA-IN	-	○	○

- Standard
- Option
- Not



## System functions

Blues, Swing	Bolero, Amundsen	Columbus
<ul style="list-style-type: none"> <li>• Turn off the traction control</li> <li>• State of vehicle</li> <li>• Independent heating</li> <li>• Assistants</li> <li>• Lights</li> <li>• Vision</li> <li>• Opening / Closing</li> <li>• Seats</li> <li>• Driving data</li> <li>• Limit of winter tires</li> <li>• Service</li> <li>• Factory settings</li> </ul>	<ul style="list-style-type: none"> <li>• The ESC</li> <li>• Tires</li> <li>• Driver assistance</li> <li>• Light</li> <li>• Mirrors and wipers</li> <li>• Opening / Closing</li> <li>• Seats</li> <li>• Multi-function indicator</li> <li>• Service</li> <li>• Restore settings factory</li> </ul>	<ul style="list-style-type: none"> <li>• The ESC</li> <li>• Tires</li> <li>• Driver assistance</li> <li>• Parking and maneuvering</li> <li>• Light</li> <li>• Mirrors and wipers</li> <li>• Opening / Closing</li> <li>• Seats</li> <li>• Multi-function indicator</li> <li>• Time and date</li> <li>• Units</li> <li>• Service</li> <li>• Factory settings</li> <li>•</li> </ul>



# System functions

## Protection against Abuse

- › Protection against misuse and theft device is designed both the hardware and software. The software solution is fairly complicated system of protection that is always connected to a specific car. If the protection is activated, ie. MIB is eg stopping in another vehicle, will activate
- › Protection against abuse and to indicate the message "Protection components are active."

## The protection component is based on several levels of security:

1st Every machine is automatically assigned a unique code that is secret and can not be from the device any way to read or view.

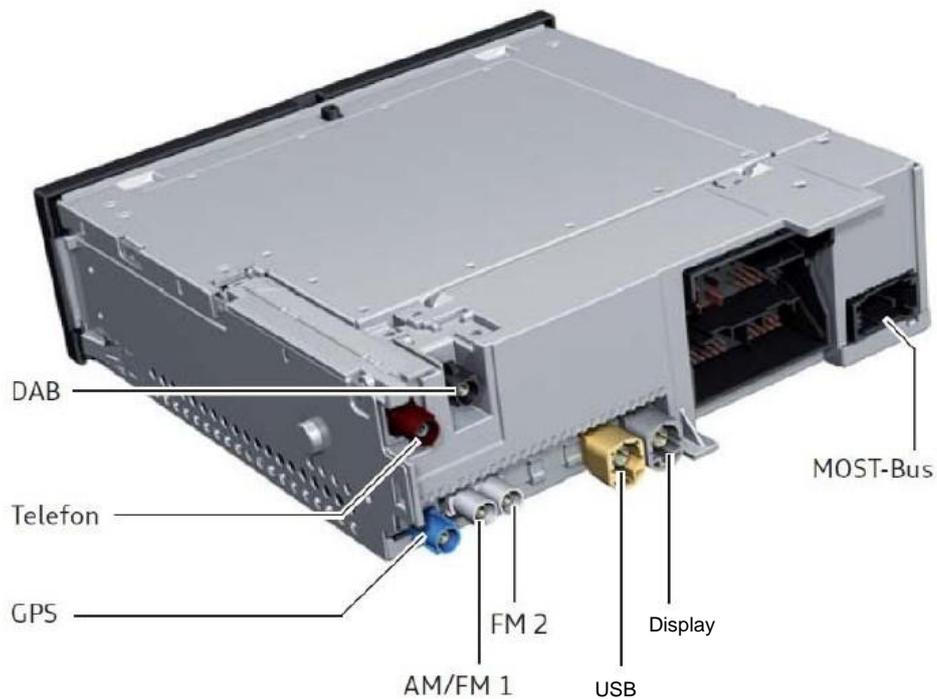
Authorization second device in the car automatically without the driver having to enter any number combination. Authentication takes place only after the ignition, but subsequently intervals.

3rd To enable the radio, after replacing, or stop MIB in another vehicle, it is necessary visit an authorized service center.

Models Bolero, Amundsen and Columbus are also protected by physically separating the central display and its own central unit multimedia system.



# Antennas Columbus





# Tuners and antennas

## DAB

- › DAB is a digital radio technology for broadcast radio stations.
- › Features transmission and reception of DAB, compared with a frequency-modulated FM signal, are amended Significant improvements as provided in the data information, and in listening quality.
- › DAB signal is much less prone to interference and interaction between stations. Each radio signal is transmitted in the multiplexes that contain more radio data streams.

## Traffic

DAB radio automatically tunes all available channels - multiplexes - and lists, which means for users to facilitate comfortable handling.

- › DAB may contain additional data information, the equivalent RDS, which is expanded as the pictures or offline website.
- › A device with a DAB tuner can then use the function Seamless switch between DAB / FM source signal without affecting the playback sound. Electronics and automatically selects the most appropriate source signal without the need for user intervention.



## Tuners and antennas

- › Apparatus according to individual MIB are equipped with multiple versions tunerovým solution to radio reception. Two or more tuners for broadcast band provides better reception and continuous tuning between stations.
- › Number of tuners for each MIB:

Tuner	Blues, Swing	Bolero	Amundsen	Columbus
AM	1	1	1	2
FM	2	2	3	3
DAB *	0	1	1	2

\* Option



## Tuners and antennas

- › **Antennas**
- › Except antennas for GPS, GSM and heater are in the Octavia all other antenna (AM / FM / DAB) integrated in the glass tailgate tailgate. If the car is not features a rooftop antenna design is not disturbed imitation roof antenna or cover mounting hole.
- › Outside the preparation of radio in the car are always two FM antennas to eliminate disturbing manifestations
- › Income and intelligent creation station list.

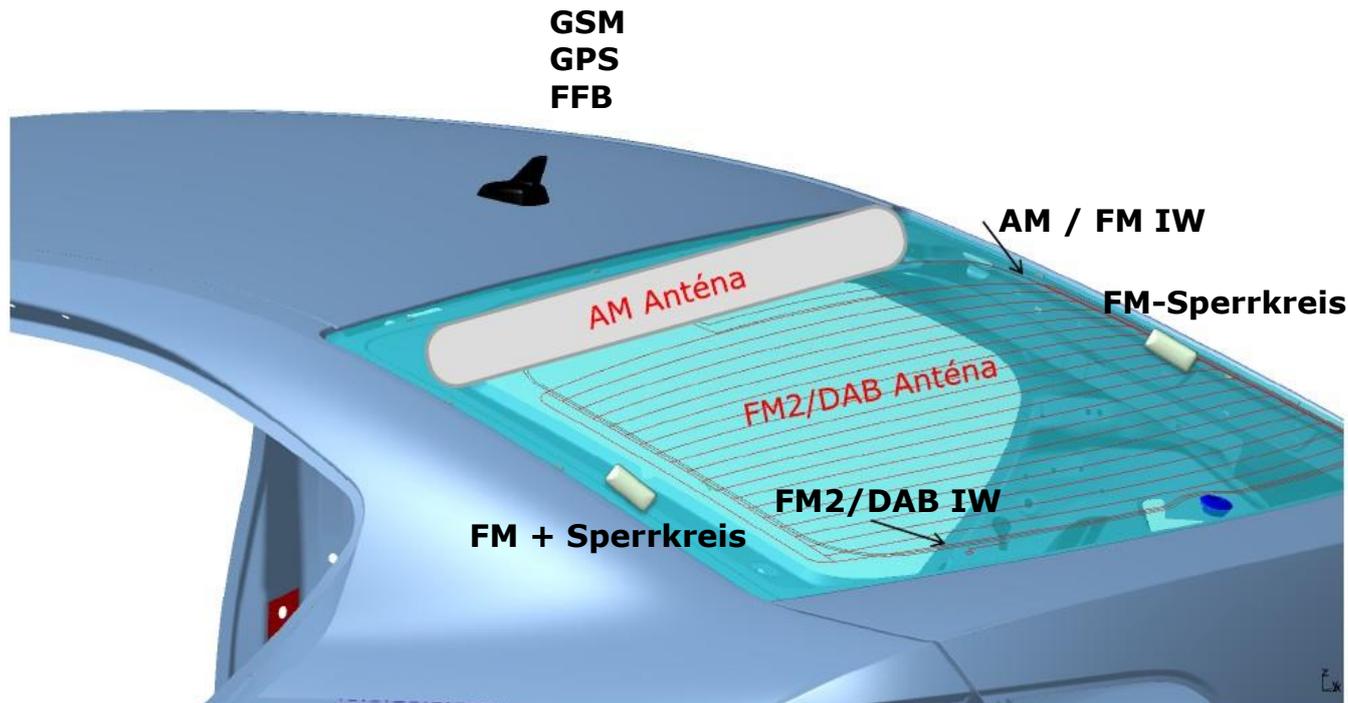
Antenna	Location
AM	The window in the tailgate
FM	
FM2	
DAB	
GPS	The rear part of the roof
Phone box	
Independent heating	



Antenna for GPS, GSM, FFB -  
This antenna is first addressed  
with a minimum height of the rubber  
seal.

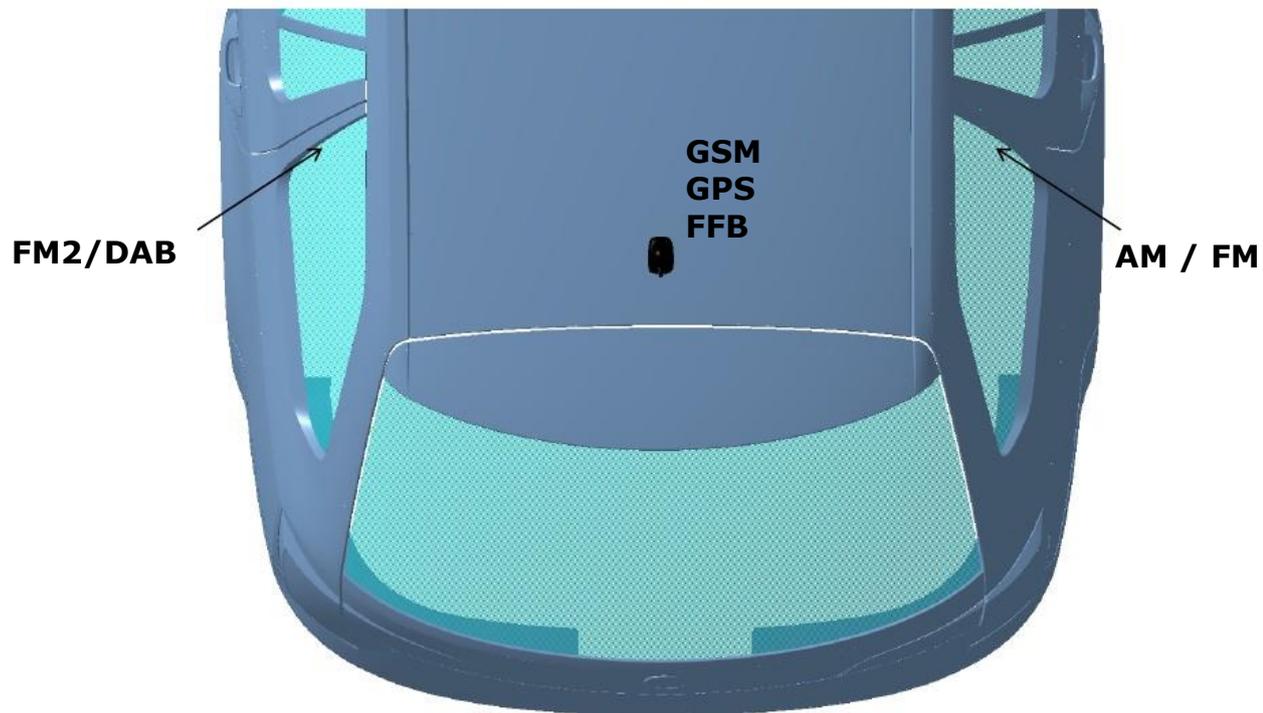


# Skoda Octavia III





## Skoda Octavia III COMBI

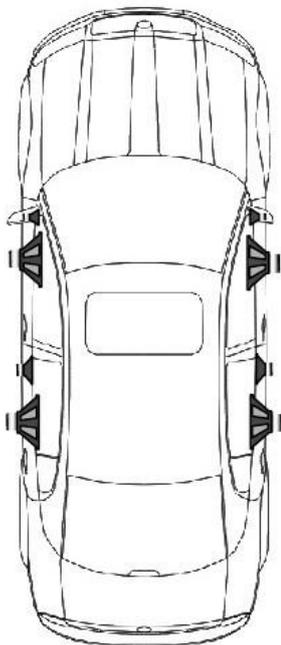




## Sound and DSP

**4 speakers** - basic equipment

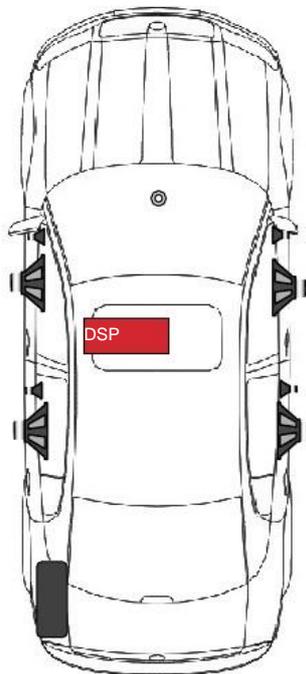
**8 speakers** - surcharge



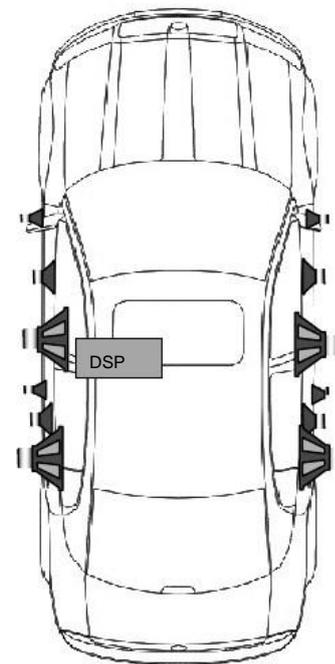
**All neodymium**

**CANTON Sound System**

8 speakers + central +  
+ external subwoofer amplifier



Soundsystem  
Skoda Octavia II



everything except height.  
ferrite



## Sound car

### › Sound system



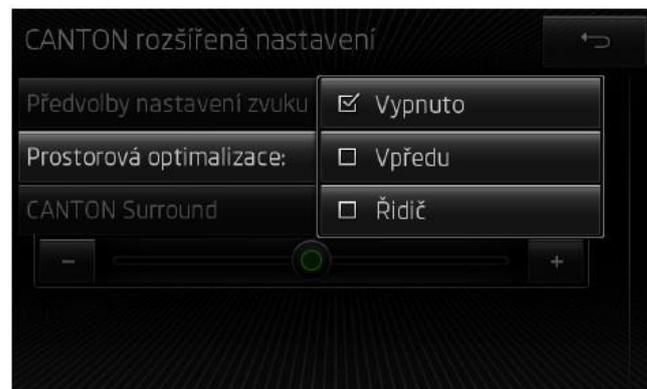
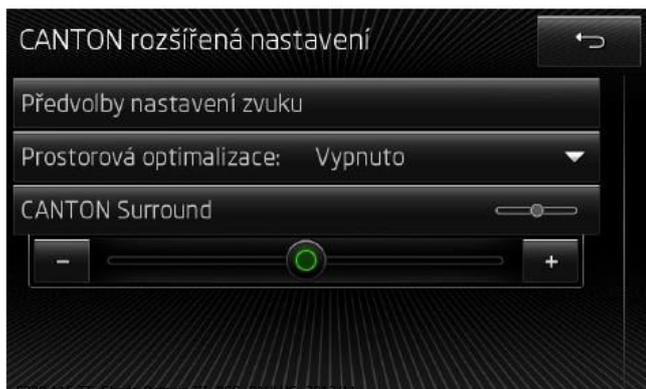
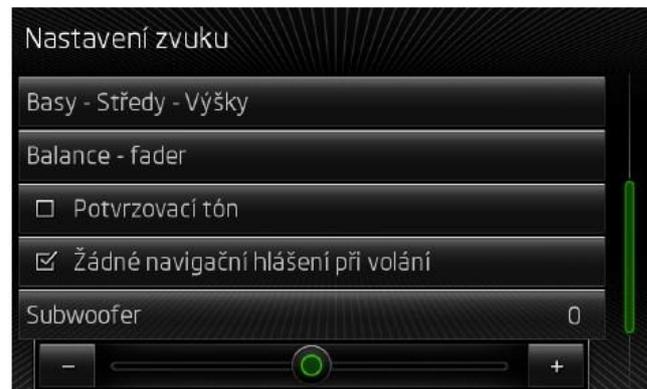
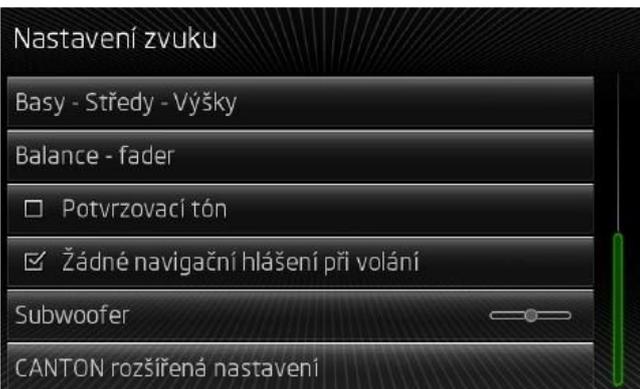
- › 570W, 10 channels
- › Sound system mediating excellent music and spoken word is available in combination with MIB Bolero, Amundsen and Columbus.
- › This advanced sound system developed by ŠKODA in cooperation with the renowned German company **CANTON** Which manufactures both domestic and studio HiFi systems of the highest quality. Contribution cooperation **CANTON** consisted mainly in system specification and further tuning and sound settings tailored for the interior of the Octavia third generation.
- › **Overview of the type and location of the speaker Sound System**
- › The whole set includes 8 speakers in the doors, center speaker, subwoofer and external amplifier.



	High-rise	Central	Midrange	Subwoofer
<b>The front door</b> Speaker diameter Output Power Frequency Range	Ø 25 mm 25 W 2 kHz - 20 kHz	-	Ø 168 mm 80 watts 60 Hz - 4 kHz	-
<b>Tailgate</b> Speaker diameter Output Power Frequency Range	Ø 25 mm 25 W 2 kHz - 20 kHz	-	Ø 168 mm 50 W 60 Hz - 5 kHz	-
<b>Dashboard</b> Speaker diameter Output Power Frequency Range	-	Ø 90 mm 25 W 250 Hz -10 kHz	-	-
<b>Luggage space</b> Speaker diameter Output Power Frequency Range	-	-	-	The volume of 15 l, Ø 168 mm 2x100 W 30 Hz -100 Hz



## MIB Canton





## Bluetooth protocols used in the MIB

### Audiostreaming

#### Audio / Video Remote Control Profile (AVRCP)

Controlling of audiostream (Play, Pause, Skip Forward / Backward, ID3 tags)

#### Advanced Audio Distribution Profile (A2DP)

Transferring of audio stream

### Phonebook download (PBAP, SyncML, AT-commands)

### Hands-Free Profile (HFP)

Handling of calls (Incoming, Outgoing, Accepting, Rejecting, Subscriber info, 3-way calls, ...)

### Lower layer

(Pairing - Legacy / **Secure Simple Pairing (SSP)** Connection ...)



MIB





## Bluetooth

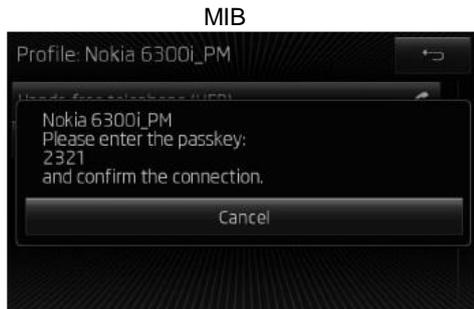


New - Add a photo to a contact

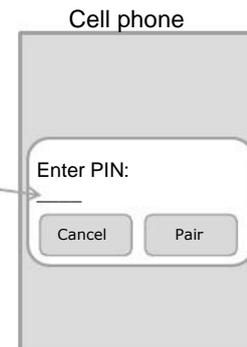


## Pair with a phone-system used on MIB/RG3

- › **Legacy pairing (LP)** - Used for older phones



4-digits PIN must be enter



- › **Secure Simple Pairing (SSP)** - Used newer phones



6-digits PIN only confirms



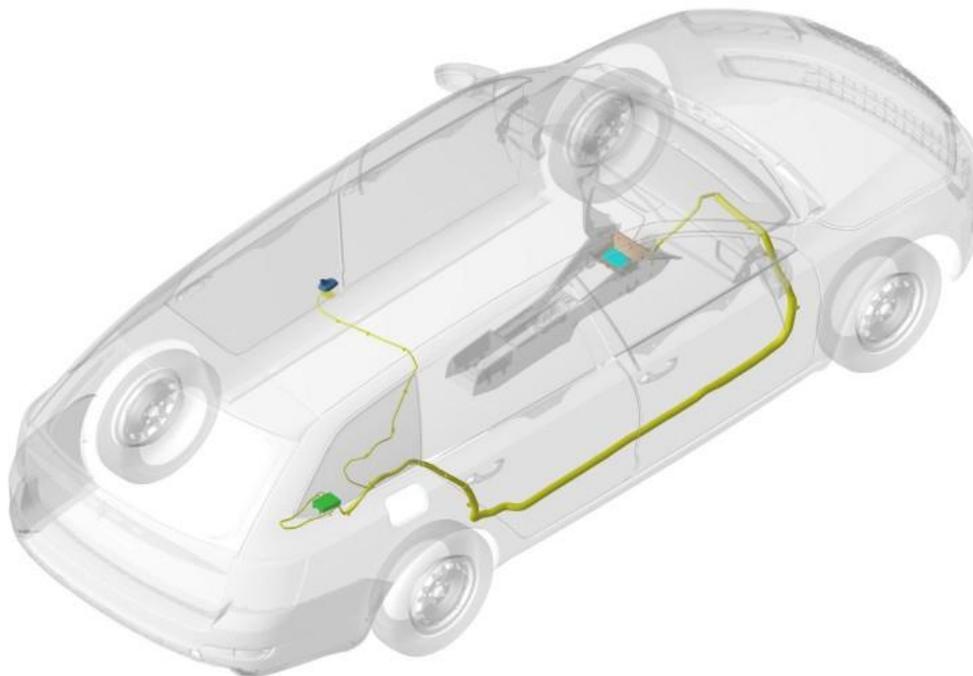


## Installation Koppelboxu the Octavia Combi



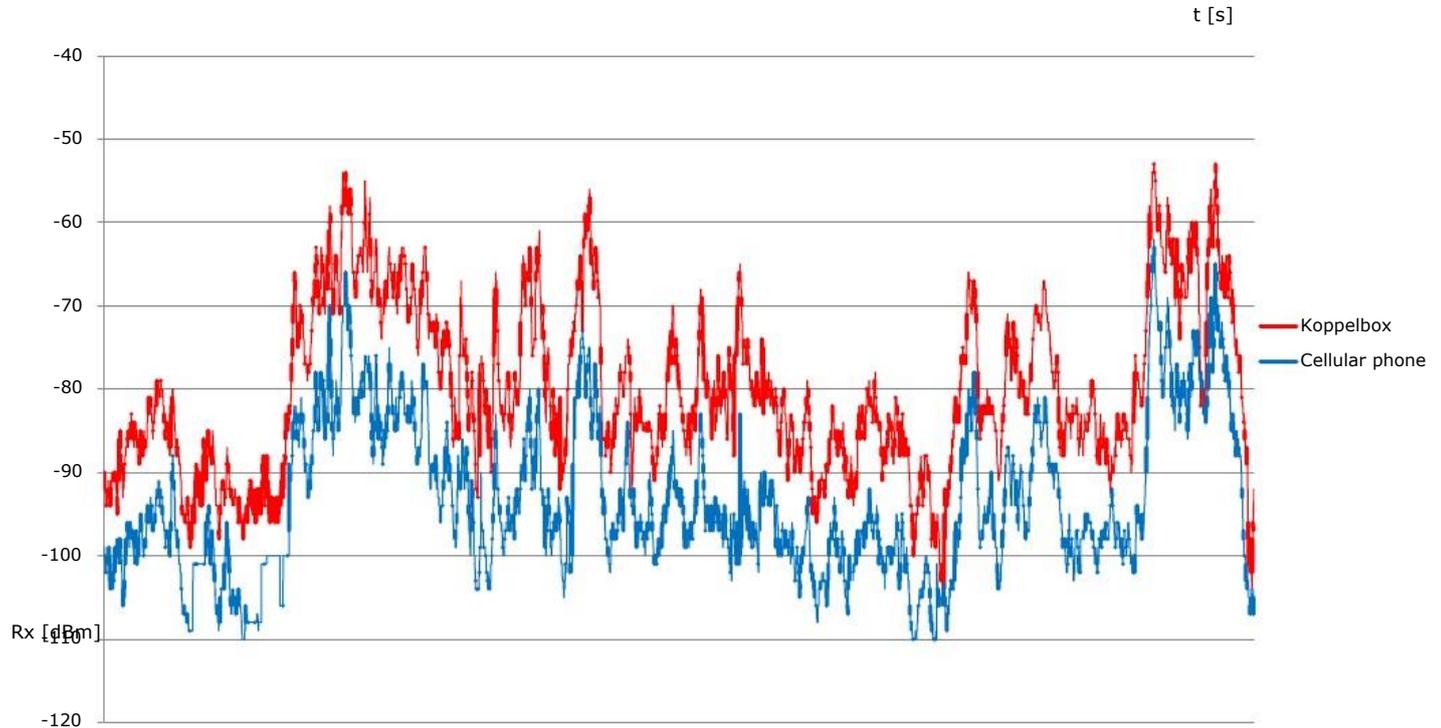


# Installation Koppelboxu the Octavia Combi





# Field measurement GSM network 900/1800 MHz





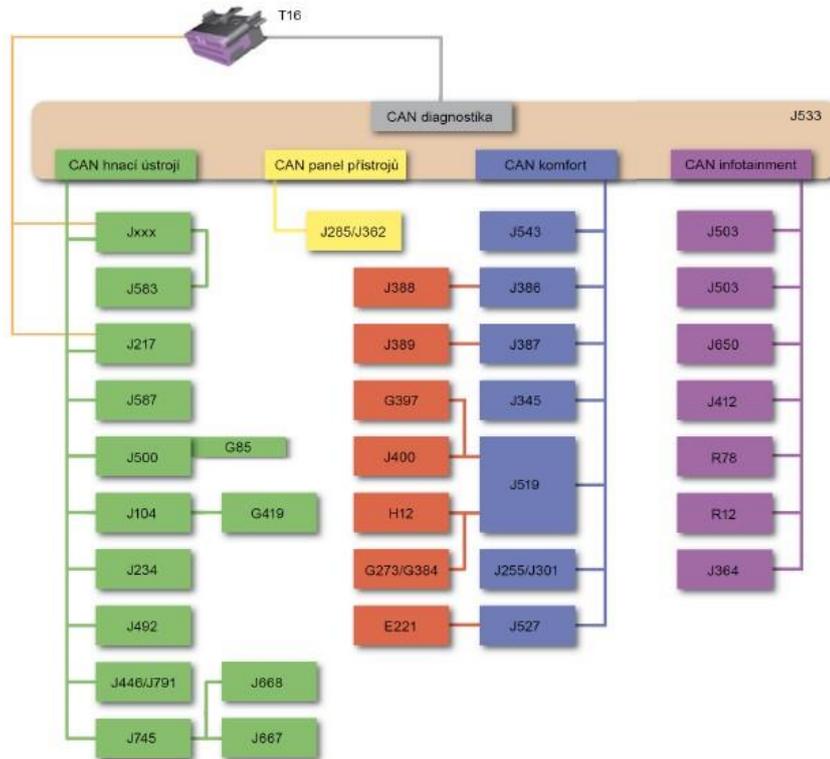
# CAN-Bus

## Contents:

- Comparison of the data bus Octavia Octavia II and III
- Installation of units in vehicles
- Overview and description of the CAN-Bus
- Overview and description of the LIN-Bus
- Overview of Bus MOST



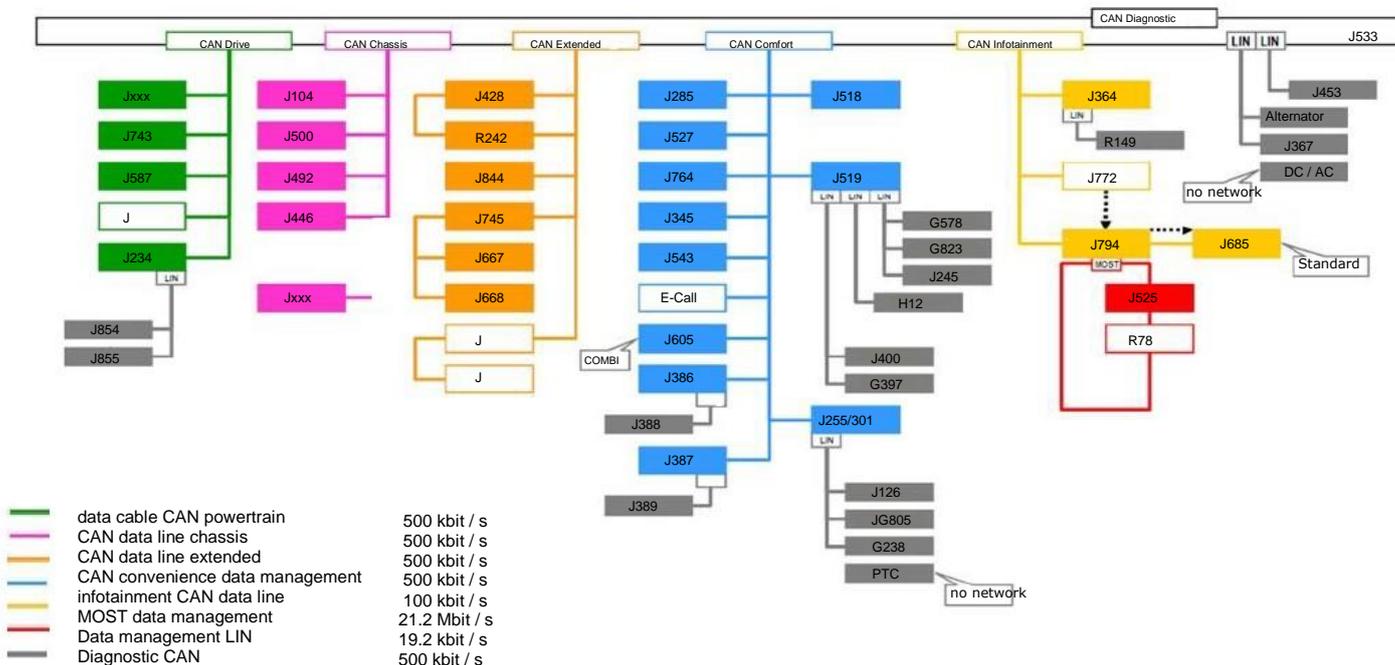
# CAN-Bus Škoda Octavia II



- CAN data line diagnostics
  - LIN data line
  - K-lines
  - data cable CAN powertrain
  - CAN panel data management device
  - CAN convenience data management
  - infotainment CAN data line
- |               |
|---------------|
| 500 kbit / s  |
| 19.2 kbit / s |
| 10.4 kbit / s |
| 500 kbit / s  |
| 500 kbit / s  |
| 100 kbit / s  |
| 100 kbit / s  |

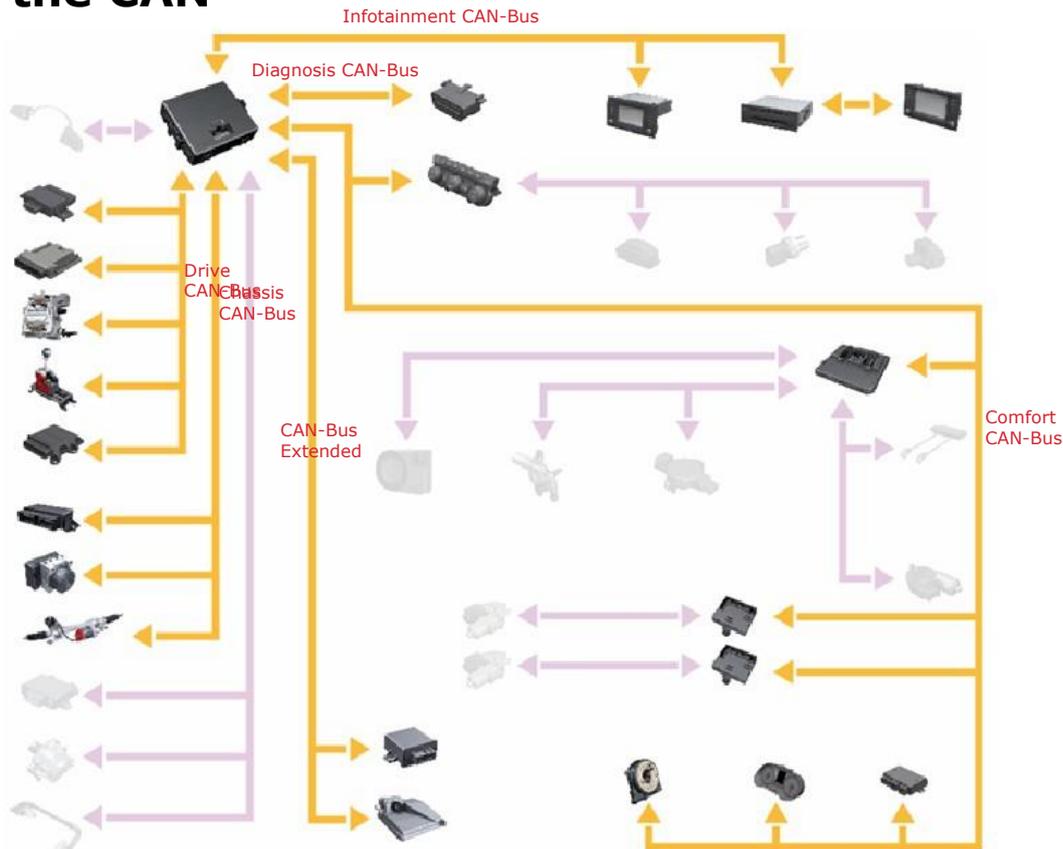


# CAN-Bus Škoda Octavia III



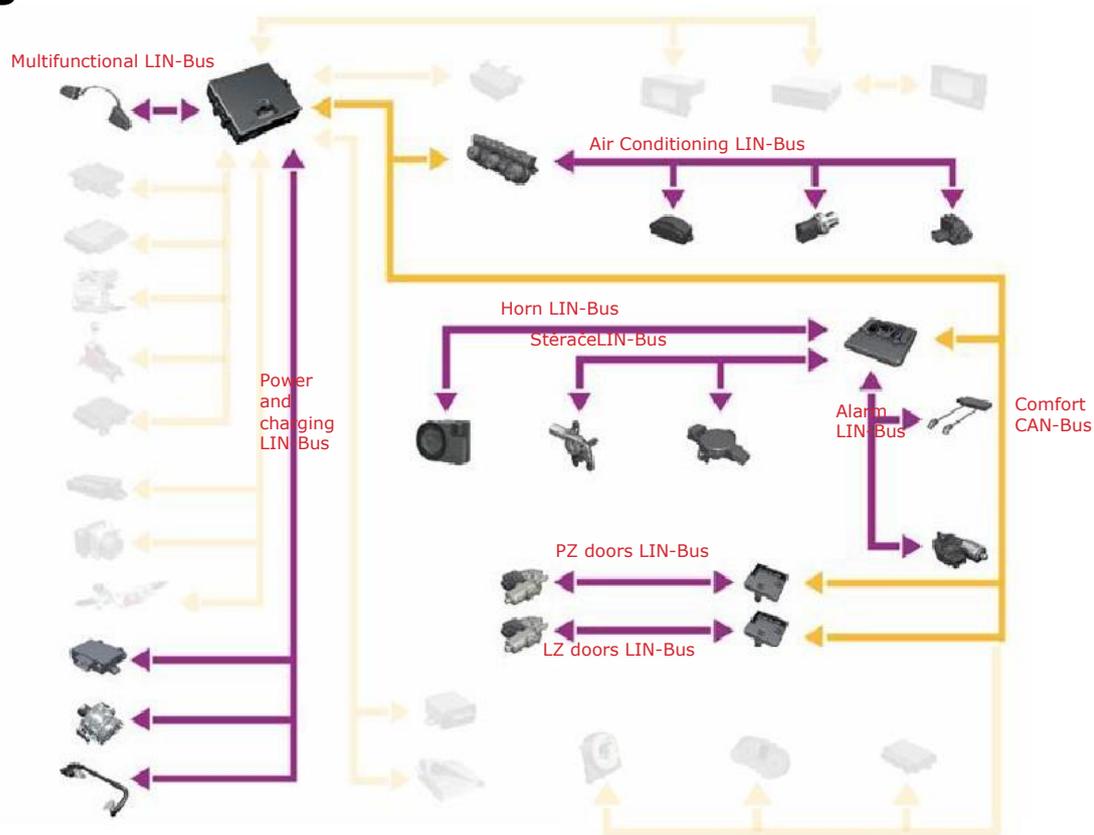


# Connecting the CAN-Bus



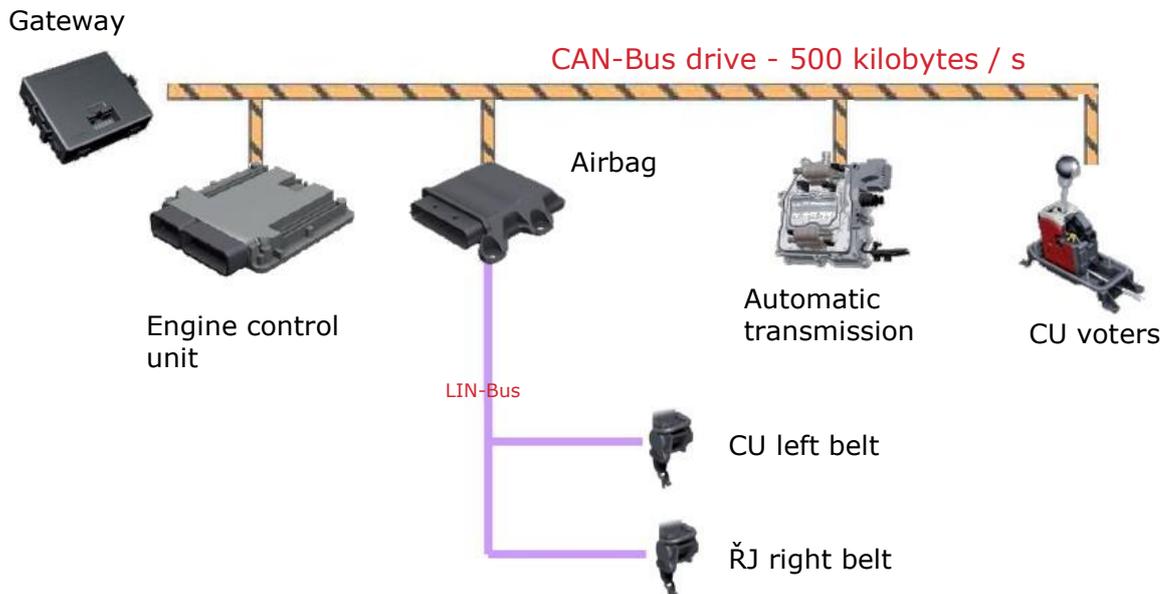


# Lin-Bus



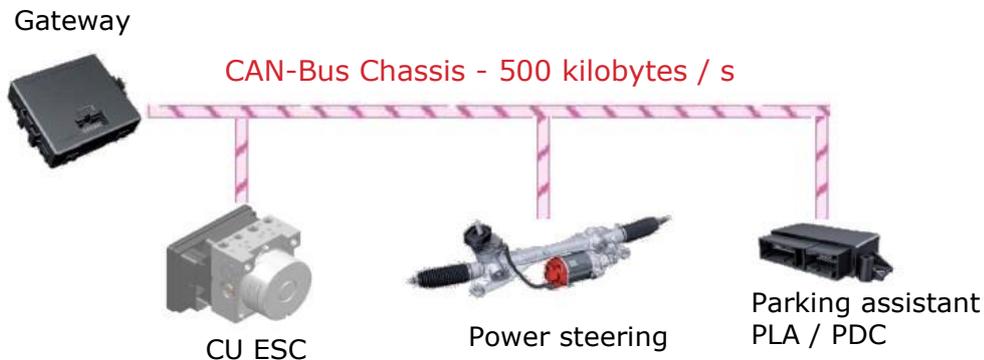


# CAN-Bus drive



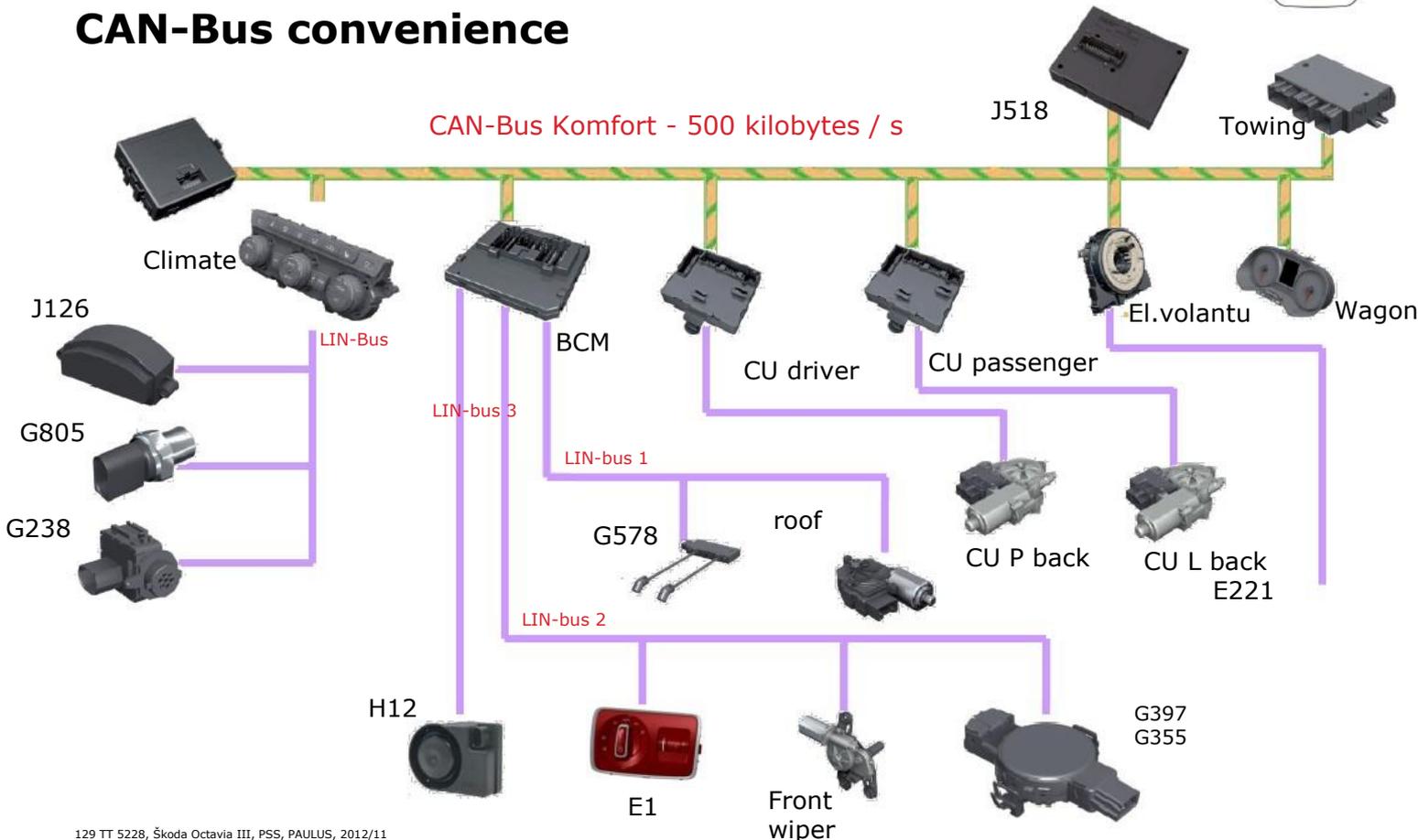


# CAN-Bus chassis



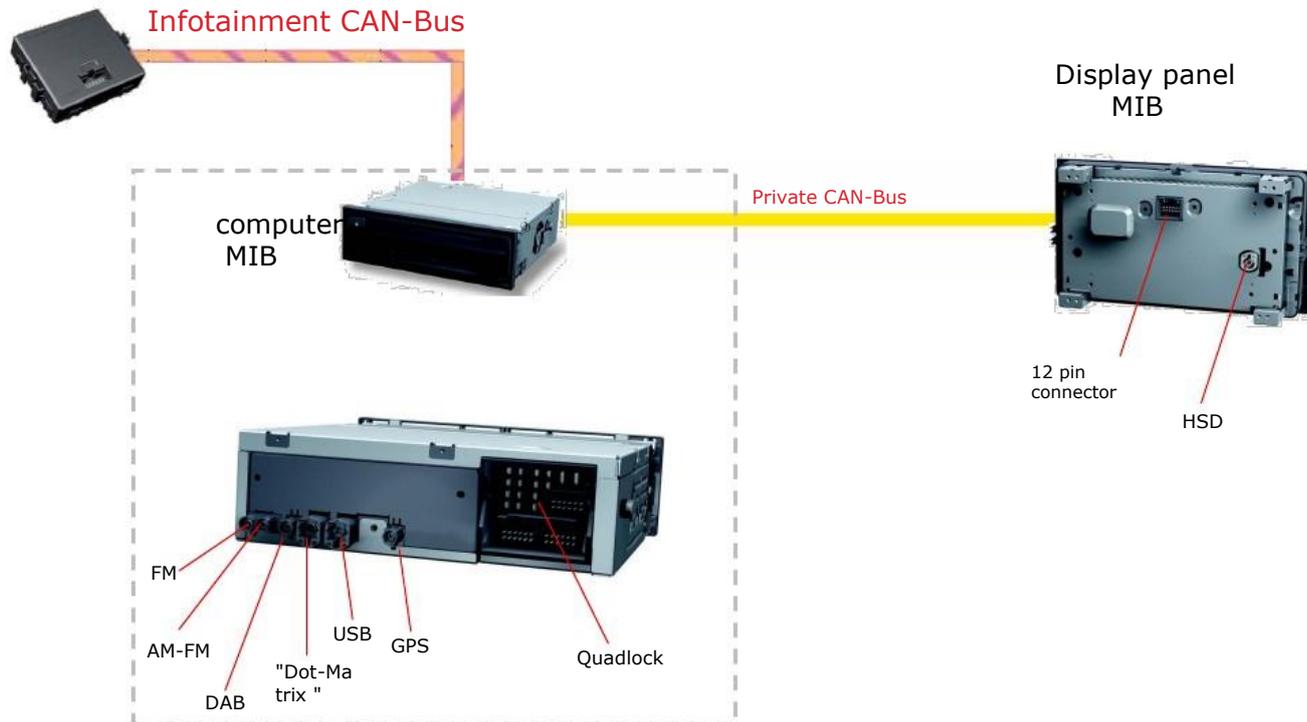


# CAN-Bus convenience





# Infotainment CAN-Bus



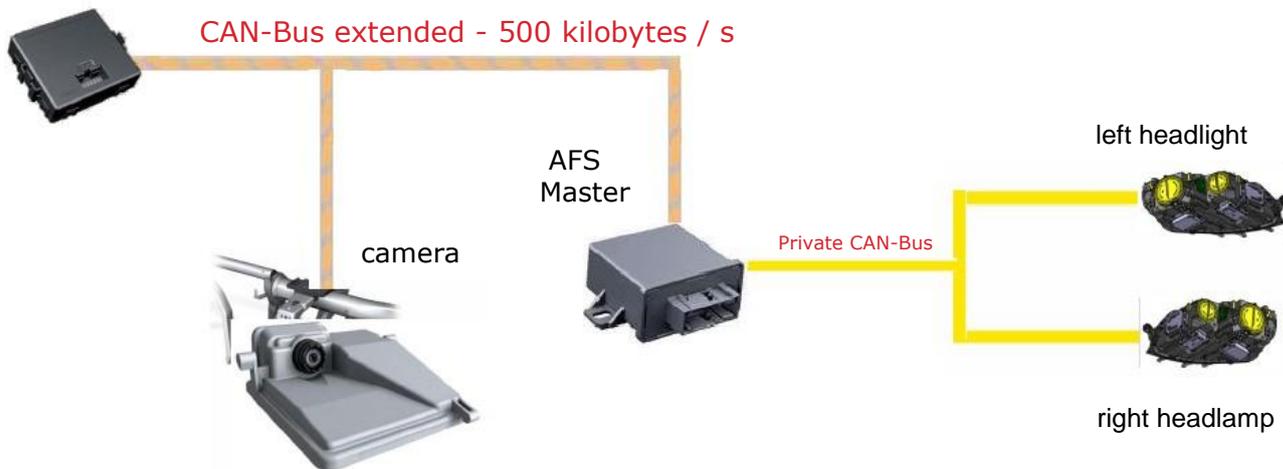


# Infotainment CAN-Bus





# CAN-Bus Extended



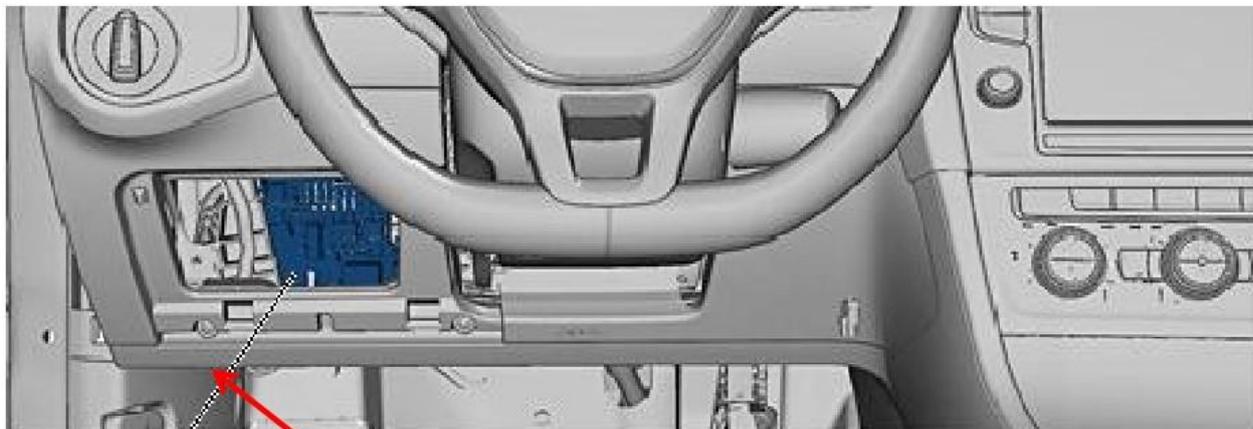


# Diagnostic CAN-Bus





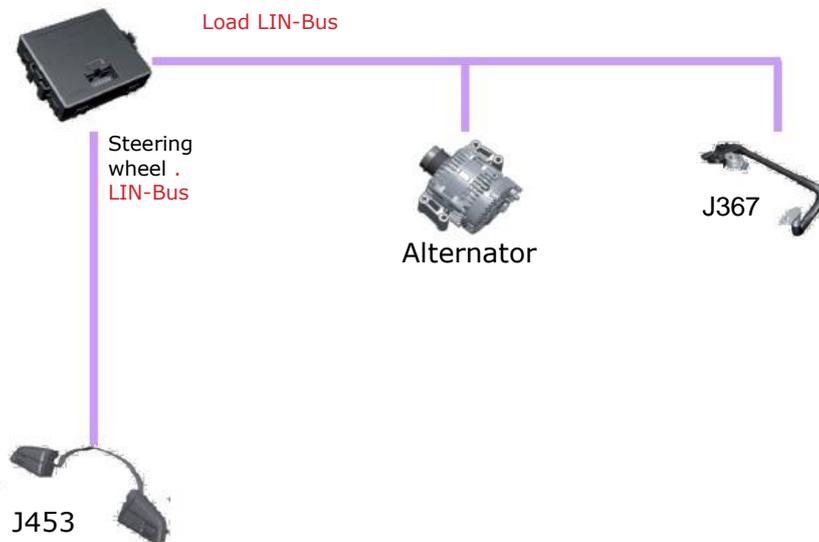
## Diagnostic socket



under the dash on the left



# Start-Stop system





# MOST





## Meaning



Media

Orient

ed

System

s

Trans



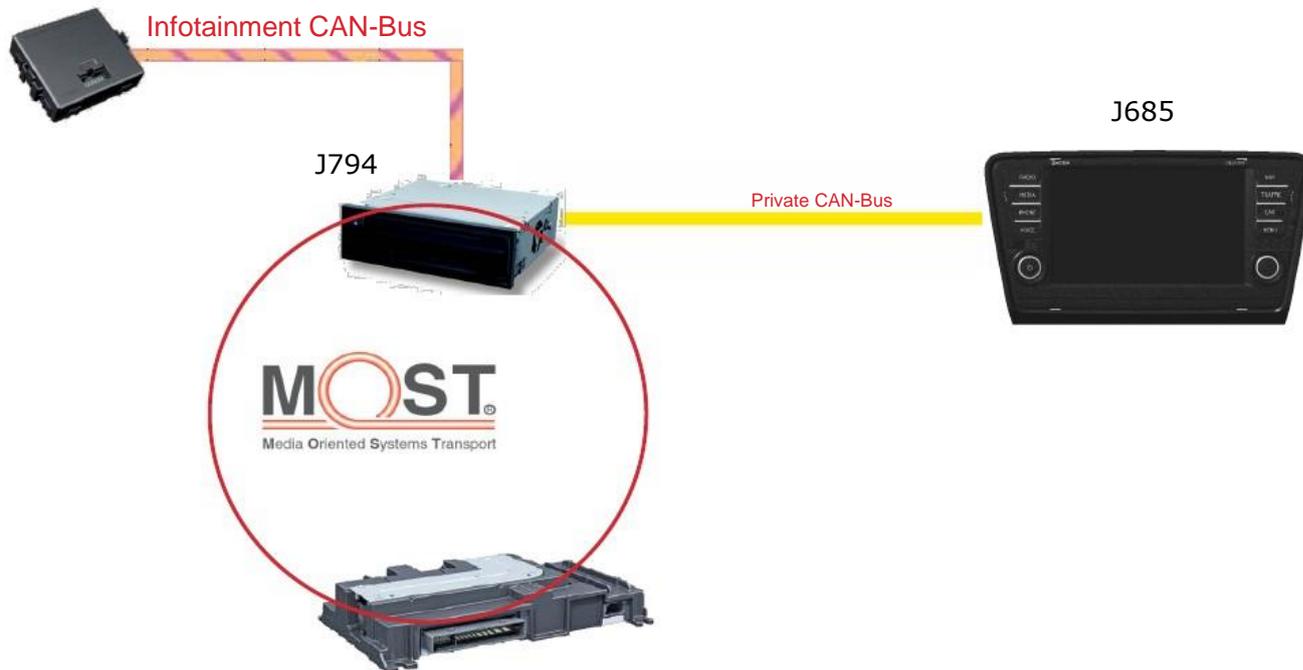


## **MOST - The reasons for**

- "Relatively" low cost for high speed data transfer (using LEDs and artificial materials - fiber optic lines LWL)
- Available-high data transfer rate
- Minimization of spurious emissions (EMC) using optical fibers instead of wires (Antennas)
- The transmitted signal is resistant to electromagnetic radiation
- Better transmission quality / noise suppression digitizing
- Weight reduction, Smaller wires in the wiring harness



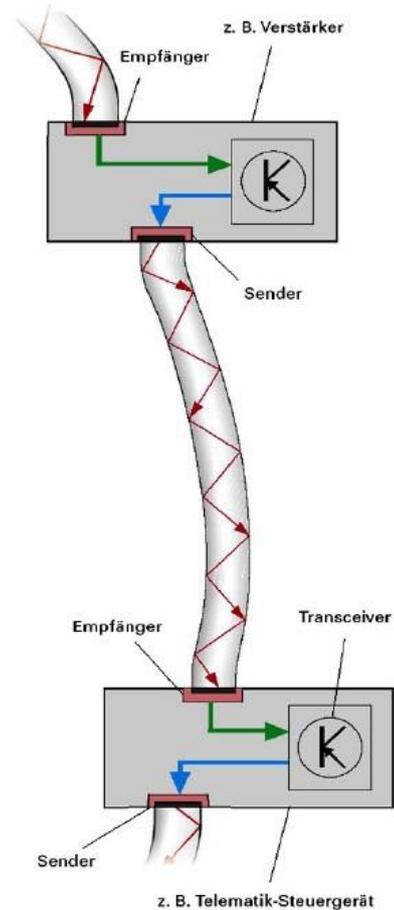
# MOST





# Optical cable (LWL)

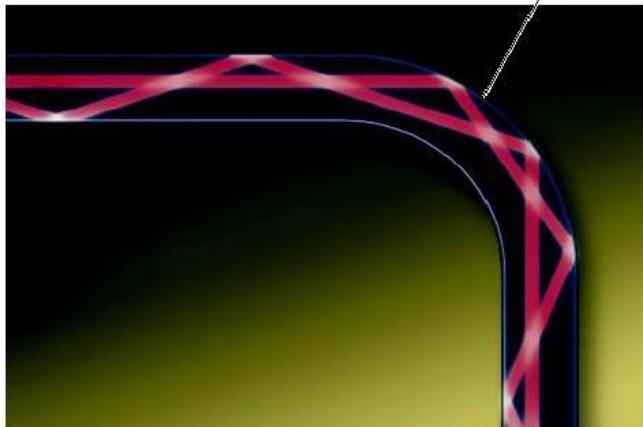
- Light waves travel in a straight line
- LWL can be easily damaged
- LWL must withstand large changes in temperatures



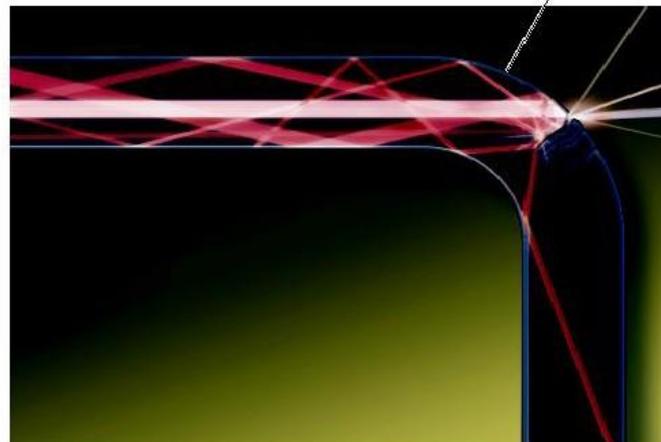


## Total internal reflection

Radius > 25 mm



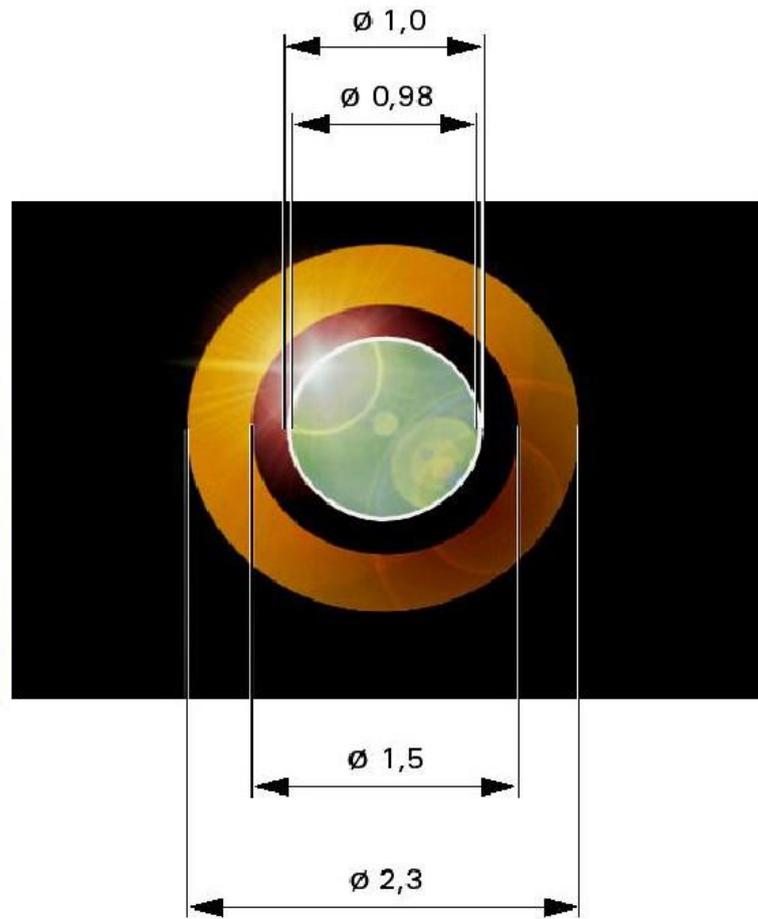
Radius < 25 mm



If the angle of the light beam inside the interface too sharp, it is not total reflection possible.



# The arrangement of light management



Reflection layer

Core

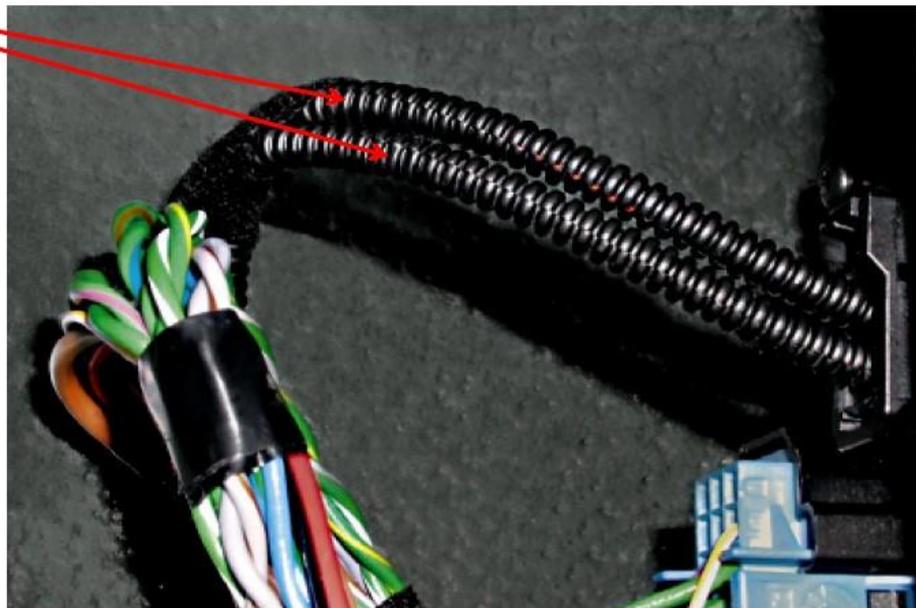


## Privacy optic lines against damage

optical cables

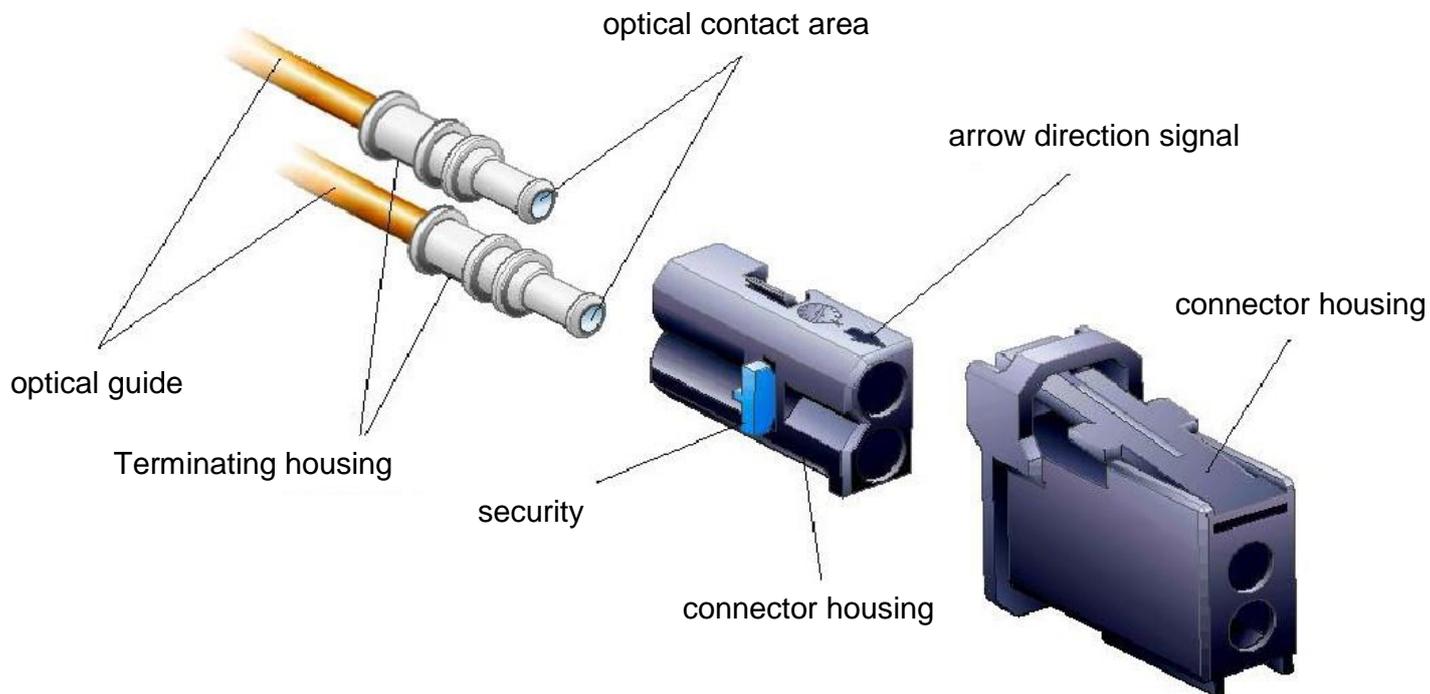
### Optical cables are protected against:

- overtemperature  
(Eg welding)
- pressed, the breaking
- pollution
- Scratch





# Connector





# START - STOP

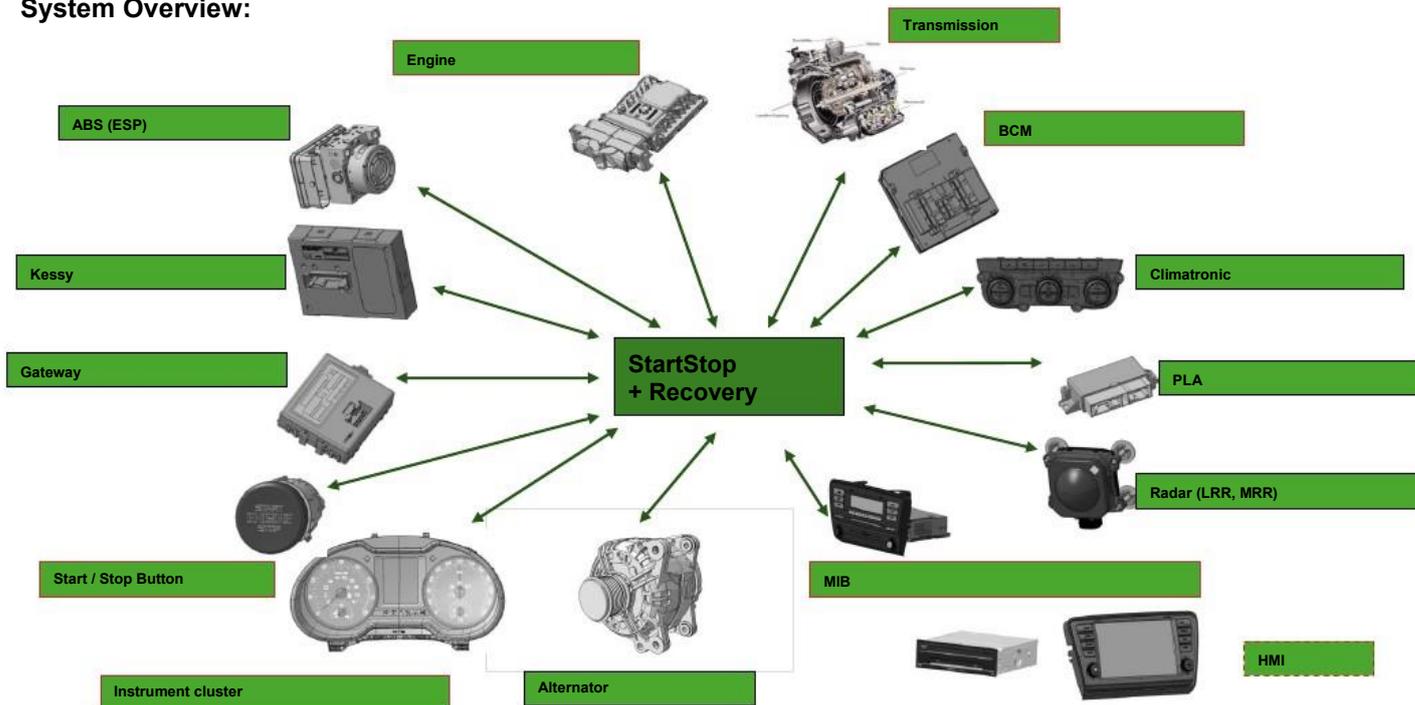
## Contents:

- System Overview
- Automatic Transmission
- Information on MIB
- ECO mode



# Innovation of StartStop Skoda Octavia III

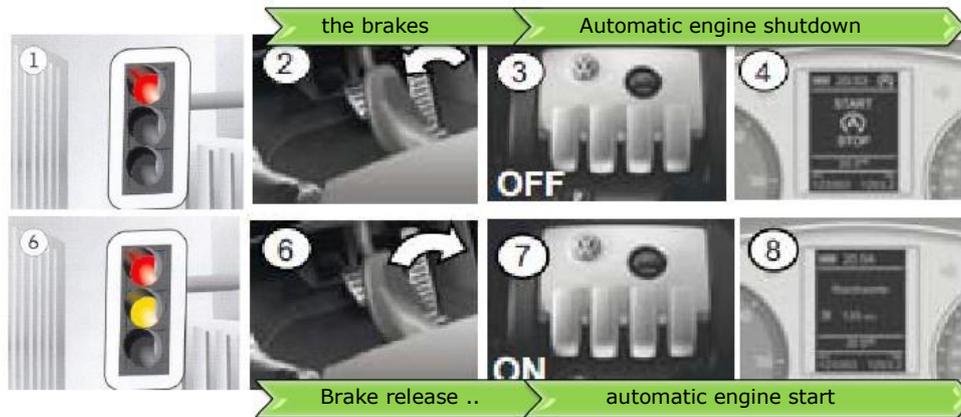
## System Overview:





# Innovation of StartStop Skoda Octavia III

## Deployment StartStop for automatic transmission



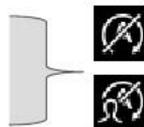
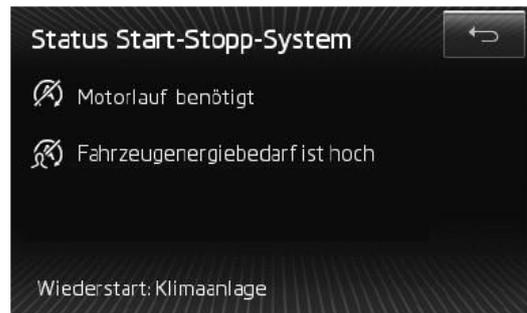


# Innovation of StartStop Skoda Octavia III

## Advanced system information StartStop within the infotainment MIB



The condition of the driver is informed StartStop on the instrument cluster display



reasons on the part of StartStop directly by the driver affect, such as failure to achieve operating temperature

reasons that may affect the driver, eg safety belt

the reason for the last automatic engine start



# Innovation of StartStop Skoda Octavia III

## Specific features of StartStop

### Key system StartStop



If the system is disarmed, the button indicator light. The StartStop remains disabled only until the next starting with the key resp.startovacím button Kessy. If you deactivate the system during the stop, the engine automatically starts.

### Select key driving modes



If the selected driving mode MODE-Eco is not possible to manually deactivation system StartStop.



**Thank you.**

