

# **TV-Free**Universal video-in-motion Interface

**INT CAS 500** 

Versione plug and play can bus

Informazioni legali

Per la legge, la visione delle immagini mentre si è alla guida è proibita, il guidatore non deve essere distratto. L'acquirente e' pertanto responsabile verso se stesso ed altri per danni diretti o indiretti causati durante l'utilizzo.

Il prodotto è aggiornabile per renderlo compatibile a variazioni di software delle vetture attualmente nella lista di compatibilita' o per l'aggiunta di vetture nuove. Il software di aggiornamento sono disponibili gratuitamente.

#### 1. Prima dell'installazione

- 1.1. Contenuto
- 1.2. Pin-out cablaggio
- 1.3. Funzioni degli switch
- 2. Installazione
- 3. Specifiche
- 4. Supporto tecnico

#### 1.1. contenuto

# 1.2. Pin-out cablaggio



COLORE CAVO	Pin-No.	fUNZIONE
<ul><li>GIALLO</li></ul>	Pin 4	CAN-HIGH – connettere alla radio
• Blu	Pin 3	CAN-LOW – connettere alla radio
● GIALLO/NER	O Pin 8	CAN-HIGH – connettere al veicolo
<ul><li>BLU/NERO</li></ul>	Pin 7	CAN-LOW – connettere al veicolo
<ul><li>ROSSO</li></ul>	Pin 1	+12V permanente
<ul><li>NERO</li></ul>	Pin 5	Massa
• VERDE	Pin 6	Attivazione funzione video in movimento (Fornendo un +12V si sblocca la visione)
BIANCO	Pin 2	Uscita alim. retrocamera (+12V DC 500mA)

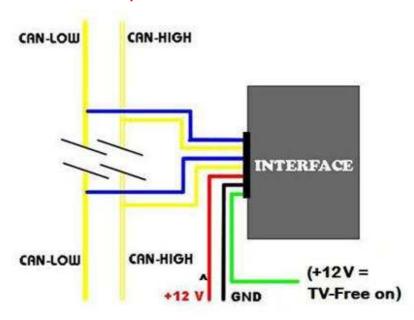
#### 1.3. Funzioni switch

- Dip 1 attivazione sblocco immagini
- Dip 2 nessuna funzione (in alcuni veicoli funzione retrocamera)
- Dip 3 nessuna funzione (in alcuni veicoli funzione attivazione icona TV)
- Dip 4 nessuna funzione
- Dip 5 Resistenza di terminazione CAN BUS lato veicolo
- Dip 6 Resistenza di terminazione CAN BUS lato radio

## 2. Installazione senza cavo plug and play dedicato

Spegnere il veicolo e attendere che vada in sleep mode o, dove possibile, scollegare il polo negativo della batteria. scollegare la batteria.

Installare l'interfaccia e I rispettivi cavi CAN BUS. Separare I 2 cavi CAN BUS (CAN-HIGHT e CAN-LOW) dal navigatore e collegarli all'interfaccia come da schema (imagine qui sotto). Connettere il cavo rosso al +12V permanente e connettere il cavo nero a massa.



Le immagini in movimento si attivano e disattivano con lo switch 1 o in alternative con il filo verde.

#### Immagini sbloccate in modo permanente

Con lo switch N. 1 in ON, le immagini sono sbloccate in modo permanente, senza disturbare la navigazione.

#### Attivazione/disattivazione sblocco immagini manuale

Con lo switch 1 in OFF ,usare il cavo verde per attivare/disattivare lo sblocco immagini secondo la tabella sotto riportata:

Connect a switch to the green cable and connect the green cable to +12V ACC.

+12V = IMMAGINI SBLOCCATE0V = IMMAGINI BLOCCATE

Note: Il cavo bianco se non utilizzato, deve essere isolato

#### **Vetture con Audi Navi Plus RNS-E**



Installare la centralina dietro l'unità di navigazione.

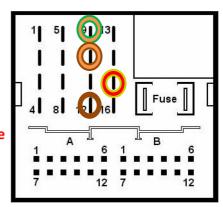
Veicoli compatibili Audi A3, A4, TT (8J)

Attention! Audi A6 with Navi Plus RNS-E have analog speed signal.

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Navi Plus RNS-E	OFF	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
<ul><li>Red/Yellow</li></ul>	+12Volt Permanent 15
<ul><li>Brown</li></ul>	Ground Pin 12
<ul><li>Orange/Green</li></ul>	CAN HIGH Pin 9
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 10

Le informazioni riguardanti le connessioni sono indicative e Potrebbero non corrispondere. Verificare sempre la corri-Spondenza.



Pressione lunga del tasto ">|" (circa 5 secondi) per attivare/disat-Tivare la funzione. Quando la chiave vettura e in off, la centralina saraà automaticamente disattivata.

Lampeggio lungo retroilluminazione navi = SBLOCCO ON Lampeggio corto retroilluminazione navi = SBLOCCO OFF



Note: Con lo sblocco attivo, non sara' possible navigare

# Vehicles with Audi MIB High (e.g. Audi A3 8V)



Place of installation is at the back side of the navigation unit

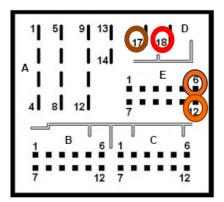
Compatible vehicles Audi A3 8V

Navigation MIB High - MMI® Navigation plus mit MMI® touch

Vehicle/navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
MIB High	ON	OFF	OFF	OFF	ON	ON

Cable colour	Assignment
• Red	+12V permanent Pin 18
<ul><li>Brown</li></ul>	Ground Pin 17
<ul><li>Orange/Violet</li></ul>	CAN HIGH Pin 6
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 12

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

# **Vehicles with BMW NBT**



Place of installation is at the back side of the navigation unit.

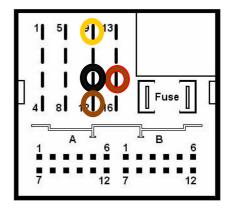
Compatible vehicles BMW 1series (F20/21), 3series (F30/31/32/33)

Navigation Navigation system **Professional** NBT with 8.8" monitor

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Professional NBT	ON	OFF	OFF	OFF	ON	ON

Cable colour	Assignment
<ul><li>Brown/Red</li></ul>	+12V permanent 15
<ul><li>Brown</li></ul>	Ground Pin 12
<ul><li>Black</li></ul>	CAN HIGH Pin 11
<ul><li>Yellow</li></ul>	CAN LOW Pin 9

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### **Vehicles with ZAB**



Place of installation is at the back side of the navigation unit.

Compatible vehicles Bentley Continental Coupe GT, VW Phaeton till about 03/2010

Navigation ZAB

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

#### 32-pin connector

Cable colour	Assignment
<ul><li>Orange/Green</li></ul>	CAN HIGH Pin 16
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 32



#### 8-pin power harness

Cable colour		Assignment				
•	Red	+12V Permanent Pin 7				
•	Brown	Ground Pin 8				

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

#### **Vehicles with MYGIG**



Place of installation is at the back side of the navigation unit.

Compatible vehicles Chrysler, Dodge and Jeep

Navigation MYGIG RER/REW/REN/REP/RHW

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment			
<ul><li>White/Orange</li></ul>	CAN-HIGH - Pin 13			
<ul><li>White</li></ul>	CAN-LOW - Pin 2			
• Red	+12V Permanent - Pin 1			
Black/Green	Ground - Pin 12			

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

# Chrysler, Dodge, Jeep and Fiat Freemount with Uconnnect



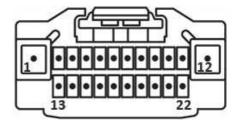
Place of installation is at the back side of the navigation unit.

Compatible vehicles Chrysler, Dodge, Jeep, Fiat Freemount

Navigation Uconnect with 8.4" monitor

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Pin NO.	Assignment
Pin 7	CAN-HIGH
Pin 18	CAN-LOW
Pin 12	+12V Permanent
Pin 1	Ground



No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Vehicles with RT3-N3 CAN and RT4



Place of installation is at the back side of the navigation unit.

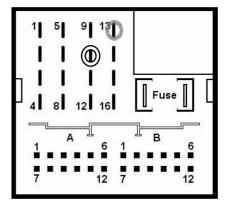
Compatible vehicles Citroen, Peugeot

Navigation RT3-N3 CAN, RT4

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	OFF	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
White	CAN HIGH Pin 10
<ul><li>Grey</li></ul>	CAN LOW Pin 13

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



Longpress the "SRC"-button on the steering wheel (about 3 seconds) to activate/deactivate the video-in-motion function. When ignition is off, the video-in-motion interface will be automatically disabled.

**Note:** While the video-in-motion function is activated, the navigation performance is not possible!

#### Vehicles with NG4 NaviDrive and NG4 WipCom



Place of installation is at the back side of the navigation unit.

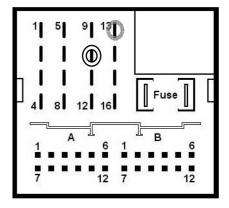
Compatible vehicles Citroen, Peugeot

Navigation NG4 NaviDrive (Citroen), NG4 WipCom/WipNav (Peugeot)

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
White	CAN HIGH Pin 10
<ul><li>Grey</li></ul>	CAN LOW Pin 13

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

**Note:** On some vehicles the navigation performance is affected and as long as the video-inmotion function is activated the navigation will not be working! In this case you have to connect the green cable as described in chapter "Exception: Vehicles with RT3-N3 CAN and RT 4 without Source-button" and set Dip 1 to OFF.

#### Ferrari California with MYGIG



Place of installation is at the back side of the navigation unit.

Compatible vehicles Ferrari California

Navigation MYGIG

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
<ul><li>White/Orange</li></ul>	CAN-HIGH - Pin 13
<ul><li>White</li></ul>	CAN-LOW - Pin 2
• Red	+12V Permanent - Pin 1
Black/Green	Ground - Pin 12

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

# Ford Edge with MYGIG



Place of installation is at the back side of the navigation unit.

Compatible vehicles Ford Edge, Edge 2011

Navigation MYGIG

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

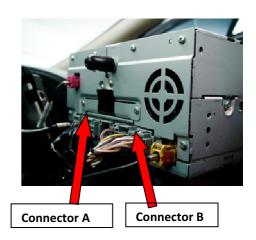
# **Connector A**

Cable colour	Assignment
<ul><li>Grau/Orange</li></ul>	CAN-HIGH
<ul><li>Violett/Orange</li></ul>	CAN-LOW

#### **Connector B**

Cable colour	Assignment
o• White/Red	+12V Permanent
<ul><li>Black/Blue</li></ul>	Ground

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Jaguar XF with Touch-screen navigation version 2



Place of installation is at the back side of the radio module.

Compatible vehicles Jaguar XF

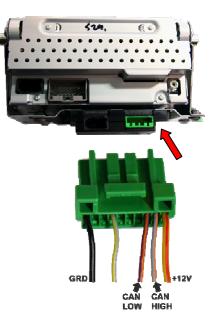
Navigation Touch-screen navigation version 2

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	ON

Cable colour	Assignment
<ul><li>Yellow/Red</li></ul>	+12V Permanent
<ul> <li>Black</li> </ul>	Ground
<ul><li>Grey/Orange</li></ul>	CAN-HIGH
<ul><li>Purple/Orange</li></ul>	CAN-LOW

**Attention:** CAN-LOW and CAN-HIGH could be reversed at older vehicles (e.g. Grey/Orange = CAN-LOW)!

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Jaguar XJ and XF with Touch-screen navigation version 3



Place of installation is at the back side of the monitor.

Compatible vehicles Jaguar XF X250 (from model 2012), XJ X351 (from model 2011)

Navigation Touch-screen navigation version 3

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	ON

Cable colour	Assignment
<ul><li>Grey/Red (Pin 8)</li></ul>	+12V Dauerplus
Black (Pin 5)	Masse
<ul><li>Grey/Orange (Pin 2)</li></ul>	CAN-HIGH
<ul><li>Purple/Orange (Pin 1)</li></ul>	CAN-LOW

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.





The video-in-motion function is activated permanently without disturbing the navigation performance.

# LandRover with Touch-screen navigation version 1



Place of installation is at the back side of the radio module. (a hide-away box which is located behind the glove box or behind the factory navigation monitor).

Compatible vehicles Range Rover (Vogue) L322 (2005-2009), Range Rover Sport L320

(2005-2009), Discovery3 L319 (2004-2009)

Navigation Touch-screen navigation version 1



Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles <b>without</b> rear-view camera or with after-market rear-view camera	ON	OFF	OFF	OFF	ON	ON
Vehicles with factory rear-view camera	ON	ON	OFF	OFF	ON	ON

**Note**: Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – factory rear-view camera existing

Dip 3 – TV icon simulation

Dip 4 – no function

Dip 5 – CAN-bus termination resistor on the vehicle side

Dip 6 – CAN-bus termination resistor on the head-unit side

# **Range Rover Vogue**

Cable colour	Assignment
<ul><li>Yellow/White</li></ul>	CAN-HIGH Pin 9
<ul><li>Yellow/Blue</li></ul>	CAN-LOW Pin 10

# **Sport & Discovery**

Cable colour	Assignment
<ul><li>Yellow/White</li></ul>	CAN-HIGH
<ul><li>Yellow</li></ul>	CAN-LOW

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

#### LandRover with Touch-screen navigation version 2



Place of installation is at the back side of the radio module. (a hide-away box which is located behind the glove box or behind the factory navigation monitor).

Compatible vehicles Range Rover (Vogue) L322 (2005-2009), Range Rover Sport L320

(2005-2009), Discovery3 L319 (2004-2009)

Navigation Touch-screen navigation version 2



Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles without rear-view camera	ON	OFF	OFF	OFF	ON	ON
Vehicles with rear-view camera	ON	ON	OFF	OFF	ON	ON

**Note**: Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – rear-view camera existing

Dip 3 – TV icon simulation

Dip 4 – no function

Dip 5 – termination resistor CAN-Bus

Dip 6 – termination resistor CAN-Bus

Setting dip 2 to ON codes the factory rear-view camera input which is located on the brown Fakra male connector of the factory monitor. When reverse gear is engaged, the navigation will automatically switch to this input. On vehicles with factory rear-view camera set Dip 2 to ON, too.

# **Range Rover Vogue**

Cable colour	Assignment
<ul><li>Yellow/White</li></ul>	CAN-HIGH Pin 9
<ul><li>Yellow/Blue</li></ul>	CAN-LOW Pin 10

# **Sport & Discovery**

Cable colour	Assignment
<ul><li>Yellow/White</li></ul>	CAN-HIGH
<ul><li>Yellow</li></ul>	CAN-LOW

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

# LandRover from 2012 with Touch-screen navigation version 3



Place of installation is at the back side of the monitor.

Compatible vehicles Range Rover Evoque L538, Range Rover Sport, Discovery4

from year 2012

Navigation Touch-Screen Navigation 3<sup>rd</sup> generation

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles without rear-view camera	ON	OFF	OFF	OFF	ON	ON
Vehicles with rear-view camera	ON	ON	OFF	OFF	ON	ON

Note: Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – rear-view camera existing

Dip 3 – TV icon simulation

Dip 4 – no function

Dip 5 – CAN-bus termination resistor on the vehicle side

Dip 6 – CAN-bus termination resistor on the head-unit side

Setting dip 2 to ON codes the factory rear-view camera input which is located on the brown Fakra male connector of the factory monitor. When reverse gear is engaged, the navigation will automatically switch to this input. On vehicles with factory rear-view camera set Dip 2 to ON, too.

# Pin-assignment factory monitor connector

Cable colour	Assignment
<ul><li>Orange/grey</li></ul>	CAN-HIGH Pin 2
<ul><li>Orange/purple</li></ul>	CAN-LOW Pin 1

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

#### **Mercedes Benz with Comand 2.0**



Place of installation is at the back side of the navigation unit.

Compatible vehicles

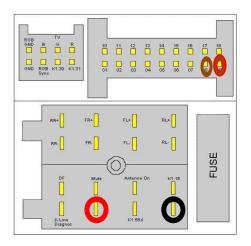
Mercedes Benz C-class (W203) til 03/2004, CLK-class (C208 W208) all years, CLK-class (C209 W209) til 05/2004, E-class (W210) all years, G-Model (G463) from 12/2000 til 03/2007, ML-class (W163) all years, SL-class (R230) til 06/2004, CL-class (C215) til 09/2003, S-class (W220) til 09/2003

Navigation Comand 2.0, Comand APS220/CD

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour		Assignment
•	Red	+12V Permanent A Pin 4
•	Black	Ground A Pin 8
• •	Brown/Red	CAN-HIGH C2 Pin 9
•	Brown	CAN-LOW C2 Pin 8

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### **Mercedes Benz with Comand 2.5**



Place of installation is at the back side of the navigation unit.

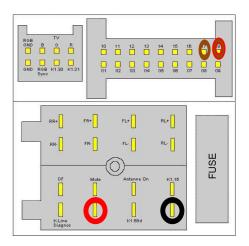
Compatible vehicles Mercedes Benz CL-class (C215) til 09/2003, S-class (W220) til 09/2003

Navigation Comand 2.5

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour		Assignment
•	Red	+12V Permanent A Pin 4
•	Black	Ground A Pin 8
• •	Brown/Red	CAN-HIGH C2 Pin 18
•	Brown	CAN-LOW C2 Pin 17

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Maybach and Mercedes Benz with Comand APS NTG 1



Place of installation is at the AGW-module (Audio-Gate-Way). The AGW-module is placed in the luggage compartment at the left hand side behind the cover of the navigation unit or under the driver seat (SLK R171) or under the front passenger seat (SL R230).

Compatible vehicles

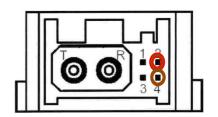
Maybach (with green Fakra connector on backside of Comand),
Mercedes Benz CL-class (C215) from 10/2003 til 12/2005, S-class
(W220) from 10/2003 til 09/2005, SL-class (R230) from 07/2004 til
03/2008, CLS-Coupe (W219) from 10/2004 til 03/2008, E-class (W211)
til 05/2008, SLK-class (R171) from 03/2004 til 03/2008

Navigation

Comand APS DVD, Comand APS NTG1

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
<ul><li>Brown/Red</li></ul>	CAN-HIGH Pin 2
<ul><li>Brown</li></ul>	CAN-LOW Pin 4



No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

# Mercedes Benz with Comand APS NTG 2/NTG 2.5/NTG 4 and Comand Online, NTG 4.5 VW Crafter with Comand APS NTG2



Place of installation is at the back side of the navigation unit.

Compatible vehicles

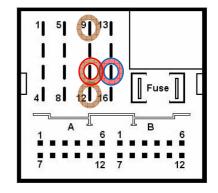
Mercedes Benz A-class (W169) from 09/2004 til 06/2008, B-class (W245) from 09/2004 til 06/2008, C-class (W203) from 04/2004 til 02/2007, CLC-class (CL203) from 06/2008 til 09/2008, CLK-class (C209 W209) from 06/2004, G-model (G463) from 04/2007 til 08/2008, GL-class (X164) til 06/2008, ML-class (W164) til 06/2008, R-class (W251) til 06/2008, Sprinter, Viano, A-class (W169) from 07/2008, B-class (W245) from 07/2008 til 10/2011, CLS-Coupe (W219) from 04/2008 til 12/2010, E-class (W211) from 06/2008 til 03/2009, G-model (G463) from 09/2008, GL-class (X164) from 07/2008, ML-class (W164) from 07/2008 til 10/2011, R-class (W251) from 07/2008, SL-class (R230) from 04/2008, SLK-class (R171) from 04/2008 til 02/2011, Viano, C-class (W204) from 03/2007 til 02/2011, CLC-class (CL203) from 09/2008, GLK-class (X204) from 09/2008, SLS (C197) from 03/2010, E-class (W212) from 04/2009 til 05/2011, E-class Coupe (W207) from 05/2009 til 05/2011, CLS-Coupe (C218) from 01/2011 til 05/2011, B-class (W246) from 11/2011, C-class (W204) from 03/2011, C-class Coupe (C204) from 06/2011, E-class (W212) from 06/2011, Eclass Coupe (C207) from 06/2011, CLS-Coupe (C218) from 06/2011, GLK-class (W204) from 01/2011, ML-class (W166) from 11/2011, SLK-class (R172) from 03/2011, SL-class (R231) from 2012, VW Crafter

Navigation

Comand APS NTG2/NTG2.5/NTG4-204/NTG4-212, Comand Online NTG 4.5

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles with NTG2/NTG4-xxx	ON	OFF	OFF	OFF	OFF	OFF
Vehicles with NTG2.5/NTG4.5	OFF	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
•• Red/Blue	+12Volt Permanent 15
<ul><li>Brown</li></ul>	Ground Pin 12
<ul><li>Brown/Red</li></ul>	CAN HIGH Pin 11
• Brown	CAN LOW Pin 9



No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

On vehicles with **NTG2/NTG4-2xx** the video-in-motion function is activated permanently without disturbing the navigation performance.

On vehicles with NTG2.5/NTG4.5 select the "navigation level" on the instrument and press the "hang-up"-button on the steering-wheel for more than 3 seconds to activate/deactivate the video-in-motion function. When the ignition is off, the video-in-motion interface will be automatically disabled.



**Note:** As long as the video-in-motion function is activated, the navigation of the command will **NOT** be working!

#### Vehicles with Mercedes Benz NTG 3 and NTG 3.5



Place of installation is in the centre console behind the DVD unit.

Compatible vehicles Mercedes Benz CL-class (C216) from 01/2006 til 05/2009, S-class (W221) from 10/2005 til 05/2009, S-class (W221) from

06/2009, CL-class (C216) from 06/2009 with Dual-View

Navigation Comand APS NTG 3 and NTG 3.5

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	ON	ON

Cable colour	Assignment
O Yellow/White	CAN-HIGH Pin 1
<ul><li>Yellow</li></ul>	CAN-LOW Pin 11

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Porsche with PCM 2.1



Place of installation is at the back side of the navigation unit.

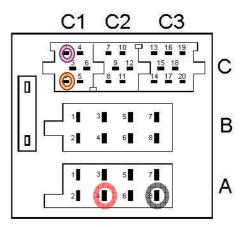
Compatible vehicles Porsche Cayenne E1

Navigation PCM 2.1

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
• Red	+12V Dauerstrom Pin 4
<ul> <li>Black</li> </ul>	Ground Pin 8
<ul><li>Orange/Purple</li></ul>	CAN HIGH Pin 1 (Kammer C1)
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 2 (Kammer C1)

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Porsche with PCM 3.0 and PCM 3.1



Place of installation is at the back side of the navigation unit.

Cayenne E1, 911, Boxster, Cayman, Cayenne E2, Panamera

Navigation PCM 3.0 and 3.1

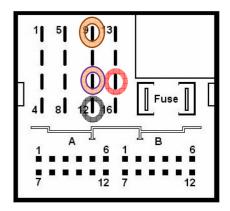
Limitations

Internal DVD video cannot be watched!

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles <b>without</b> rear-view camera or with after-market rear-view camera	ON	OFF	OFF	OFF	ON	ON
Vehicles with factory rear-view camera	ON	ON	OFF	OFF	ON	ON

Cable colour	Assignment
• Red	+12V Permanent Pin 15
<ul><li>Black</li></ul>	Ground Pin 12
<ul><li>Orange/Purple</li></ul>	CAN HIGH Pin 11
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 9

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

#### Volvo with RTI 2011



Place of installation is at the back side of the monitor.

Compatible vehicles Volvo S-series, V-series, XC60

Navigation RTI 2011

Limitations

Vehicles with lane pilot, The included green cable is used to activate the video-in-motion distance assistant and function (+12V = activated).

city safety system

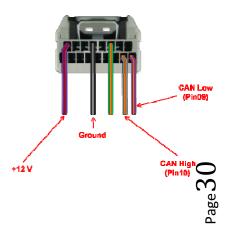
Lane pilot, distance assistant and city safety system do **not** work while TV-free is activated!

Fahrzeug/ Navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles <b>WITHOUT</b> extra equipment (lane pilot, distance assistant, city safety system)	ON	OFF	OFF	OFF	ON	ON
Vehicles <b>WITH</b> extra equipment (lane pilot, distance assistant, city safety system)	OFF	OFF	OFF	OFF	ON	ON

Cable colour	Assignment
<ul><li>Purple/Red</li></ul>	+12V Permanent
<ul><li>Black/Grey</li></ul>	Ground
<ul><li>Grey/Orange</li></ul>	CAN HIGH Pin 10
<ul><li>Purple/Orange</li></ul>	CAN LOW Pin 09

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.





On **vehicles without extra equipment** and Dip1 to ON the video-in-motion function is activated permanently without disturbing the navigation performance.

On **vehicles with extra equipment** and Dip1 to OFF the included green cable is used to activate the video-in-motion function.

Connect a switch to the green cable and connect the green cable to +12V ACC.

- +12V = TV-Free is activated
- 0V = TV-Free is not activated

**Note:** As long as the video-in-motion function is activated, the navigation will NOT be working!

# Vehicles with VW MFD2/RNS2 und Skoda Nexus



Place of installation is at the back side of the navigation unit.

Compatible vehicles VW Touareg; Golf 5, Touran, T5, Passat from year 2006, Caddy Live,

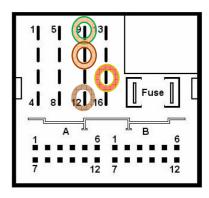
Skoda Octavia 2 and other vehicles

Navigation VW MFD2/RNS2, Skoda Nexus

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
<ul><li>Red/Yellow</li></ul>	+12V Permanent Pin 15
<ul><li>Brown</li></ul>	Ground Pin 12
<ul><li>Orange/Green</li></ul>	CAN HIGH Pin 9
<ul><li>Orange/Brau</li></ul>	CAN LOW Pin 10

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

# Vehicles with VW RNS510/810, Skoda Columbus and Seat Trinax



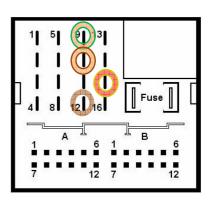
Place of installation is at the back side of the navigation unit.

Compatible vehicles	VW Touareg, T5, Touran, Golf 6 and other vehicles
Navigation	VW RNS510 and 810, Skoda Columbus, Seat Trinax

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	ON	OFF	OFF	OFF	OFF	OFF

Cable colour	Assignment
<ul><li>Red/Yellow</li></ul>	+12V Permanent Pin 15
<ul><li>Brown</li></ul>	Ground Pin 12
<ul><li>Orange/Green</li></ul>	CAN HIGH Pin 9
<ul><li>Orange/Brau</li></ul>	CAN LOW Pin 10

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

# Vehicles with VW, Skoda MIB High





Place of installation is at the back side of the navigation unit

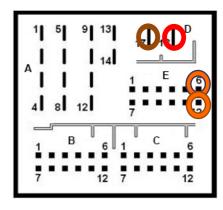
Compatible vehicles Golf 7, Octavia 3

Navigation MIB High – Discover Pro, Columbus

Vehicle/navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
MIB High	ON	OFF	OFF	OFF	ON	ON

Cable colour	Assignment
• Red	+12V permanent Pin 18
<ul><li>Brown</li></ul>	Ground Pin 17
<ul><li>Orange/Violet</li></ul>	CAN HIGH Pin 6
<ul><li>Orange/Brown</li></ul>	CAN LOW Pin 12

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.



The video-in-motion function is activated permanently without disturbing the navigation performance.

# 3. Specifications

Operation voltage 10.5 – 14.8V

Stand-by power drain <2mA
Operation power drain ~60mA
Power consumption ~0,08W

Temperature range -30°C to +80°C

Weight 44g

Measurements (box only) W x H x D 76 x 27 x 54 mm

