

TV-Free Video-in-motion Interface

TF-CIC

Compatible with BMW Professional CCC/CIC navigation systems

Attention! Before installation, make sure the vehicle's navigation system is a "Professional", not "Business"!!!

Legal Information

By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from installation or operation of this product. This product should only be used while standing or to display fixed menus or rear-view-camera video when the vehicle is moving, for example the MP3 menu for DVD upgrades.

Changes/updates of the vehicle's software can cause malfunctions of the interface. We offer free software-updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at own cost. Labor cost for and other expenses involved with the software-updates will not be refunded.

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1. Prior to installation

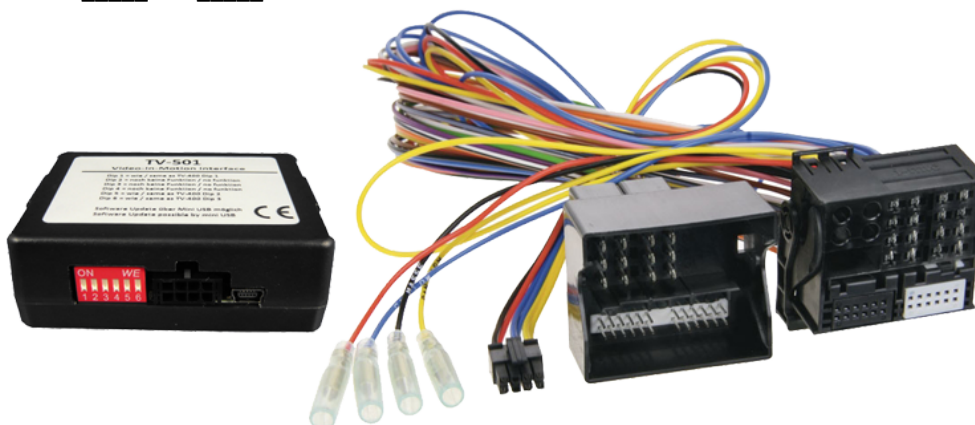
Read the manual prior to installation. Technical knowledge is necessary for installation. The place of installation must be free of moisture and away from heat sources.

1.1. Delivery contents

Take down the SW-version and HW-version of the interface-boxes, and store this manual for support purposes!

CAN-box TV-501
HW _____ SW _____

Harness
TV-BM01



1.2. Check compatibility of vehicle and accessories

Requirements	
<i>Vehicle</i>	BMW 1series (E81/82/87/88), 3series (E90/91/92/93), 5series (E60/61), 6series (E63/64), X5 (E70), X6 (E71), Z4 (E89) Mini R56 from about 10/2006
<i>Navigation</i>	Navigation system Professional CCC (older 1/2-button iDrive or CIC (newer 8-button iDrive) with 6.5" or 8.8" monitor

1.3. Setting the Dip-switches of the Can-Box TV-501

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Vehicles with CIC*	ON	OFF	OFF	OFF	OFF	OFF
Vehicles with CCC	OFF	OFF	OFF	OFF	OFF	OFF

* With dip1 to OFF on vehicles with CIC the included green cable is used to activate the video-in-motion function.

Note: Dip switch functions of the TV-501

Dip 1 – activation TV-free

Dip 2 – no function

Dip 3 – no function

Dip 4 – no function

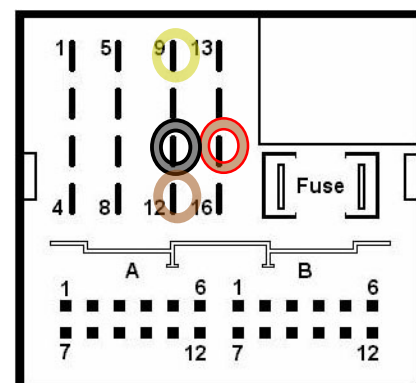
Dip 5 – CAN-bus termination resistor on the vehicle side

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

1.4. Pin-assignments

Pin-assignment vehicle connector

●●	Brown/Red	+12V permanent	Pin 15
●	Brown	Ground	Pin 12
●	Yellow	CAN Low	Pin 9
●	Black	CAN High	Pin 11



Pin-assignment of the CAN-box TV-501 (Molex 8-Pin)

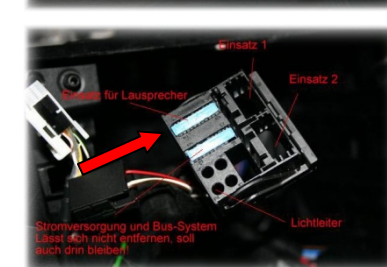
Cable colour	Pin-No.	Assignment
● Yellow	Pin 4	CAN-HIGH – connection to the head-unit
● Blue	Pin 3	CAN-LOW – connection to the head-unit
●● Yellow/Black	Pin 8	CAN-HIGH – connection to the vehicle
●● Blue/Black	Pin 7	CAN-LOW – connection to the vehicle
● Red	Pin 1	+12V permanent
● Black	Pin 5	Ground
● Green	Pin 6	Activation of the video-in-motion function (+12V = TV-free activated)
● White	Pin 2	Trigger output (+12V DC 500mA)

2. Installation

Switch off ignition and disconnect the vehicle's battery! If according to factory rules disconnecting the battery has to be avoided, it is usually sufficient to put the vehicle in sleep-mode. In case the sleep-mode does not show success, disconnect the battery with a resistor lead.

• Example BMW E90/91/92

1. Remove the plugged climate control panel with the accordant tool kit.
2. Remove the trim (plugged too).
3. Remove the 6 screws from the navigation computer and take it out.
4. Remove Quadlock connector from the navigation computer and connect it to Harness TV-BM01.
5. Connect the optical leads to the Harness TV-BM01 and connect the TV-BM01 to the navigation computer.
6. Fit the navigation computer back into the center console.



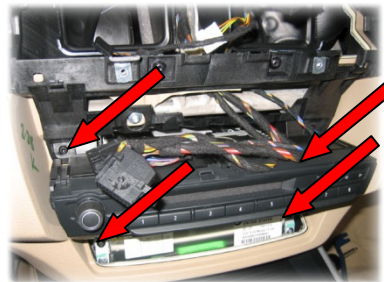
- **Example BMW E60/61**

1. Remove trim strip step by step using a plastic wedge. Do not proceed too quickly to avoid breaking clamps of the trim strip.
2. Remove the two screws on the upper part of the climate control panel. The lower part is not screwed but only fastened with clamps. After removing the climate control panel in order to facilitate you can disconnect the plugs behind.
3. Remove the lower trim (plugged too) and remove the 4 screws of the navigation computer behind it. Take out the navigation computer.
4. Disconnect Quadlock -connector from the navigation computer and connect it to harness TV-BM01.
5. Connect the optical leads to the Harness TV-BM01 and connect the TV-BM01 to the navigation computer.
6. Fit the navigation computer back into the center console.



• Example BMW E70

1. Remove the center air nozzle unit with the accordant tool kit.
2. Remove the two screws on the upper part of the climate control panel. The lower part is not screwed but only fastened with clamps. After removing the climate control panel in order to facilitate you can disconnect the plugs behind.
3. Remove the 4 TORX screws (see picture) and take out the navigation computer.
4. Remove Quadlock connector from the navigation computer and connect it to harness TV-BM01.
5. Connect the optical leads to the Harness TV-BM01 and connect the TV-BM01 to the navigation computer.
6. Fit the navigation computer back into the center console.



3. Activation of the video-in-motion function

On vehicles with **CIC** the video-in-motion can be activated and deactivated by Dip 1 or alternatively by the included loose green cable in connection with a switch (not included in delivery).

Video-in-motion permanent

With dip1 to ON the video-in-motion function is activated permanently without disturbing the navigation performance.

Video-in-motion selective

With 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: The loose white cable is not required and must be isolated.

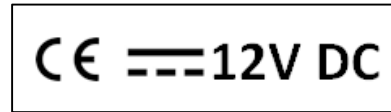
On vehicles with **CCC** press the menu-button or the iDrive wheel for about 3 seconds while in **main menu** to activate/deactivate the video-in-motion function. When the ignition is off, the video-in-motion interface will be automatically disabled.

Alternatively for CCC it is possible to set dip-switch 1 of the CAN box TV-501 to ON. But then the navigation performance is disturbed on the first few kilometres of driving.

Note: The loose white and green cable are not required and must be isolated.

4. 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



5. Technical support

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