

TV-Free

Video-in-motion Interface

TF-MGU21

**Compatible with BMW
from 2021 up with MGU21 iDrive8 navigation**

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 two years after purchase will be offered. Labor cost for and other expenses involved with the software-updates will not be refunded.

Contents

1. Prior to installation

- 1.1. Delivery contents
- 1.2. Check compatibility of vehicle and accessories
- 1.3. Setting the dip-switches of the CAN-box TV-500
- 1.4. Pin-assignments

2. Installation

3. Activation of the video-in-motion function

4. Specifications

5. Technical support

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!



1.2. Check compatibility of vehicle and accessories

Requirements	
<i>Vehicle</i>	2s Coupé (G42) 08/2022-, 2s M2 Coupé (G87) 12/2022-, 2s Active Tourer (U06) 11/2021-, 3s Sedan (G20 LCI) 07/2022-, 3s M3 Sedan (G80) 07/2022-03/2023, 3s Touring (G21 LCI) 07/2022-, 3s M3 Touring (G81) 1/2022-03/2023, 4s Coupé (G22) 07/2022-03/2024, 4s Convertible (G23) 07/2022-03/2024, 4s Gran Coupé (G26) 07/2022-03/2024, 4s M4 Coupé (G82) 07/2022-03/2024, 4s M4 Coupé (G82 LCI) 03/2024-, 4s M4 Convertible (G83) 07/2022-03/2024, 4s M4 Convertible (G83 LCI) 03/2024-, iX (i20) 04/2023-, X1 (U11) 07/2022-, X5 (G05 LCI) 03/2023, X5M (F95 LCI) 03/2023, X6 (G06 LCI) 03/2023, X6M (F96 LCI) 03/2023, X7 (G07 LCI) 08/2022-03/2023, XM (G09) 10/2022-03/2023
<i>Navigation</i>	MGU21 iDrive8 navigation with curved double monitor

1.3. Setting the Dip-switches of the CAN-box TV-500

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

* 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-500

Dip 1 – activation TV-free

Dip 2 – no function

Dip 3 – no function

Dip 4 – no function

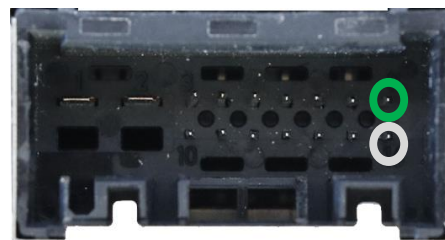
Dip 5 – CAN-bus termination resistor on the vehicle side

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

1.4. Pin-assignments

Pin-assignment vehicle connector

Cable colour	Assignment
● Green	CAN LOW Pin 9
● White	CAN HIGH Pin 16



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

Pin-assignment of the CAN-box TV-500 (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)

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.

Expose the head unit (usually in the centre console) and plug the TV-MGU21 pnp harness between the power and CAN bus connection. Connect the TV-500 box to the TV-MGU21 harness.

3. Activation of the video-in-motion function

The video-in-motion can be activated and deactivated by Dip 1 or alternatively by the 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

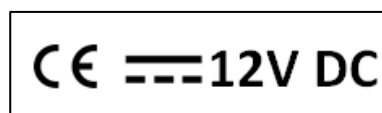
With dip1 to OFF the included green cable is used to activate the video-in-motion function.

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

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

Please note that direct technical support is only available for products purchased directly from NavLinkz GmbH. For products bought from other sources, contact your vendor for technical support.

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