### Mercedes-Benz NTG 5.5 / 6 / MBUX

#### AHD / CVBS Camera Video interface

Compatible with  $7^{\prime\prime}$  ,  $8^{\prime\prime}$  ,  $10^{\prime\prime}$  and  $12^{\prime\prime}$  screens

Compatible with cars like:

Actros truck A-class (W177) B-class (W247) CLS-Coupé (C257) Sprinter (W907) E-class W213 / C238 S-class (facelift from June 2017)

Installation diagram	page 2
Dipswitch settings	page 3-4
Triggers and switch function	page 5
MB Sprinter installation	page 6
Installation, LVDS and power/CAN	page 7-13
MENU settings	page 14-16
Troubleshooting	page 17-18



Article code: 300 217/8

Diagram:



# **DIP 6 settings**





## WITH TOUCHSCREEN LCD



### **NO TOUCHSCREEN LCD**



7 and 8 INCH LCD



10 and 12 INCH LCD



**DUALSCREEN 7 INCH** 



**NOT USED** 

# **DIP 8 SETTINGS**





## **REAR VIEW CAMERA (V4)**



Show FRONT CAMERA after reverse (time adjust in MENU 5, 10, 15, 20 sec.)



**Right side camera (V2)** 



Left side camera (V1)



**MUST BE UP (OFF)** 



7+8 UP (OFF) for 10 and 12 inch display





It's recommended to reset power after changing DIP settings (black connector).

**Remark:** turn off the DIPs of video inputs which are not used to avoid black screen.







#### **Trigger wires:**

- Trig-Rear\*: insert +12/24V reverse light signal to activate the rear camera (signal must be stable, not LED)
- **Trig-Right**: insert +12/24V to activate the video image of V2
- Trig-Front: insert +12/24V to activate the Front camera (optional).
  Front camera also switches on automatically after reverse, and also by short-press switch button (included).
- Trig-Left: insert +12/24V to activate the video image of V1

\*Usually the reverse function is detected by CANbus and it's not needed to connect the Trig-REAR wire to reverse signal.

#### Additional power wires:

- CAM POWER 12V (only 300217): provides 12V to power the camera (if reverse function works by CANbus)
- ACC OUT: provides 12V while ignition is on (when CANbus is running)
- Manual ACC: connect to 12V ACC only when interface is disconnected from CANbus.

#### Switching from OEM picture to external sources manually:

- Video 1/2/4: User may use long-press "CALL-END" key on the steering wheel or external switch (included) to switch from OEM picture to external video sources (OEM  $\rightarrow$ V1 $\rightarrow$ V2 $\rightarrow$ V4 $\rightarrow$ OEM).

- <u>Short-press on external switch</u> to switch fast from OEM picture to <u>Front cam</u> picture.



**Attention: MB Sprinter interface installation place!** 

Place the interface box behind the storage part as mentioned below.





#### Example installation MB Sprinter MBUX:

Remove LCD part: 2x torx screws behind the air vent.



#### Take out the LCD part as shown below:



Take out the headunit:



Backside of headunit (version 1):





Backside of headunit (version 2):



#### Take out the **GREEN or VIOLET** LCD connector:



Connect the interface LVDS cables in between like shown below:



Take out the white (or black connector on some headunits) power connector:



Take out the GREY part from the black housing in the white connector:



Connect the CANbus wires of the interface (version 1):

Car wires: Pin 15 = CAN+ / Pin 22 = CAN-



Connect the power wires (version 1): Interface: Yellow = +12V / Black = ground  $\downarrow$   $\downarrow$ 

Car wires: Thick red = +12V / Thick brown = ground



#### Additionally:

Connect the power and CANbus wires of the interface (head unit version 2) as below:





NTG 5.5 with beige (double) LVDS connector and regular Quadlock power/CAN plug:





#### **MENU** settings:

- Activate a camera/video channel and press and hold the MENU button (3 sec.) to show the menu settings.
- Use UP / DOWN to change a setting
- Use **MENU** to jump to the next option



#### **REAR CAM (V4) settings:**

Menu of V4-REVI	ERSE
Brightness	55
Contrast	55
PosH	04
PosV	00
Trigger	Can
InputSource	AutoDetect
Guide-Type	OFF
Guide-PosV	34
GuideL-PosH	37
GuideR-PosH	93
Maxim-CURVE	10
External SW	YES
External SW	YES

Brightness:	adjust the brightness of the picture	
Contrast:	adjust the contrast of the picture	
PosH:	move the picture to left/right	
PosV:	move the picture to up/down	
Trigger:	CAN: interface switches over if CAN data matches, otherwise trigger wire	
	needs to be connected.	
	Wire: use tigger wire to activate the camera/video channel	
InputSource:	AutoDetect: interface detects the inserted video signal automatically.	
	Other fixed video system settings are: PAL, CVBS, 720P PAL, 720P NTSC, 960P	
	PAL, 960P NTSC, 1080P PAL, 1080P NTSC.	
Guide-Type:	turn guidelines on/off.	
Guidelines opt	tions: <b>Dynamic</b> : guidelines turn with the steering wheel (if CAN Data matches).	
	Fixed: static guidelines (always on screen, independent of CAN data).	
Guide-PosV:	adjust the height position of the guidelines	
GuideL-PosH:	adjust the horizontal position of the left guideline	
GuideR-PosH:	adjust the horizontal position of the right guideline	
Maxim-curve:	adjust the maximum curve of the guidelines	
External SW:	activate the rear cam (V4) input by press+hold the external push button.	

#### Dynamic guidelines:

Choose between 6 types of dynamic patterns!



#### Fixed guidelines:

Choose between 6 types of fixed patterns!



FRONT CAM (V3) settings:

Menu of V3-FRONT	
Brightness	50
Contrast	50
PosH	08
PosV	00
Trigger	10s after REV
InputSource	AutoDetect

Trigger: select the desired time to show the Front cam picture automatically after reversing.

InputSource: AutoDetect: interface detects the inserted video signal automatically. Other fixed video system settings are: PAL, CVBS, 720P PAL, 720P NTSC, 960P PAL, 960P NTSC, 1080P PAL, 1080P NTSC.

#### Left (V2) / Right (V1) settings:

Menu of V2-RIGH	
Brightness	50
Contrast	50
PosH	08
PosV	00
Trigger	Can
InputSource	AutoDetect

Trigger:CAN: interface switches over if CAN data matches, otherwise trigger wire<br/>needs to be connected.Wire: interfaces switches only over by using the tigger wire to activate the<br/>camera/video channel.

InputSource: AutoDetect: interface detects the inserted video signal automatically. Other fixed video system settings are: PAL, CVBS, 720P PAL, 720P NTSC, 960P PAL, 960P NTSC, 1080P PAL, 1080P NTSC.

## Troubleshooting

#### When you DON'T have OEM image

(only black screen with sound of the radio)



#1 Please check the LVDS cable



#### #2 Please check the power supply of the interface



Installation with CANBUS: Yellow wire has +12 Volt ?

Installation WITHOUT CANBUS: Yellow and purple wire has +12 Volt ?

## Troubleshooting

#### When you have OEM image.

After putting in reverse, nothing is happening (no rearvie wcamera image, it stays in OEM image)



- #1 Please check black DIP4 (V4) and
- #2 Please insert 12V on Trig-REAR wire
- #3 Check the camera and make sure vdieo is connected to V4 input.

#### Picture adjustment

When you have black/grey border on the edge of the picture, use MENU settings to adjust and move the picture to the right position (**Position-H** / **Position-V**)