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v.LOGiC Intelligent Solution
Interface

CI-V5-CIC-F-PNP

Compatible with the F-series BMW with navigation system or radio and 7" or 10.2" monitor with 4pin HSD LVDS connector

Product features

- Own on-screen display and setup
- Rear-view camera input
- Automatic switching to rear-view camera input on engagement of reverse gear from all operation modes
- Front camera input
- Manual switching to rear-view camera (only for vehicles with PDC button)
- Manual return from rear-view and front camera (cancellation of automatic switching)
- 2 trigger outputs (+12V max. 1A), separately adjustable switching events (CAN, ACC, camera, reverse gear)
- Picture-in-picture mode combining after-market rear-view and front camera picture(s) with factory parking sensor graphics
- Compatible with all factory video accessories (e.g. rear-view camera, Top-View, nightvison, DVD-changer, TV-tuner)
- USB update-port for software-updates by consumer

CI-V5-CIC-F-PNP

Contents

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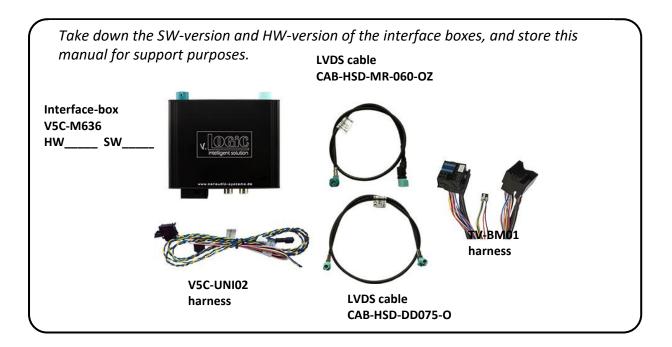
Changes/updates of the vehicle's software can cause malfunctions of the interface.   We offer free software-updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at own cost. Labor cost for and other expenses involved with the software-updates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

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.

**LVDS cable
CAB-HSD-MR-060-OZ**

**Interface-box
V5C-M636
HW_____ SW_____**

**V-BM01
harness**

**V5C-UNI02
harness**

**LVDS cable
CAB-HSD-DD075-O**

1.1. Check compatibility of vehicle and accessories

Requirements

Navigation   F-series with navigation system or radio with 7" or 10" monitor (F-series) with 4pin HSD LVDS connector

1.2. Setting the dip switches of the interface-box V5C-M636

Dip 1 and 2 on the back of the interface-box V5C-M636 are used to set the monitor type. The default setting is:

Vehicle/ navigation	Dip 1	Dip 2	Dip 3
CIC-F (F-series), 7" monitor	ON	OFF	No function
CIC-F (F-series), 10" monitor	ON	ON	No function

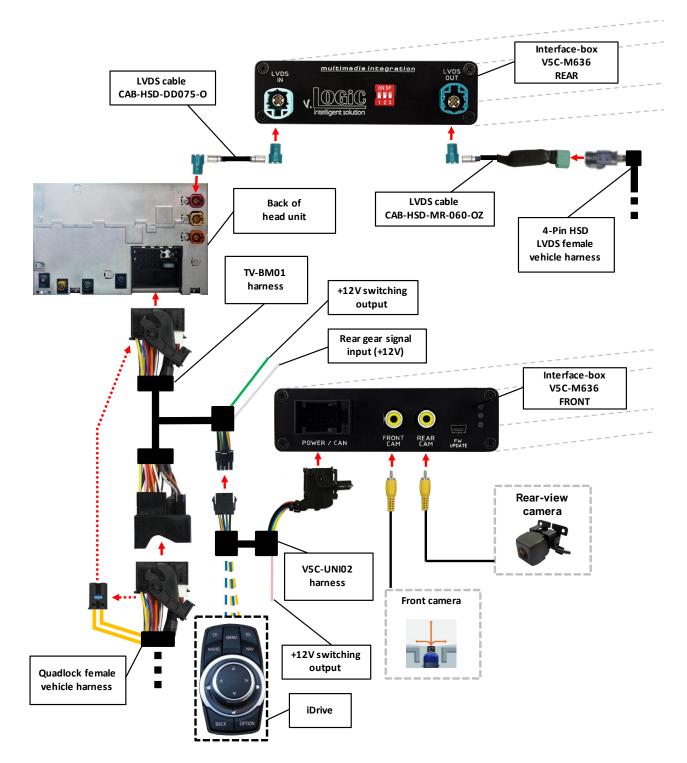**After each change of the dip switch settings you have to execute a power reset of the interface-box!**

1.3. LED's of the interface-box V5C-M636

- 🔵 **Valid input source**
- 🟢 **CAN ok**
- 🔴 **Power**

2. Connection schema

- **LVDS cable CAB-HSD-DD075-O**
- **Interface-box V5C-M636 REAR**
- **Back of head unit**
- **LVDS cable CAB-HSD-MR-060-OZ**
- **4-Pin HSD LVDS female vehicle harness**
- **multimedia integration**
- **v.LOGiC intelligent solution**
- **LVDS IN**
- **LVDS OUT**
- **ON DP 1 2 3**
- **TV-BM01 harness**
- **+12V switching output**
- **Rear gear signal input (+12V)**
- **Interface-box V5C-M636 FRONT**
- **POWER / CAN**
- **FRONT CAM**
- **REAR CAM**
- **FW UPDATE**
- **V5C-UNI02 harness**
- **Rear-view camera**
- **Front camera**
- **Quadlock female vehicle harness**
- **CD MENU TEL RADIO NAV**
- **BACK OPTION**
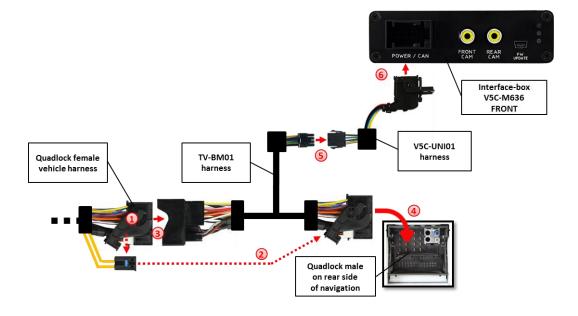- **+12V switching output**
- **iDrive**

3. Installation

Switch off ignition and disconnect the vehicle's battery! The interface needs a permanent 12V source. If according to factory rules disconnecting the battery is to be avoided, it is usually sufficient to put the vehicle is sleep-mode. In case the sleep-mode does not show success, disconnect the battery with a resistor lead.
If power source is not taken directly from the battery, the connection has to be checked for being start-up proven and permanent.
Prior to wire and device installation we suggest to connect and test correct function of all after-market and factory infotainment equipment!

The interface is installed on the backside of the head unit.

3.1.   Connecting interface-box and harnesses

① Remove the female Quadlock connector of the vehicle harness from the rear of the navigation computer.

② Remove optical leads from the female Quadlock connector of the vehicle harness and insert them into the female Quadlock connector of harness TV-BM01 at the same position.

③ Connect female Quadlock connector of vehicle harness to the male Quadlock connector of harness TV-BM01.

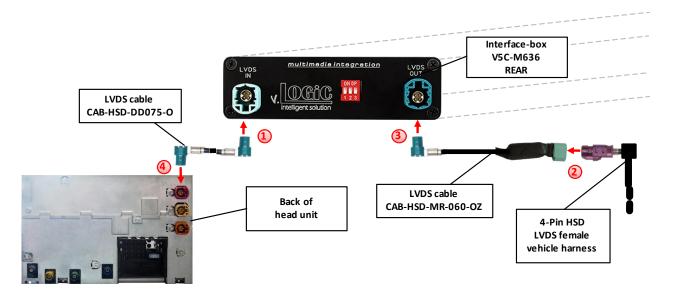④ Connect female Quadlock connector of harness TV-BM01 to the male Quadlock connector of the navigation computer

CI-V5-CIC-F-PNP

5 Connect female 8 pin molex connector of the harness TV-BM01 to the male 8 pin molex connector of the harness TV-BM01.

6 Connect female 12pin AMP connector of the harness TV-BM01 to the front site of the V5C-M636 interface box.

3.2.   LVDS connection

1 Connect the female 4pin HSD LVDS connector of the LVDS cable CAB-HSD-DD075-O to the male 4pin HSD LVDS connector (LVDS-IN) on the rear of the interface-box V5C-M636.

2 Remove the pink female 4pin HSD LVDS connector of the vehicle harness at the back of the head unit and connect it to the male 4pin HSD LVDS of the CAB-HSD-MR-060-OZ LVDS cable.

3 Connect the female 4pin HSD LVDS connector of the LVDS cable CAB-HSD-MR-060-OZ to the male 4pin HSD LVDS connector (LVDS-OUT) on the rear of the interface-box V5C-M636.
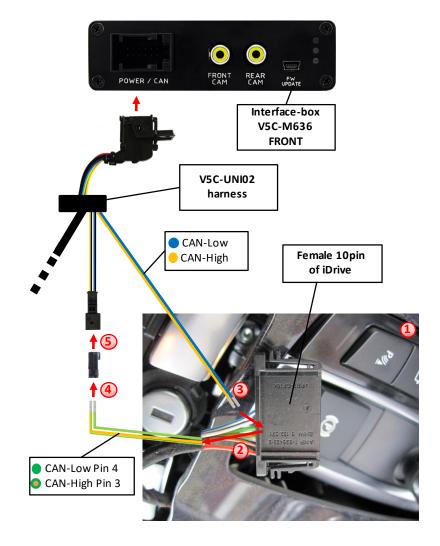
4 Connect the female 4pin HSD LVDS connector of the LVDS cable CAB-HSD-DD075-O to the pink male 4pin HSD LVDS connector on the rear of the head unit.
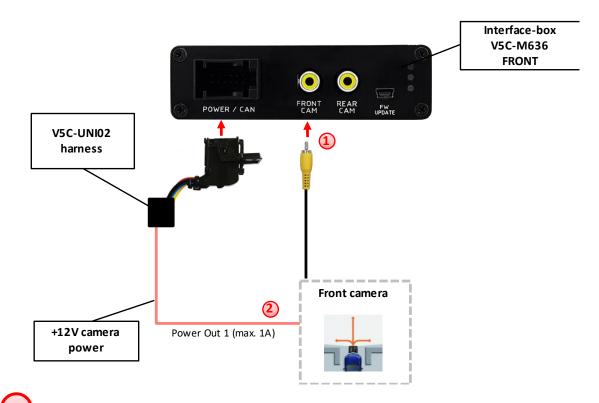
3.3. Connection to the iDrive

Interface-box
V5C-M636
FRONT

V5C-UNI02
harness

● CAN-Low
● CAN-High

Female 10pin
of iDrive

● CAN-Low Pin 4
◉ CAN-High Pin 3

1 Remove the iDrive from the centre console and unplug the existing flat female 10pin or 4pin cable connector.

2 Remove pin 3 green/orange CAN-high and pin 4 green CAN-low of vehicle harness from the female cable connector.

3 Pin yellow (blue) pin of harness V5C-UNI02 into pin 3 CAN-high (pin 4 CAN-low) of the female cable connector.

4 Pin the green/orange cable CAN-high (green cable CAN-low) of the vehicle harness into pin 1 of the included female 2pin AMP connector.

5 Connect female 2pin AMP connector to 2pin AMP connector (yellow/black and blue/black cable) of harness V5C-UNI02.

3.3.1. After-market front camera

3.3.1.1. Connection to the after-market front camera

① Connect the video RCA of the after-market front camera to the female RCA connector "FRONT CAM" of the interface box V5C-M636.

② The pink wire of harness V5C-UNI02 can be used for +12V electric power supply (max. 1A) of the after-market front camera. Configure in the OSD-menu "MISC", menu item "POWER OUT 2" the designated electric power supply (see chapter "Configurable switching outputs").

3.3.1.2. Settings for connecting an after-market front camera

You have to configure some settings in the OSD-menus INPUTS and MISC if you want to connect an after-market front camera (Operation of the OSD: see chapter "OSD-Operation").
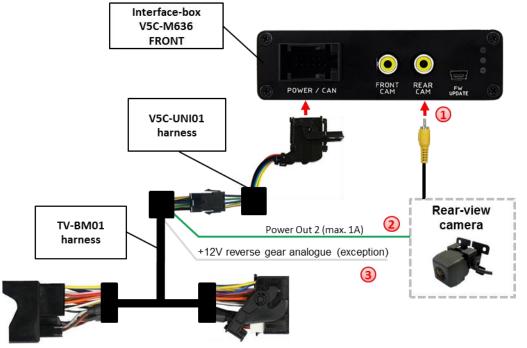
OSD-menu	Menu item	Setting	Explication
INPUTS	FRONT CAM	OFF	No front camera connected
		ON	Switches to front camera if parking process is enabled and reverse gear is released
	ReverseLogic	Intelligent	For vehicles with PDC button. Enabled while parking process and up to 20 km/h or together with PDC if existing
		Gear only	For vehicles without PDC button. Enabled while parking process and up to 20 km/h.
MISC	OEM PDC CAR	Horizontal	PDC-display of the vehicle is horizontal
		Vertical	PDC-display of the vehicle is vertical

Note: You can deactivate the enabled parking process by pressing the iDrive or by enabling other modes (e.g. radio). After deactivation you can't enable the parking process again until the vehicle is diving faster than 20km/h, the ignition is switched off and on or the PDC will be disabled and enabled again, if existing.

3.3.2. After-market rear-view camera

3.3.2.1. Connection to the after-market rear-view camera

① Connect the video RCA of the after-market rear-view camera to the female RCA connector "REAR CAM" of the interface box V5C-M636.

② The green wire of harness TV-BM01 can be used for +12V electric power supply (max. 1A) of the after-market rear-view camera. Configure in the OSD-menu "MISC", menu item "POWER OUT 2" the designated electric power supply (see chapter "Configurable switching outputs").

③ On some vehicles the reverse light signal doesn't exist on the CAN-bus. Connect the white wire of harness TV-BM01 to reverse light signal (+12V of reverse light) if the system doesn't switch to the rear-view camera automatically after the described OSD-setup (see next chapter).

3.3.2.2. Settings for connecting an after-market rear-view camera

You have to configure some settings in the OSD-menus INPUTS and MISC if you want to connect an after-market rear-view camera (Operation of the OSD: see chapter "OSD-Operation").

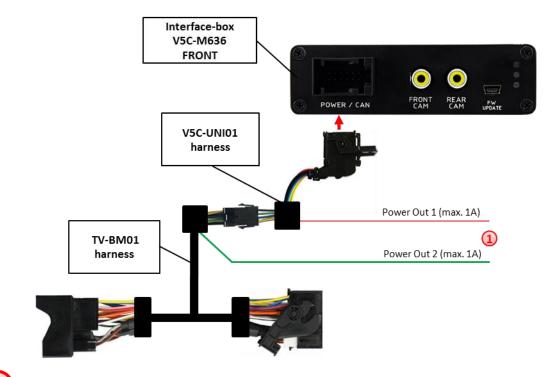| OSD-menu	Menu item	Setting	Explication
INPUTS	REAR CAM	OFF	No rear-view camera connected
		ON	Switches to rear-view camera if reverse gear is engaged and/or PDC-display is displayed
		OEM	If a factory rear-view camera is existing! Interface turns off, if PDC or reverse gear is enabled and it displays factory rear-view camera and/or PDC-display
	ReverseLogic	Intelligent	For vehicles with PDC button. Enabled while parking process and up to 20 km/h or together with PDC if existing
		Gear only	For vehicles without PDC button. Enabled while parking process and up to 20 km/h.
MISC	OEM PDC CAR	Horizontal	PDC-display of the vehicle is horizontal
		Vertical	PDC-display of the vehicle is vertical

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Note: You can deactivate the enabled parking process by pressing the iDrive or by enabling other modes (e.g. radio). After deactivation you can't enable the parking process again until the vehicle is diving faster than 20km/h, the ignition is switched off and on or the PDC will be disabled and enabled again, if existing.

3.3.3. Configurable trigger outputs

① You can configure the both +12V trigger outputs separately. The pink wire is POWER OUT 1 and the green wire is POWER OUT 2.

Note: You can configure the both trigger outputs in the OSD-menu MISC separately (Operation of the OSD: see chapter "OSD-Operation").

OSD-menu	Menu item	Setting	Explication
MISC	POWER OUT1 (pink) POWER OUT2 (green)	CAN	+12V when the interface is on (red LED on)
		Ignition	+12V when ignition is on
		RearCam	+12V when the rear-view camera input is activated
		Reverse Gear	+12V when reverse gear is engaged
		OFF	Trigger putput deactivated

3.4. Picture settings

You can change the picture settings in the OSD-menu IMAGE (Operation of the OSD: see chapter "OSD-Operation").

◦ Brightness
◦ Contrast
◦ Saturation
◦ Hue
◦ Sharpness

Note: The picture settings will be retained for each AV-source separately.

4. Operation

4.1. OSD – On-screen display
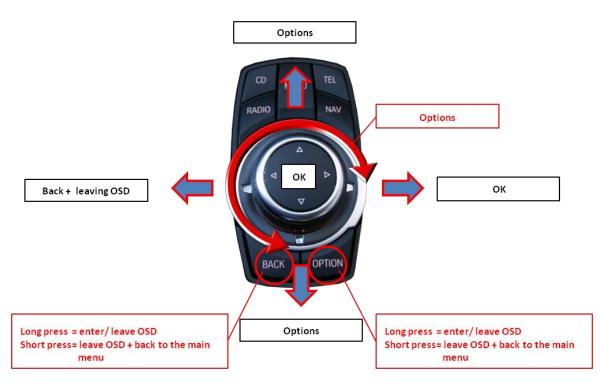
You can change the
interface in the OSD (on

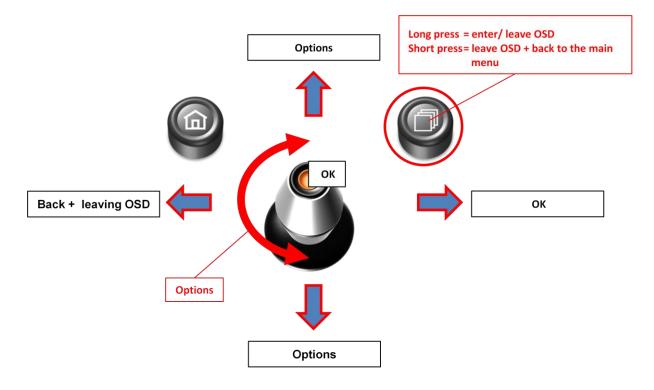basic configurations of the
screen display).

4.1.1. OSD – Operation

You can control the OSD by iDrive.

4.1.1.1. 8-button iDrive

4.1.1.2. 2-button iDrive in Mini

4.1.2. OSD – Additional setting options

The following settings in the OSD-menus OSD and MISC can be configured over and above the described settings in this manual (Operation of the OSD: see chapter "OSD-Operation"):

OSD-menu	Menu item	Setting	Explication
	H POSITION	0-xxx	Horizontal position of the OSD
	V POSITION	0-xxx	Vertical position of the OSD
MISC	VERSION	X.XX.XX	Displays the current SW-version
	FACTORY RESET		Resetting to factory settings

4.2. Video-in-motion function

It is possible to activate and deactivate the video-in-motion in the OSD menu "MISC" (Operation of the OSD: see chapter "OSD-Operation").

OSD-menu	Menu item	Setting	Explication
MISC	VIM	ON	Video-in-motion activated
		OFF	Video-in-motion deactivated

For the V5-CIC-E-PNP the video-in-motion function is permanently active without disturbing the navigation performance.

4.3. Selecting the interface as current AV-source

Long press CD-button respectively **long press Menu-button** to choose the interface as current video source.

Short press CD button respectively **MENU** button to switch the video sources (cameras). Each short press will switch to the next enabled input. If all inputs are enabled the order is:

FRONT CAM → REAR CAM → …

Inputs which are not enabled are skipped.

5. Specifications
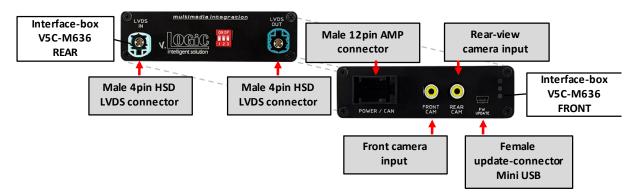
Operation voltage	10.5 – 14.8V DC
Stand-by power drain	<0,1mA
Operation power drain	190mA
Power consumption	2,6W
Temperature range	-20°C to +80°C
Weight (box only)	285g
Measurements (box only) B x H x T	141 x 30 x 105 mm

CE ⎓12V DC

6. Connections (interface-box)

Interface-box V5C-M636 REAR

Male 4pin HSD LVDS connector

Male 4pin HSD LVDS connector

Male 12pin AMP connector

Rear-view camera input

Interface-box V5C-M636 FRONT

Front camera input

Female update-connector Mini USB

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