



# Connects2Vision

## **CAM-BM7-AD**

**Camera Add-on Interface for select BMW vehicles with  
M-ASK or CIC (Business or Professional) Navigation systems**



[www.c2vision-eu.com](http://www.c2vision-eu.com)



## ABOUT THIS PRODUCT...

### CAM-BM7-AD

The CAM-BM7-AD is a full camera add on interface that allows you to add in an aftermarket camera whilst retaining the use of your factory head unit on various BMW models with M-ASK or CIC (Business or Professional) Navigation systems with 6.5" or 8.8" monitors and 4 pin LVDS connector (see Applications for specific vehicles). This system is specifically designed to add an aftermarket camera to the OEM system, but can also be used to retain the vehicles factory camera input. Following the simple installation process the camera image can be automatically viewed on the OEM screen via reverse gear or manually through the vehicle's controls. The interface also features an input for an optional second camera for simultaneous front and rear coverage solution. Designed for vehicles with 6.5"/8.8" monitor and a 4-pin LVDS connector.

**Note: PDC (picture-in-picture) functionality is only available for vehicles with 8.8" monitors.**

### APPLICATION LIST

**BMW 1-Series (E81/82/87/88) 2004-2010 BMW 3-Series (E90/91/92/93) 2006-2011**

**BMW 5-Series (E60/61) 2004-2010 BMW 6-Series (E63/64) 2004-2010**

**BMW X1 (E84) 2009-2015 BMW X5 (E70) 2007-2013 BMW X6 (E71) 2008-2014**

**BMW Z4 (E89) 2009-2016 BMW Mini (R50/52/53/55/56/57) 2006-2010**

### 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. Please ensure you use the correct tools to avoid damage to the vehicle or product.

**Connects2 can not be held responsible for the installation of this product.**

### TECHNICAL SUPPORT

Connects2 want to provide a fast and suitable resolution should you encounter any technical issues. With this in mind, when contacting Connects2, try to provide as much Information as possible. This will speed up the process and help us to help you.

**Please use our dedicated online technical support centre: [support.connects2.com](http://support.connects2.com)**

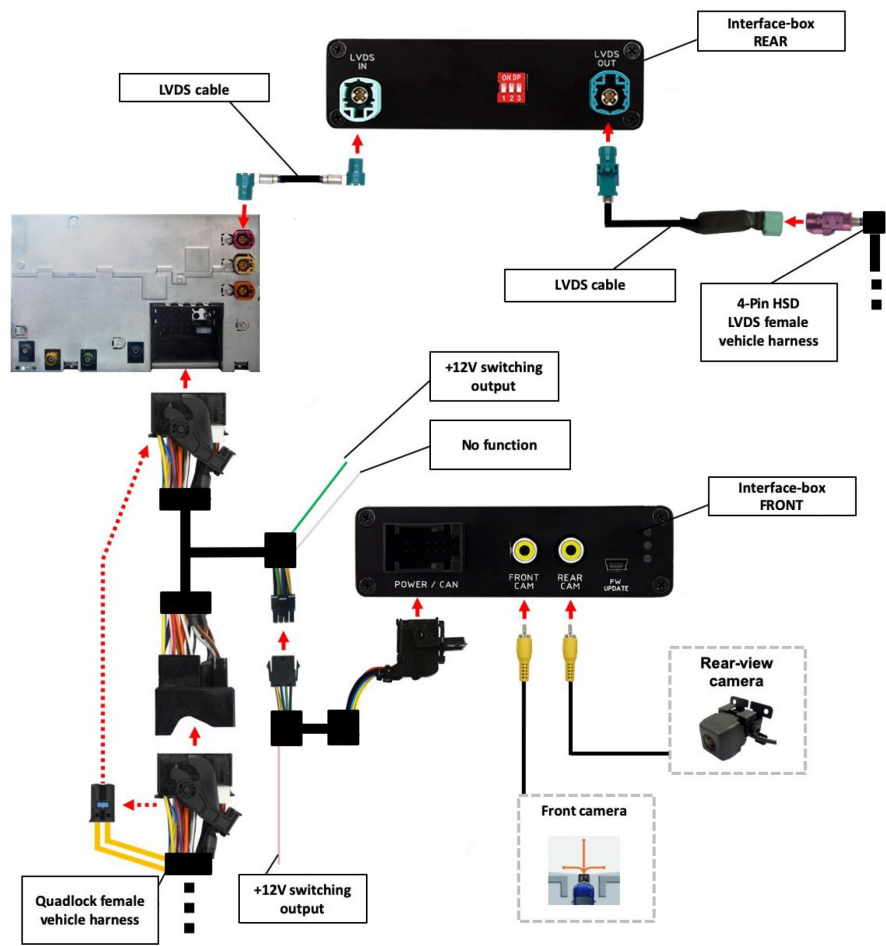


Subscribe to our YouTube Channel for installation guides and tips... [www.youtube.com/connects2](http://www.youtube.com/connects2)

### DISCLAIMER

*The information provided in this document is subject to change without notice due to manufacturer changes and/or improvements to the product/s. This instruction manual is based on documented data and research. The manufacturer of this product cannot be held responsible for any changes made to the vehicle by the manufacturer or damages that may occur through the installation of this product in accordance with the steps outlined herein.*

CONNECTION DIAGRAM



SETTING DIPSWITCHES

Set the dipswitches in accordance to the type of monitor within the vehicle. The interface will come with the dipswitches defaulted in the following order:

Vehicle/Navigation	Dip 1	Dip 2	Dip 3
CIC-E 6.5" monitor - Version 1	OFF	OFF	OFF
CIC-E 6.5" monitor - Version 2	ON	OFF	ON
CIC-E 8.8" monitor -	OFF	ON	OFF

NOTE: you will need to reset power to the interface after any change to any of the dipswitches.

## INTERFACE LED STATUS

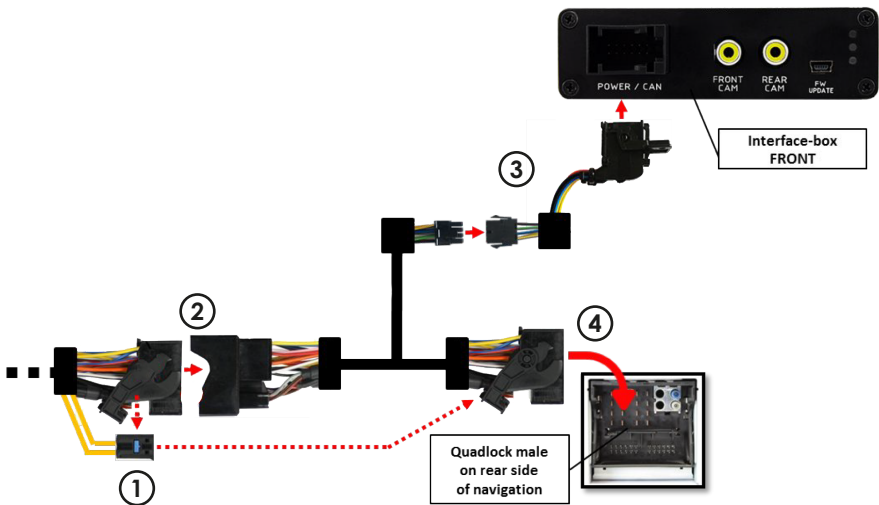
Located on the front of the interface box you will notice 3x LED's. These LED's will showcase the status of the interface. Below is an outline of what the 3x LED's will show during connection:



- Valid input source
- CAN ok
- Power

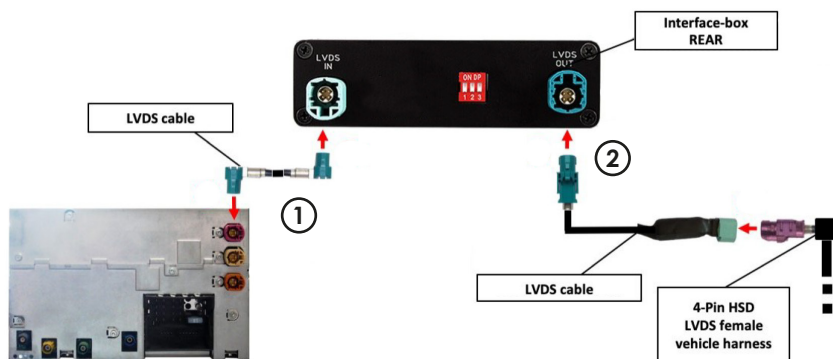
## INSTALLATION

### Connecting Interface & Harnesses



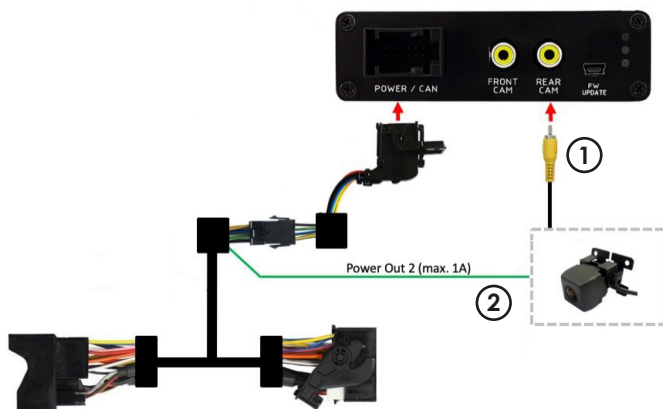
1. Remove the fibre optic wires from the rear of the vehicles female Quadlock connector and re-locate this to the CAM-BM7-AD's female Quadlock.
2. Connect the CAM-BM7-AD's male Quadlock connector to the vehicles original female Quadlock connector.
3. Connect the 8-pin molex connector to the amp connector extension, then proceed to plug the 12-pin amp connector to the rear of the box
4. Once all connections are established, connect the harness to the head unit.

## Connecting LVDS Connection



1. Remove the LVDS connection from behind the original head unit and fit in the LVDS extension wire between both the head unit and the "LVDS In" port.
2. Take the secondary LVDS cable found within the kit with the male connector head and connect this between the 'LVDS Out' port on the interface box and the original 4-pin female connector.

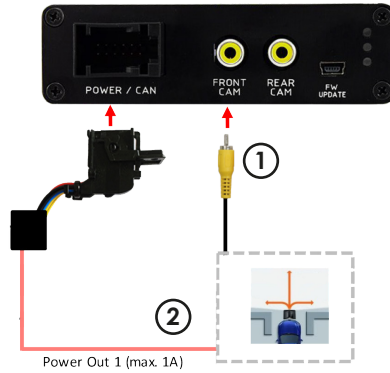
## Connecting Aftermarket Reverse Camera



1. Connect the rear camera's RCA connector to the 'Rear Cam' port on the interface box.
2. Attach the green wire to a source of 12V when reverse gear is engaged.

## INSTALLATION

### Connecting Aftermarket Front Camera

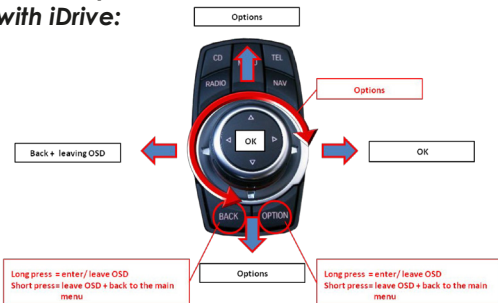


1. Connect the front camera's RCA connector to the 'Front Cam' port on the interface box.
2. Attach the pink wire to a source of 12V ignition. (This can be changed within the OSD menu (**see page OSD Settings**)).

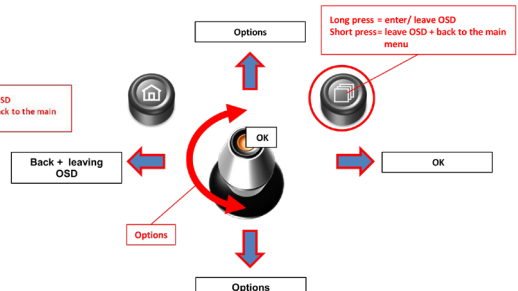
## OSD (ON SCREEN DISPLAY) OPERATION

The CAM-BM7-AD interface also contains a configuration menu wherein you are able to adjust settings/configurations for select features and functions. To access and control this menu system, see the infographics below:

### Button layout for vehicles with iDrive:



### Button layout for Mini's:



## OSD (ON SCREEN DISPLAY) OPERATION

Once in the CAM-BM7-AD's OSD Menu system, the following menus & options are available:

Main Menu	Menu Item	Setting Variable	Detail
Image	Brightness	0 - 100%	-
	Contrast	0 - 100%	-
	Saturation	0 - 100%	-
	Hue	0 - 100%	-
	Sharpness	0 - 100%	-
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 factory rear-view camera exists. The interface turns off, if PDC or reverse gear is enabled and it displays factory rear-view camera and/or PDC-display.
	Front Cam	Off	No front camera connected.
		On	Switches to front camera if parking process is enabled and reverse gear is released.
	Reverse Logic	Intelligent	For vehicles with PDC button. Enabled with park process & up to 20 km/h, or together with PDC.
		Gear Only	For vehicles without PDC button. Enabled with park process & up to 20 km/h.
OSD	H Position	0 - 100	Horizontal position of OSD screen.
	V Position	0 - 100	Vertical position of OSD screen.
Misc.	Version	xx.xx.xx	Displays the current software version
	PowerOut1 (Pink wire)	1.CAN	1. 12V when interface is on (red LED on) 2. 12V when ignition is on 3. 12V when the camera input is activated 4. 12V when reverse gear is engaged 5. Trigger output deactivated
		2.Ignition	
	PowerOut2 (Green wire)	3.Rear/Front Cam	
		4.Reverse Gear	
		5.Off	
	OEMPDC Car	Horizontal	PDC-display is horizontal.
		Vertical	PDC-display is vertical.
	Factory Reset	-	Reset the CAM-BM7-AD to factory settings.

[illegible]