

## **dvbLOGiC DVB-T Tuner**

### **DT2-LR12**

## **Compatible with Land Rover vehicles with touch-screen navigation systems version 3**

### **Product features**

- Full plug and play vehicle-specific dual DVB-T Tuner + USB-AV-Player
- DVB-T-Tuner MPEG2 and MPEG4 compatible (HD)
- USB-AV-Player for USB-media (audio, video, photo) up to 2TB (FAT32 and NTFS)
- Support of all common Audio & Video formats (e.g MKV, MOV, MPEG-1/2/4, H.264)
- with two active DVB-T glass-mount antennas and USB extension with installation socket
- integrated into and controllable by vehicle infotainment
- Conax extension port for optionally Conax converter DVBTC-Conax (pay-TV)
- Coding of rear-view camera
- rear-seat-entertainment AV-output
- Incl. remote control for full DVB-tuner and USB-AV-player functions
- power on remote out trigger signal (+12V max 1A)
- rear-view camera power (+12V max. 1A)
- video-in-motion
- Mini-USB Update Port

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## 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.*

Harness  
DT2C-LR02

Remote control  
set  
C3-IRSET

Harness  
CAV-AV-6P



Tuner-box  
DT2C-M717  
HW \_\_\_\_  
SW \_\_\_\_

CAN-box  
TV-500  
HW \_\_\_\_  
SW \_\_\_\_

USB-extension-  
cable  
USBC-EXT

2pcs. antenna ANT-12

## 1.2. Check compatibility of vehicle and accessories

Requirements	
<i>Vehicle</i>	Range Rover Evoque L538, Range Rover Sport L320 ab Modelljahr 2012, Discovery4 L319 ab Modelljahr 2012, Range Rover (Vogue) L322 ab Modelljahr 2013, Freelander 2 L359 ab Modelljahr 2013
<i>Navigation</i>	Touch-Screen Infotainment Version 3
Limitations	
<i>Factory-TV-tuner</i>	Must NOT be installed. If uninstalled, optical ring must be closed.
<i>After-market rear-view cam.</i>	Compatible with NTSC cameras only. Optionally available adapter CAB-TVAS20 is necessary to connect.

## 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
Land Rover <b>without</b> rear-view camera	ON	OFF	ON	OFF	ON	ON
Land Rover <b>with</b> rear-view camera	ON	ON	ON	OFF	ON	ON

**Note:** Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – rear-view camera existing

Dip 3 – TV icon simulation

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

Setting dip 2 to ON codes the factory rear-view camera input which is located on the brown Fakra male connector of the factory monitor. When reverse gear is engaged, the navigation will automatically switch to this input. On vehicles with factory rear-view camera set Dip 2 to ON, too.

## 1.4. Setting the dip switches of the tuner-box DT2C-M717

The 3 dip switches of the tuner-box DT2C-M717 are without function. The dip switch settings are:

Dip1 = OFF

Dip2 = OFF

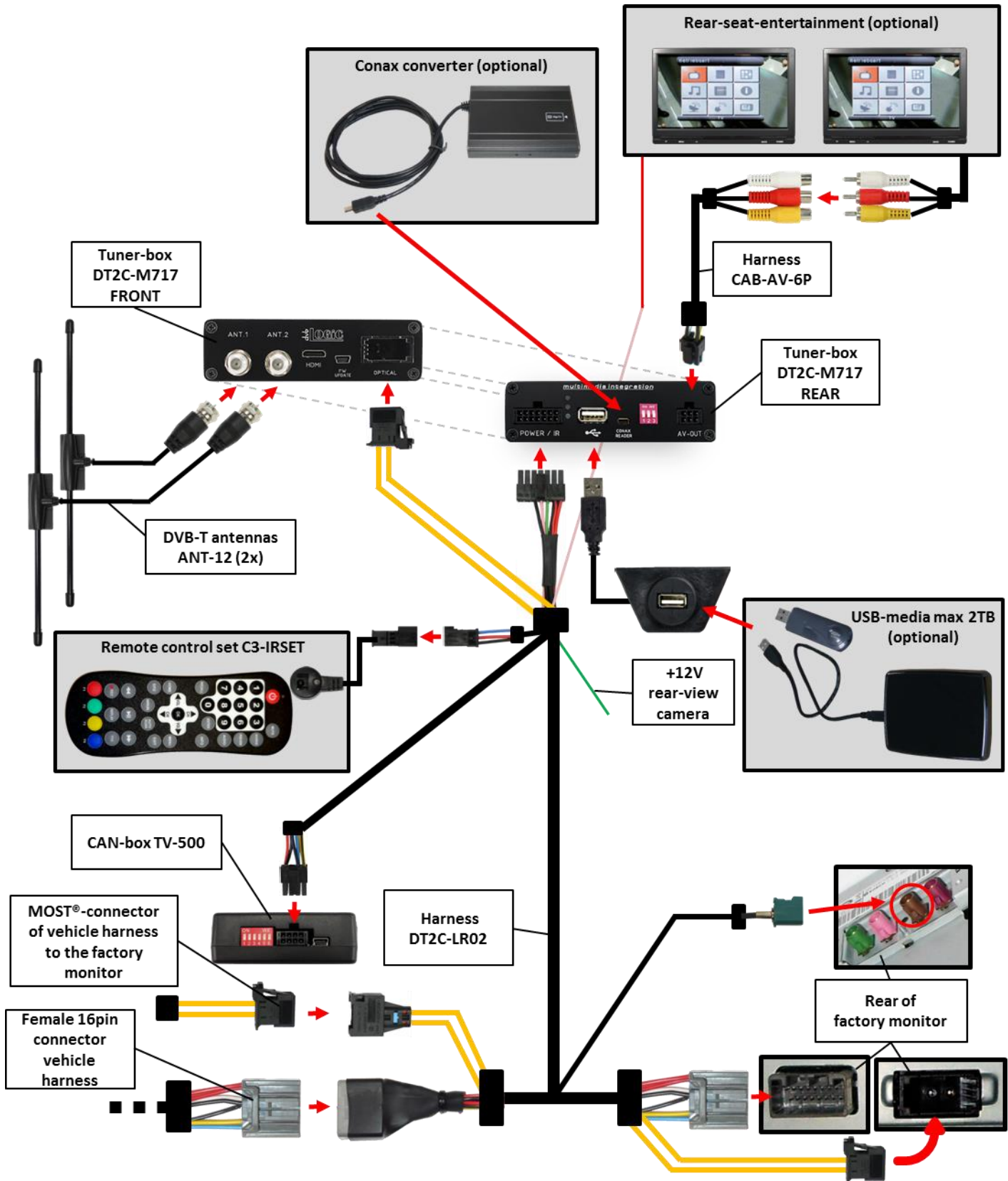
Dip3 = OFF



## 1.5. LED's of the tuner-box DT2C-M717



## 2. Connection schema

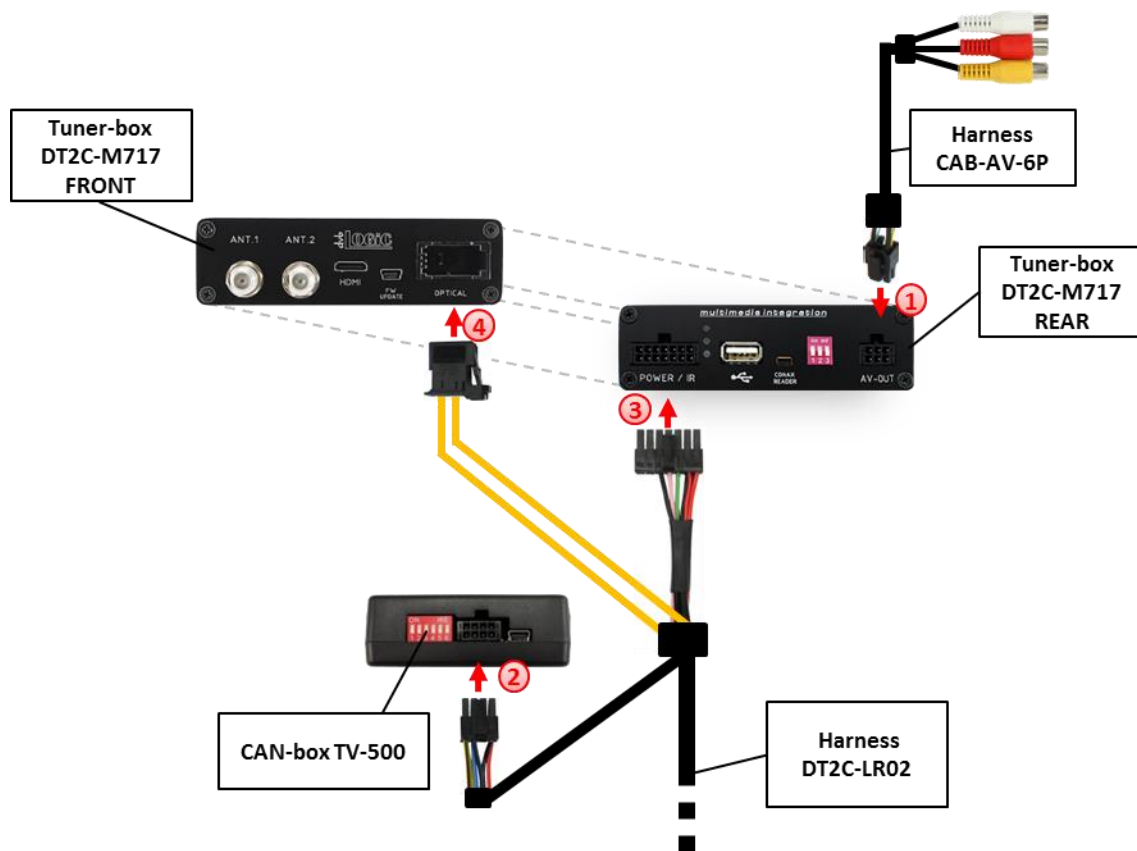


## 3. Installation

**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.**

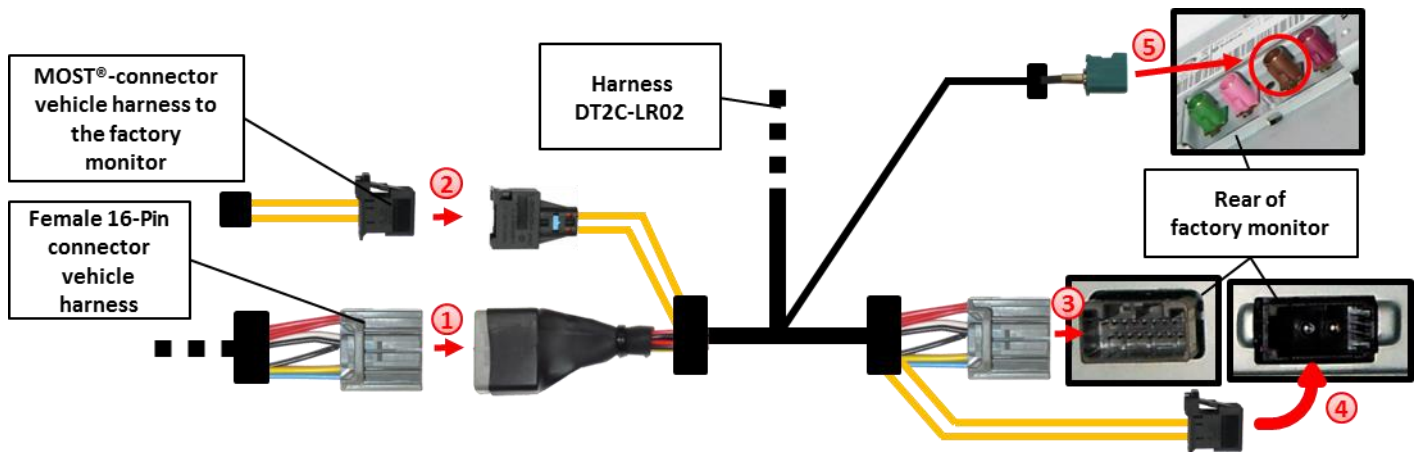
Place of installation is behind the factory navigation monitor.

### 3.1. Interconnecting tuner-box, CAN-box and harnesses



- ① Connect harness CAB-AV-6P to 6pin Molex of tuner-box DT2C-M717.
- ② Connect harness DT2C-LR02 to 8pin Molex of CAN-box TV-500.
- ③ Connect harness DT2C-LR02 to 14pin Molex of tuner-box DT2C-M717.
- ④ Connect male MOST®-connector of harness DT2C-LR02 into female MOST®-socket of tuner-box DT2C-M717.

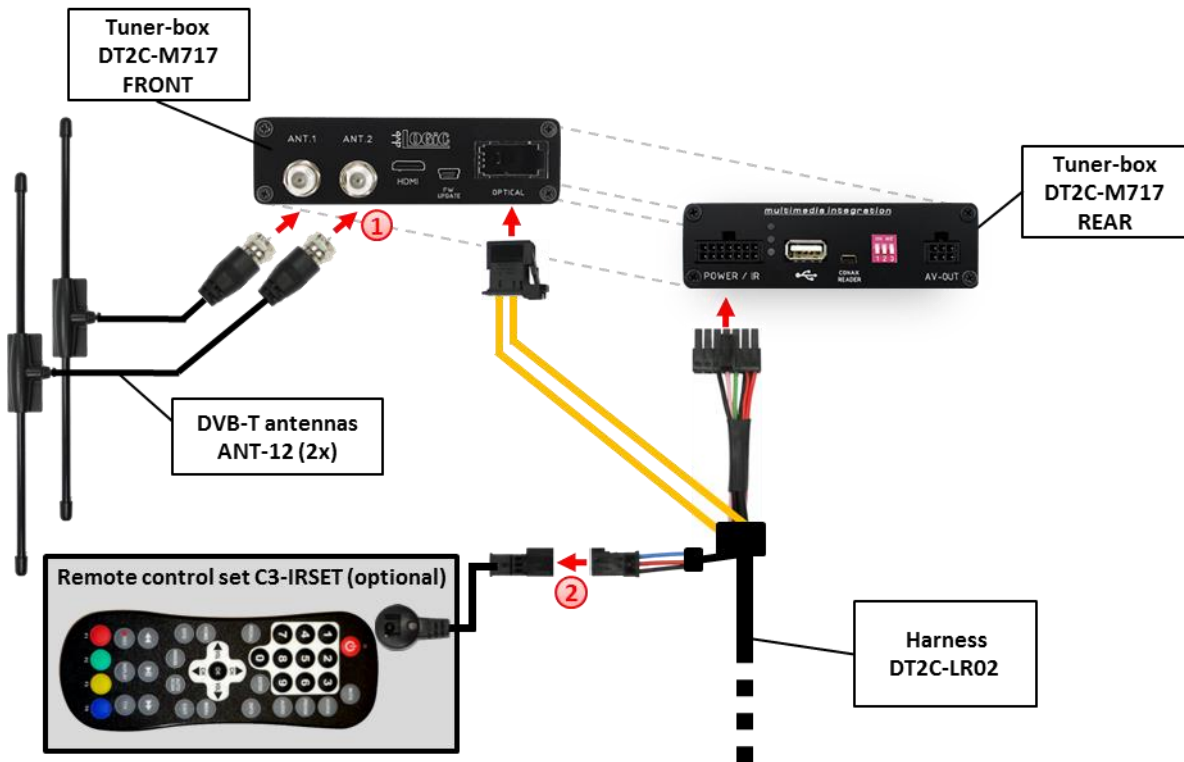
## 3.2. Connections to the factory monitor



- ① Transfer female 16pin connector vehicle harness from rear of factory monitor into the 16pin male connector of harness DT2C-LR02.
- ② Transfer male MOST®-connector of vehicle harness from rear of factory monitor into harness DT2C-LR02.
- ③ Plug female 16pin connector of DT2C-LR02 into male socket of factory monitor.
- ④ Plug male MOST®-connector of DT2C-LR02 into male MOST®-socket of factory monitor.
- ⑤ Connect female Fakra connector of harness DT2C-LR02 to the **brown** Fakra connectors on the rear of the factory monitor.



### 3.3. Antennas and IR-remote control set



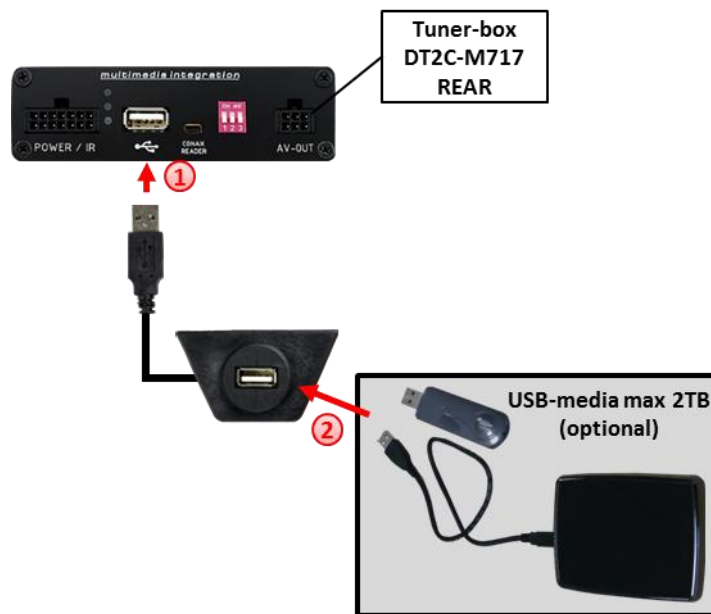
- ① Mount antennas ANT-12 and connect them to the female f-plug connectors on front of tuner-box DT2C-M717.

**We strongly recommend to first test the reception quality of the chosen mounting position of the antennas before final installation! See “Appendix B – Antenna positioning” for additional information.**

- ② The C3-IRSET consists of the external C3C-SENSOR IR-sensor and the C3C-RC IR-remote control and can be used to control the dvbLOGiC’s internal DVB-T tuner functions additionally to the control through the navigations buttons. Connect the C3C-SENSOR to the female black/red/blue 3pin AMP connector of harness DT2C-LR02 and locate the sensor in an accessible place.

**Note:** To use the teletext function of the dvbLOGiC’s internal DVB-T tuner and the internal USB-AV-player, the C3-IRSET is necessary.

## 3.4. USB-AV-Player



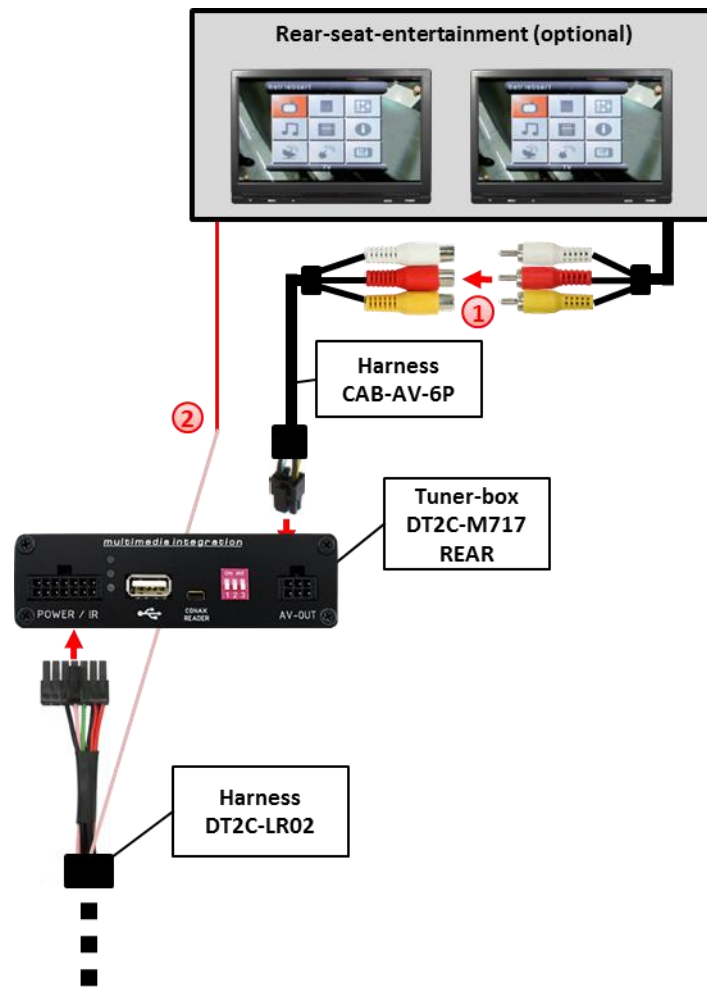
- ① Connect the USB extension USBC-EXT to the USB-port on the rear of the tuner-box DT2C-M717.
- ② Connect USB-media (up to 2TB, FAT32 and NTFS) to the USB-port of the USB-extension cable USBC-EXT.

## 3.5. Connecting peripheral devices

It is possible to connect rear-seat-entertainment and a Conex converter to the dvbLOGiC Tuner.

**Before final installation of the peripheral devices, we recommend to test-run the dvbLOGiC functions to detect incompatibility of vehicle, navigation, factory accessories or peripheral devices as soon as possible.**

## 3.5.1. After-market rear-seat-entertainment

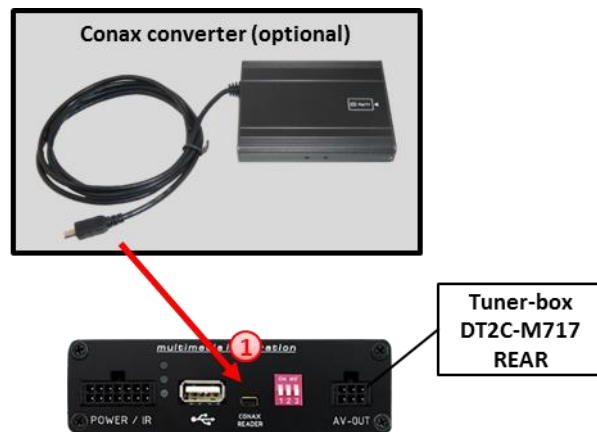


- ① Using RCA-cables, connect the rear-seat-entertainment to the female RCA-connector of harness CAB-AV-6P.

**Note:** As the output is a full output, not shared with the video signal for the navigation system, splitting the video with an RCA Y-cable might give a good enough picture for two rear-seat-entertainment monitors. If not, or if connecting more than two monitors, use a video splitter.

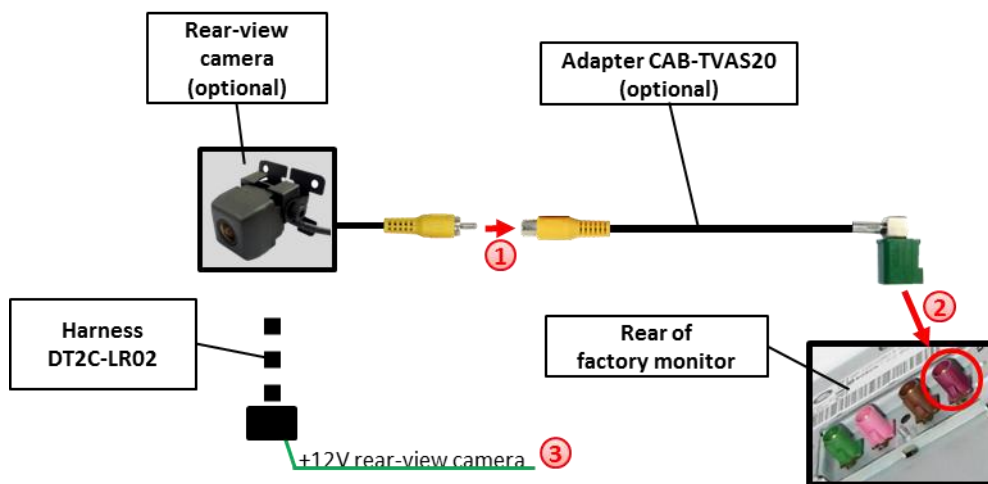
- ② The pink ACC-output wire (+12V max 1A) of harness DT2C-LR02 can be connected to the ACC-input wires of the rear-seat entertainment to switch it on. It carries +12V when the navigation computer is running.

### 3.5.2. Conax converter



- ① Connect the micro-USB-port of the optionally available Conax converter (e.g. DVBT-CONAX) to the micro-USB-port on the rear of tuner-box DT2C-M717.

### 3.5.3. After-market rear-view camera



- ① Connect video-output of after-market rear-view camera to female RCA-connector of optional adapter CAB-TVAS20.
- ② Connect female Fakra connector of adapter CAB-TVAS20 to the purple male Fakra connector on the rear of the factory monitor.
- ③ Connect the green wire of DT2-LR02 to the camera power supply (+12V max. 1A)  
The green wire is high (+12V) when reverse gear is engaged.

**Note:** Compatible with NTSC cameras only.

## 4. Operation

### 4.1. Activation of the video-in-motion function

The video-in-motion function is activated permanently without disturbing the navigation performance.

### 4.2. Selecting the dvbLOGiC as current AV-source



Enter menu **Audio/Video** and then select **TV** to select the dvbLOGiC as current AV-source.

### 4.3. Control of the internal DVB-T tuner



The internal DVB-T tuner can be controlled by touch. The functions of the touch are corresponding with the OEM control and the options will be displayed.

## 4.3.1. Channel search



Enter menu **TV** and then select **+** and after it **DTV2 – Digital**. **StartScan** will start the channel search, **StopScan** will stop the channel search.

## 4.3.2. Channel list



After a successful channel search the channel list is available in the channel list in the TV menu and can be selected by touch.

## 4.3.3. Switching the channels by steering-wheel



Steering-wheel left

It is possible to switch the channels by arrow-buttons on left hand side of the steering-wheel.

Long press – Switching up/down channel list  
Short press – Switching up/down favourites

## 4.3.4. Selecting favourites



Enter menu **TV** and then select **+** and after it **DTV1 – Digital**. It is possible to store 6 favourites.

Choose the favoured channel in the channel list and longpress the respective button (1-6) in menu **DTV1 - Digital**. An acoustic signal will confirm the storage.

## 4.3.5. EPG



Even if the full screen mode is selected the EPG data will be shown on the display.

## 4.3.6. Teletext

Teletext of the dvbLOGiC can only be used with the optionally available C3-IRSET remote control set.


## 4.4. Control of the internal USB AV-player



The internal USB-AV-Player can be controlled by the included remote control. By pressing the **HOME** button while in TV mode the menu above can be displayed and **Movie**, **Music** or **Photo** of the USB-source can be selected.

## 5. Specifications

Operation voltage	10.5 – 14.8V DC
Stand-by power drain	<1mA
Operation power drain	~500mA
Power consumption	~7 W
Temperature range	-30°C to +80°C
Weight	333g
Measurements (box only) B x H x T	140 x 30 x 105 mm

CE  12V DC

## 6. Technical Support

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