

## **usbLOGiC USB-AV-Player**

### **USB-MFD2**

**compatible with navigation systems**  
**Volkswagen MFD2/RNS2**  
**Skoda Nexus**

Only for vehicles WITHOUT factory rear-view camera

#### **Product features**

- USB-port for media up to 2 TB (2000GB)
- supports FAT32 and NTFS formatted media
- multi partition capable
- compatible with MP3, AVI, VOB, MOV, RMVB, JPG and many more
- last position memory
- integrated into and controllable by vehicle infotainment
- AV-input with IR-control channel
- control of after-market devices by OEM buttons, e.g. DVD-player, USB/iPod devices, ...
- after-market rear-view camera input
- automatic switching to rear-view camera input
- rear-view camera power (+12V max 1A)
- rear-seat-entertainment AV-output
- optional remote control for full USB functions/rear-seat-entertainment
- power on remote out trigger signal (+12V max 1A) to switch on connected devices
- video-in-motion

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## Legal Information

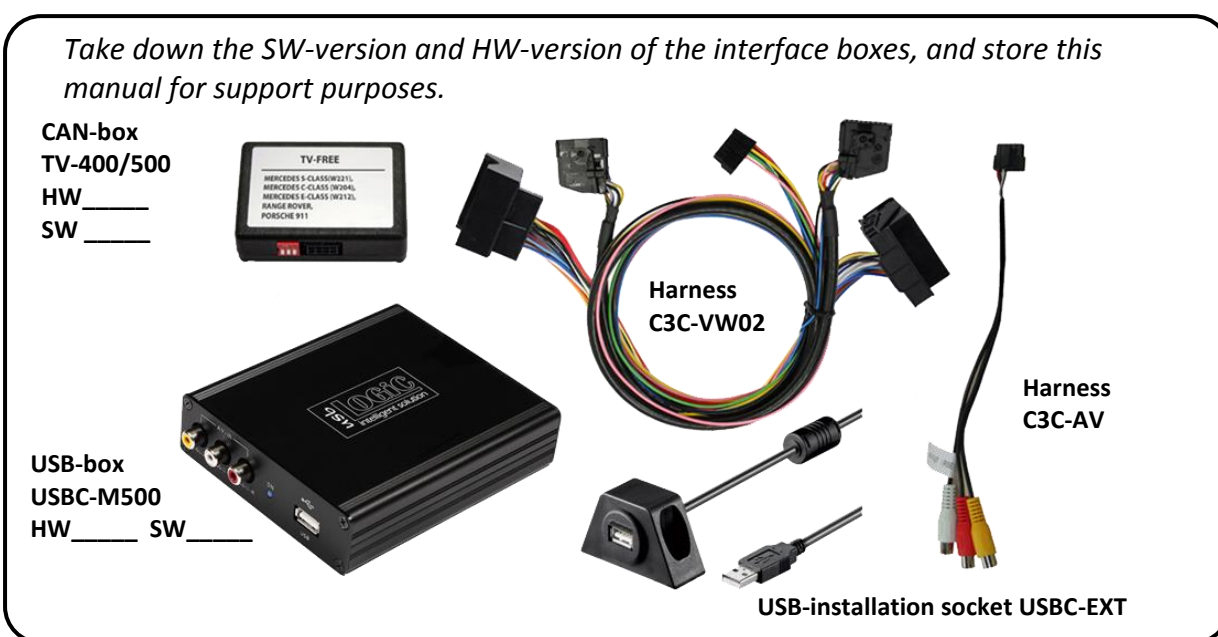
By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from installation or operation of this product. This product should only be used while standing or 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



If remote function for a peripheral device shall be used, additional an IR-remote cable and Y-adapter are needed, see chapter [AV-source](#) .

## 1.2. Check compatibility of vehicle and accessories

### Requirements

<i>Vehicle</i>	Volkswagen and Skoda
<i>Navigation</i>	MFD2/RNS2 or Nexus navigation

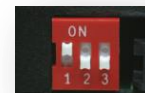
### Limitations

<i>Factory-TV-tuner</i>	Must NOT be installed.
<i>USB-port</i>	Only for media which work with power supply by ONE single USB connector.

## 1.3. Setting the dip switches of the CAN-box TV-400/500

### TV-400

All vehicles dip 1 ON, dip 2 OFF, dip 3 OFF



### TV-500

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

**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. Setting the dip switches of the USB-box USBC-M500

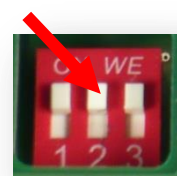
The default dip switch settings of the USB-box need to be changed **ONLY** if an after-market rear-view camera shall be connected or if the AV of the usbLOGiC shall be deactivated. The dip switches are located **inside** the USB-box. For changes it is necessary to open the box. Default settings are:

dip1 = ON, dip2 = OFF, dip3 = ON



### 1.4.1. Automatic switching to rear-view camera

If an after-market rear-view camera shall be connected, in order for the usbLOGiC to automatically switch to its camera input on engaged reverse gear, set dip2 = ON (up).



Dip switches of USB-box

### 1.4.2. Deactivating usbLOGiC AV-input

If no peripheral AV-source shall be connected to the usbLOGiC, we recommend to disable the AV-input, to avoid customers switching by mistake to black/no picture of the AV-input. In order to disable the AV-input of the usbLOGiC, set dip1 = OFF (down).



Dip switches of USB-box



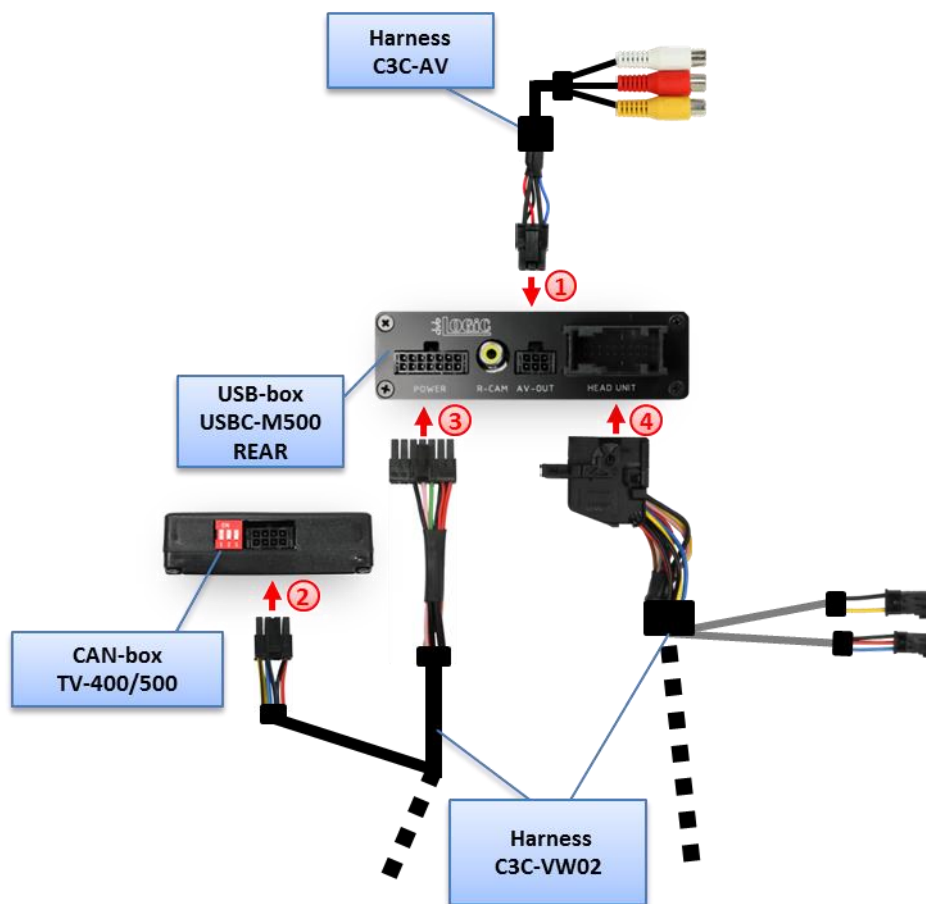


## 3. Installation

**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 head-unit.

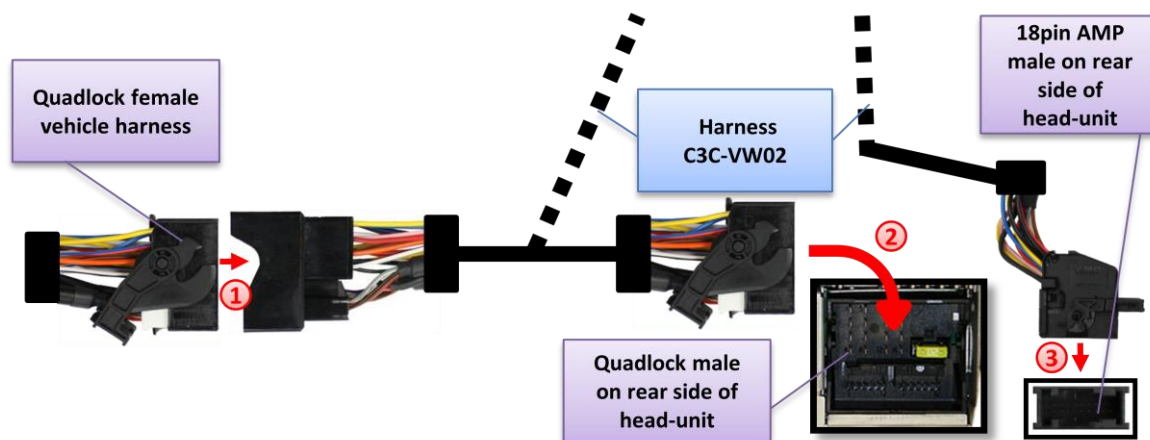
### 3.1. Interconnecting USB-box, CAN-box and harnesses



- ① Plug harness C3C-AV into 6pin Molex of USB-box USBC-M500.
- ② Plug harness C3C-VW02 into 8pin Molex of CAN-box TV-400/500.
- ③ Plug harness C3C-VW02 into 14pin Molex of USB-box USBC-M500.
- ④ Plug female 18pin AMP-connector of C3C-VW02 into male 18pin AMP-socket of USB-box USBC-M500.

## 3.2. Connections to head-unit

Remove the head-unit from the dash-board.

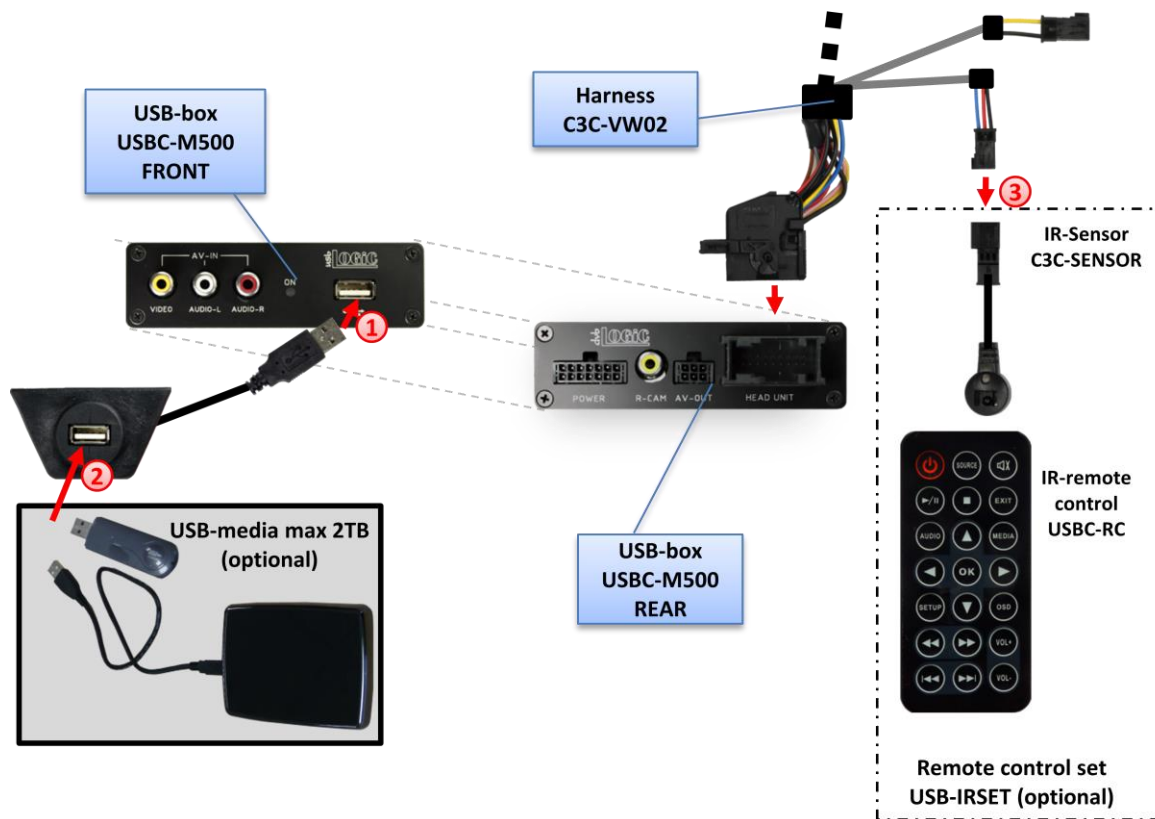


- ① Transfer female Quadlock connector from the back of the head-unit to male Quadlock connector of harness C3C-VW02.
- ② Plug female Quadlock connector of C3C-VW02 into male Quadlock socket of head-unit.
- ③ Plug female 18pin AMP-connector of C3C-VW02 into male 18pin AMP-socket of head-unit.

**Note:** If the 18pin AMP-socket of the head-unit is already occupied, the vehicle probably has a factory rear-view camera or a factory TV-tuner. In case of a factory tuner, it must be uninstalled: disconnect the female 18pin AMP-connector of the factory harness and disconnect all wires from the factory TV-tuner. In case of a factory rear-view camera you have ordered/received the wrong product, call for support.



### 3.3. USB and optional IR-remote control set



- ① Connect USB-connector of USB-installation socket USBC-EXT to USB-socket of USB-box USBC-M500 and install the USBC-EXT socket in a well accessible location, e.g. the glove-box. Make sure there is enough space to load USB-media.
- ② Installation socket for the connection of USB-media.
- ③ The USB-IRSET consists of the external C3C-SENSOR IR-sensor and the USBC-RC IR-remote control and can be used to control the usbLOGiC's internal USB functions additionally to the control through the navigations buttons. Connect the C3C-SENSOR to the female black/red/blue 3pin AMP connector of harness C3C-AVIR and locate the sensor in an accessible place.

### 3.4. Connecting peripheral devices

It is possible to connect an after-market AV-source, after-market rear-view camera and rear-seat-entertainment to the usbLOGiC.

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

AV-source e.g. DVB-T tuner (optional)

USB-box  
USBC-M500  
FRONT

VIDEO AUDIO-L AUDIO-R ON USB

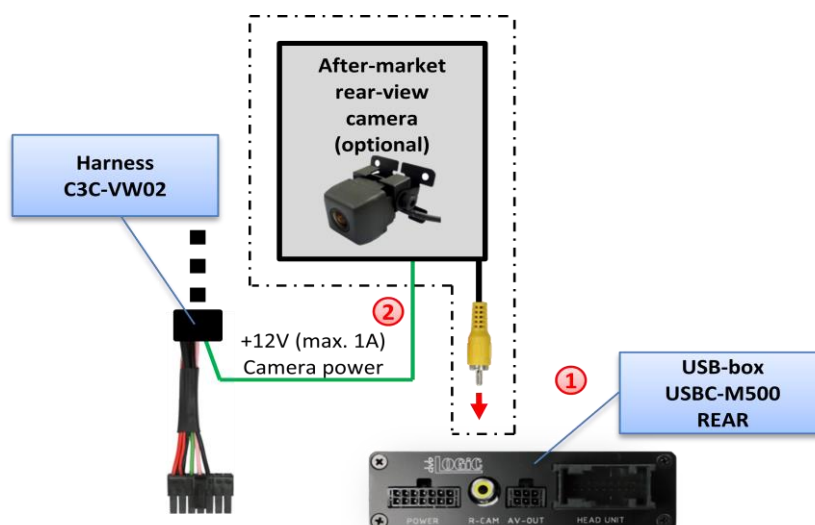
1 2 3

ACC out dvbLOGIC

Harness  
C3C-VW02

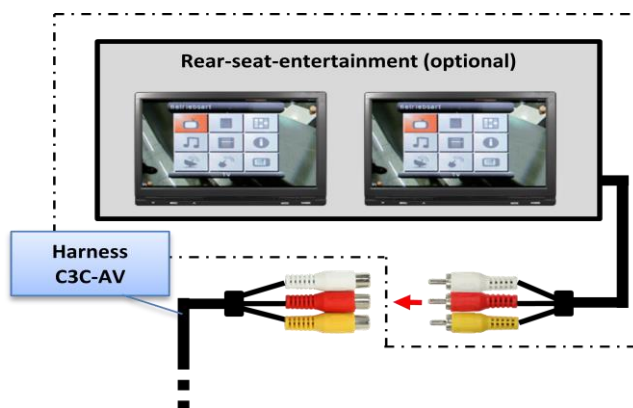
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## 3.4.3. After-market rear-view camera



- ① Connect the video RCA of the after-market rear-view camera to female RCA connector R-CAM IN of USB-box USBC-M500.
- ② Connect the green wire of C3C-VW02 to the camera power supply (max. 1A)  
The green wire is high (+12V) when reverse gear is engaged.

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



- ① Using RCA-cables, connect the rear-seat-entertainment to the female RCA-connector VIDEO OUT of USB-box USBC-M500.

**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.

## 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 usbLOGiC as current AV-source

**CD-Version** - Push **AUX** button of head-unit, then select **TV** to choose the usbLOGiC as current AV-source.

**DVD-Version** - Push **CD** button of head-unit, then select **AUX** to choose the usbLOGiC as current AV-source.



### 4.3. Switching between internal USB and AV-input

After selecting the usbLOGiC as current AV source, push the right knob for 3 seconds to switch between USB and AV-input. Repeat to switch back.

**Note:** If the AV-input is deactivated (see chapter “Deactivating usbLOGiC AV-input”), it is not possible to switch to the usbLOGiC’s AV-input AV-IN.

### 4.4. Assigning device control for connected AV-source

After selecting the usbLOGiC as current AV source, switch to the usbLOGiC’s AV-input. Now longpress number key “1”. The MFD will display “TV 2” and “RC01”. Turn right knob until the device-related IR-code as described in device control table (appendix A) is reached. Push right knob to confirm the assignment.



If the vehicle has no MFD display in the instrument panel (for example in case of retrofitted navigation systems), you must count the notches when turning the knob (to the right +1, to the left -1). At the same time, remember that the starting point is channel RC01 (the first notch to the right is then already RC02).

**Note:** If the AV-input is deactivated (see chapter “Deactivating usbLOGiC AV-input”), it is not necessary, nor possible to assign device controls.

## 4.5. Button assignment table

The button assignment table shows which functions of usbLOGiC and additionally connected devices can be executed by head-unit buttons. Once USB or AV-input mode is activated, the head-unit button in the left column will execute the function described in the corresponding device column. The function description equals the remote control buttons of the optional usbLOGiC remote control or the additional device. On the additional device the writing may vary (e.g. AV instead of Source).



Button assignment table usbLOGiC MFD2/RNS2/Nexus						
Head-unit button	Internal USB	DVB-T tuners	DVD-player	DVD-changer	iPod®-control	Analog-tuner
1	POWER	OK	PLAY	PLAY	PLAY/PAUSE	SCAN
2	MEDIA	AV	AV	AV	EJECT	MODE
3	VOL+	EPG	PBC	PBC	SHUFFLE	FM
4	VOL-	INFO	TITLE	TITLE	REPEAT	INFO
5	ZOOM	SCAN	ZOOM	DISC		SCAN
6	SETUP	MENU	SETUP	SETUP	LIGHT	ADJUST
6 long	POWER	POWER	POWER	POWER	POWER	POWER
7	MEDIA	DISPLAY	DISPLAY	DISPLAY		DISPLAY
8	AUDIO	AUDIO	AUDIO	AUDIO		AUDIO
9	→	→	→	→	→	CH +
10	←	←	←	←	←	CH -
12	↓	↓	↓	↓	↓	VOL -
13	↑	↑	↑	↑	↑	VOL +
14	OK / PLAY	OK	OK	OK	ENTER	MODE
11	EXIT	EXIT	STOP	STOP	PLAY	MUTE
15	TRACK -	CH -	TRACK -	TRACK -	TRACK -	CH -
16	TRACK +	CH +	TRACK +	TRACK +	TRACK +	CH +

Additionally to the head-unit buttons, the steering-wheel buttons UP and DOWN can be used for remote functions. DOWN-button has the same function as **15** on the head-unit and UP-button has the same function as **16** on the head-unit.

## 4.6. Picture settings

By pressing the button **17**, it is possible to switch between 4:3 and 16:9 picture format. To enter the picture settings menu longpress button **11**.

The picture settings menu always starts with the brightness settings. The respective current picture value is displayed on the instrument panel.


Press the right knob to change from brightness to colour and contrast (after contrast, the interface starts again with brightness).

Turn the right knob to change the current picture value. To quit the settings menu press "**ESC**"-button.

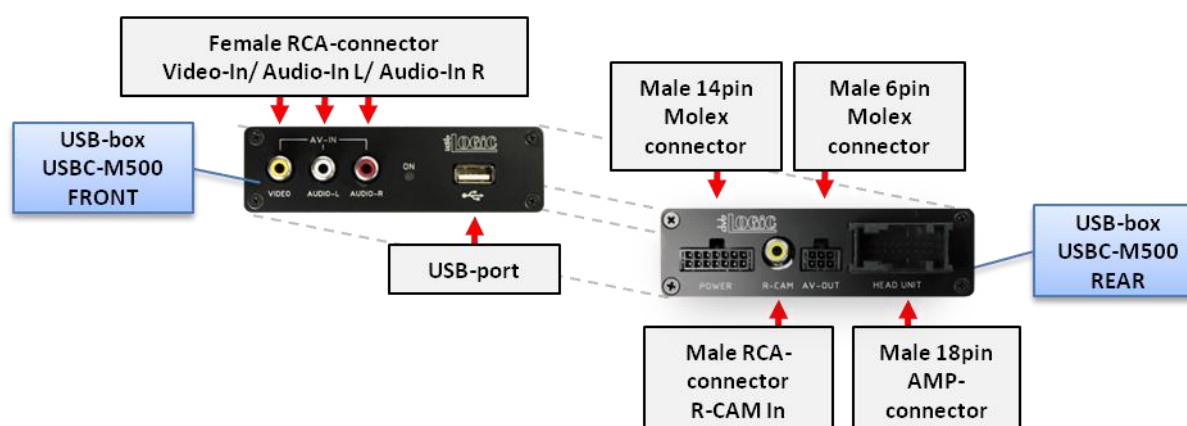


## 5. Specifications

Operation voltage	10.5 – 14.8V DC
Stand-by power drain	<1mA
Operation power drain	min. 450mA/max. 950mA
Power consumption	min. 6W/max. 13W
Power rating USB-port	0,5A permanent (0,8A max)
Temperature range	-30°C to +80°C
Weight	312g
Measurements (box only) B x H x T	135 x 30 x 105 mm

CE  12V DC

## 6. Connections (USB-box)





## 7. Technical Support

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