c.LOGiC-Interface

CI-C4-LR12-NB

Compatible with LandRover touch-screen infotainment systems from model year 2012

Product features

- Plug and play multimedia interface
- 3 AV-inputs
- Optional control of after-market navigation NAV-WP9200 and of 2 after-market devices (e.g. DVD-player, DVB-T tuner) by factory touch-screen
- Rear-view camera input
- Rear-view camera power (+12V max 1A)
- Automatic switching to rear-view camera input
- Video-in-motion
- Rear-seat-entertainment output for AV-sources connected to the c.LOGiC
- USB update-port for software-updates by consumer

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.

**Interface-box
C4C-M816B
HW_____   SW_____**

**Harness
C4C-LR02-NB**

**IR-cable
C2C-IR**

**2 x AV-cable
CAB-AV-6P**

**RCA-adapter
CAB-RCA1-15**

1.2. Check compatibility of vehicle and accessories

Requirements

Vehicle	Range Rover Evoque L538, Range Rover Sport L320, Discovery4 L319 **from model year 2012**
Navigation	Touch-screen infotainment version 3
Audio-AUX	A factory audio-AUX input is required.
Limitations	
Video-sources	Only compatible to NTSC-sources.
Factory-PDC	The factory-PDC picture isn't available by connecting the interface. Acoustic signals are still existing.

1.3. Setting the dip-switches of the interface-box C4C-M816B

With the interface-box dip-switches it is possible to activate or deactivate the video-in-motion (dip 1), AV 2 (dip 2) and AV 3 (dip 3).
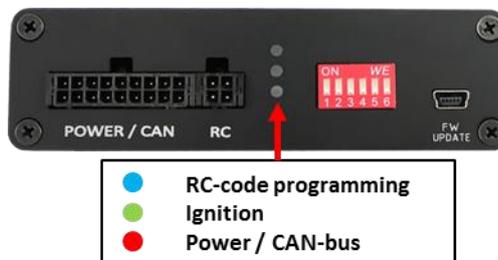
Dip position "down" is OFF and position "up" is ON.

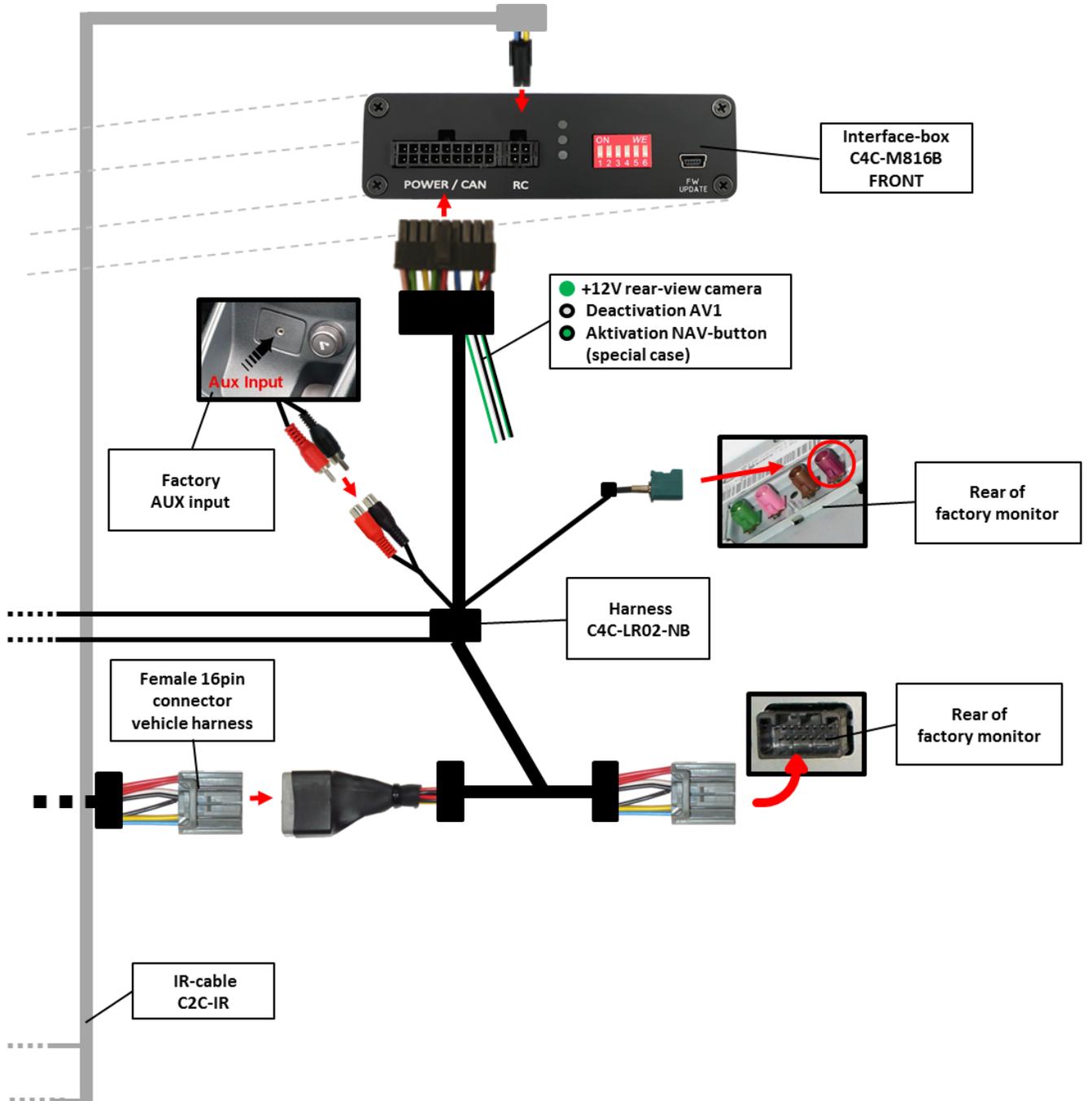| Dip-switch	ON	OFF
Dip 1	Rear-view camera On	Rear-view camera OFF
Dip 2	AV2 On	AV2 Off
Dip 3	AV3 On	AV3 Off
Dip 4-6	No function	

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

1.4. LED's of the interface-Box C4C-M816B

- 🔵 RC-code programming
- 🟢 Ignition
- 🔴 Power / CAN-bus

2. Connection schema

Rear-view camera (optional)

CAB-TVAS30 (optional)

Interface-box
C4C-M816B
REAR

Rear-seat-entertainment (optional)

Audio-insertion by optional RCA-Y-cable to audio-in of harness C4C-LR02-NB

AV-3   AV-2   AV-1   NAV AV-1   R-CAM IN   VIDEO OUT

AV-cable
CAB-AV-6P

RCA-adapter
CAB-RCA1-15

Harness
C4C-LR02-NB

Mute NAV-WP9200

AV-source 3 (optional)

AV-source 2 (optional)

AV-source 1 (optional)

After-market navigation
NAV-WP9200

AV2

AV3

IR-cable
C2C-IR

Interface-box
C4C-M816B
FRONT

POWER / CAN   RC

🟢 +12V rear-view camera
⚪ Deactivation AV1
🟢 Aktivation NAV-button
(special case)

Aux Input

Factory
AUX input

Rear of
factory monitor

Harness
C4C-LR02-NB

Female 16pin
connector
vehicle harness

Rear of
factory monitor

IR-cable
C2C-IR

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 on the rear of the factory monitor.

3.1. Connecting interface-box and harnesses
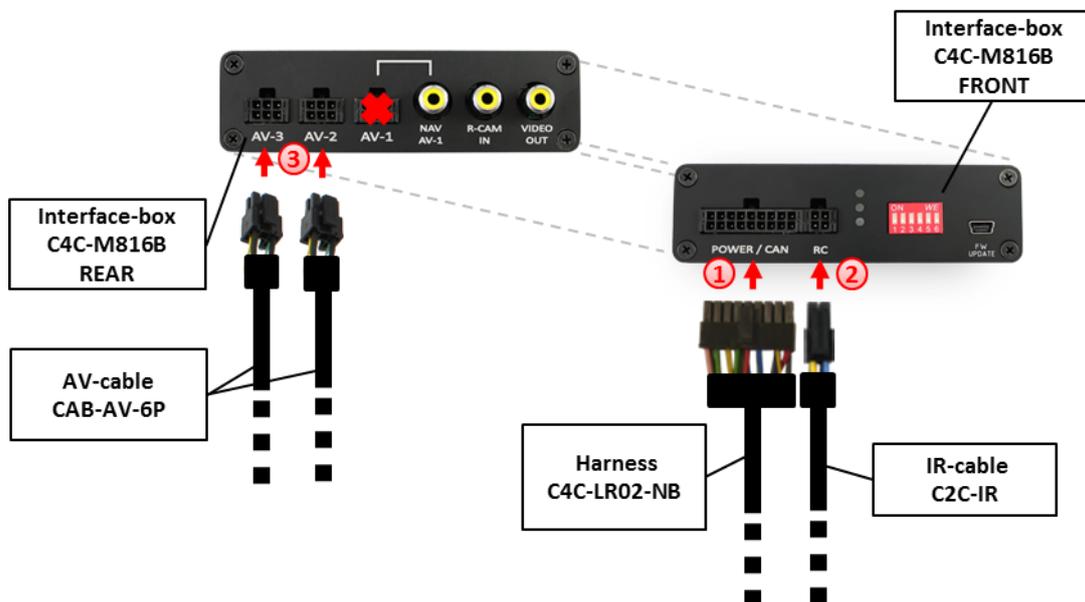
① Connect female 18pin Micro-Fit connector of harness C4C-LR02-NB to the male 18pin Micro-Fit connector (POWER/CAN) on the front of the interface-box C4C-M816B.

② Connect female 4pin Micro-Fit connector of IR-Cable C2C-IR to the male 4pin Micro-Fit connector (RC) on the front of the interface-box C4C-M816B.

③ Connect female 6pin Micro-Fit connector of the AV-cable CAB-AV-6P to the male 6pin Micro-Fit connector (AV2/3) on the rear of the interface-box C4C-M816B.

3.2. Connection to the factory monitor
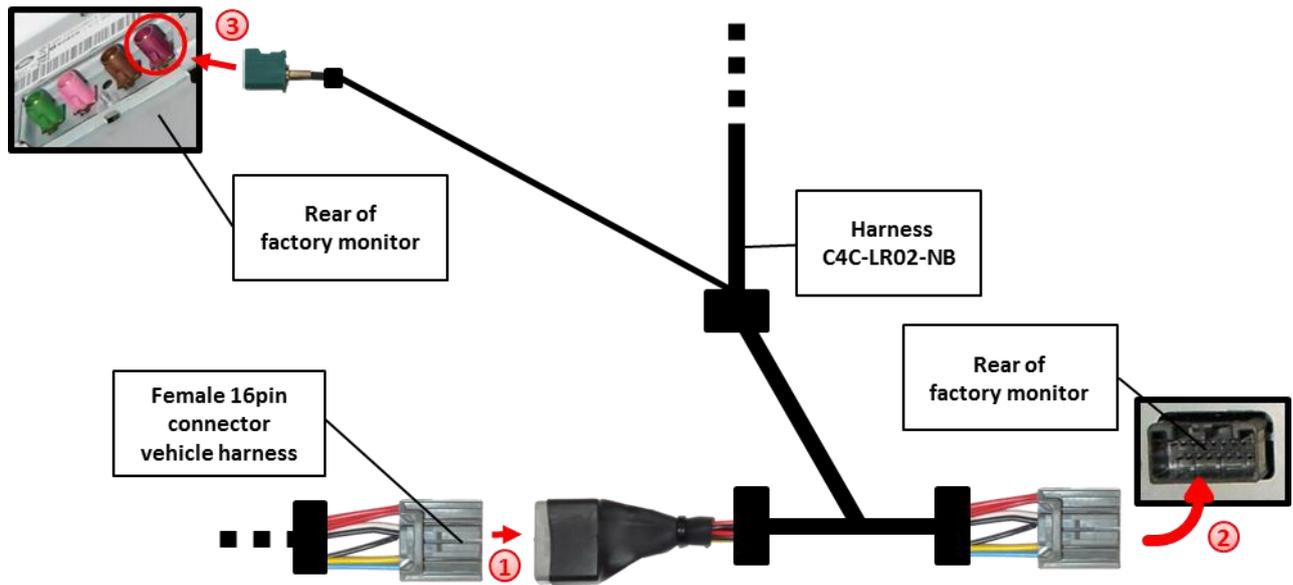
① Remove female 16pin connector of vehicle harness from the rear of the factory monitor and connect it to the Male 16pin connector of harness C4C-LR02-NB.

② Connect female 16pin connector of harness C4C-LR02-NB to the male 16pin connector on the rear of the factory monitor.

③ Connect female Fakra-connector of harness C4C-LR02-NB to the purple male Fakra-connector on the rear of the factory monitor. If there is a factory rear-view camera inside the car remove the female Fakra-connector of the factory rear-view camera and connect it as described in chapter "Factoa.

3.3. Connection to the factory AUX-input
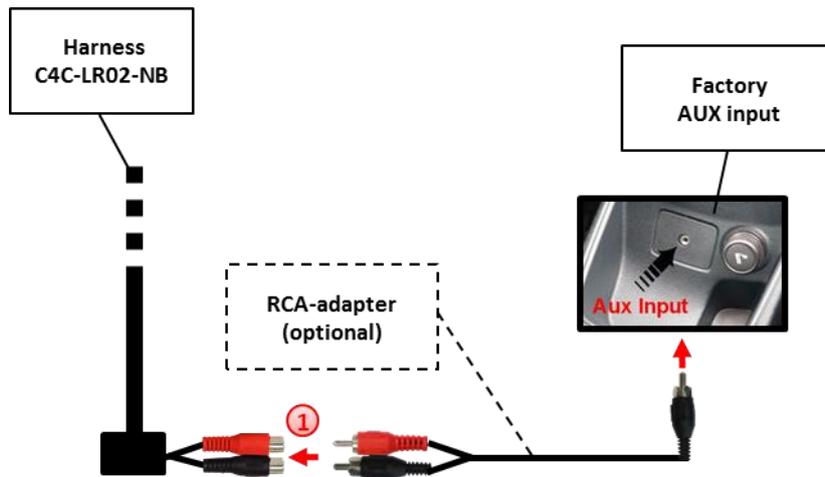
① Connect the factory 3,5mmjack bush audio AUX adapter of the factory AUX-input to the female RCA-connectors of harness C4C-LR02-NB by optional RCA-adapter.

Note: If connecting a rear-set-entertainment an optional RCA Y-cable is plugged in between, see chapter "Rear-seat-entertainment".

3.4. Connecting peripheral devices

It is possible to connect 3 after-market AV-sources, an after-market rear-view camera and rear-seat-entertainment to the c.LOGiC interface.

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

Note: Only compatible to NTSC video-sources.

3.4.1. AV-source(s)

The c.LOGiC interface has the possibility to connect and remotely control by factory touch-screen 3 after-market devices. **AV1 is fix pre-programmed:**

AV1 – After-Market Navigation NAV-WP9200

Note: With the loose white-black cable of harness C4C-LR02-NB it is possible to deactivate AV1.
- ◐● +12V = AV1 deactivated
- ◐● 0V = AV1 activated
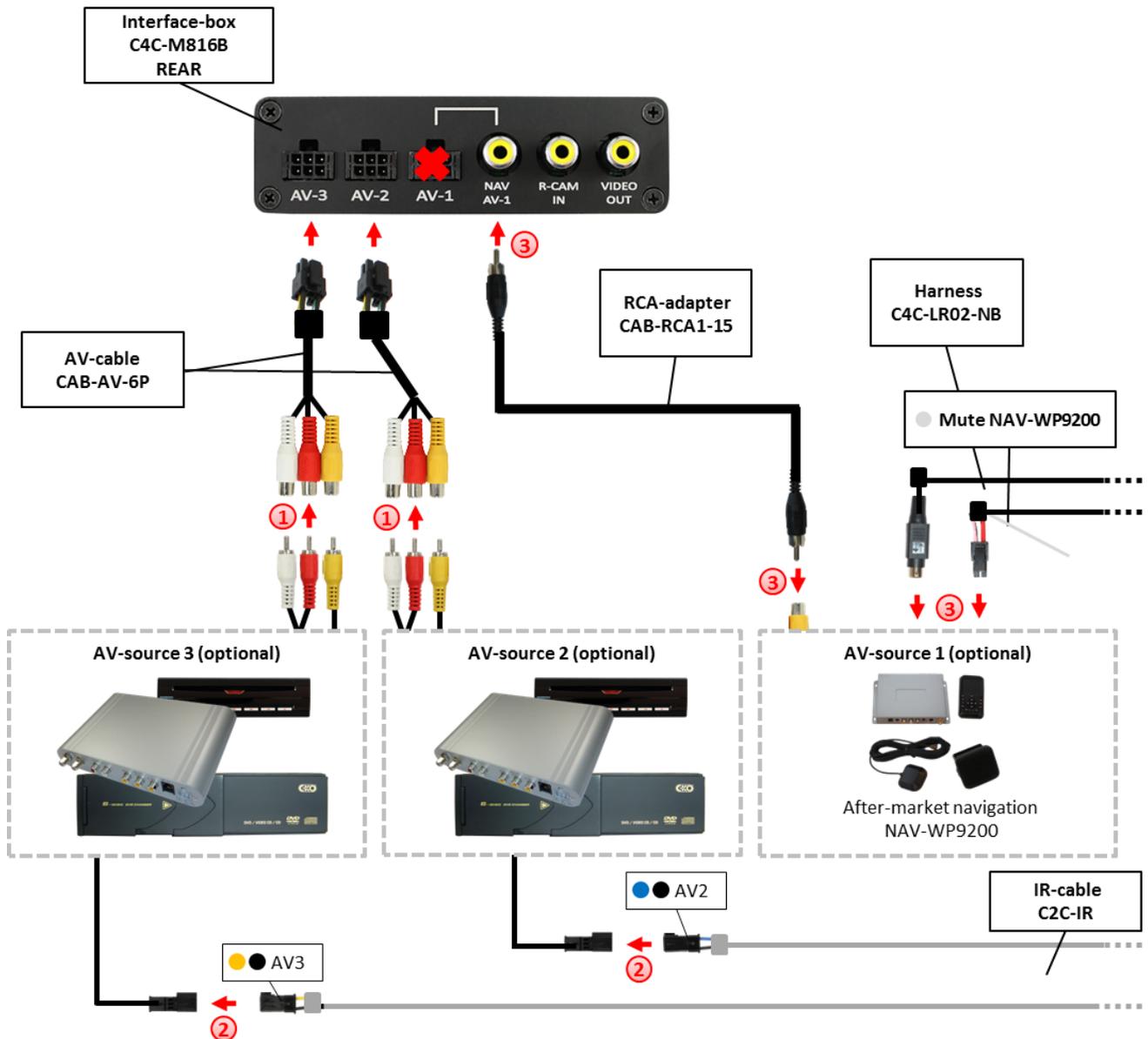
① Connect the AV-RCAs of AV-source 2 and the AV-RCAs of AV-source 3 to the female RCA connectors of the respective AV-cable CAB-AV-6P (AV2/3).

② Using the respective STA-xxx IR-control cable, interconnect the blue-black (yellow-black) female 3pin AMP connector of IR-cable C2C-IR and the IR-port of the AV-source 1 (AV-source 2).

③ Connect video RCA of AV-source 1 (NAV-WP9200) to female RCA connector NAV-AV1 on the rear of the interface-box C4C-M816B by RCA-adapter CAB-RCA1-15.

See chapter "After-market navigation NAV-WP9200" for detailed information about connection.

Note: It is also possible to connect an AV-source without control by factory touch-screen to AV1. In this case you need another AV-cable CAB-AV-6P (connection to 6pin MicroFir connector AV1 on the rear of interface-box C4C-M816B).

3.4.2. After-market navigation NAV-WP9200
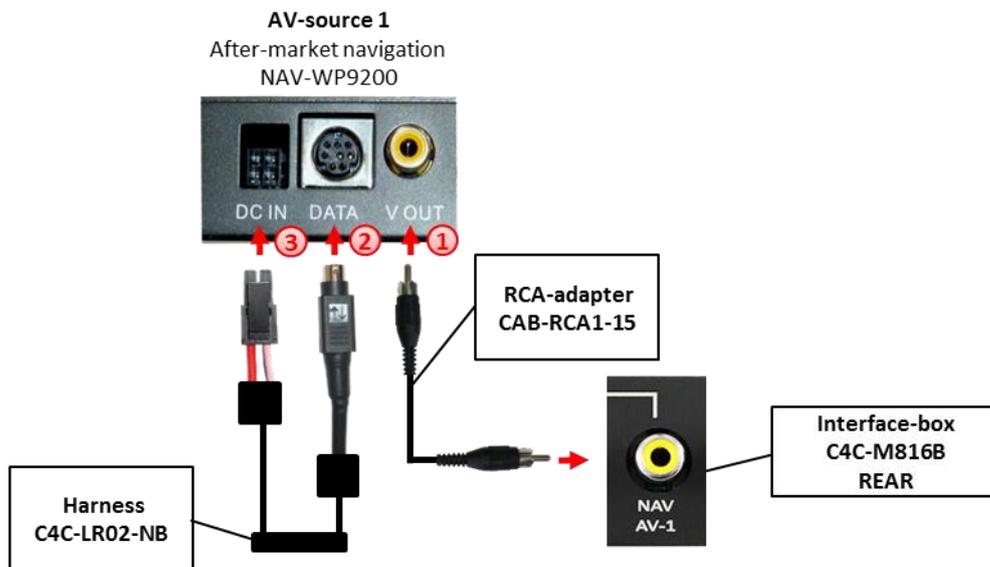
① Connect video RCA of NAV-WP9200 to female RCA connector NAV-AV1 on the rear of the interface-box C4C-M816B by RCA-adapter CAB-RCA1-15.

② Connect the round male 8pin connector of harness C4C-LR02-NB to the round female 8pin connector DATA of the NAV-WP9200.

③ Connect the female 4pin connector of harness C4C-LR02-NB to the male 4pin connector DC-IN of the NAV-WP9200.

3.4.2.1. Special case: Activation of the NAV-button

With the loose green-black cable of harness C4C-LR02-NB it is possible to activate the NAV-button.
- ●● +12V = NAV-button activated

3.4.3. Factory rear-view camera
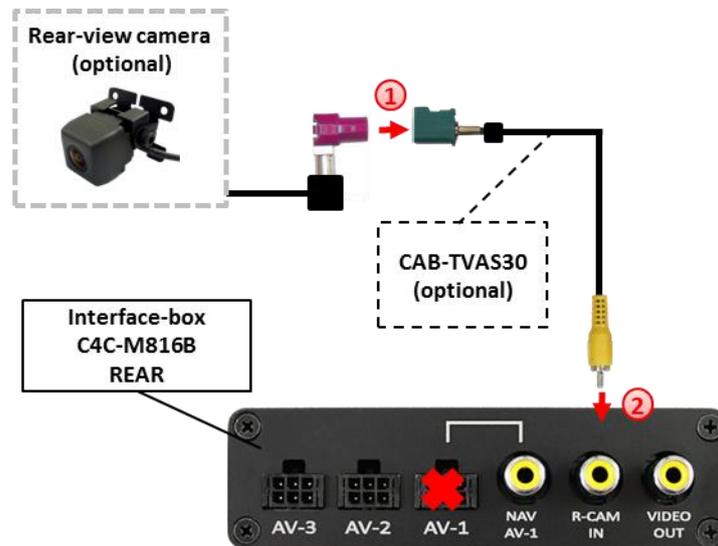
① If there is a factory rear-view camera installed remove the female Fakra-connector of the factory rear-view camera and connect it to the male Fakra-connector of the optionally available adapter CAB-TVAS30.

② Connect the video RCA of the optionally available adapter CAB-TVAS30 to the female RCA connector R-CAM IN of the interface-box C4C-M816B.
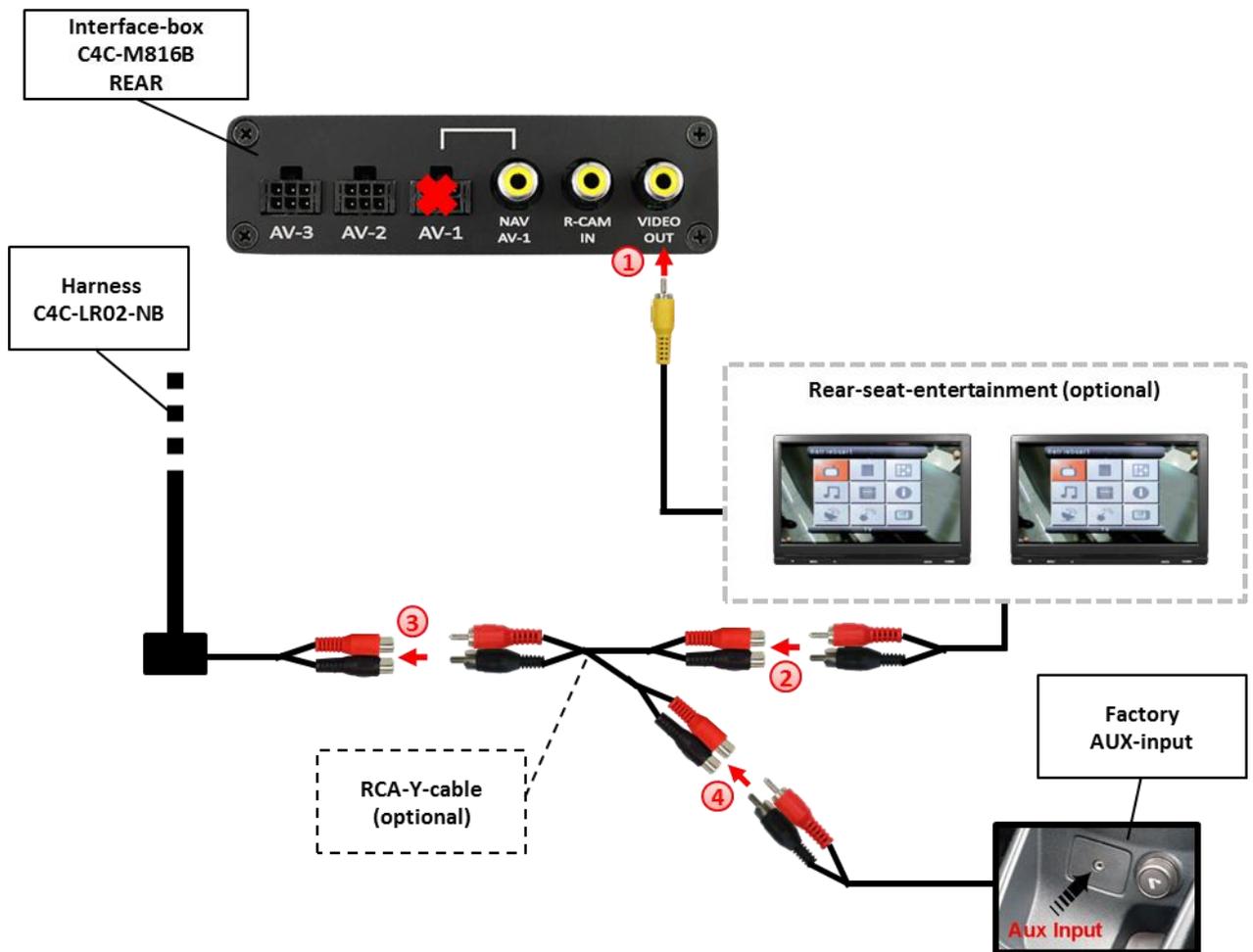
3.4.4. After-market rear-view camera
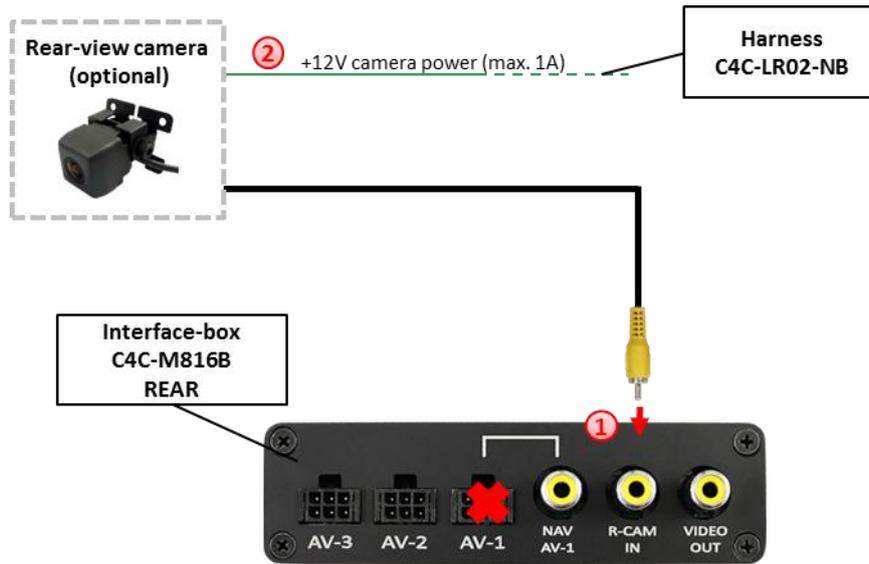
(1) Connect the video RCA of the after-market rear-view camera to the female RCA connector R-CAM IN of the interface-box C4C-M816B.

(2) Connect the green wire of harness C4C-LR02-NB to the camera power supply (+12V max. 1A). The green wire is high (+12V) when reverse gear is engaged.

Note: Only compatible to NTSC-cameras.

3.4.5. Rear-seat-entertainment

1. Connect the video RCA of the rear-seat-entertainment to the female RCA connector VIDEO-OUT on the rear of the interface-box C4C-M816B.

2. Connect the audio-RCA of the rear-seat-entertainment to the female RCA connectors of the optional RCA-Y-cable.

3. Connect the audio RCA of the optional RCA-Y-cable to the female RCA connectors of the harness C4C-LR02-NB.

4. Connect the audio RCA of the factory AUX-input to the female RCA connectors of the optional RCA-Y-cable (see chapter "Connection to the factory AUX-input").

Note: The last source keeps active on rear-seat-entertainment if you switch the navigation to OEM mode.
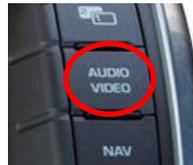
4. Operation

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 c.LOGiC as current AV-source

At first **activate** the **AUX** to choose the c.LOGiC as current AV-source:

- press **AUDIO/VIDEO button**
- choose **My Music**
- choose **Option +**
- choose **AUX**

Press **AUDIO/VIDEO button for 3 seconds** after activation of AUX to select the c.LOGiC as current AV-source.

Short press **AUDIO/VIDEO button** to switch the AV-sources. Each repetition will switch to the next enabled input. If AV3 isn't activated it will be skipped.

4.3. Control of the after-market navigation NAV-WP9200

It is possible to control an after-market navigation NAV-WP9200 connected to AV1 by factory touch-screen.
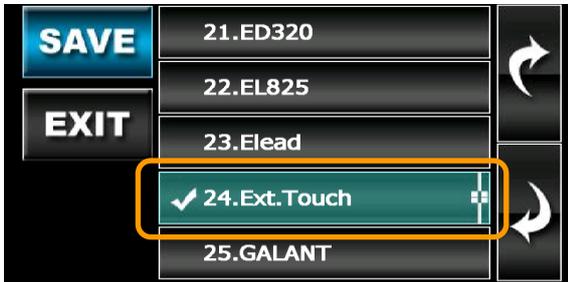
Do the following settings of the after-market navigation NAV-WP9200:

The Password is"7777"

Set in the panel menu point 24 "Ext. Touch" by remote control to activate the control by factory touch-screen.
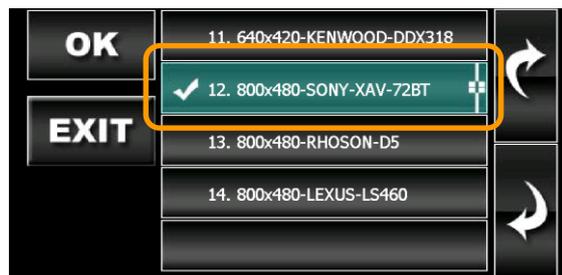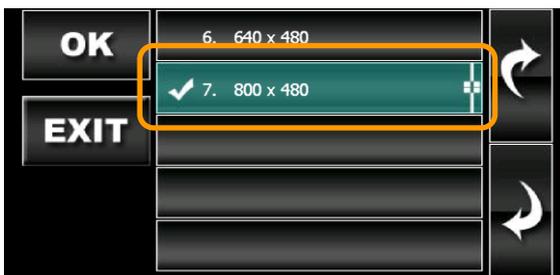

Calibrate the factory touch-screen in the calibration menu.

Install the navigation software iGo version 3D Europe in the system menu.

Set the resolution to "800x480" and after it to point 12 "800x480-SONY-XAV-72BT".

 Choose "NTSC-M" and set brightness to 125 and contrast to 155 in the adjusting menu.

4.4. Assigning device controls for connected AV-sources (AV2/3)

After selecting the c.LOGiC as current AV-source (see chapter "Selecting the c.LOGiC as current AV-source") choose the relevant AV-source (AV2 or AV3) by short pressing the AUDIO/VIDEO button. After it:

- Press AUDIO/VIDEO button for 3 sec.(back into the factory mode)
- Press AUDIO/VIDEO button for 10 sec. (interface switches to the last AV-source and starts the programming mode), the blue LED is blinking fast
- **within 40 seconds**, enter the device-related IR-code for AV2 (AV3) as described in device control table (appendix A) by touch-screen, see picture of apportionment of the numbers below

- the blue LED is blinking as often as the corresponding number of the RC-code (e.g. the blue LED is blinking 10 times for RC-code "10").
  Do not press any button or the touch-screen while the blue LED is blinking because the programming will not be stored and must be restarted!!!

Note: The IR-control channels for AV2 and AV3 are preset to RC-Code 41 compatible DVB-T tuners.

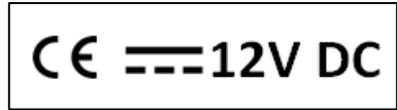### 4.5. Control of the AV-sources by touch-screen (DVB-T/ DVD)

It is possible to control the AV-sources connected to AV2 and AV3 by factory touch-screen. The factory touch-screen is divided into 9 areas. The picture below shows the functions of the AV-source which can be executed by short pressing (left function) and long pressing (about 2 sec., right function) the appropriate touch-screen area. The function description equals the remote control buttons of the AV-sources' remote control.
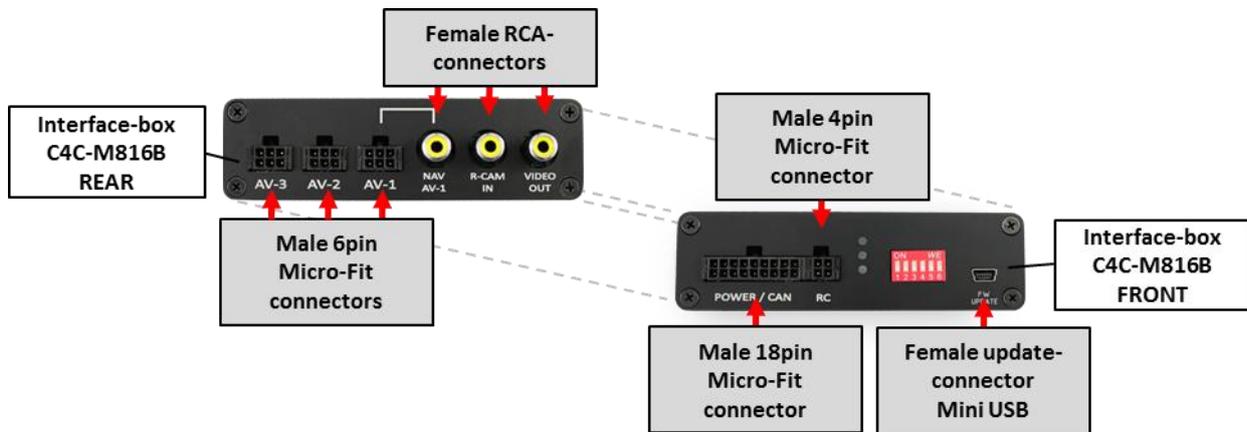

Note: Additionally to the control via factory touch-screen, it is possible to install the original IR-sensor of the AV-source. By using the Y-adapter STA-Y for the IR-Port of the AV-source, the controls of touch-screen AND device's IR-sensor can be connected and used simultaneously. Installation of the IR-sensor is recommended as the controls via touch-screen are limited, and not all functions may be covered.

5. Specifications

Operation voltage	10.5 – 14.8V DC
Stand-by power drain	11mA
Operation power drain	36mA
Power consumption	0.5W
Temperature range	-30°C to +80°C
Weight	190g
Measurements (box only) B x H x T	105 x 30 x 84 mm

CE ===12V DC

6. Connections (interface-box)

Female RCA-connectors

Interface-box C4C-M816B REAR

Male 6pin Micro-Fit connectors

Male 4pin Micro-Fit connector

Interface-box C4C-M816B FRONT

Male 18pin Micro-Fit connector

Female update-connector Mini USB