

NAV-TV

INTERFACING THE FUTURE

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AUDI R-CAM

NTV-KIT435



Overview

The AUDI R-CAM Kit allows the user to add a single video input and a backup camera input to the factory media screen in select Audi vehicles with the **external MMI media system** (MMi controls on console, not the radio face). Audio integration requires that the vehicle have a factory audio input.

Kit Contents



AV Input Harness



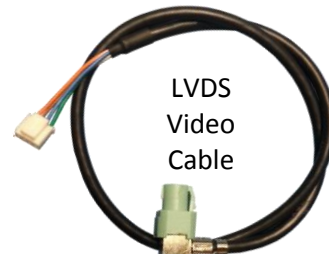
AUDI R-CAM Interface



Rear-Camera power cable



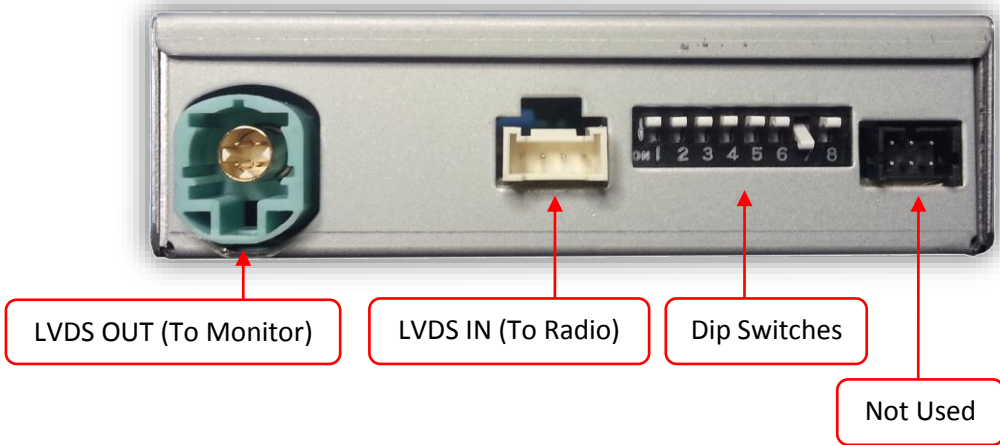
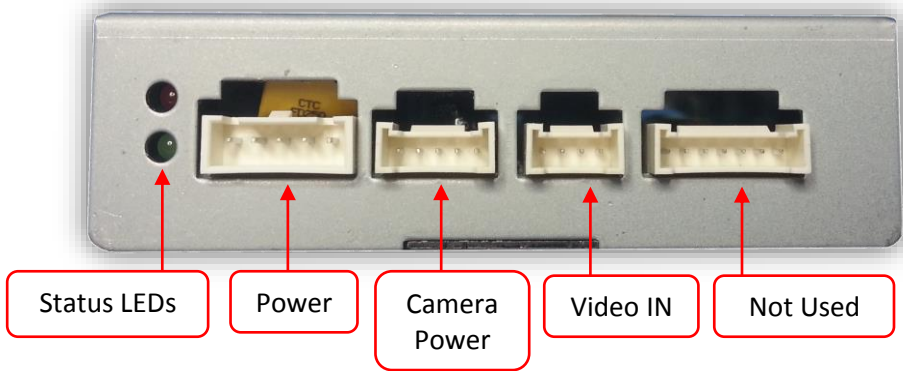
Power Harness



LVDS
Video
Cable

Agreement: End user agrees to use this product in compliance with all State and Federal laws. NAV-TV Corp. would not be held liable for misuse of its product. If you do not agree, please discontinue use immediately and return product to place of purchase. This product is intended for off-road use and passenger entertainment only.

Interface Connectors



Dip Switch Settings* Configure prior to installation

| Dip SW: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------|-------------|------------------|-----------|-----------|-----|-----------------|-----------------------|------------------|
| UP | Enables RGB | Enables Video IN | See Below | See Below | N/A | Hide Park Lines | Factory or no Rev-Cam | A/M NAV (RGB IN) |
| DOWN | Skips RGB | Skips Video IN | See Below | See Below | N/A | Show Park Lines | Aftermarket R-CAM | OEM NAV |



***Note: If the dip switches are not configured prior to installation you must remove power to the unit prior to making adjustments to the dip switches.**

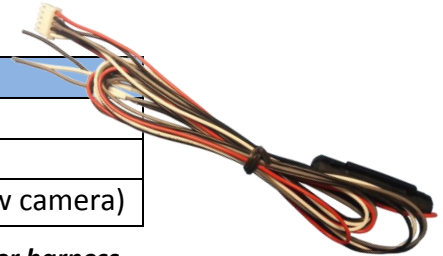
| | A4 | | | Q3 | | | A6 | | | Low Res | |
|---------------|----|---|--|----|---|--|----|---|--|---------|---|
| Dip SW 3 & 4: | 3 | 4 | | 3 | 4 | | 3 | 4 | | 3 | 4 |
| UP | X | X | | X | | | X | | | | |
| DOWN | | | | | X | | X | | | X | X |

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Installation

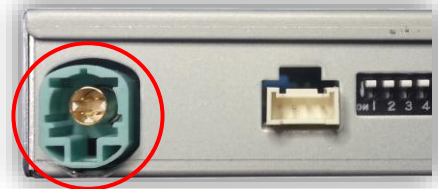
1. Locate and remove the MMi module (radio with SD slots). In some vehicles this is located in the glove box and others it is beneath the screen in the dashboard. Disconnect any associated harnesses and set the MMi radio aside.
2. Gather the provided **Power Harness** from the AUDI R-CAM kit. Connect the following wires to the car:

| Interface wires | Connect to car |
|-----------------|---|
| Black (GND) | Chassis Ground |
| Red (ACC) | 12v (+) Accessory |
| Gray (Rear) | Reverse lamp 12v (if adding rear view camera) |

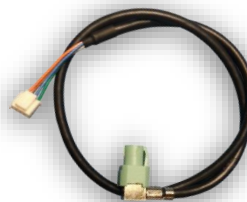


***Note: No other wires are used from the power harness.**

3. Locate the keyed, 4-pin, round connector that runs up to the factory monitor (removed in step 1) from the MMi module. Connect this factory plug to the port at the AUDI R-CAM interface labeled '**LVDS OUT**'.



4. Connect the smaller white plug side of the provided **LVDS Video Cable** to the port on the AUDI R-CAM interface labeled '**LVDS-IN**'.



5. Connect the free end of the provided **LVDS Video Cable** back to the factory radio at the appropriate port.

6. Connect the AV Input cable to the port on the AUDI R-CAM interface labeled '**R-CAM & V-IN**'. If you're only connecting a reverse camera (and not the secondary input), the signal input from the camera must connect to the RCA labeled '**RCAM**'.



7. **Optional:** Connect the provided **Rear-Camera power cable** to the port on the AUDI R-CAM interface labeled '**R-CAM**'. These two wires (Black & Red) provide ground & 12v (+) **when in reverse only**. If your camera draws more than 1 amp, use the red wire from this plug to **trigger a relay instead (for cam power)**.



8. Adjust dip switches on the AUDI R-CAM interface properly, refer to the chart on page 2 for qualifications.
9. Connect the white plug from the **Power Harness** to the port on the AUDI R-CAM interface labeled '**Power**'.
10. Reconnect all harnesses back to the radio, start the car and test for proper functionality before replacing dash pieces.
11. **Note:** *All other included harnesses not mentioned in this manual are not needed for most installations. If you would like to know more about the full capability of this interface, contact NAV-TV tech support at 561-955-9770. Additional features not mentioned in this manual are not supported by NAV-TV at this time.*

FAQs

Q. I cannot switch A/V sources.

A. Check IR or toggle switch connection. Check the LEDs on the interface, if nothing is lit up with vehicle ignition, check power/ground connections.

Q. All I see on the display is a black screen (no factory image pass-through).

A. Make sure the video cables (IN/OUT) are connected at the proper location (Screen/Radio/NAV DRIVE).

B. Make sure the video cables are seated all the way.

C. Make sure Dip Switches 5 & 6 are set correctly (resolution or screen size).

D. Make sure the 10-pin, square plug from **step 3** is connected in the proper orientation (note keyway!).

Q. Displayed image color is not proper (too dim or color seems wrong).

A. Try to select 'INITIAL' in OSD menu.

Q. Rear camera image does NOT appear.

A. Make certain Dip Switch #7 in set **down** for aftermarket camera, or **up** for a factory camera.

B. Try swapping the CAN connection wires. This will not do damage, if it is hooked up wrong it will only not work.

C. Make certain the camera is properly powered. Check voltage **at the camera itself**.

D. Try an alternative video source, don't assume the power/ground is correct unless you've checked it **with a multi-meter!**

E. If this is a CAN-connected module and you've connected the CAN wires, try using the gray wire (*not all interfaces have this wire!*) instead of the CAN connection for reverse activation. You'll also need to change the **Rear Select** option in the **Menu of Factory (MENU 2)** under **UTIL** or **PARK**. Refer to the **Menu Adjustments** section.

Q. Unwanted A/V mode is displayed upon a toggle press (A/V source switching order: OEM->RGB->AV1->AV2->AV3->OEM).

A. Check DIP Switch Setting. Refer to page 2.