

# NAV-TV

INTERFACING THE FUTURE

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## AUDI-09 INT MMi

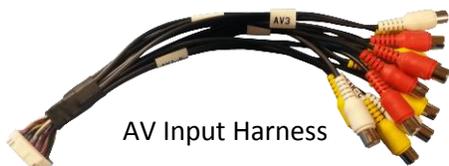
NTV-KIT186



### Overview

The AUDI-09 INT MMi Kit allows the user to add up to 3 video inputs and a backup camera input to the factory media screen in select Audi vehicles with the **internal MMi media system** (MMi controls on vertical radio face, not console). Audio integration requires that the vehicle have a factory audio input.

### Kit Contents



AV Input Harness



Remote



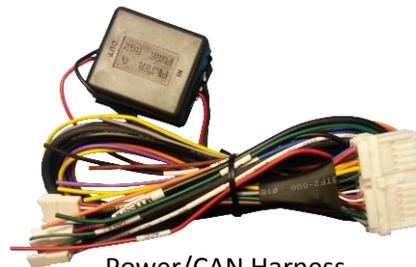
Input Toggle Switch



IR Eye Harness



Audi 09 Interface



Power/CAN Harness



Video Sub-Board



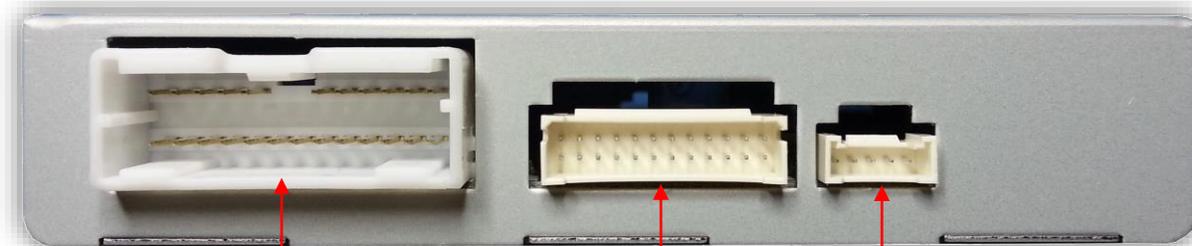
Sub-Board cable



LVDS Video Cable

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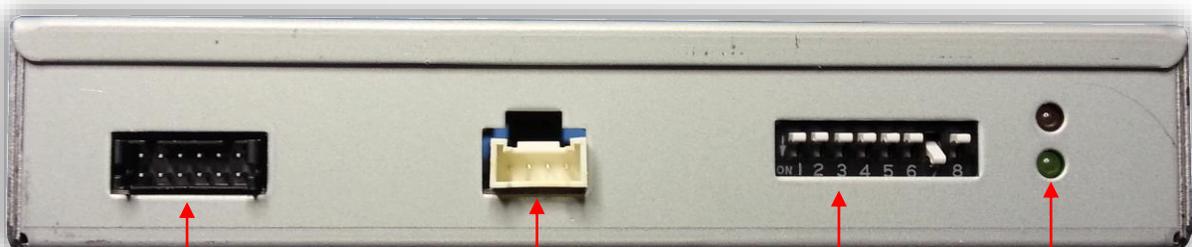
## Interface Connectors



Power/CAN

AV IN/OUT

Camera power



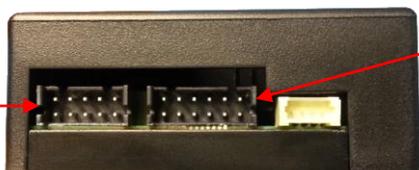
LCD IN/OUT (Sub-Board Cable)

Touch IN/OU

Dip Switches

Status LEDs

LCD OUT (LVDS Video)



From Interface (Sub-Board Cable)

LCD-IN (from OEM cable)



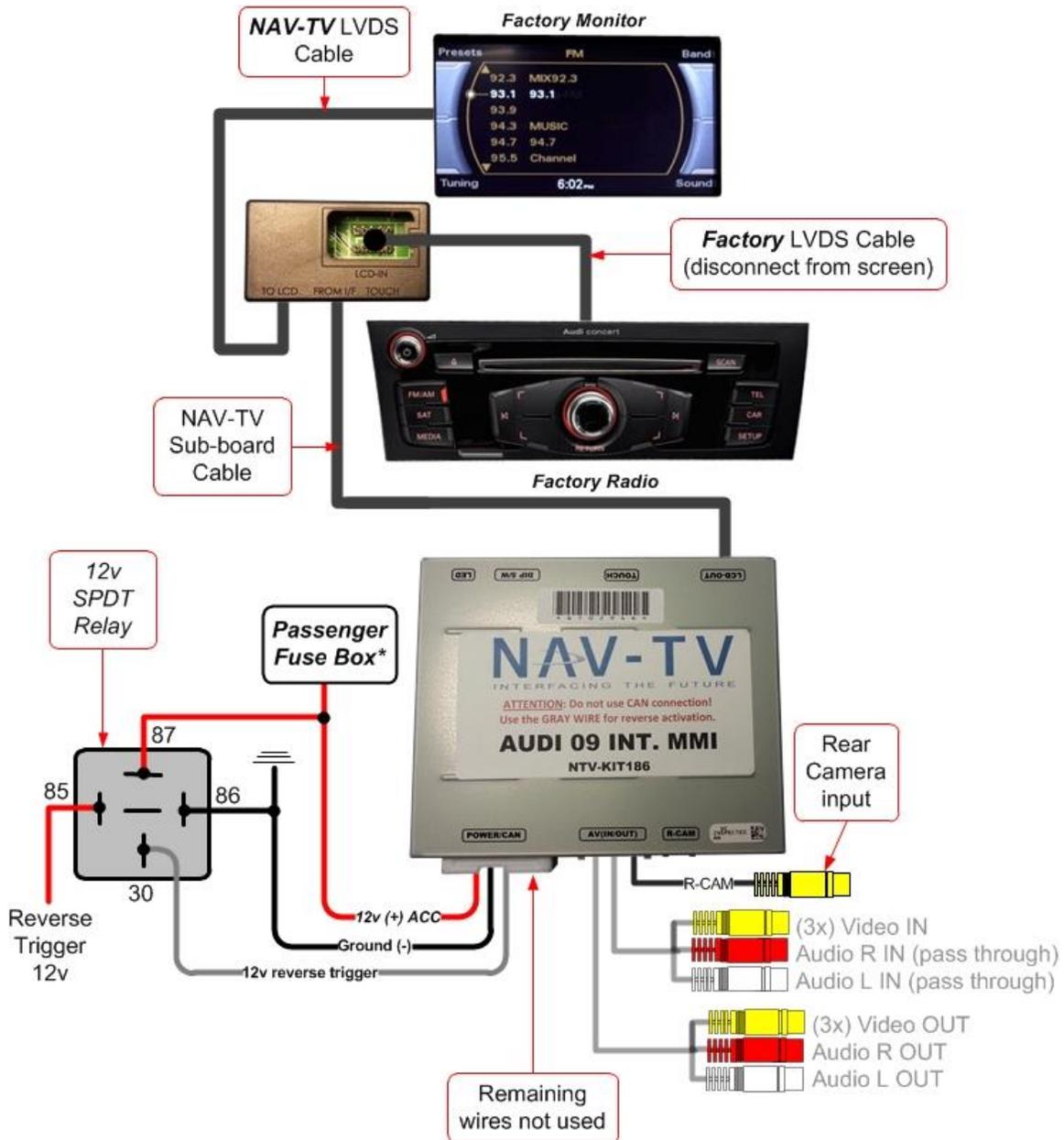
## Dip Switch Settings\* Configure prior to installation

| Dip SW: | 1           | 2          | 3          | 4          | 5    | 6    | 7                         | 8              |
|---------|-------------|------------|------------|------------|------|------|---------------------------|----------------|
| UP      | Enables RGB | Enables V1 | Enables V2 | Enables V3 | N.C. | N.C. | Factory or no Rev-Cam     | No Factory NAV |
| DOWN    | Skips RGB   | Skips V1   | Skips V2   | Skips V3   | N.C. | N.C. | Enables Aftermarket R-CAM | Factory 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.**

Quick Connection Guide



- Video cable installation happens behind the *screen, no need to remove the radio*
- \*Accessory can be found at the passenger fuse box, typically **black/white** or **black/blue**
- Drop the glove box for easiest install
- Use reverse light to **trigger relay for reverse to Gray wire, otherwise intermittent reverse activation may result!**
- If you have no factory image after connecting to the provided sub-board, **rotate the 10-pin square connector upside down.**

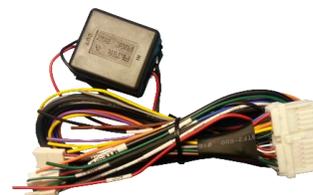


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## Installation

1. Remove the factory radio and screen. This usually requires pulling panels and removing a series of screws. Disconnect any associated harnesses and set the radio and screen aside.
2. Gather the provided **'Power/CAN Harness'** from the AUDI 09 kit. Connect the following wires to the car:

| Interface wires | Connect to car                                  |
|-----------------|---|
| Black (GND)     | Chassis Ground                                  |
| Red (ACC)       | Accessory                                       |
| Gray (Rear)     | Reverse lamp 12v <b><i>through a relay*</i></b> |



***\*Connect this wire to the output (pin 30) of a 12v SPDT relay. If no relay is used, reverse activation may be intermittent.***

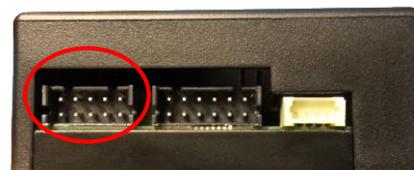
***Note: CAN connection is not supported at this time. You must connect the GRAY wire to a reverse lamp for reverse activation!***

3. Locate the keyed, 10-pin square connector that was removed in step 1. Connect this factory plug to the provided **Video Sub-Board** at the port labeled **'LCD-IN'**. ***Note: pay attention to the orientation of this connector. There is a drawing that shows you how to properly connect the plug via the keyway. If connected backwards, the factory image will not pass through properly.***

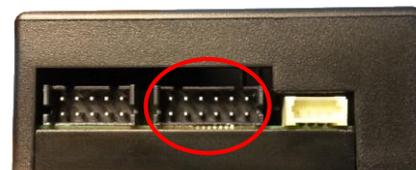
Note Keyway!



4. Connect the smaller plug side of the provided **LVDS Video Cable** to the port on the **Video Sub-Board** labeled **'TO LCD'**. As always, note keyways.



5. Connect the free end of the provided **LVDS Video Cable** back to the factory LCD monitor.
6. Connect the provided **Sub-Board Cable** to from the port at the **Video Sub-Board** labeled **'FROM I/F'**.



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7. Connect the free end of the **Sub-Board Cable** to the main AUDI 09 interface at the port labeled '**LCD-OUT**'.



8. Connect the AV Input cable to the port on the AUDI 09 interface labeled '**AV IN/OUT**'. If you're only connecting a reverse camera (and no other inputs), the signal input from the camera must connect to the RCA labeled '**REAR-C**'. Refer to the dip-switch settings chart to skip/enable AV sources upon toggle switch presses (optional. Page 2).



9. Adjust dip switches on the AUDI 09 interface properly, refer to the chart on page 2 for qualifications.
10. Connect the white plug from the '**Power/CAN Harness**' to the port on the AUDI 09 interface labeled '**Power/CAN**'.

11. **Optional:** Connect the remote eye to the port labeled '**IR**' (on the power harness) and leave it in clear view of the driver (often it can be stuck inside a vent). This connection would be necessary if you want to be able to adjust anything from the AUDI 09 interface's menu. **Refer to 'Menu Adjustments' for menu options.**

12. **Optional:** Connect the provided momentary toggle switch to the port on the AUDI 09 Power/CAN harness labeled '**MODE SW**'. Pressing this switch with the ignition **on** will cycle the screen modes as follows: **factory screen > NAVI (RGB) > AV1 > AV2 > AV3 > factory screen**. Please refer to the dipswitch section on page 2 for input settings.



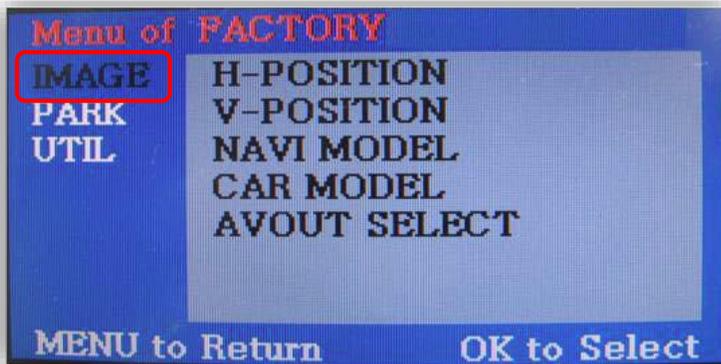
13. Start the car and test for proper functionality before replacing dash pieces.

14. **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.*

Menu Adjustments

Before you start:

- Make sure the car's ignition is on and radio is booted/settled
- You must be in '**NAVI**' (**RGB**), '**AV1**', '**AV2**' or '**AV3**' mode (on display screen)
- Use the remote '**OK**' button to switch modes, or use the provided input toggle switch
- Hold the **LEFT ARROW** for 3 seconds. The **Menu of FACTORY** will appear on screen.

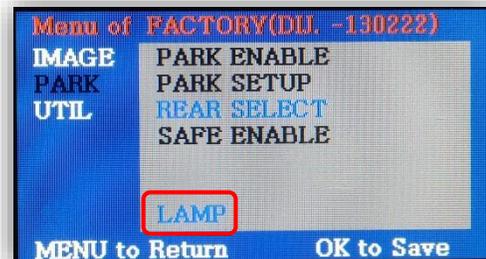
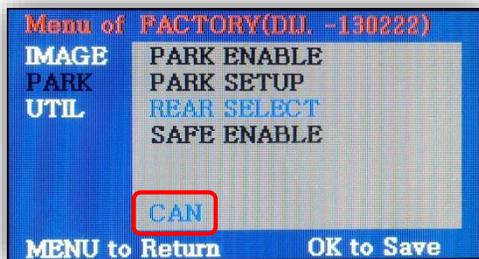


**IMAGE MENU**  
-The only setting that may need necessary adjustment here would be **CAR MODEL** (BMW/AUDI KITS)  
**Note: on some kits, this option is located under 'UTIL'**  
-The remaining settings are optional and install dependent.



**PARK MENU**  
**PARK ENABLE:** Rear-CAM guidelines ON/OFF  
**PARK SETUP:** Rear-CAM guideline positioning  
**REAR SELECT:** Change **rear camera activation** from CAN to LAMP (gray wire) **Note: on some kits, this option is located under 'UTIL'**  
**SAFE ENABLE:** If 'ON', prevents AV sources from showing (unless you ground **Blue 'PARKING' wire**)

1      **Rear-Select CAN to LAMP adjustment**      2



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## 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.