

# NAV-TV

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NTV-DOC307

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## PCM41-CAM

NTV-KIT850



Quick Reference
(LVDS) Video Cable connects at <b>Radio</b>
Power/CAN T-Harness connects at <b>Radio</b>
Unit requires <b>Constant 12v</b>
<b>Do not power camera with reverse light.</b> Use ACC or brown wire (through relay)

### Overview

The PCM4.1-CAM Kit interfaces a backup camera input (with active parking lines) and 1 additional video input (front cam, etc) to the factory media screen in the 2017 Porsche Panamera equipped with PCM4.1, 2017+ AUDI (new system with Virtual Cockpit, 8" screen) and 2017+ Golf (7.5 GEN, 9" screen only). Installation is performed behind the radio (glove box). This interface will also enable Video in Motion, if desired.

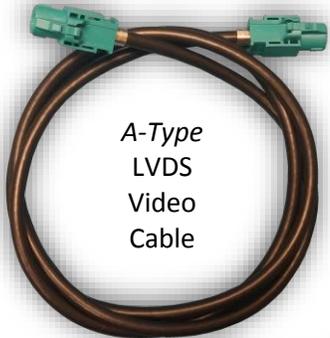
### Kit Content



HD-LINK Optional KIT800



PCM4.1-CAM Interface



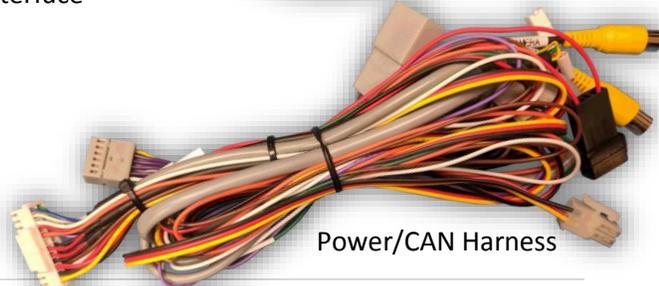
A-Type  
LVDS  
Video  
Cable



Infrared Receiver



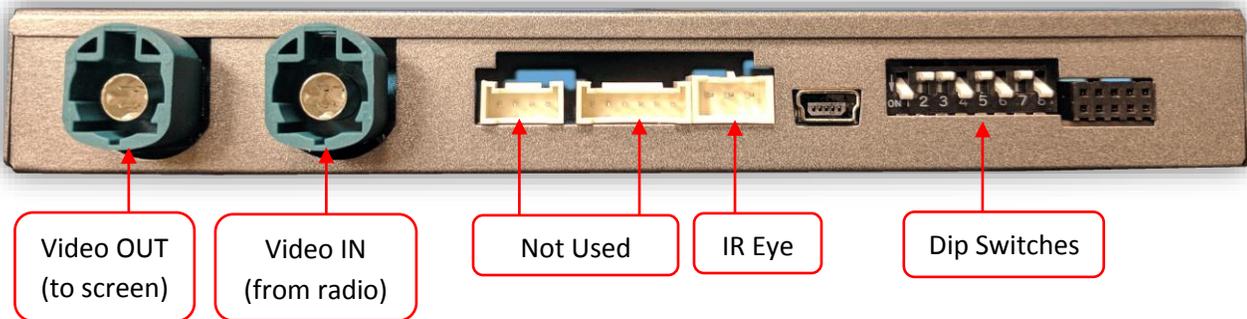
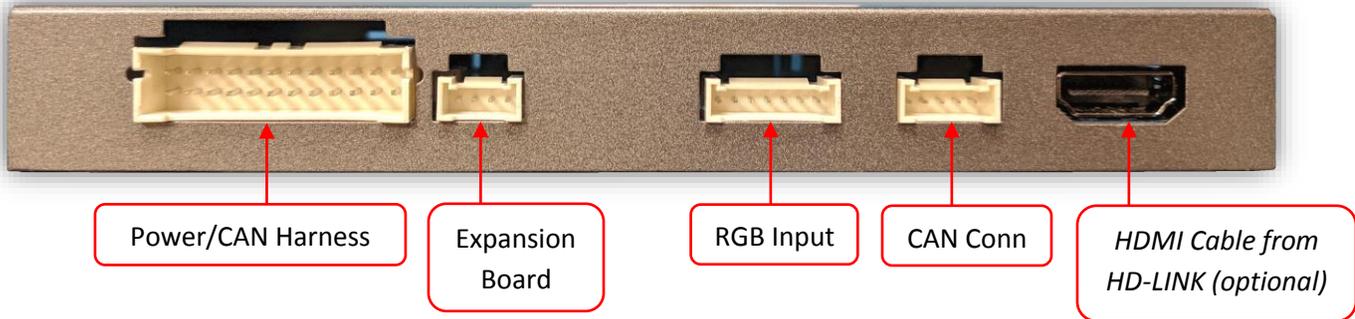
OSD Menu Remote



Power/CAN Harness

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Interface Connectors



Dip Switch Settings

Dip SW:	1	2	3	4	5	6	7	8
UP	NORMAL OP	KEEP UP	VIM DISABLE	OEM REAR CAMERA	VEH SETTING	VEH SETTING	KEEP UP	KEEP DOWN
DOWN	Enter MENU	KEEP UP	VIM ENABLE	ADDING REAR CAMERA	VEH SETTING	VEH SETTING	KEEP UP	KEEP DOWN



PORSCHE PCM4.1



VW GOLF (GEN 7.5)



'17 AUDI (8" SCREEN ONLY)

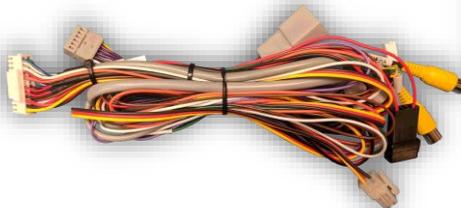
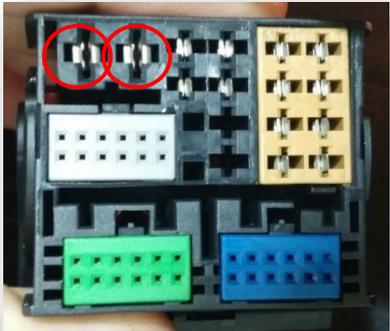
**Note:** Remove power to the unit prior to making adjustments to the dip switches.

Installation (Porsche)

Installation connections remain the same for all vehicles (except AUDI – see note below), be sure to set dip switches appropriately.

1. Remove the factory radio tuner, this requires dropping the glove-box. Disconnect any associated harnesses and set the radio aside.
2. Grab the provided **Power/CAN Harness** from the PCM41-CAM kit. Connect the following wires to the car radio's main power plug:

Interface wires	Connect to car	Radio Plug
Black (Ground) (-)	Chassis Ground	PIN 15 (Brown)
Red (12v) (+)	<b>AUDI:</b> ACC 12v (fuse box)	---
	<b>Porsche/VW:</b> Constant 12v	PIN 16 (Red/Yellow)
Green (Rev 12v in)*	Reverse Lamp (+)	---



\*Note: this Green wire is ONLY required if CAN connection does not switch display to reverse image while in reverse properly, or for an analog camera trigger (selectable AV1 or reverse camera)

3. Remove the **OEM, Gray LVDS Video Cable** from the radio and connect it to the port on the PCM41-CAM interface labeled **LVDS-OUT**.

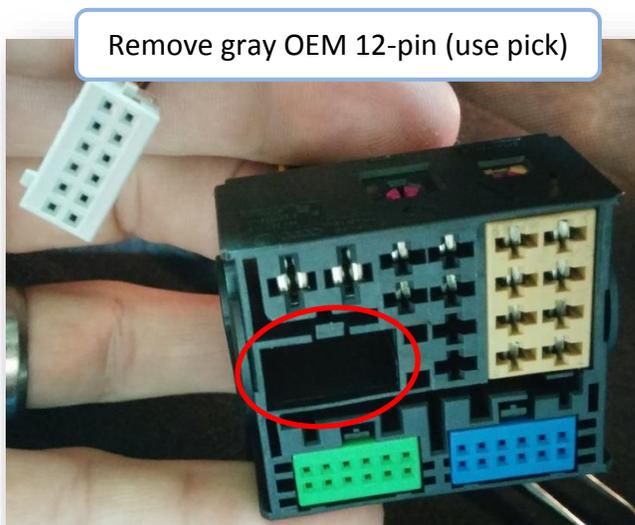


4. Connect the provided 4-pin LVDS cable (teal) to the port on the PCM41-CAM interface at the port labeled '**LVDS IN**'. Connect the other end of this cable to the **Gray** port on the radio tuner.



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5. Connect the provided 12-pin plug & play portion from the main power harness to the main factory quad-lock connector as shown below. Pay attention to the orientation, as this is vital to proper operation:

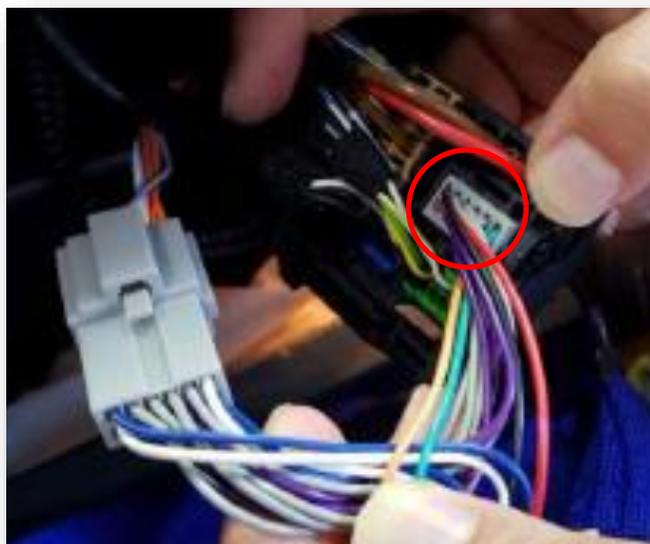


Remove gray OEM 12-pin (use pick)



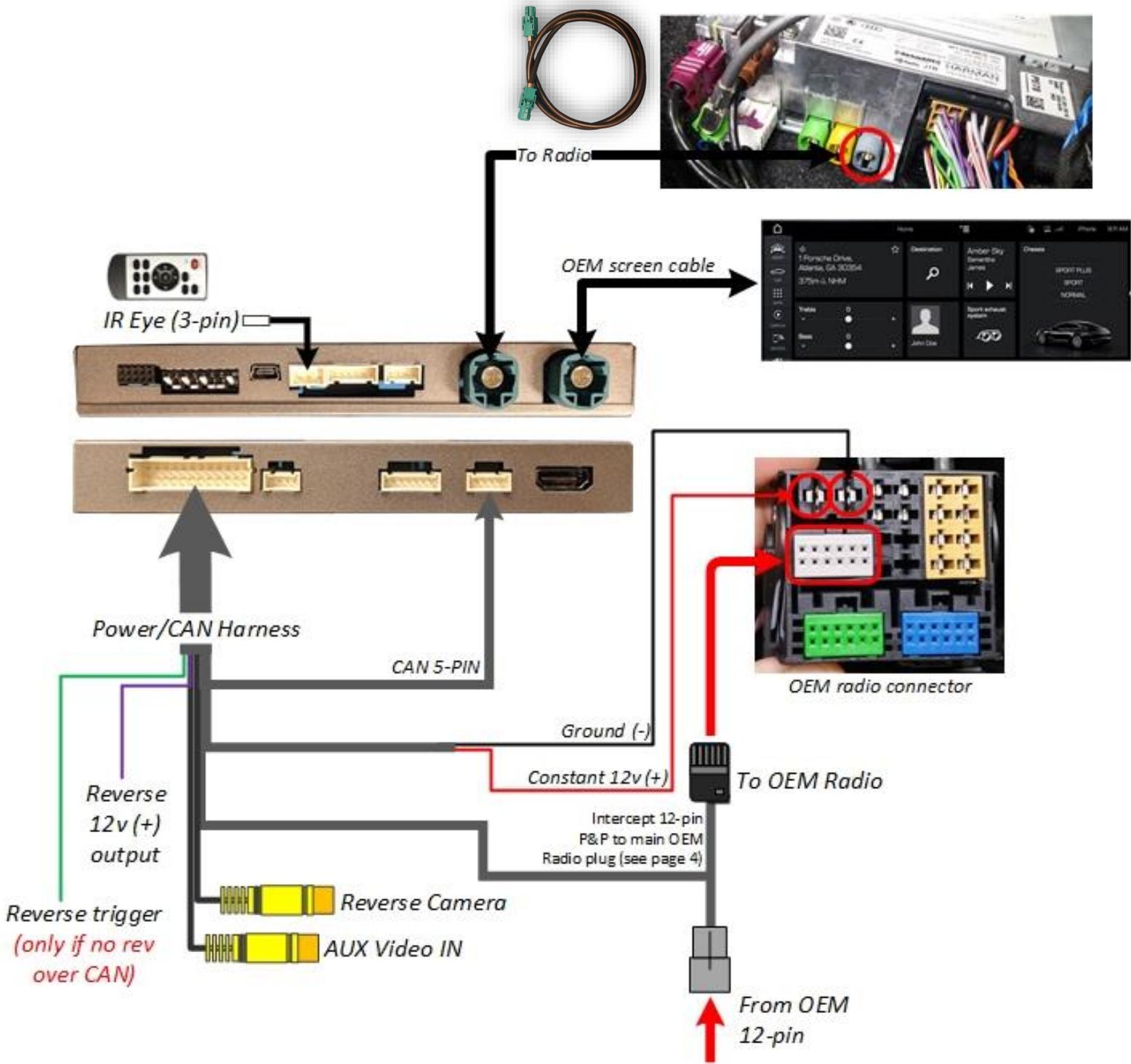
Connect OEM 12-pin to provided 12-pin (female plug).

Connect the keyed female 12-pin side of the T-Harness to the OEM main quad-lock connector as shown.



6. Connect the main power harness to the PCM41-CAM interface labeled *POWER*.
7. Conenct the 5-PIN (2 wires populated) connector from the main harness to the PCM41-CAM interface labeled *CAN*. *NOTE: this MUST be connected, for reverse over CAN to function.*
8. Run and connect ground and power to your camera (use an ACC source for power, or use the provided **purple wire** for reverse 12v only).
9. Connect the video feed RCA from the camera to the RCA among the main power harness labeled 'CAMERA'.
10. Connect the white plug from the **Power/CAN Harness** to the port on the PCM4.1-CAM interface labeled 'POWER'.
11. **Optional:** If adding an additional video input (including front camera), connect the video signal to the RCA among the Power/CAN Harness labeled 'CVBSIN'.
12. **Optional:** if adding the HD-LINK kit (NTV-KIT800) for adding HDMI input to the system, see page 8 for wiring and setup information.
13. Start the car and test for proper functionality before replacing any dash pieces.
14. ***If the screen does not transition to reverse image when in reverse, connect the Green wire labeled 'REVERSE' to an OEM reverse lamp 12v (+) wire. This is sometimes the case with manual transmission-equipped vehicles.***

PCM41-CAM Install Diagram



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PCM41-CAM Menu Adjustments

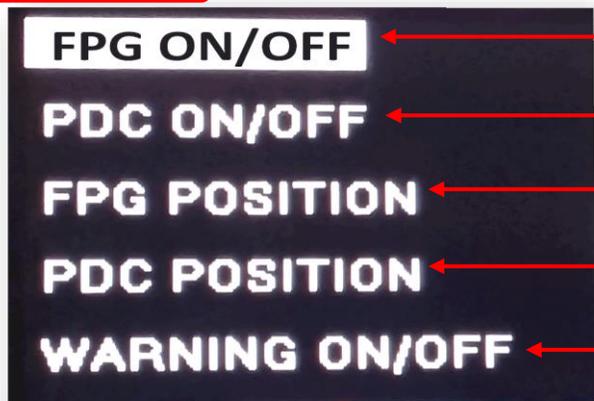
Before you start:

- The IR-Eye must be connected to the interface
- Make sure the car's ignition is on and radio is on
- You must be in **Reverse Camera** mode.
  - **Reverse Camera Mode** adjusts Reverse Camera Settings
- Press the **OK BUTTON 4 times** (numbers will display per press), then press **POWER**.
- The **OSD Menu** will appear on screen (auto-time out in about 5 seconds if no action occurs).



Select choice & Return

Reverse Menu



Functional Parking Guidelines ON/OFF

Parking Distance Control ON/OFF (while in reverse)

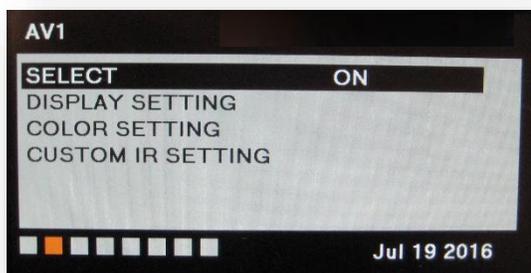
Adjust FPG Position

Adjust PDC Position

'Safe to move?' ON/OFF



AUX Video Menu



If adding a front camera OR Aux Video source:

1. Disconnect POWER/CAN Harness from interface
2. Place DIP SWITCH 1 in the DOWN position, reconnect power
3. Press the **NAVI** button on the radio to activate 'NAVI' screen
4. Press **OK** button on remote 4 times, then press **POWER**

If the user wants only an AUX video input **without front camera**, set **AV1 SELECT** to **ON**, scroll to the end (right side) of the menu and exit menu.

**FRONT CAMERA** setting is used when **the user wants automatic front camera switching**. Options for 5, 7, 9 or 11 seconds are user-selectable for the length of time the front camera input stays active once the vehicle is placed out of reverse.

**Once finished with settings**, place DIP SWITCH 1 back into the **UP position** and reset power to interface (if this step is not taken, the unused 'NAVI' input will show as an additional video input when cycling video inputs)

## Adding HD-LINK Adapter (HDMI Input)

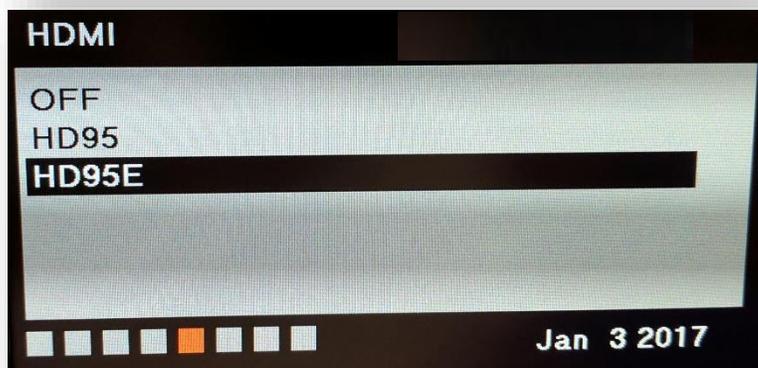
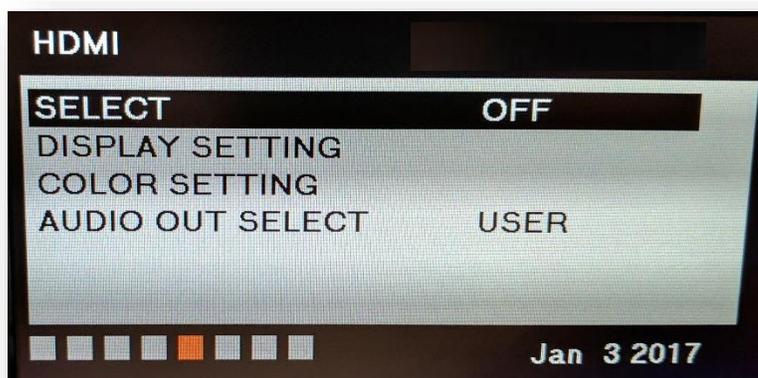
**Follow the instructions below when adding the HDMI adapter (HD-LINK) to enable HDMI input to the OEM screen:**

1. Put dip switch #1 in the **DOWN** position.
2. Activate the 'NAV INPUT' by holding the 'NAV' button (Porsche), Back Arrow steering wheel button (AUDI) or HOME button (VW)
3. Once 'NAV INPUT' shows on the screen, on the remote press the **OK BUTTON 4 times**, then press **POWER**.

4. Navigate to the 'NAVI' section.
  - a. Select 'HDMI' (5 blocks over)
  - b. Choose 'HD95E'
  - c. Press **MODE** on the remote to return and exit the OSD menu (or let it time out).



5. Replace dip switch #1 to the **UP** position.
6. Connect the **black wire** to ground (-) and the **red wire** to ACC power (+) from the main power connector on the **HD-LINK** adapter. The RCA's on this plug provide audio from the HDMI source.



## PCM41-CAM Operation (Porsche)

- Once all connections are made, placing the vehicle in reverse will display the connected camera image on the screen.
- If an AUX video source is connected to the secondary RCA (or HDMI was added), press and hold the **phone hang up button** on the steering wheel for 3 seconds to display this video source at any time.



- Alternatively (or if vehicle is not equipped with steering wheel controls), pressing the **NAV** button once will cycle between the navigation map and provided AUX video, if active (OSD menu).



- To enable Video in Motion, hold the **MEDIA** button for 7 seconds (while video is playing).



*NOTE: Dip switch #3 must be DOWN  
for VIM enable.*

## PCM41-CAM Operation (AUDI)

- Once all connections are made, placing the vehicle in reverse will display the connected camera image on the screen.
- If an AUX video source is connected to the secondary RCA (or HDMI was added), press and hold the **back-arrow button** on the steering wheel for 3 seconds to display this video source at any time.



*Press & hold*

- Alternatively (or if vehicle is not equipped with steering wheel controls), pressing the **NAV/MAP** button once will cycle between the navigation map and provided AUX video, if active (OSD menu).



- To enable Video in Motion, hold **Volume Down** (steering wheel) for 7 seconds (while video is playing).



*NOTE: Dip switch #3 must be DOWN  
for VIM enable.*

## PCM41-CAM Operation (VW)

- Once all connections are made, placing the vehicle in reverse will display the connected camera image on the screen.
- If an AUX video source is connected to the secondary RCA (or HDMI was added), press and hold the **HOME** button on the radio for 2 seconds to display this video source at any time.



- To enable Video in Motion, hold the **Volume Down** button for 7 seconds on the steering wheel (while video is playing).

*NOTE: Dip switch #3 must be DOWN  
for VIM enable.*

