

# NAV-TV

INTERFACING THE FUTURE

PCM3CAM  
 NTV-KIT100  
 Rev 2 BHM 03/18/15  
 NTV-DOC045

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## PCM3CAM-USB

Front and rear camera interface

Enables a backup camera and a secondary on the factory 2009 and Up Porsche PCM 3.0 Radios

Certain features are intended for passenger and off-road use only. User must obey all State and Federal regulations



Make sure your radio looks like this prior to installation

### Kit Contents



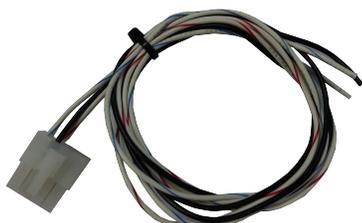
USB Cable (Updates)  
 NTV-CAB009



PCM3-CAM Module  
 NTV-ASY107



Plug & Play Harness  
 NTV-HAR111



VSW-R Trigger  
 Harness  
 NTV-HAR066



VSW-R Board  
 NTV-ASY187



VSW-R Harness  
 NTV-HAR301

V1 Switcher shown here, this has been replaced with the VSW-R in 03/15



### Filter Harness Description and Diagram

Wire Functions	Wire Colors	Fig. 2 - Connection plug on Can Filter
<ol style="list-style-type: none"> <li>CAN Hi to Vehicle.</li> <li>CAN Lo to Vehicle</li> <li>Chassis Ground.</li> <li>+12V Output to Camera.</li> <li>CAN Hi to PCM.</li> <li>CAN Lo to PCM.</li> <li>+12V Battery</li> <li>+12V Output to switcher and front Flir IR camera.</li> </ol>	<ol style="list-style-type: none"> <li>Yellow</li> <li>Blue</li> <li>Black</li> <li>White/Red</li> <li>Yellow</li> <li>Blue</li> <li>Red</li> <li>White/Blue</li> </ol>	<p>8 pin Molex connector</p> <p>Wire side view</p>

## Installation Part 1



1. Insert a soft pry tool into the space between the lower black fascia piece and the lower side of the dash and gently pry the fascia towards the rear of the vehicle to release the mounting clips. Follow the fascia around either clockwise or counterclockwise to release the remainder of the mounting clips. Set aside the fascia.



2. Remove (4) t20 torx screws from the sides of the radio and pull the radio gently out of the dash in order to disconnect all stock cables and antenna connectors.



3. View of rear of radio and stock radio harness. Remove the fiber optic connector from the original harness by gently prying up on the locking tab with a pick tool.

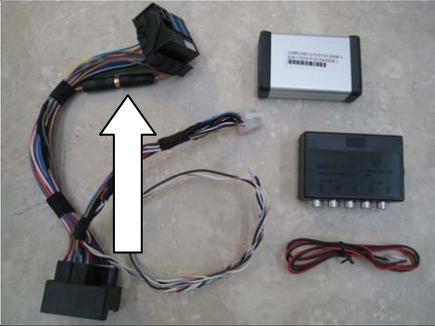


4. With the fiber unplugged from the factory harness plug the aftermarket harness into the original harness and secure it by closing the stock locking tab. Attach the PCM3CAM module to the aftermarket harness and secure the filter to the back of the radio cavity with either double sided tape or Velcro. Fold the harness in the cavity as shown to allow clearance for the radio.

## Installation Part 2



5. Drop the plastic panel over the passenger side kick panel area by taking out (1) t20 Torx screw and pulling the panel towards the floor. Run the black, white/blue and white/red wires from the new radio harness into the opening as in the picture to your left. These wires will power your reverse and front cameras, as well as the video switcher.



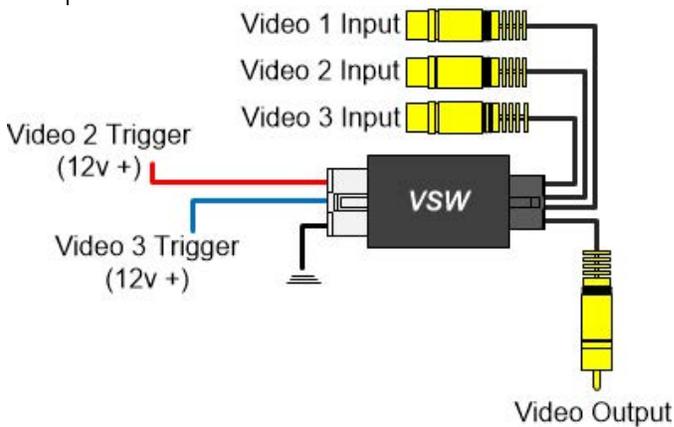
6. If your vehicle is not equipped with a stock camera and you are not installing a front camera then simply unplug the male RCA end from the female in the aftermarket harness and run your camera's video RCA directly to the female plug. Connect ground for the reverse camera to the black wire and 12 volt positive to the white/red from step 5 and insulate the white/blue wire. Skip to step 8.

### Vehicles with factory camera VSW-R installation

7a. Extend and plug the female RCA (radio side) of the harness into AV1 out. Extend and plug the male RCA (vehicle side) into AV1 in. Connect a front camera, for example, a Flir night vision camera RCA into Video 2 in. Connect the black ground wire from step 5 to both the ground of the front camera and the ground (black wire) from the video switcher. Connect the 12v wire (Video 2 Trig) of the switcher (white/red wire) to the white/blue wire from the module.

### Vehicles without factory camera switcher installation

7b. Extend and plug the female RCA (radio side) of the harness into Video Output. Plug the RCA from your aftermarket rear view camera into Video 1 input (VSW-R). Connect a front camera, for example, a Flir night vision camera RCA into Video 2 in. Connect the black ground wire from the switcher to the ground from the switcher, the reverse camera and the front camera. Connect the white/red wire to the 12v wire to your aftermarket back up camera. Connect the white/blue wire to the 12v wire on your front vision camera



8. Plug the fiber optic cable you unplugged in step 3 into the aftermarket harness. Reconnect all the antenna, power and all other connectors back into the radio and slide the radio back into the dash. Reassemble in the reverse order as steps 1,2 and 5. Now you are ready to proceed to the programming and operations section. Good job!

Read programming steps (1-2) completely before beginning, there is a timeout.

## Programming



1. With the radio booted fully, Press and hold the **+ button** on the steering wheel.
  - a. While continually holding down the **+ button**, press and hold down the **mute button**.
  - b. Continue to hold down the **mute button** and release the **+ button**.
  - c. Continue holding **MUTE** until 'Service' appears on screen.

Continue to Step 2.



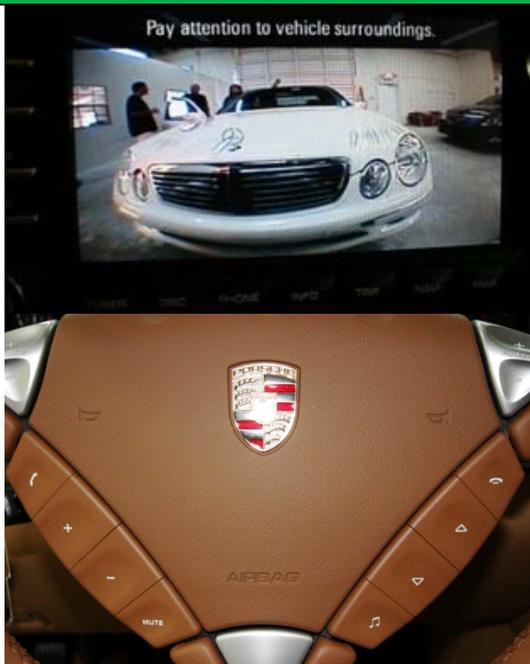
2. When **SERVICE** is displayed on the screen, press and hold the **up arrow** for **4 seconds** to program the PCM for reverse camera.

**NOTE:** If the PCM3-CAM module is ever removed from the original vehicle, you must first enter service mode and press the **down arrow** for **4 seconds** to deprogram the original PCM BEFORE the filter is removed. If this is not performed, the filter will not work on any other vehicle.



3. After the radio reboots first select the option button on the right of the PCM. Then select "rear view camera" and then make sure the "automatic" feature is highlighted. Automatic means that every time the vehicle goes into reverse the PCM screen will show the backup camera image.

## Operation



1. Place the vehicle in reverse and your image will appear on the screen. When putting the vehicle back in drive the image will stay on the screen for up to 20 seconds or until the vehicle reaches 7 mph.
2. To enable the rear view camera while in motions simply double click the mute button within 1 second. To deactivate the camera while in motion double click the mute button again.
3. If the switcher is used to switch between two cameras, the double click the mute command will alternate between reverse camera, factory screen, front camera, factory screen.
4. No matter what is showing on the screen the PCM will switch over to the reverse camera image any time the vehicle is placed into reverse.
5. This module is only intended for front and rear view cameras. You will always have the **"Pay Attention To Vehicles Surroundings"** disclaimer at the top of the screen.

**Note: Camera will not operate when the rear hatch is open.**

**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.**