

# NAV-TV

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3590 NW 12th Ave. Coral Springs, FL 33065 TEL 561-955-9770 FAX 561-955-9760

[www.nav-tv.com](http://www.nav-tv.com)

[info@nav-tv.com](mailto:info@nav-tv.com)

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## PCM3.1 AV 970

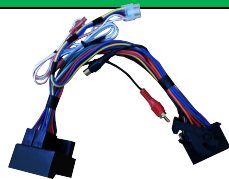
### NTV-KIT217

Audio/Video input and VIM for 2010 and up Porsche Panamera and 2011 Porsche Cayenne vehicles equipped with the PCM3.1 radio.

#### Kit Contents



CAN Adapter Harness  
NTV-HAR058



Radio T-Harness  
NTV-HAR111



MOST In-Line Fiber  
NTV-ASY195



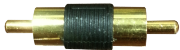
MOST Fiber  
NTV-ASY03



AV Interface



VTC-970 Filter



Male to male barrel  
NTV-CON018



USB Cable  
NTV-CAB009



AV Harness  
NTV-HAR055

#### Panamera Radio Removal



Retention Clips



1. Using a soft plastic pry tool, gently pry off the trim panel above the glove box. Start at the bottom of the panel and work around and remove.
2. On the driver's side, to the right of the steering column and to the left of the HVAC vent, gently pry off the trim panel.
3. Once both panels have been removed, find and identify 2 retention clips on each side toward the back of each vent. Using a flat blade screwdriver or plastic tool, simultaneously depress the clips while pulling out the vents.
4. With both vents removed, remove 2 T27 TORX screws on each side of the radio, then pull the radio straight out.

#### Cayenne Radio Removal

To remove the vents you will need a pair of Ford radio removal keys.

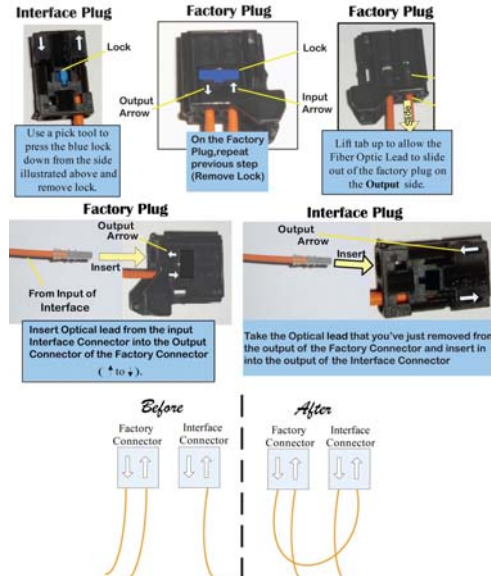
1. Inside the vent you will see 4 plastic clasps holding the vents in place. There will be 2 on either side of the vent.
2. Insert the ford keys into the vent with one side on the left and right (horizontally). The clasps have an open back, so when the key is inserted be sure that it goes through the clasp.
3. Once both keys are in place, squeeze the keys together to release the clasps. You may need to insert a plastic tool under the vent to help "work" out the vent.

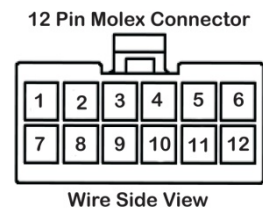

#### Removal of Vent



Locking Clasps

Locking Clasps

Installation	
<ol style="list-style-type: none"> <li>1. Disconnect the factory 40 pin plug from behind the radio and plug it into the supplied aftermarket 40 pin adapter harness.</li> <li>2. Unplug the fiber optic cable from the factory 40 pin plug. * Assemble the supplied fiber optic cable into the M.O.S.T. loop in the order pictured below then reinsert the optic cable into the supplied 40 pin plug in the same location as you removed it from on the factory connector (radio side). Plug in the new fiber terminal into the supplied OPV-970 board.</li> <li>3. On the OPV-970 power harness, find a reliable continuous power and ground connection. Connection at the T-harness is recommended (All connections should be soldered and insulated). Red is power and Black is ground.</li> <li>4. The supplied T-harness will have a pair of RCA's plugged into each other. Disconnect these two RCA's</li> <li>5. Connect the "VIDEO OUT" cable of the OPV to the RCA going towards the radio (female).</li> <li>6. Connect the "CAM IN" cable of the OPV to the RCA going towards the car (male). #</li> <li>7. Connect the external AV source to the OPV-970.</li> <li>8. Plug the VTC-970 into the 8 pin Molex connector of the T-harness.</li> <li>9. Insert the radio side of the supplied T-harness into the radio.</li> <li>10. Test then reassemble.</li> </ol> <p>*Follow the instructions to the right for proper assembly of the fiber optic lines. # If installing the PCM3.1 CAM, the aftermarket camera plugs into the "CAM IN" cable of the OPV.</p>	 <p>The diagram illustrates the process of connecting the fiber optic cable. It shows three main components: the Interface Plug, the Factory Plug, and the Factory Plug (repeated). The steps are as follows:</p> <ol style="list-style-type: none"> <li><b>Interface Plug:</b> Use a pick tool to press the blue lock down from the side illustrated above and remove lock.</li> <li><b>Factory Plug:</b> On the Factory Plug, repeat previous step (Remove Lock).</li> <li><b>Factory Plug:</b> Lift tab up to allow the Fiber Optic Lead to slide out of the factory plug on the Output side.</li> <li><b>Factory Plug:</b> Insert the Optical lead from the input Interface Connector into the Output Connector of the Factory Connector (* to *).</li> <li><b>Interface Plug:</b> Take the Optical lead that you've just removed from the output of the Factory Connector and insert it into the output of the Interface Connector.</li> </ol> <p>Below these steps are two diagrams labeled 'Before' and 'After' showing the factory and interface connectors. The 'Before' diagram shows the factory connector with the interface connector inserted. The 'After' diagram shows the factory connector with the interface connector removed.</p>

12 Pin Molex wiring guide	12 Pin Molex connector image
<p>Pin (1) Video out (high) Pin (2) Video in (high) Pin (4) Left audio (high) Pin (3) Camera in (high) Pin (5) Right audio (high) Pin (6) Ground (Black wire) Pin (7) Video out (low) Pin (8) Video/CAM in (low) Pin 10 Left/Right audio (low) Pin (12) Constant +12volts In</p>	 <p>12 Pin Molex Connector</p> <p>Wire Side View</p>
Operation	
<p>Video in motion is automatic and doesn't need any programming or activation. Whenever an external video source is present, the radio will always show an image.</p> <p><b>To operate A/V input:</b></p> <ol style="list-style-type: none"> <li>1. Press the source button.</li> <li>2. Press the TV icon.</li> <li>3. Once in the TV screen, tap above the preset icons in any blank area to display the image.</li> </ol>	 <p>The left image shows the radio's display screen with the 'SOURCE' menu. The right image shows the radio's display screen with the 'PLAY' screen and 'TV 1' indicator.</p>