NAV-TV
INTERFACING THE FUTURE

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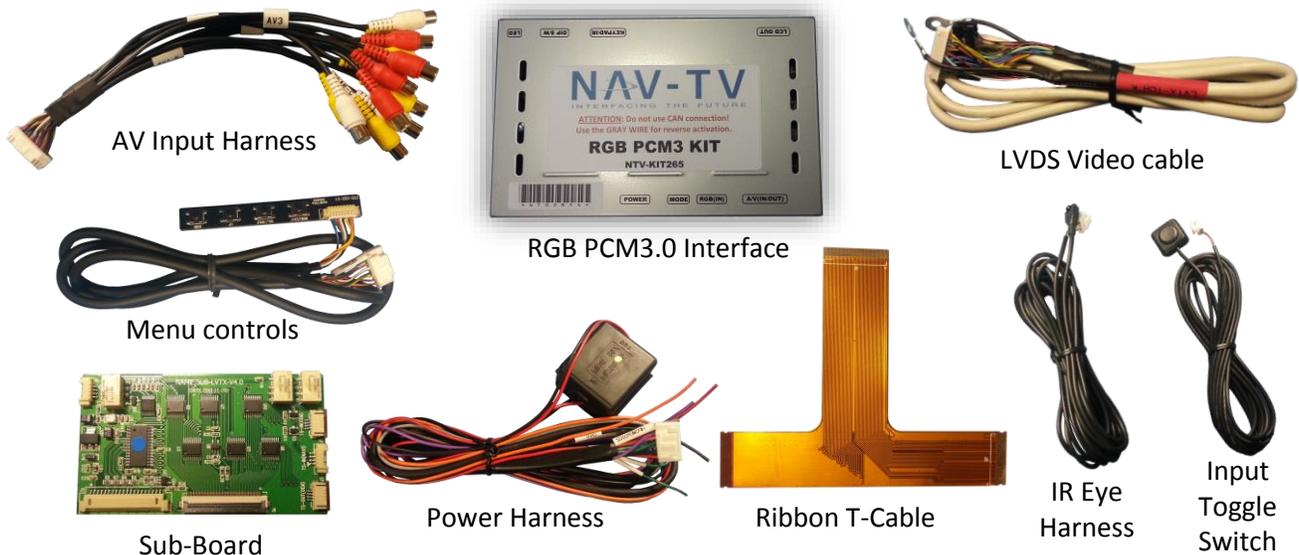www.nav-tv.com   info@nav-tv.com
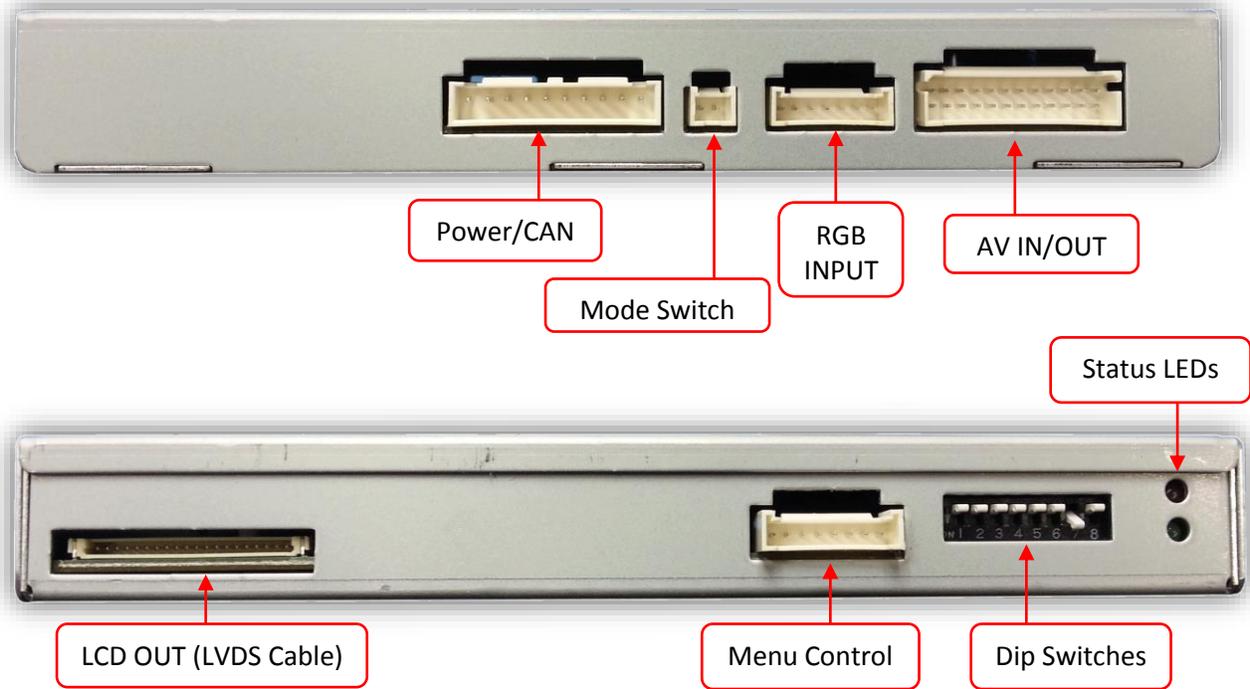
RGB PCM3.0 Kit
(NTV-KIT265)

Overview

The RGB PCM3.0 kit allows the user to add up to 3 video inputs and a backup camera input to the factory touch screen radio in select Porsches with the PCM3.0 radio. This kit connects behind the radio *following a radio modification*. The kit comes with an external toggle switch and if desired, forced rear camera action is an option. This manual will provide the radio modification procedure and vehicle installation instructions.

Kit Contents

AV Input Harness

RGB PCM3.0 Interface

LVDS Video cable

Menu controls

Sub-Board

Power Harness

Ribbon T-Cable

IR Eye Harness

Input Toggle Switch

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

Power/CAN

Mode Switch

RGB INPUT

AV IN/OUT

Status LEDs

LCD OUT (LVDS Cable)

Menu Control

Dip Switches

Dip Switch Settings

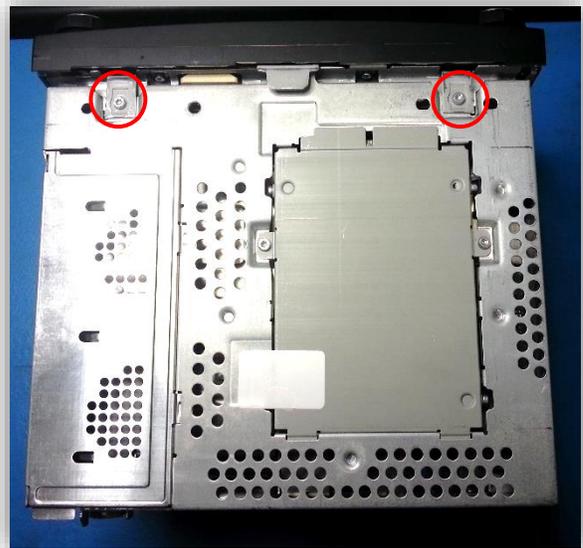| Dip SW:	1	2	3	4	5	6	7	8
UP	Enables RGB	Enables V1	Enables V2	Enables V3	N/A	N/A	Deactivates reverse cam	Without factory NAV
DOWN	Skips RGB	Skips V1	Skips V2	Skips V3	N/A	N/A	Activates reverse cam	With factory NAV

Note: Disconnect power to the interface before adjusting dip switches or the change will not be implemented.
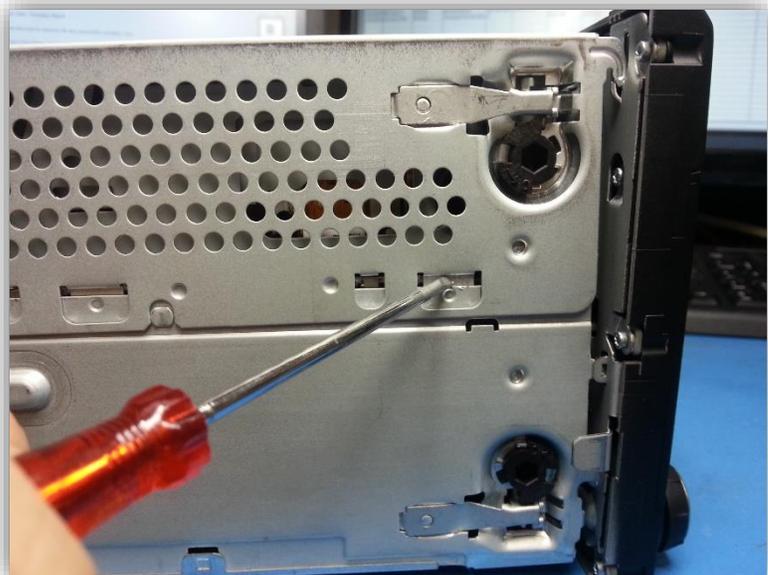
PCM3.0 Radio Modification

1. Remove the factory PCM3.0 radio. This requires removing any vents or dash panels that hide the radio mounting screws. Lay a protective mat down on the dash to protect from scratches.
2. Take the PCM3.0 radio to a clean workbench for disassembly.

3. On the top of the radio, remove (2x) Torx screws indicated by the circles.

4. On each side of the radio, use a flathead screwdriver to pry the top half of the radio up:

5. Swing up the front, top half of the radio like shown. **Be careful with the ribbon cable** that connects the disc drive to the radio.

6. With a small flathead or a fingernail, carefully pry up the FFC cable connector that connects the disc drive ribbon. Set the disc drive aside.
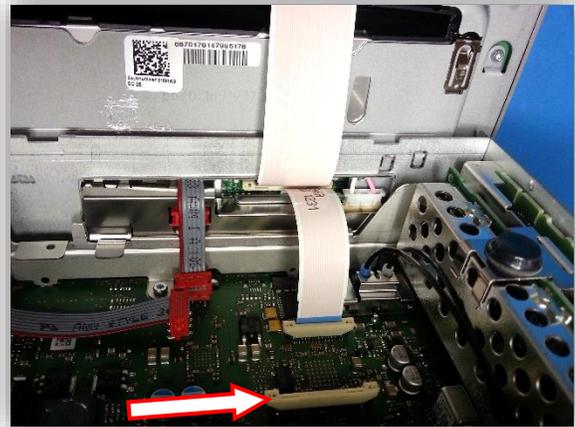

7. The ribbon indicated by the arrow will be replaced with the provided **Ribbon T-Cable**.

8. Pry up the FFC connector shown and remove the bottom half of the LCD ribbon:

9. Pry back the FFC connector on the screen side of ribbon cable from step 8. Remove this factory Porsche ribbon and replace it with the provided **Ribbon T-Cable**.

Note: The proper direction and orientation of the cable is when the white font 'LCD(OUT), SUB B/D, LCD(IN)' is facing up or towards you (so that you can see it).
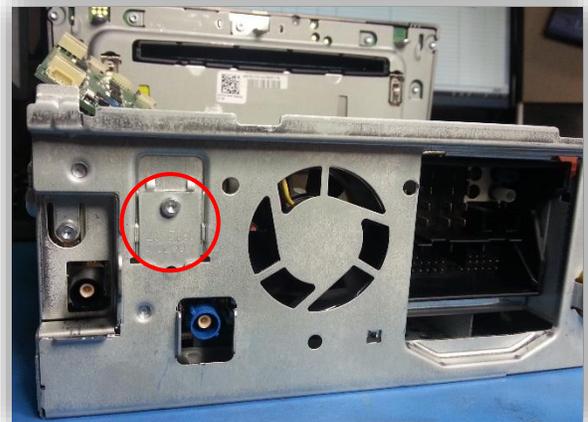*Note: Be certain the ribbons are <u>seated fully and squarely</u> before locking the connectors down.*

10. Connect the end of the ribbon labeled **'SUB B/D'** to the provided **Sub-Board** like shown.
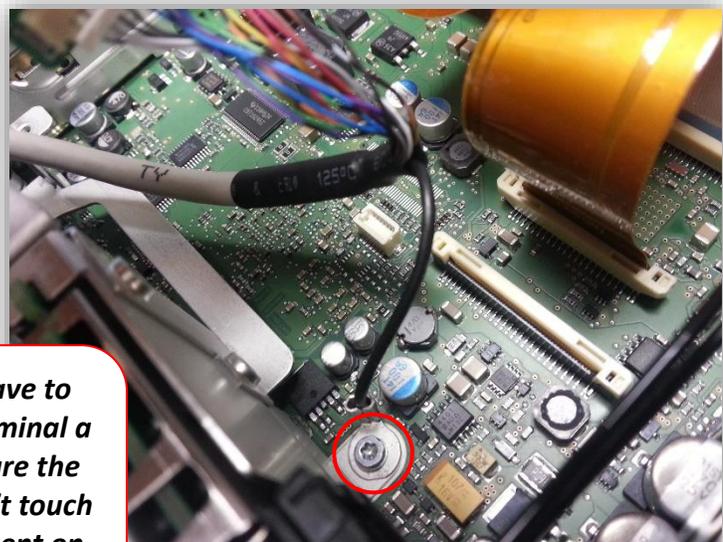
11. Remove the Torx screw and metal plate indicated by the circle and discard them. The provided **LVDS Cable** will run into the radio from here (next step).

12. Run the provided **LVDS Cable** through the hole created in step 11 and connect it to the proper connector on the **Sub-Board**. This connector is keyed and will only properly fit in one direction.

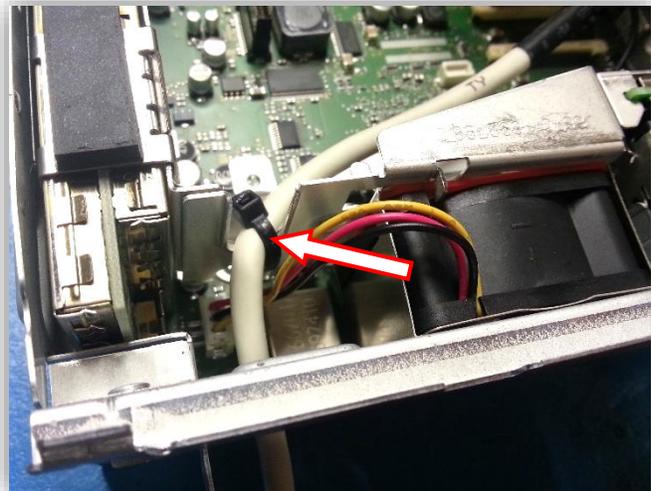13. Ground the shield cable (with connected terminal) to the Torx screw on the radio as shown:

You may have to bend the terminal a bit, make sure the metal doesn't touch any component on the radio!
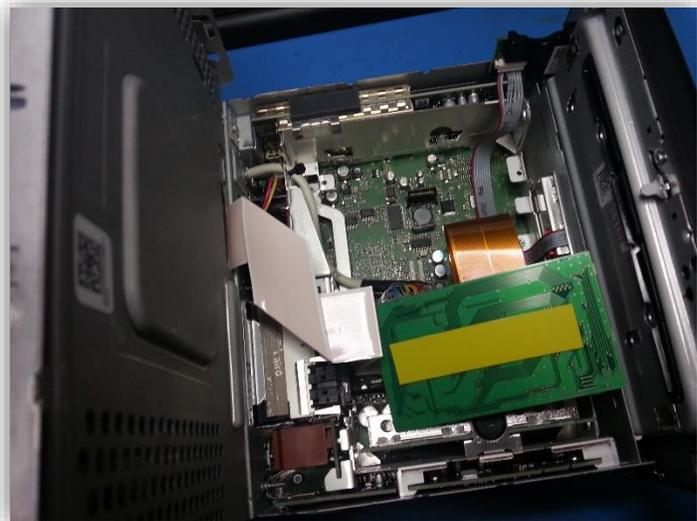
14. Flip the **Sub-Board** upside down and stick a piece of double-sided tape or Velcro to the backside, this will make it easier to stick to the underside of the disc drive when it is replaced.

15. Use a tie-wrap (leave some slack) to secure the **LVDS Cable** to the chassis of the radio as shown, to prevent damage to the modification.

16. ***Beginning with the hinges at the rear of the radio***, replace the disc drive to the lower half of the radio and carefully reconnect the ribbon to the proper connector.
17. Stick the **Sub-Board** to the underside of the disc drive the best you can.
18. After reconnecting the disc drive and Torx screws on top, proceed to the ***Interface Installation*** section (next).

RGB PCM3.0 Interface Installation

1. From the RGB PCM3.1 kit, gather the power harness. Connect the following wires to the car:
   a. Connect the **black** wire to a solid chassis ground (-)
   b. Connect the **red** wire to a 12v ACC (+ switched) source

19. Connect the **gray** wire to a (+) reverse signal. *When this wire receives 12v, the interface will display the video being fed to the RCA labeled **'R-CAM'** on the AV-Harness.* **The CAN wires will not function with this kit.**

20. Connect the **LVDS cable** (run into the radio from the modification) to the interface at the port labeled **'LCD OUT'**. Connect the ground terminal to the nearest screw on the interface box.

21. Connect the **AV Input** cable to the port on the RGB PCM3.0 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 **'R-CAM'**. Refer to the dip-switch settings chart to skip/enable AV sources upon toggle switch presses (optional. Page 2).

22. **Optional:** Connect the keypad harness to the port labeled **'KEYPAD/IR'**. This keypad would be needed if you want to be able to adjust anything from the RGB PCM3.0 interface's menu.
    a. **While in any AV mode other than factory** (on the display screen), press the **MENU** button for **Menu 1** , **or** press the following buttons quickly to enter **MENU 2: ▲ → ▼ → ▲ →MENU**
    b. To switch between AV modes, press the **'SEL/INPUT'** button.

23. *Optional:* Connect the provided momentary toggle switch to the port on the RGB PCM3.0 interface labeled **'MODE'**. Pressing this switch with the ignition on will cycle the screen modes as follows: **factory screen > NAVI (RGB) > AV1 > AV2 > AV3 > factory screen**.

24. Connect the RGB PCM3.0 *Power Harness* to the interface at the port labeled **'POWER/CAN'**. Start the car and test for proper functionality before securing the interface properly and replacing dash pieces.

25. *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 **'SEL/INPUT'** button to switch modes, or use the provided input toggle switch

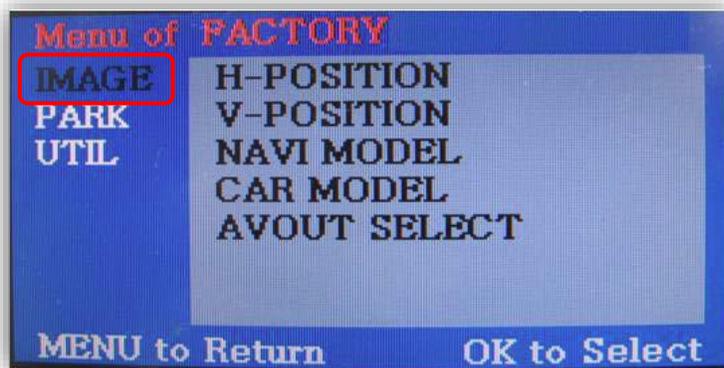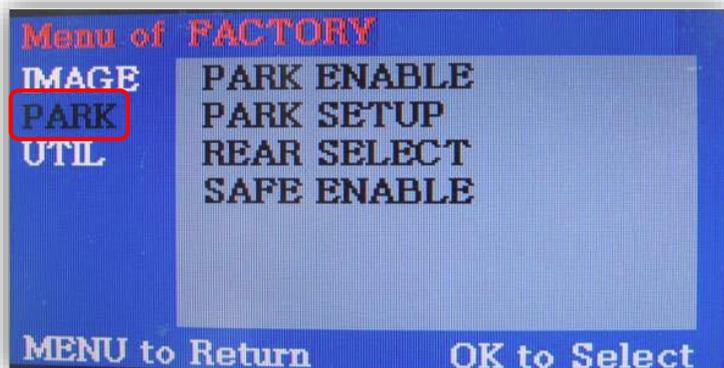- **Press the following: ▲ → ▼ → ▲ →MENU. The *Menu of FACTORY* will appear.**

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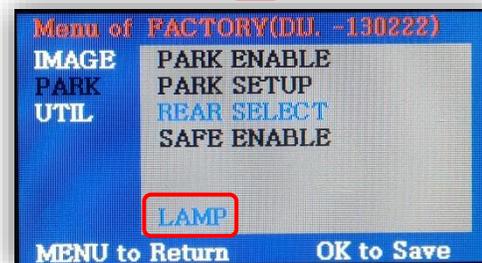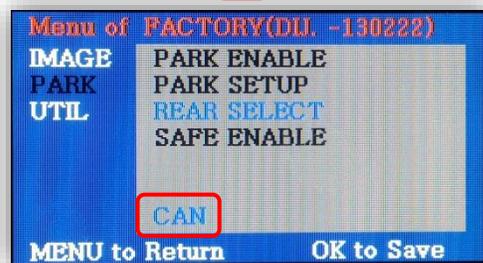*Note: on some kits, this option is located under 'UTIL'*
-The remaining settings are optional and install dependent.

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 |

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).

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.