

# NAV-TV

INTERFACING THE FUTURE

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## W204-12 DYNAMIC Kit

NTV-KIT461



### Overview

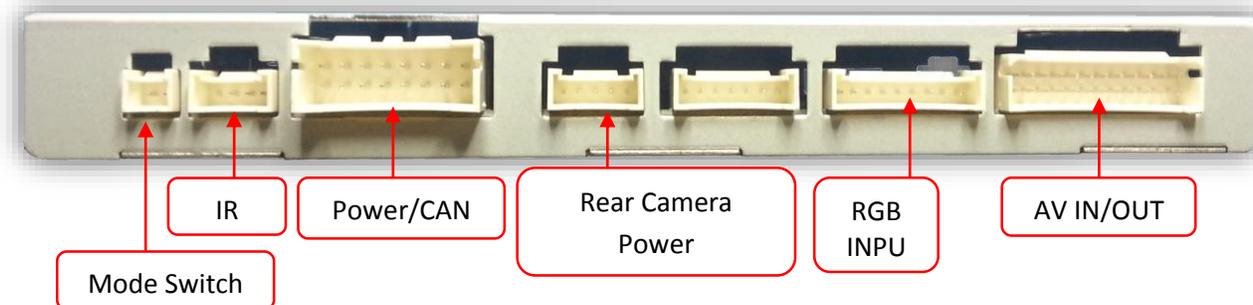
The W204-12 DYNAMIC kit allows the user to add up to 3 video inputs and a backup camera input to the factory media screen in select Mercedes vehicles. This kit installs behind the radio and video cables must be run up behind the factory screen. The guidelines presented while in reverse will be active (ie: move with the steering wheel) when the CAN connection is made.

### Kit Contents

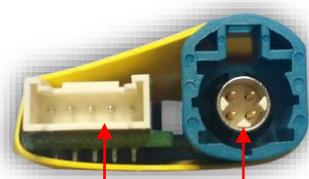


Agreement: End user agrees to use this product in compliance with all State and Federal laws. NAV-TV Corp. would not be held liable for misuse of its product. If you do not agree, please discontinue use immediately and return product to place of purchase. This product is intended for off-road use and passenger entertainment only.

## Interface Connectors



Sub-board Cable



LVDS Video OUT (to monitor)

LVDS Video IN (from factory)



## Dip Switch Settings\*

Dip SW:	1	2	3	4	5	6	7	8
UP	Enables RGB	Enables V1	Enables V2	Enables V3	For 7" Screen		Deactivates R/V (cam)	Keep UP
DOWN	Skips RGB	Skips V1	Skips V2	Skips V3	For 6.5" Screen		Activates R/V (cam)	Keep UP



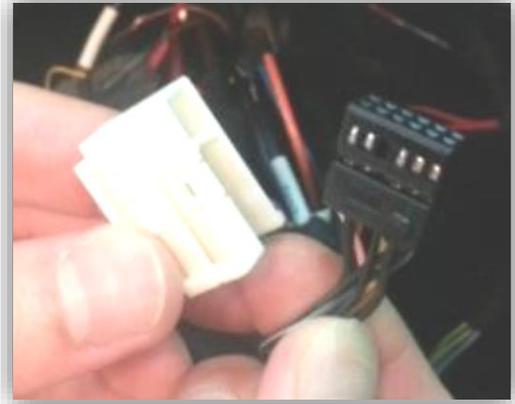
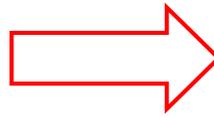
**\*Note: after adjusting Dip Switches, you must disconnect and reconnect power to the interface or the change will not be implemented.**

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## Installation

1. Remove the factory radio. This normally requires removing trim panels and a series of screws. Disconnect all harnesses connected to the COMAND radio and set the radio aside.
2. Locate the **white connector** inside the factory 44-pin main COMAND radio plug. Disconnect the white connector via the retaining clip.
3. Separate the white cover from the black plug by releasing the clip on the side.



4. Connect the white cover (removed from step 3) to the black, male end of the provided **Power/CAN T-Harness**.
5. Insert the same connector (from step 4) back into the main factory 44-pin connector until it clicks into place.
6. Connect the factory black 12-pin connector (removed from the white clip in step 3) into the female end of the supplied **Power/CAN T-Harness**.
7. From the same provided **Power/CAN T-Harness**, locate and solder the following wires to the car\*:



W204-12 Wire Label	Connect to CAR's	Location
GND (black)	Ground (-)	44-Pin main plug
ACC (red)	Accessory wire (+)	Cigarette lighter
CAN1-L (brown)	CAN-L (Yellow/Brown) <b>twisted</b>	<b>Pin 9</b> , 44-Pin main plug
CAN1-H (red)	CAN-H (Yellow/Red) <b>twisted</b>	<b>Pin 11</b> , 44-Pin main plug

**\*Note 1:** CAN wire color will vary per vehicle, but they will be twisted.

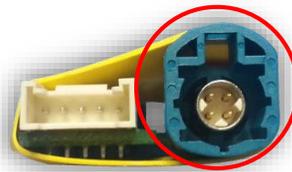
**\*Note 2:** Connect the CAN wires behind the **radio, not at the screen!**

8. Connect the white 16-pin power connector to the port on the w204 interface labeled '**Power**'.

9. Connect the provided **Sub-board Cable** between the W204-12 interface at the port labeled '**LVDS OUT**' and the provided **SUB-Board**. This connector is keyed, and can only fit in one direction and one port.



10. Connect the factory LVDS Video cable to the green LVDS port on the provided **SUB-Board**:



11. Connect the supplied **LVDS Video Cable** to the 5-pin plug on the **SUB-Board** used from step 9 and connect the other white end to the factory Mercedes screen at the appropriate port.



12. Connect the AV Input cable to the port on the W204 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).

- a. If you're installing a Nav-TV **CAM 6** or **Handle Cam** as well, the power connector plugs directly into the W204 interface port labeled '**REAR**'.



13. **Optional:** Connect the remote eye to the port labeled '**IR**' 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 W204 interface's menu.
- While in any AV mode other than factory** (on the display screen), press the **MENU** button for **Menu 1** , or hold the **left arrow** to enter **MENU 2**.
  - To switch between AV modes, press the '**OK**' button.



14. **Optional:** Connect the provided momentary toggle switch to the port on the W204 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**.

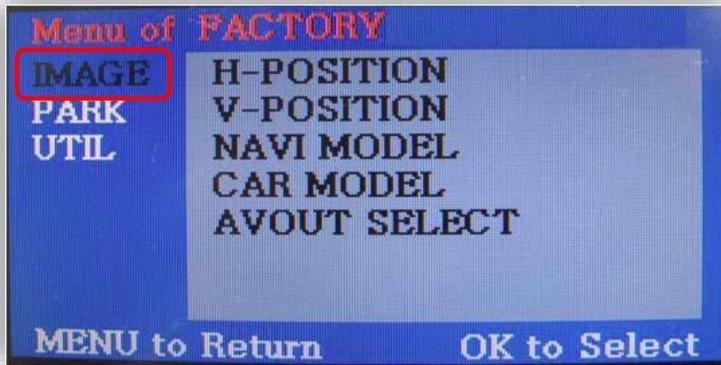
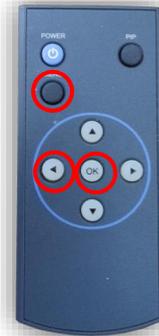


- 15. Note:** All other included harnesses not mentioned in this manual are not needed for most installations. If you would like to know more about the full capability of this interface, contact NAV-TV tech support at 561-955-9770. Additional features not mentioned in this manual are not supported by 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'*

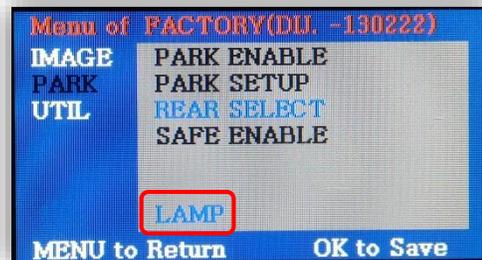
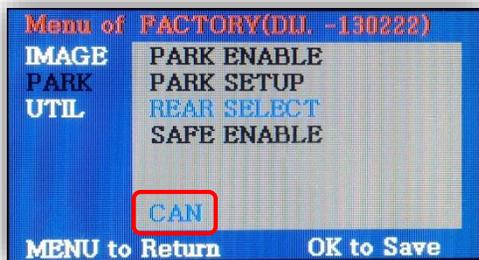
-The remaining settings are optional and install dependent.



**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).

**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.