



## NAV-TAV W205-N RVC Back-up Camera Interface Instruction Manual

[Home](#) » [NAV-TAV](#) » NAV-TAV W205-N RVC Back-up Camera Interface Instruction Manual

**NAV-TV**  
INTERFACING THE FUTURE

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**W205-N RVC  
NTV-KIT703**



### Quick Reference

(DVDS) Video Cable connects to Radio

Power/CAN T-Harness connects to Radio

The unit requires Accessory +12v

Do not power the camera with reverse light.

Use ACC or brown wire (through a relay)

## Contents [ [hide](#) ]

- [1 Overview](#)
- [2 Kit Contents](#)
- [3 Interface Connectors](#)
- [4 Dip Switch Settings](#)
- [5 Dash Removal \('15 C-Class\)](#)
- [6 Installation](#)
- [7 W205-N RVC Install Diagram](#)
- [8 Menu Adjustments](#)
- [9 W205-N RVC Operation](#)
- [10 Troubleshooting](#)
- [11 Documents / Resources](#)
  - [11.1 References](#)
- [12 Related Posts](#)

## Overview

The W205-N RVC Kit interfaces a backup camera input (with active parking lines) and 1 front camera to the factory media screen in select 2015 Mercedes vehicles with the new (NTG5 or higher or NR-218) infotainment system.

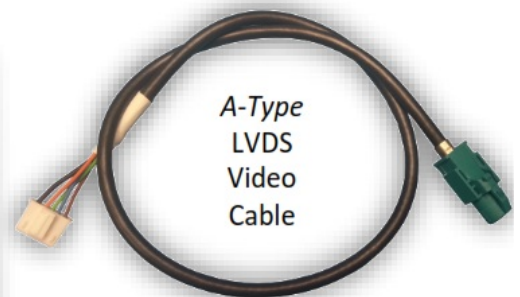
## Kit Contents



OSD Menu remote



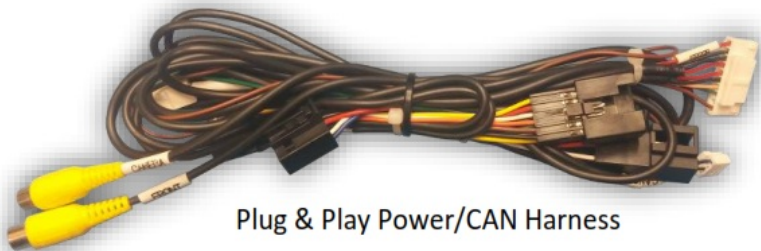
W205-N RVC Interface



A-Type  
LVDS  
Video  
Cable



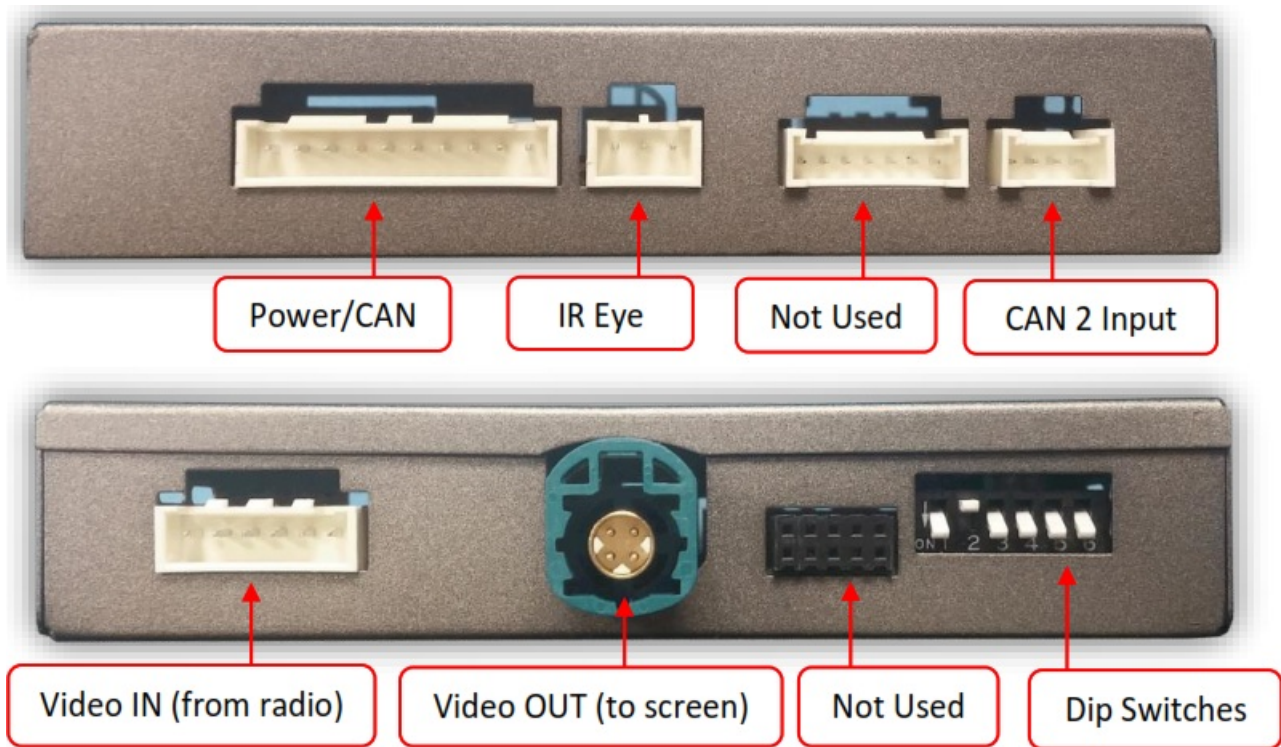
IR Eye



Plug & Play Power/CAN Harness

**Agreement:** The 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 the product to the place of purchase. This product is intended for off-road use and passenger entertainment only.

## Interface Connectors



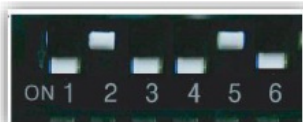
### Dip Switch Settings



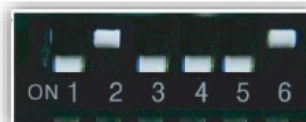
DIP SW	1	2	3	4	5	6
UP	KEEP DOWN	KEEP UP	OEM CAM	OEM CAM	High RES	VEH TYPE
DOWN	KEEP DOWN	KEEP UP	Adding CAM	Adding CAM	Low RES	VEH TYPE



*C-Class with 7" Screen*



*C-Class with 8.4" Screen*



*2015 CLS, CLA, B & E-Class*



*2016+ SLC*



*2015 SL400, 7"*

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

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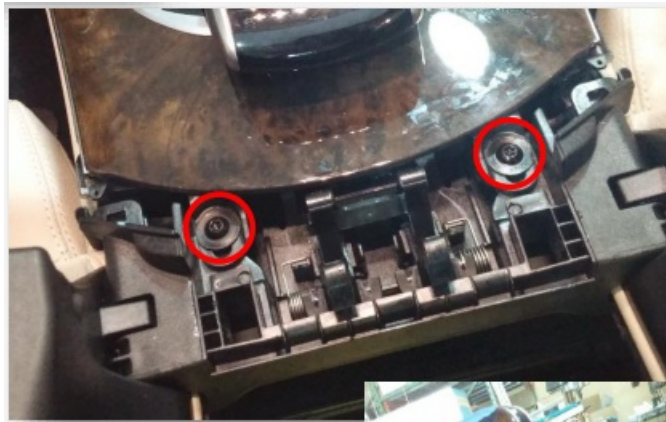
return the product to the place of purchase. This product is intended for off-road use and passenger entertainment only.

## Dash Removal ('15 C-Class)

1. Use a plastic tool to remove the silver trim behind the COMAND touchpad controller. You will have to open the center console and press the armrest locks forwards for clearance:



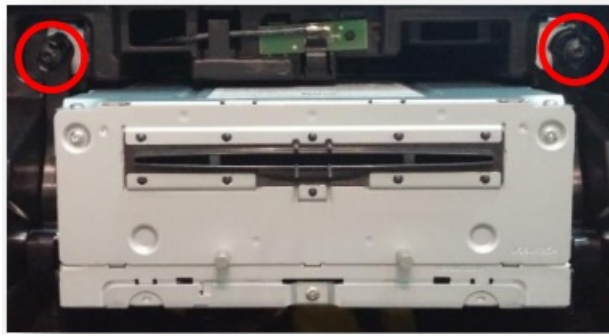
2. Remove (2x) Torx 20 screws hidden beneath the silver trim piece in step 1:



3. Lift up the entire dash panel to just beneath the screen and disconnect all (6) plugs. Set the dash panel aside in a safe place.

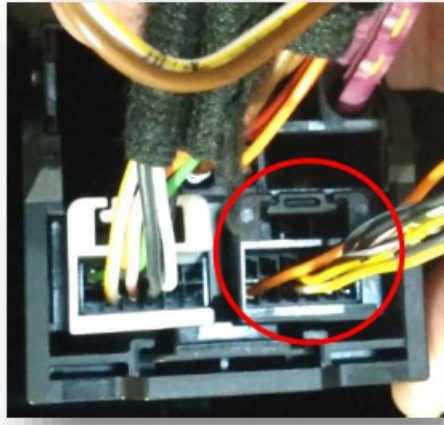
4. Unscrew (2x) Torx 20 screws securing the radio to the sub dash. These screws are not designed to be removed from the radio clamps.

Remove the radio by pulling it towards you.

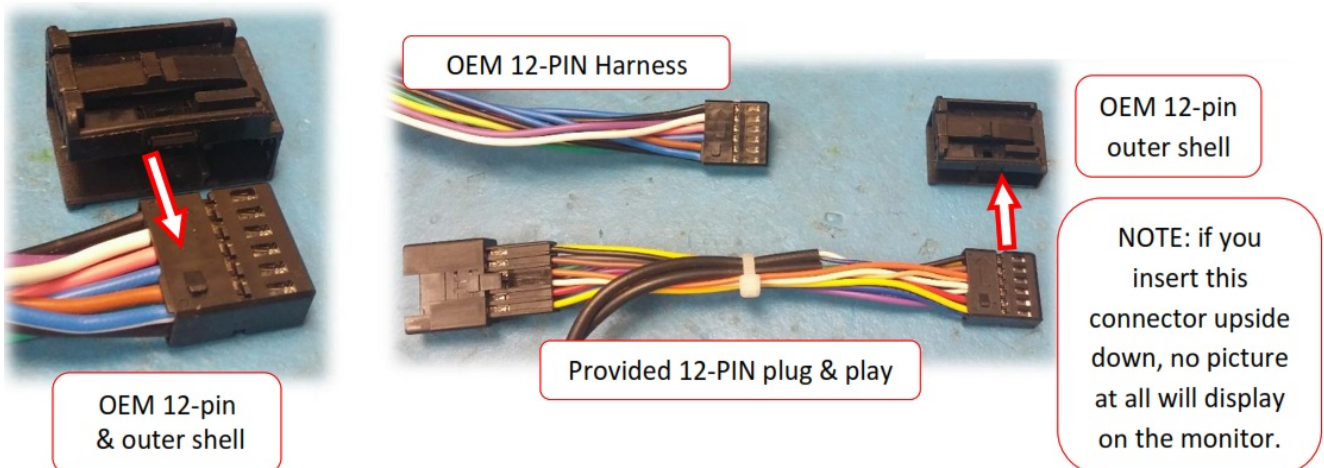


## Installation

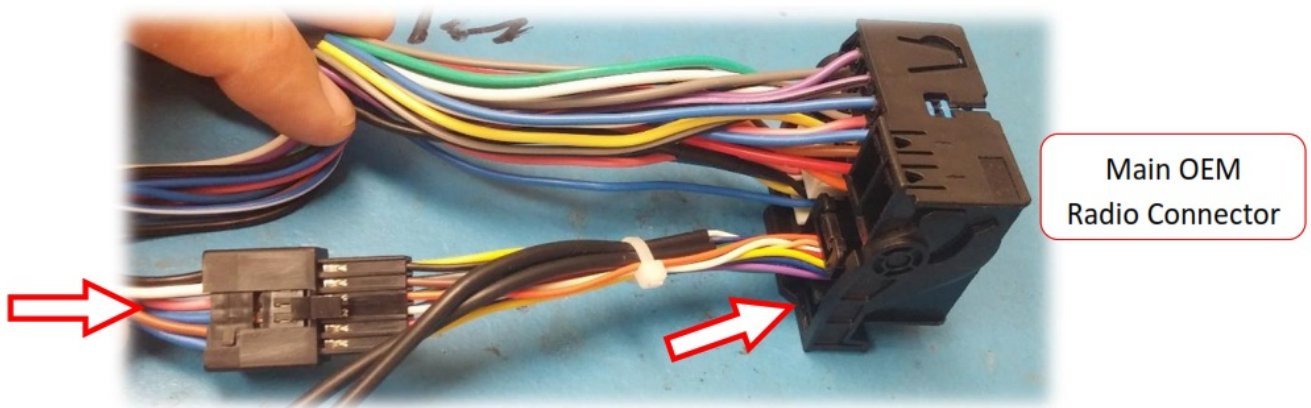
1. With the radio removed, disconnect all harnesses and set the radio aside.
2. In the main square radio plug, locate the 12-pin black plug and remove it (press clip on top and pull).



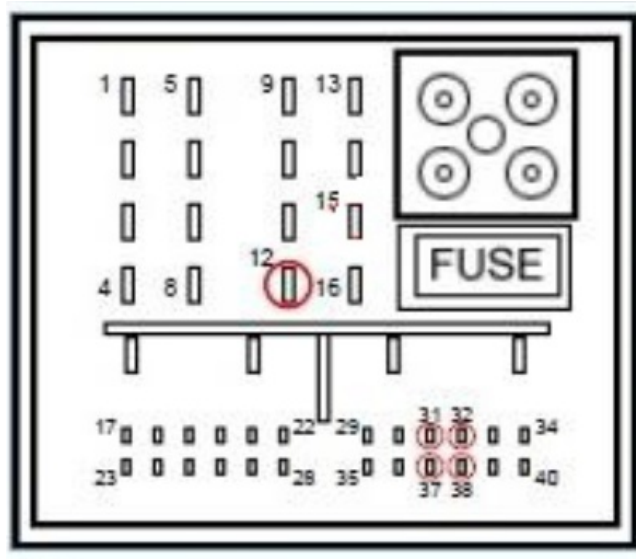
3. Separate the outer shell from this OEM connector and insert the provided 12-pin plug in its place (this connector only connects properly in one direction, but it is possible to install it upside down).



4. Connect the OEM 12-pin to the female end of the plug & play portion of the harness from step 3. Connect the new harness assembly back into the Main OEM Radio connector like shown.



5. Locate the black and red wires labeled (GND) and (ACC) and solder these wires to the ground wire (PIN 12) and Accessory 12v power wire (not found on radio) on the same quad-lock connector (from step 4):



6. Locate the OEM, typically Dark Blue, 4-pin round connector (LVDS) that was removed from the radio in step 1 from the port on the radio labeled 'DISP'. Connect this factory plug to the W205-N interface at the port labeled 'VIDEO OUT'.



**NOTE:** If there is no dark blue LVDS video plug present, use the cable that makes the OEM screen disappear when unplugged (while the radio is on).

7. Connect the white plug side of the provided LVDS Video Cable to the port on the W205-N interface labeled 'VIDEO-IN'.



8. Connect the free end (aqua) of the provided LVDS Video Cable back to the factory radio at the 'DISP' (dark blue) port.





9. Connect the small white 4-pin plug labeled 'CAN2' to the plug on the W205-N interface labeled 'CAN2' for proper operation.

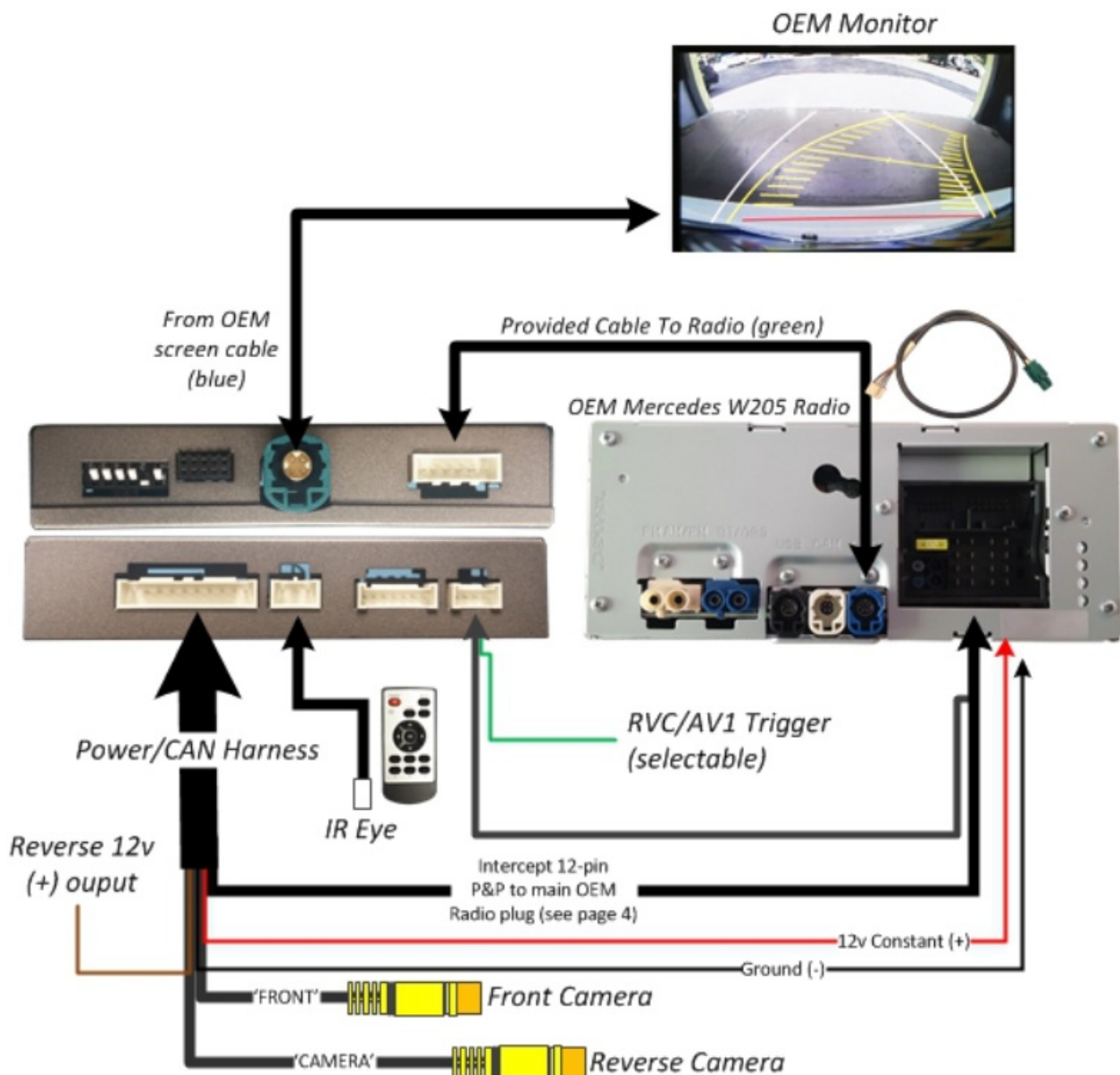


10. Power your reverse camera with an accessory 12v source, or use the brown wire for reverse 12v through a relay. Splice ground (-) to the black wire provided to the interface, or find another ground point/wire in the car.
11. Connect signal from the rear camera to the RCA labeled 'CAMERA' among the main Power/CAN harness.
12. Connect the white plug from the Power/CAN Harness to the port on the W205-N interface labeled 'POWER/CAN'.
13. Optional: If adding an additional video input (including the front camera), use the provided RCA labeled 'FRONT' for signal input. This video source must be powered with an ACC source. NOTE: If the user desires automatic front camera switching, this option must be set upon installation. See MENU Settings on page 8.
14. Start the car and test for proper functionality before replacing any dash pieces.

**NOTE:** If after verifying DIP Switches and you still don't get reverse activation (screen switching to cam-image while in reverse), re-test with ALL dash-board pieces connected properly.

**NOTE:** If the above was tried and you still are not getting anything on the screen, providing the green wire among the CAN 2 Harness with a (+) reverse signal will switch the screen manually.

## W205-N RVC Install Diagram



## Menu Adjustments

### Before you start:

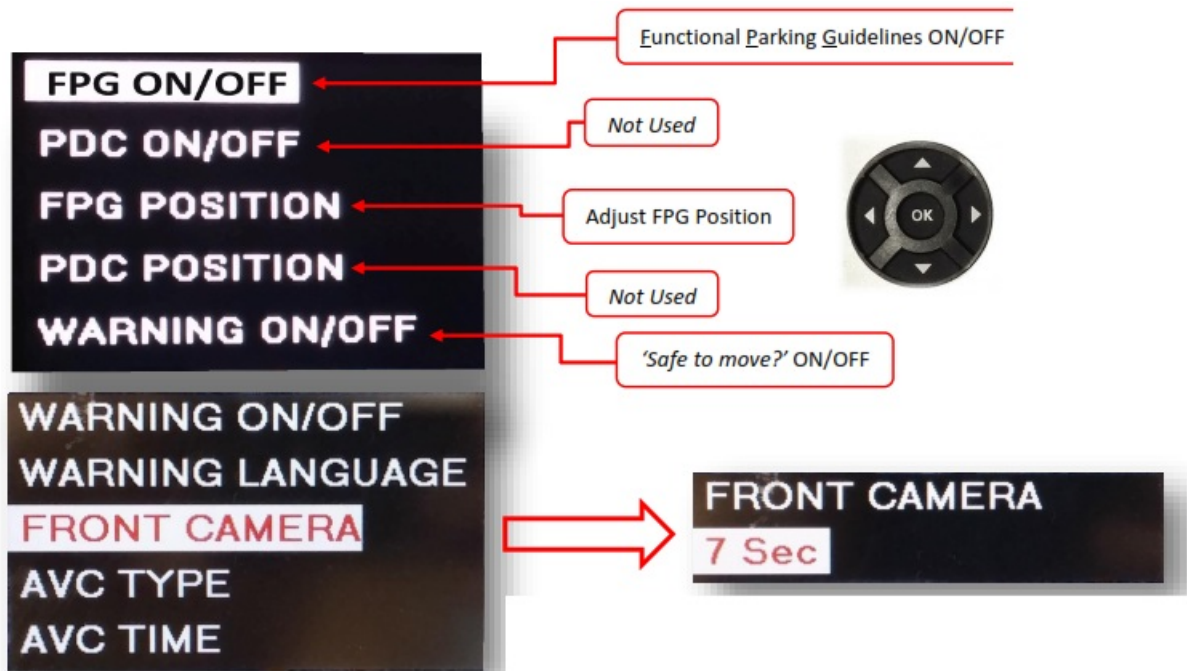
1. The IR-Eye must be connected
2. Make sure the car's ignition is on and the radio is on
3. You must be in Reverse Camera mode (place vehicle in reverse)
4. **Repeatedly press the MODE button until guidelines appear on screen\***



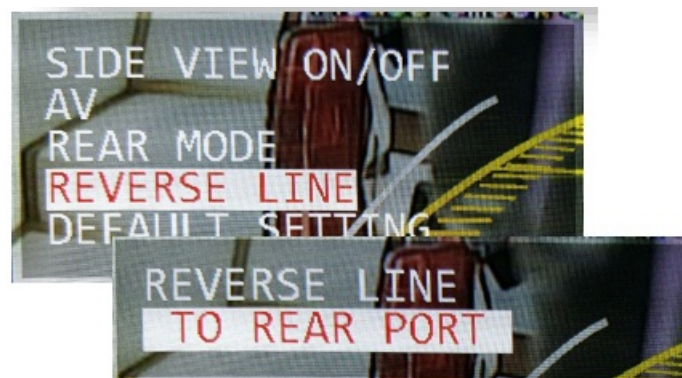


**NOTE-** Step 4 is only required if the OEM reverse camera exists

- Now press the OK button 4 times, then press Power
- The OSD Menu will appear on the screen (auto-time out in about 5 seconds if no action occurs).



To set the Front Camera timer, scroll down using the remote arrow keys when in the menu to FRONT CAMERA. Once in this setting, press OK and choose (up/down) between 5, 7, 9, or 11 seconds for auto-front switching timeout (once the vehicle leaves reverse gear, the front camera input will stay active for a pre-defined amount of time).



To set a custom green wire trigger, find the 'REVERSE LINE' option and set it to 'REAR PORT' or 'AV1' depending upon your preference. Every time the green wire receives 12v (+), the selected RCA port will display on the screen.

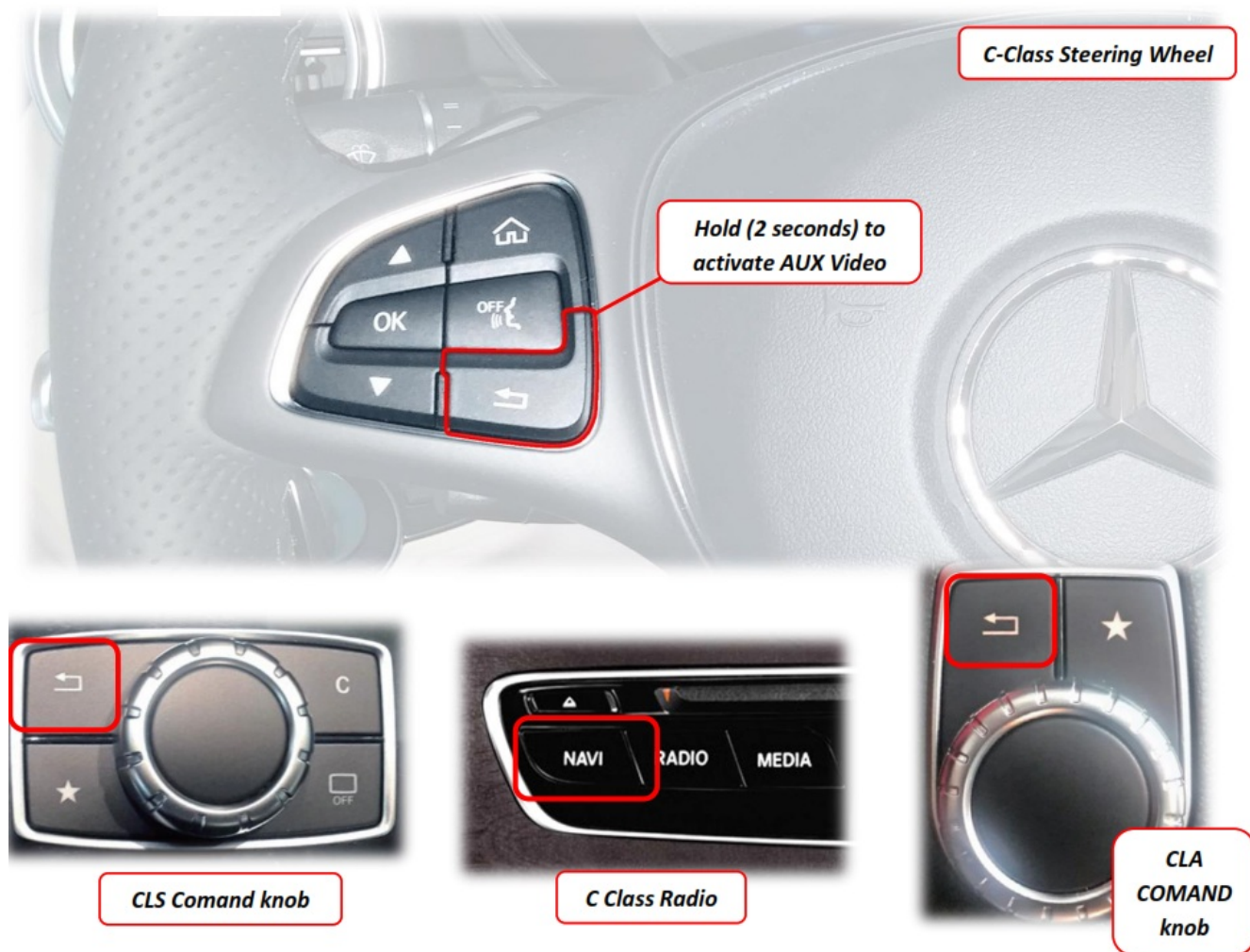
## W205-N RVC Operation

- Once the W205-N RVC is connected properly, reverse activation is automatic. Placing the vehicle in reverse will display the connected camera's image automatically.

**Note:** If the display doesn't switch to reverse image when shifting into reverse, check dip switch settings on page 2.

- For forcing the Front Camera at any time, press the Return button OR the NAVI button on the radio. In some vehicles, this is located on the steering wheel, others this is located near the COMAND knob. Otherwise, the front camera will display for as long as the setting was programmed (5,7,9 seconds, etc) once you leave Reverse

gear.



## Troubleshooting

**Problem:** When I connect power to the unit, I lose the factory screen image.

**Solutions:**

1. Check the round cable that's included with the kit that goes to the back of the radio and make sure the heatshrink label on the end says "A Type."
2. Make sure that the round cable from our module is connected to the radio and not to the back of the screen.
3. Refer to page 4 and check the orientation of the 12-pin T-Harness at the radio's quad-lock connector. Although it's keyed to only plug in 1 way, it is possible to force it upside-down.
4. Verify that this kit is compatible with your radio, check the label on the radio to make sure it is an NTG5 or higher or the NR-218 radio (there are also some other compatible radios, but we don't have a list of all compatible models. If it's an NTG4 radio, then it's definitely NOT compatible.
5. If unplugging the power/CAN connector for the unit did not restore the factory image to the screen, please disconnect the vehicle battery for 1 minute to reset the system.
6. Confirm the factory screen is displaying properly with Power/CAN unplugged but the LVDS cables connected. If not, suspect reversed LVDS connections, Bad LVDS cables, or a defective unit.

**Problem:** I am adding an aftermarket Rear View Camera but the screen does not change to the camera when in reverse

**Solutions:**

1. Verify Power and Ground to the interface, Confirm inline fuse (in fuse holder) is intact and seated properly.
2. Verify that the round cable from our module is in the correct jack in the back of the radio. (It should be labeled "DISP" or "DSP," but if none are labeled, it is the one that makes the screen go Black when you unplug it.
3. Refer to page 4 and check the orientation of the 12-pin T-Harness at the radio's quad-lock connector. Although it's keyed to only plug in 1 way, it is possible to force it upside-down. Also, verify that it is plugged into the factory Black connector and not the White one.
4. Make sure Dip switches #3 and 4 are DOWN
5. If the vehicle is equipped with a manual transmission, the green reverse trigger wire (to +12V) must be used.
6. Try switching dip switch #5 down or dip switch #6 down (but not both Down or both Up) – power cycle and retest.
7. Verify Doors and trunk lid are all closed.
8. Make sure that the menu item "REAR MODE" is set to ON in the programming mode.
9. Suspect defective unit.

**Problem:** I am adding an aftermarket Rear View Camera but the screen switches to black or black with parking lines when in reverse

**Solutions:**

1. If Parking lines are present, the Video signal is not present at the CAM RCA input – verify the video signal with a known working source. Possible causes would be a bad camera, broken video cable from the camera, and no power/ground at the camera terminals.
2. If parking lines are not present and the screen is fully black when in reverse, suspect an issue with the LVDS connections.
3. Suspect defective wiring or defective unit.

**Problem:** When triggered, I can see a rolling or scrolling camera image.

**Solutions:**

1. Backup camera problem – double check Power and Ground to the camera, replace camera.

**Problem:** I can see a backup camera image but no Parking lines are visible

**Solutions:**

1. Refer to Page 8, make sure "FPG" is set to ON.


**Problem:** My vehicle has a factory rear view camera, I am adding a front camera or an AUX video source and I lost my Factory RVC when in reverse

**Solutions:**

1. Set dip switches #3 or 4 or both 3 & 4 UP.

## **Documents / Resources**



	<p><a href="#">NAV-TAV W205-N RVC Back-up Camera Interface</a> [pdf] Instruction Manual</p> <p>W205-N RVC, Back-up Camera Interface, Camera Interface, Back-up Camera, W205-N RVC, I nterface</p>
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References

- [🌐 Home - NAV-TV](#)
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