

# NAV-TV

INTERFACING THE FUTURE

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## MOST-H.U.R. MB/MB-S

Mercedes Head Unit Replacement Interface

*NTV-KIT421/501*



# MOST<sup>®</sup>



DS, BM  
10/18/18  
NTV-DOC141  
rB10

Overview

NAV-TV's OPTI-1 is a radio replacement interface for compatible Mercedes Benz vehicles equipped with an external M.O.S.T. fiber optic amplifier. The module allows the factory amplifier, speakers and sound quality to be retained when adding a modern aftermarket radio. Other components in the factory system, such as a CD changer, satellite radio, telephone module, DVD player, or any other factory component in the M.O.S.T loop, will not function after the installation.

Kit Content



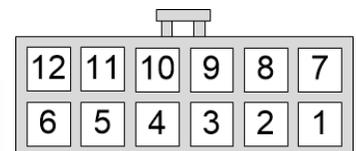
Vehicle Compatibility

**2005-2008 CLS/SL/SLK, 2003-2008 E, 2004-2006 S, CL vehicles with MOST amplifier:**

To confirm compatibility, remove the radio. With a CD playing in the radio, NOT in an external changer, remove the M.O.S.T fiber optic cable from the radio harness (see pictures below). If all sound goes away completely and the model and year is listed above, the vehicle is compatible with the OPTI-1. It is important to properly validate the vehicle prior to installation, especially in SLK vehicles.

OPTI-1 Interface pin outs

Pin #	Description	Color
1	12v (+) Constant IN	Red
2	12v Remote (+) IN	Blue
3	[Common] Audio Shield	Gray
7	Ground IN (-)	Black
8	Right Audio IN (+)	--
9	Left Audio IN (+)	--



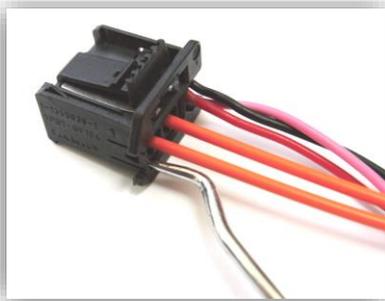
**Wire Side**

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.

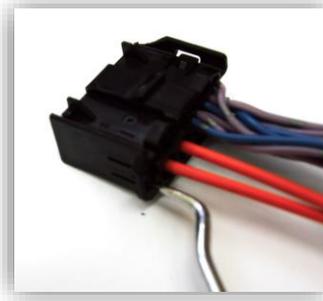
## OPTI-1 Installation

1. **ALL VEHICLES:** Base-line the factory COMAND radio:
  - a. Adjust the volume to a *comfortable listening level*
  - b. Tune the radio to an **AM station** (otherwise you may lose AM tuning ability)
  - c. Be certain the **MUTE** function is not enabled
  - d. Center the balance and fade, center the bass and treble
  - e. Be certain there are no other problems with the factory MOST system before installing this unit.
2. Remove the COMAND radio, *and any other aftermarket MOST components (if existing) from vehicle – even if they are NAV-TV MOST components.*
3. Disconnect the power harness from the back of the COMAND and remove the optic cable inner plug by gently prying the retaining clip back with a pick tool (see **FIG 1 & 2** below)
4. Insert the optic cable inner plug into the provided M.O.S.T. outer coupler (see **FIG 3 & 4** below) and plug the completed new assembly into the fiber optic input of the OPTI-1.

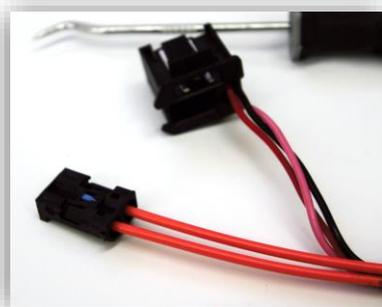
**FIG 1:** CLS, E, SLK Factory MOST Plug



**FIG 2:** CL, S, SL Factory MOST Plug



**FIG 3:** Fiber cable removed from factory plug



**FIG 4:** Optics installed in the provided coupler



5. Connect the following wires from the provided **Power/Signal Harness**:

Pin #, Color	Description	Connect to:
7 Black	Ground (-)	Ground (-) @ Radio Harness
1 Red	Constant 12v (+)	12v (+) Constant Power
2 Blue	Remote in 12v (+)	Remote OUT from radio (blue/white)

6. Connect a full range RCA output from the aftermarket radio and connect it to the RCA inputs of the OPTI-1. **Note: A short RCA cable is sometimes needed in order to position the OPTI-1 in a location that does not hinder the depth of the radio opening.**
7. Plug the OPTI-1 power harness in the unit and proceed to the next section '**Radio & antenna connections**'

### Radio & Antenna connections

1. Refer to the installation guide from the aftermarket head unit for wiring information.
2. The constant power from the aftermarket head unit (Usually yellow) must be connected to a circuit that can supply the radio with sufficient current (check the specifications in the radio installation manual. Usually the demand does not exceed 10 to 15 AMPS.) Suggested connection points are the **driver's side dash fuse box** on E, CLS and SLK vehicles, **the front or rear fuse box** on S and CL vehicles and from the **rear fuse and distribution block** on the SL (There are two clips on the false door cover that will allow access to the fuse and distribution block on the SL). **MAKE SURE THAT YOU FUSE THE CONSTANT POWER CONNECTION PROPERLY!**
3. Connect the accessory wire from the aftermarket deck (usually red) to the front cigarette lighter accessory power (black or red with a stripe). Use a multi meter to verify accessory at this location prior to making a connection.
4. Connect the ground (usually black) from the aftermarket radio harness to the ground (brown) wire at the front cigarette lighter.
5. Connect the illumination or dimmer wire from the aftermarket power harness (usually orange or orange/white) to the illumination wire at the front cigarette lighter (grey with a blue stripe). Use a multi meter to verify the wire is illumination prior to making a connection.
6. The AM/FM antenna is located at the audio gateway (AGW). To interface with the factory AM/FM antenna you must use an **antenna adapter** and **antenna extension** (not provided) which must be run from the AGW to the front of the vehicle and into the antenna input of the aftermarket radio. The location of the AGW varies in each vehicle.

The AGW in the SL is located behind the driver's seat in the side panel. On the E & CLS class it is in the driver's side of the trunk behind the carpet and sandwiched between the outer skin and trunk support. On the S & CL class the AGW is located in the driver's side trunk behind the carpet and on the door. The AGW in the SLK is located in the front of the vehicle below the passenger foot well.

#### Dash Kits, radio mounting and not included accessories

NAV-TV recommends professional installation of this product using MECP accepted practices. Dash kits, either pre-made or custom fabricated, as well as the required and optional non included accessories, are available through specialty aftermarket professionals world-wide. For a recommended dealer in your area please call our sales and support team at 1-866-477-3336 (toll free USA and Canada) or 1-561-955-9770 (international and locally). NAV-TV does not cover technical support for dash kits and or custom mounting options, please consult with your local recommended specialist.

#### FAQs

**Q1: The OPTI-1 works fine on AM/FM but as soon as I put a CD or DVD in the unit all sound goes away.**

A1: Some aftermarket head units have an amplifier turn on wire as well as a power antenna wire. Normally, an amplifier turn on wire is blue/white and a power antenna remote wire is blue. The power antenna remote wire only outputs voltage when on Am or FM modes. The solution is to connect the blue wire from the OPTI-1 to a wire that outputs 12 volts + in every mode from the aftermarket head unit (blue/white)

**Q2: I installed the unit and I have lost all bass response in the vehicle. All the speakers are playing but I have no low end.**

A2: Some aftermarket head units have cross-overs built into them that limit either low frequency or high frequency response. Refer to the owners' guide of the aftermarket head unit and turn on any high or low pass electronic crossover in the head unit to ensure a full range output.

**Q3: I installed the unit and all I hear is bass but not high frequencies.**

A3: Refer to answer 2. Also, make sure that you did not attach the RCA inputs of the OPTI-1 to the subwoofer output from the aftermarket deck.

**Q4: The OPTI-1 works and sounds great but I can only get balance left and right to function and not front to back fade.**

A4: The OPTI-1 does not support front to back fade due to the lack of any available aftermarket head unit with a communication network. Balance will function but fade will not.

**Q5: Will the OPTI-1 work with any aftermarket head unit?**

A5: Yes, as long as the unit is capable of a full range RCA pre-amplified audio output and a remote amplifier turn on.

**Q6: I purchased an aftermarket steering wheel control interface and cannot get it to work.**

A6: Steering wheel controls in every compatible vehicle are on the CAN network. CAN High is brown/red and CAN low is brown in a twisted pair at the audio gateway. Please contact the manufacturer of the device for support.

**Q7: Will the OPTI-1 work with any vehicle that is not listed as being compatible?**

A7: No, the OPTI-1 is only compatible with the listed model and year vehicles.

**Q8: My climate control adjusts with the volume of the aftermarket radio (or other similar issue).**

A8: You need to flash the HUR module with MB-S software (NTV-KIT501).

**Q9: The HUR does not turn on. The proper harness, software and connections have been verified, and the OEM radio works fine if re-installed.**

A9: Make certain there are no other aftermarket MOST fiber components installed already, even if they are NAV-TV MOST components. If there are, there is a chance something is being blocked in the fiber signal.

**Q10: After reading the installation manual owner and over I am still having problems. What should I do?**

A10: Our highly trained technical support staff can be reached Monday through Friday, 9 A.M. to 6 P.M. EST, at 1-866-477-3336 x 2 (Toll free USA and Canada) or 1-561-955-9770 x 2 (local and international).

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