

NAV-TV

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3950 NW 120th Ave, Coral Springs, FL 33065 TEL 561-955-9770 FAX 561-955-9760

www.nav-tv.com info@nav-tv.com

BMW12N-DYNAMIC KIT

NTV-KIT717



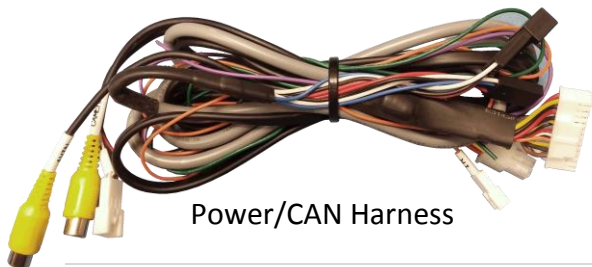
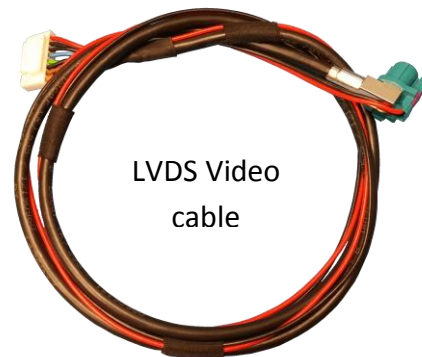
Overview

The BMW12-N kit interfaces 2 video inputs (including a backup camera) to the factory media screen in select 2012+ BMWs **with the 6-pin video connector (at the screen)**. This interface generates steering-based guidelines while in reverse for added convenience. **NOTE: 2017 year 'EVO' touch-screen monitors or 'CID' labeled monitors are NOT compatible with this interface.**

Kit Contents

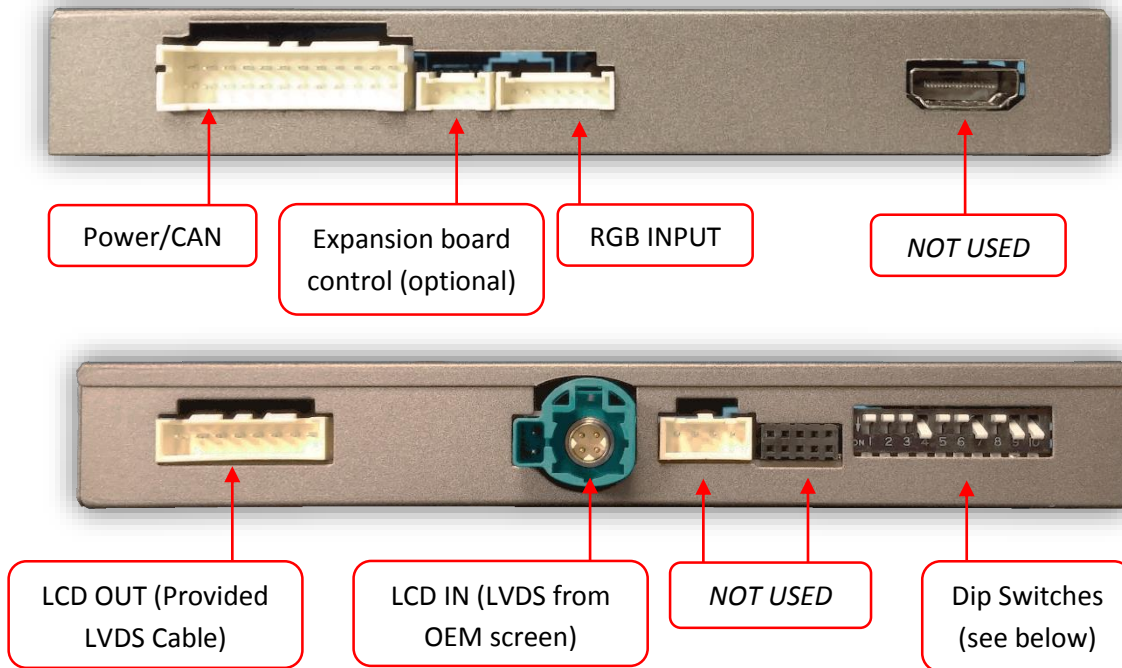


BMW12-N Interface
NTV-INT244



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Interface Connectors



Dip Switch settings*

| Dip SW: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------|---------|------------|------------|---------|-------------|-------------|-------------|----------|-------------|-----------|
| UP | KEEP UP | SKIPS V1 | SKIPS V2 | RVC OFF | CAN SETTING | CAN SETTING | CAN SETTING | HIGH RES | VEH SETTING | KEEP DOWN |
| DOWN | KEEP UP | ENABLES V1 | ENABLES V2 | RVC ON | CAN SETTING | CAN SETTING | CAN SETTING | LOW RES | VEH SETTING | KEEP DOWN |

Known Dip Switch Configuration



2013: 1 & 3 series
8.8" screen



2014: 1 series
6.5" screen



2014+: 3, 5, 7 series
10.2" screen



2014: MINI
8.8" screen



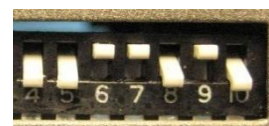
2015: MINI
6.5" screen



2015: X-series
8.8", 10.2" screen



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



2016: 3-series
6.5" screen



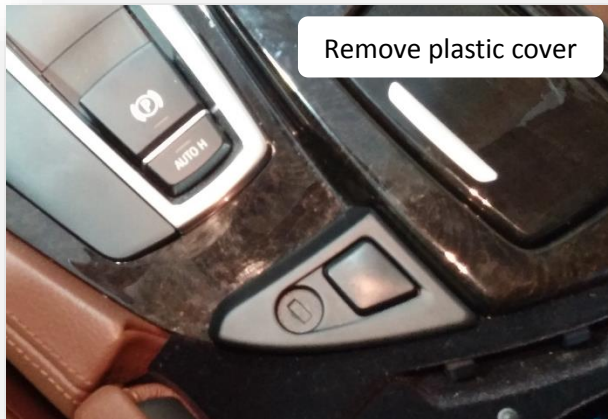
'13-'15: X-3 & 3-series
6.5" screen

BMW12-N Interface Installation (5 Series example)

1. The BMW12-N intercepts **two OEM harnesses in two locations**: the iDrive knob and the screen. You must gain access to both places for proper installation.
 - a. Access the rear of the screen by removing the dashboard panel (clips only) and then removing (2x) Torx T20 screws securing the screen to the sub-dash.



2. To access the iDrive harness, remove the panel surrounding it (may have Torx screw securing to sub dash)



3. Lift up the lower dash panel and disconnect 4-PIN plug powering the iDrive knob.

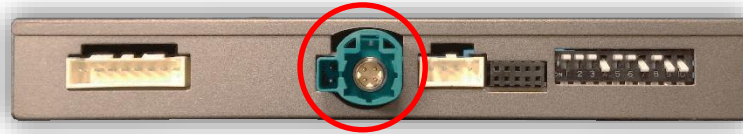
4. Connect provided 4-PIN T-Harness in between iDrive knob and OEM harness as shown.



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4. Replace the lower dash panel (with iDrive knob) back to sub-dash.

5. Disconnect the OEM screen LVDS video cable and connect it to the port on the BMW12-N labeled 'LCD-IN'.



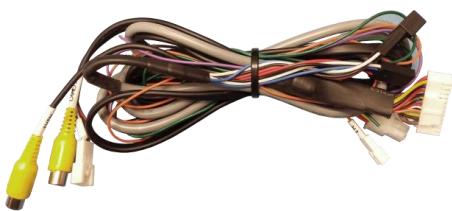
6. Connect the provided LVDS Video Cable to the port on the BMW12-N labeled 'LCD-OUT' and the other end back to the screen.



7. Install and run the reverse camera video source power and signal to the BMW12-N interface location and connect to the RCA labeled 'CAMERA'. Power your camera with an ACC source or use the **violet wire** for reverse 12v (+) only. **NOTE: this wire outputs 500 mA MAX – do not use to supply power to more than 1 camera. Use this wire to trigger a relay if you're concerned with current supply.**

8. **Optional:** If installing a secondary camera or AUX video source, connect signal RCA to the RCA on the BMW12-N interface labeled 'AVIN'.

7. After DIP switch settings have been set (see page 2), connect the 24-PIN power connector to the BMW12-N interface labeled 'POWER CAN'. Proceed to **Menu Options** section if necessary (front camera settings, etc) or to **BMW12-N Operation**.



UPDATE: 2017 year 'EVO' touch-screen monitors or 'CID'-labeled monitors are *NOT* compatible with this interface.



Menu Adjustments

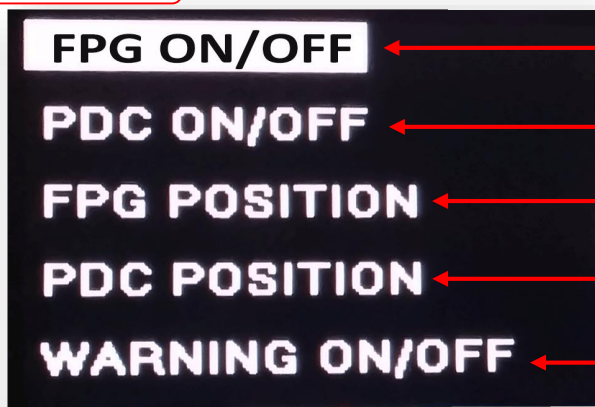
Before you start:

- The IR-Eye must be connected
- Make sure the car's ignition is on and radio is on
- You must be in **Reverse Camera** mode **OR** **AUX Video** mode (see below):
 - **Reverse Camera Mode** adjusts Reverse Camera Settings
 - **AUX Video Mode** adjusts AUX Video Settings
- Press the **OK BUTTON 4 times** (numbers will display per press), then press **POWER**.
- The **OSD Menu** will appear on screen (auto-time out in about 5 seconds if no action occurs).



Return
(AUX VID
menu
control)

RVC Menu



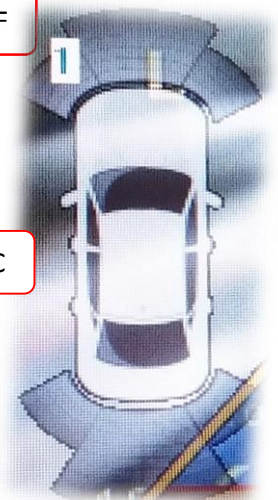
Functional Parking Guidelines ON/OFF

Parking Distance Control
ON/OFF (while in reverse)

Adjust FPG Position

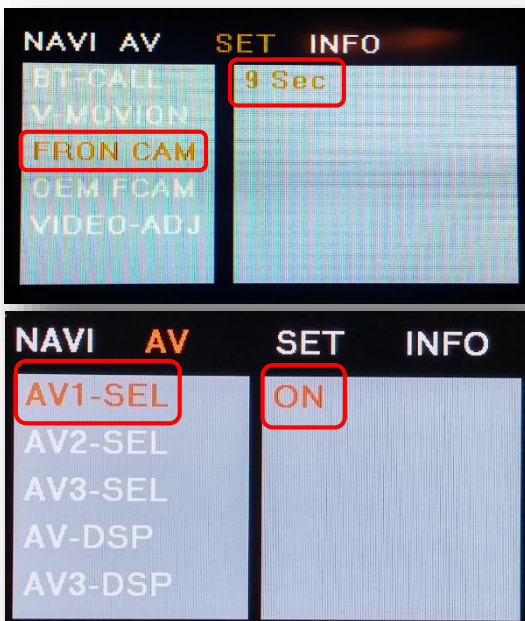
Adjust PDC Position

'Safe to move?' ON/OFF



PDC

AUX
VIDEO
Menu



If adding a front camera OR Aux Video source:

1. Disconnect POWER/CAN Harness from interface
2. Place DIP SWITCH 1 in the DOWN position, reconnect power
3. Press and hold the iDRIVE knob 'MENU' to activate the AUX screen
4. Press **OK** button on remote 4 times, then press **POWER**

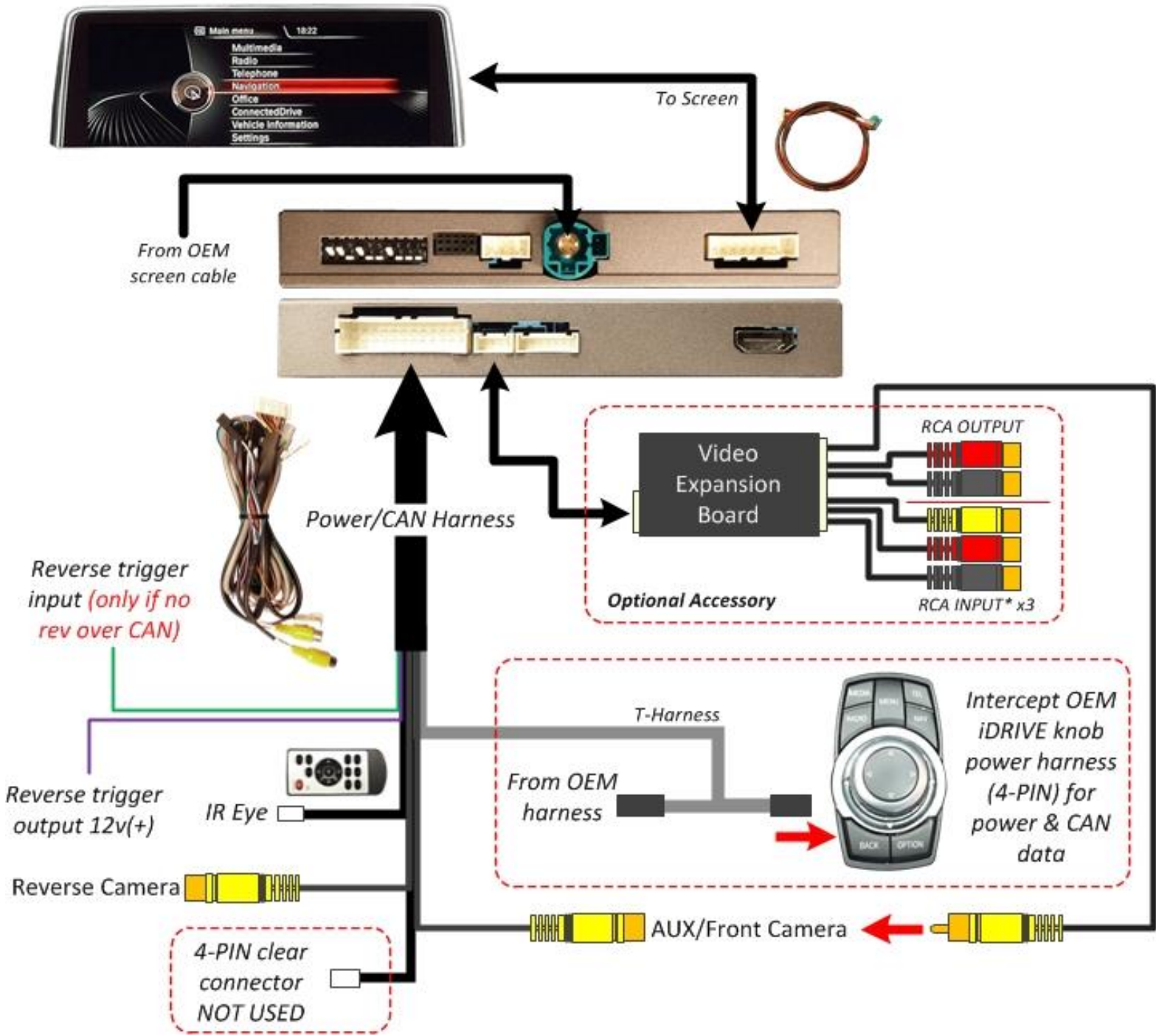
SET – FRON CAM must be turned on if adding a front camera **and the user wishes for automatic front camera switching**. Options for 5, 7, 9 or 11 seconds are user-selectable for the length of time the front camera input stays active once the vehicle is placed out of reverse.

If the user wants only an AUX video input **without front camera**, set **AV1-SEL** to **ON**

Once finished with settings, place DIP SWITCH 1 back into the **UP position** and reset power to interface.

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BMW12-N Installation Diagram



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BMW12-N Operation

- Once all connections are made and dip switches are set properly, placing the vehicle in reverse will display the connected camera with dynamic guidelines for convenience.
- Additionally, see below for AUX/Front camera activation using factory buttons.

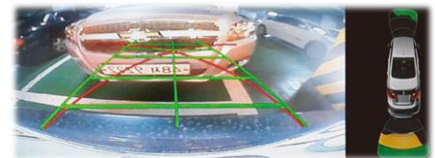


Hold (3 sec): Activate
AUX/Front Camera
video input

Hold (3 sec): Change
AUX/Front Camera view
(60/40 split, etc)

**Hold (3 sec) WHEN
IN REVERSE:** 2013-
2015 3,5,7,X series:
Change Rear
Camera view
(60/40 split, etc)

**Hold (3 sec) WHEN IN
REVERSE:** 2013-2015 1
series/MINI: Change
Rear Camera view
(60/40 split, etc)



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