NAV-TV
INTERFACING THE FUTURE
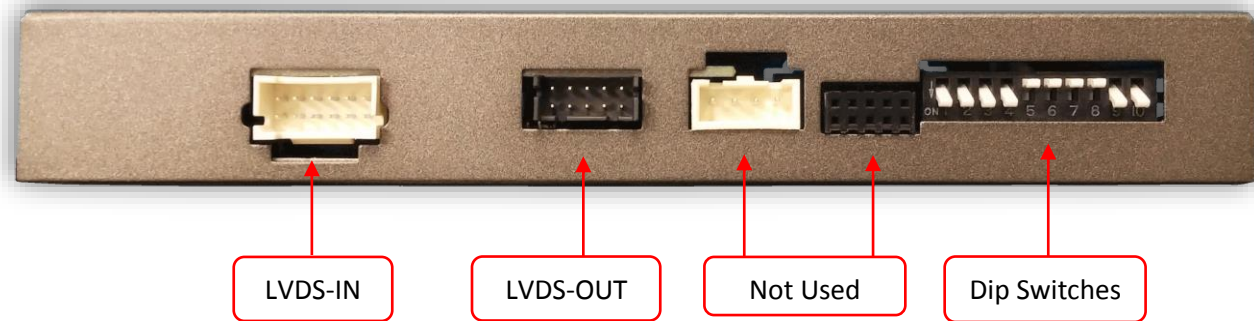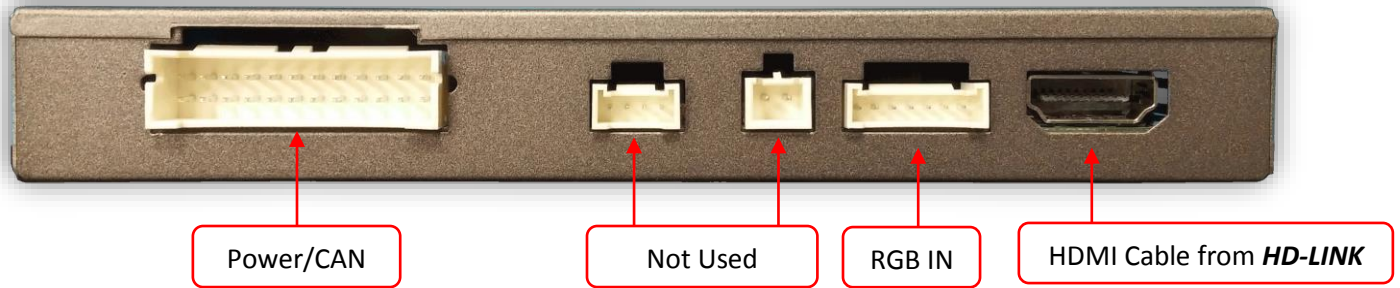
AUDI DYNAMIC-INT
NTV-KIT700

Overview

The AUDI-DYN INT Kit interfaces a backup camera (with dynamic guidelines) and one additional video input (front cam, etc) to the factory media screen in select Audi vehicles with the **Concert media system** (MMi controls on vertical radio face, not console).

Kit Contents

IR-Eye Cable

Input Toggle Switch

AUDI-DYN INT Interface

VIDEO Input RCA

HD-LINK Optional KIT800

Power/CAN Harness

LVDS-IN Cable

OSD Menu Remote

LVDS-OUT Cable

Interface Connectors

Power/CAN   Not Used   RGB IN   HDMI Cable from *HD-LINK*

LVDS-IN   LVDS-OUT   Not Used   Dip Switches

Dip Switch Settings

Dip SW:	1	2	3	4	5	6	7	8	9	10
UP	Skips RGB	Skips V1	Skips V2	**RVC OFF**	N.C.	N.C.	N.C.	N.C.	**HIGH RES**	**Keep Down**
DOWN	Enables RGB	Enables V1	Enables V2	**RVC ON**	N.C.	N.C.	N.C	N.C.	**LOW RES**	**Keep Down**

Upon button presses

Note: If the dip switches are not configured prior to installation you must remove power to the unit prior to making adjustments to the dip switches.

AUDI-DYN-INT Installation

ATTENTION INSTALLER: All connections (including CAN) must be made BEFORE connecting the power harness to this unit for proper startup operation.

1. Remove the factory screen. This requires removing the plastic screen bezel and then (4x) Torx T20 screws. Disconnect the 10-pin harness from the screen and set the screen aside.
2. Remove the factory radio (CD player). Disconnect all harnesses and set the radio aside.

3. Connect the provided **LVDS-OUT Cable** to the OEM screen. This connector is keyed and will only fit in one direction. The other end of this cable connects to the interface at the port labeled *'LVDS OUT'*.

4. Connect the provided **LVDS-IN Cable** to OEM 10-pin square connector previously connected to the screen (removed in step 1). The other end of this cable connects to the interface at the port labeled *'LVDS IN'*.

5. **Optional**: If adding an additional video input (front camera etc.), connect the provided **Video Input RCA** to the port on the AUDI interface labeled *'AV IN'*. Connect the video signal to this RCA, be certain the video source is powered with an ACC source.
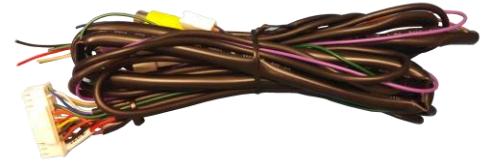
6. **Optional:** If this car is **not** equipped with OEM rear parking sensors, you may turn the visual overlay off in the OSD menu system (see page 5 for menu information).

   Note: If adjusting any OSD menu settings, temporarily connecting the provided AV toggle switch and IR-Eye is *required.* Both harness connectors are located among the main power harness (2-pin & 3-pin).

7. Grab the provided **Power/CAN Harness** from the AUDI-DYN-INT kit. Use the chart below to locate and solder (splice, don't cut) the following wires to the car (you may have to extend a pair of CAN wires for some vehicles):

Vehicle	Interface wires	Connect to AUDI Wire:	Wire Location
ALL	GROUND (Black)	Brown **(Ground -)**	CAN Gateway
	POWER (Red)	Black/White **(ACC +)**	CAN Gateway
A4/ A5/Q5	CAN 1 HI (Blue)	CAN HI (Orange/Blue)	CAN Gateway (Right side of radio. Must remove glove box for access.)
	CAN 1 LO (White)	CAN LO (Orange/Brown)	
	CAN 2 HI (Green)	CAN HI (Orange/Green)	CAN Gateway (Right side of radio. Must remove glove box for access.)
	CAN 2 LO (Pink)	CAN LO (Orange/Brown)	

AUDI A4, A5 CAN & Power Wires Location

CAN Gateway location **ALL INT MMI:** Right side of radio (drop glove box)
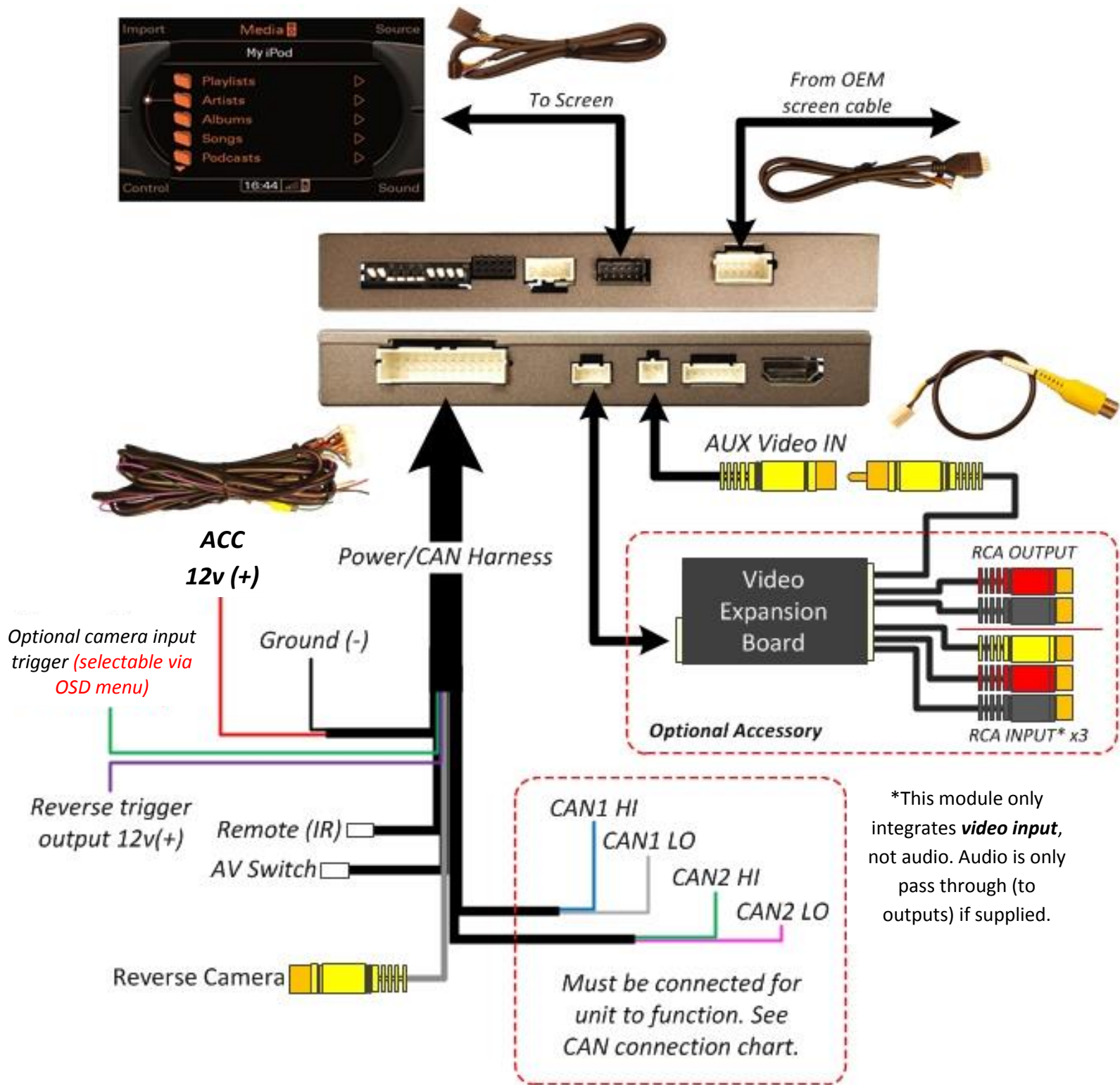
CAN Gateway

Without MOST Fiber

8. Install your reverse camera and run signal, power and ground wires up front to the AUDI interface from step 7.

9. Power your camera with an ACC source or the purple 12v reverse output wire **(500 mA MAX)**. Find a solid ground (-) for the camera as well. *NOTE: if using KIT381 (AUDI handle cam), cut off the connector and use black wire for ground and red for power.*

10. Connect the signal for your camera to the yellow RCA among the **Power/CAN Harness** labeled 'CAMERA'.

11. Connect the 24-pin white plug from the **Power/CAN Harness** to the port on the AUDI-DYN INT interface labeled *'POWER/CAN'*.

12. Start the car and test for proper functionality before replacing dash pieces. If menu adjustments are needed (to remove sensor overlay, etc.), proceed to 'Menu Adjustments'

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.*
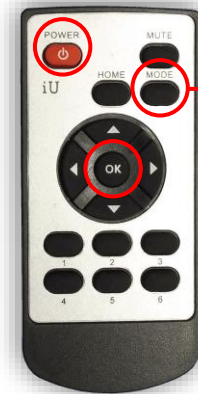
Installation Diagram

ACC
12v (+)

Power/CAN Harness

To Screen

From OEM
screen cable

AUX Video IN

Optional camera input
trigger *(selectable via
OSD menu)*

Ground (-)

Video
Expansion
Board

RCA OUTPUT

Reverse trigger
output 12v(+)

Remote (IR)

AV Switch

Reverse Camera

CAN1 HI

CAN1 LO

CAN2 HI

CAN2 LO

Must be connected for
unit to function. See
CAN connection chart.

Optional Accessory

RCA INPUT* x3

*This module only
integrates **video input**,
not audio. Audio is only
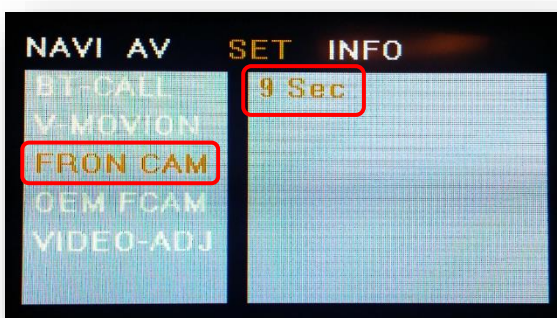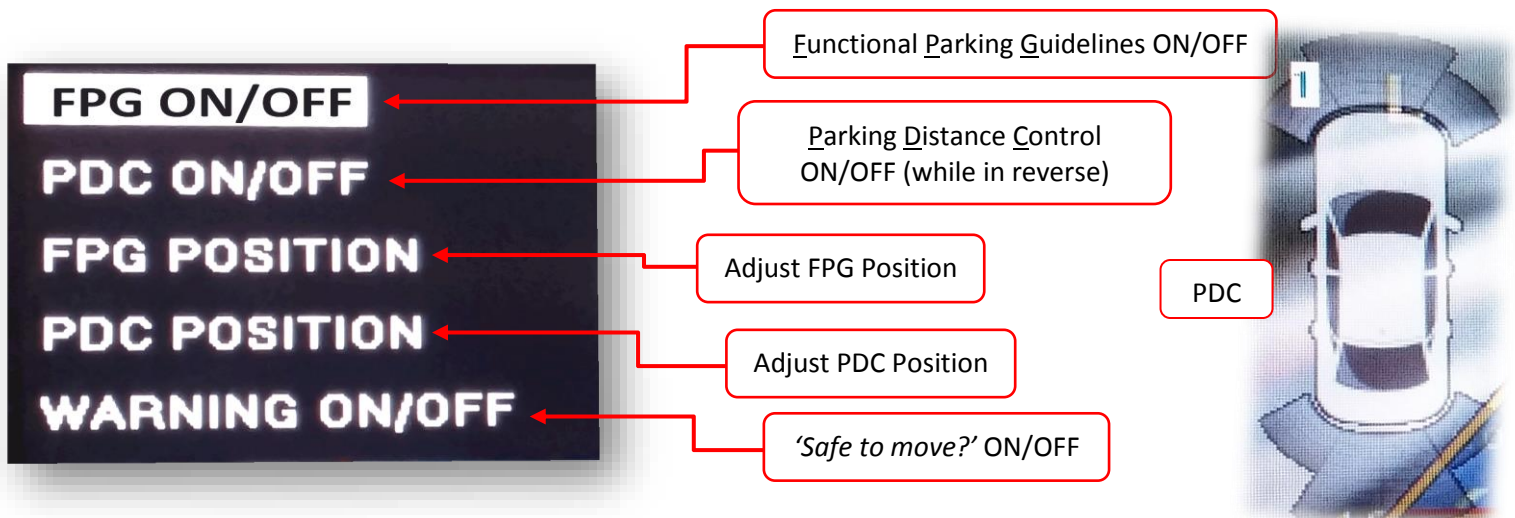pass through (to
outputs) if supplied.

Menu Adjustments

Before you start:
1. The IR-Eye must be connected, the AV toggle switch must be connected (main harness)
2. Make sure the car's ignition is on and radio is on
3. You must be in **Reverse Camera** mode **OR AUX Video** mode.
   - **Reverse Camera Mode** adjusts Reverse Camera Settings
   - **AUX Video Mode** adjusts AUX Video Settings
4. Press the **OK BUTTON** <u>4 times</u> (while in reverse OR *AUX VID mode: press momentary button*), then press **POWER**.
5. The **OSD Menu** will appear on screen (auto-time out in about 5 seconds if no action occurs).

Return (menu control)

Functional Parking Guidelines ON/OFF

Parking Distance Control ON/OFF (while in reverse)

Adjust FPG Position

PDC

Adjust PDC Position

'Safe to move?' ON/OFF

To enter the AUX menu, DIP SWITCH #2 must be **DOWN.** Press the provided **momentary button** once after connecting to module. Once *'AV1'* shows on the screen, press the **OK Button (remote) 4x, then press power.**

SET – FRON CAM must be turned on if adding a *front camera **and the user wishes for automatic front camera switching (displays after leaving reverse gear).***

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 (OEM similar).
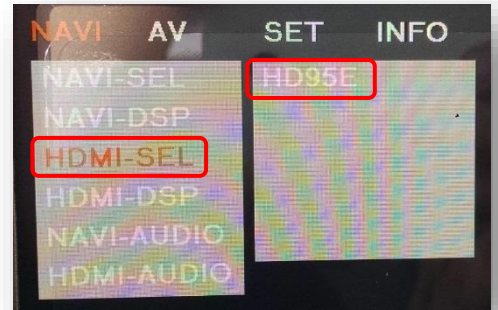
If the user wants only a forced AUX video input (no timer function), *leave this option 'OFF' and use DIP SWITCH 2* for adding AUX Video input, selectable via the provided push button switch.

Adding HD-LINK Adapter (HDMI Input)

**Follow the instructions below when adding the HDMI adapter
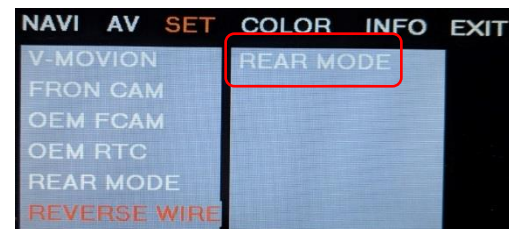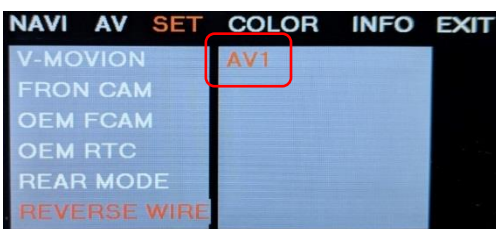(HD-LINK) to enable HDMI input to the OEM screen:**

1. Put dip switch #1 in the **DOWN** position.
2. Activate the 'NAV INPUT' by pressing the provided push button (must be connected to module).
3. Once 'NAV INPUT' shows on the screen, on the remote press the **OK BUTTON** <u>4 times</u>, then press **POWER**.
4. Navigate to the *'NAVI'* section.
   a. Select *'HDMI-SEL'*
   b. Choose *'HD95E'*
   c. Press *MODE* on the remote to return and exit the OSD menu (or let it time out).
5. Replace dip switch #1 to the **UP** position.
6. Connect the **black wire** to ground (-) and the **red wire** to ACC power (+) from the main power connector on the *HD-LINK* adapter. The RCA's on this plug provide audio from the HDMI source.

Green Trigger wire setup

This module includes a green *input* wire for analog triggering of either the Reverse camera input or the *'AVIN'* input (yellow RCAs), selectable through the AV menu. This allows for adding multiple cameras through the use of an SVS-6 switcher, etc. Follow the steps below adjust this feature. *NOTE: by default, the green wire will trigger the Reverse camera input RCA.*

1. Put dip switch #1 in the **DOWN** position. *When this section is complete, return switch #1 **UP**.*
2. Activate the 'NAV INPUT' by pressing the push button provided with the kit (connect to module).
3. Once 'NAV INPUT' shows on the screen, on the remote press the **OK BUTTON** <u>4 times</u>, then press **POWER**.
4. Navigate to the *'SET'* section.
   o Select *'REVERSE WIRE'*
   o Choose *'AV1', 'REAR' or 'REAR MODE' (explanations below)*
   o Press *MODE* on the remote to return and exit the OSD menu (or let it time out).
   o Test by sending temporary power (12v +) to the **green wire** labeled *reverse*.

AV1 shows the *'AVIN' RCA* when the green *reverse wire* is triggered.

REAR shows the *'CAMERA' RCA (with no lines)* when the green *reverse wire* is triggered.

REAR MODE shows the *'CAMERA' RCA (with dynamic lines)* when the green *reverse wire* is triggered.

- Once all connections have been properly made, placing the vehicle in reverse will show the connected rear camera image with Dynamic Guidelines which correspond with the steering wheel geometry.
- If a front camera was added and ***Automatic front-camera switching*** was turned on, whenever the vehicle leaves reverse (after showing reverse image once) the connected front camera will display for the user-set amount of time (5, 7, 9 or 11 seconds).
- If no front camera switching is wanted, use the ***iNAV*** button on the steering wheel for AUX Video switching (not supported in all vehicles). Alternatively, pressing the provided toggle switch will switch between AUX Video modes in this order: ***(OEM-RGB[NAVI]-AV1-AV2-OEM)*** when connected (dip switch dependent)***.***

FAQs

Q. The unit will not power on, I have no indication of proper operation.

A. This module *will not* power on properly or display anything (reverse image or AUX video IN) *until CAN is properly connected*.

Q. All I see on the display is a black screen (no factory image pass-through).

A. Verify the video cables (IN/OUT) are connected at the proper location (at the screen).
B. Verify the video cables are seated all the way.
C. Verify the Dip Switches are set correctly.

Q. Rear camera image does NOT appear.

A. Make certain Dip Switch #4 in set *down* for aftermarket camera, or *up* for a factory camera.
B. Verify the CAN wires. This module uses CAN data to trigger the reverse image on the screen.
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 green wire instead of the CAN connection for reverse activation.

Q. Unwanted A/V mode is displayed upon a toggle press (A/V source switching order: OEM->RGB->AV1->AV2->OEM).

A. Check DIP Switch Settings. Refer to page 2.