NAV-TV
INTERFACING THE FUTURE

AUDI-P60H
NTV-KIT788


Quick Reference
(LVDS) Video Cable connects at *MMI* (inside glove box)
Power/CAN Harness connects at *MMI* (drop glovebox)
Unit requires 12v *ACC power, NOT Constant 12v*
Do not power camera with reverse light. Use ACC or purple wire (through relay)

Overview

The *AUDI-P60H* Kit interfaces a backup camera input (with active parking lines), 1 additional composite video input and an HDMI source into the factory media screen in the 2017 Audi A4, Q7, TT or R8 vehicles with the brand new (MIB2) MMI system. Installation is performed behind the MMI module (inside glove box). *NOTE: the vehicle must be equipped with the full virtual-cockpit cluster LCD in order for this kit to work.*
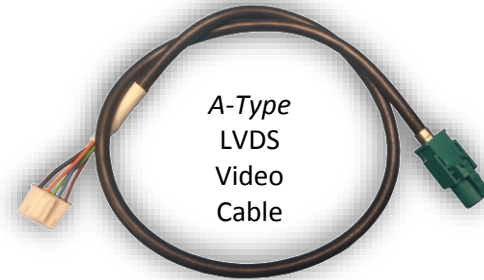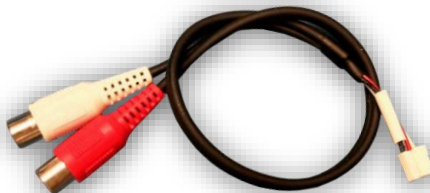
Kit Contents
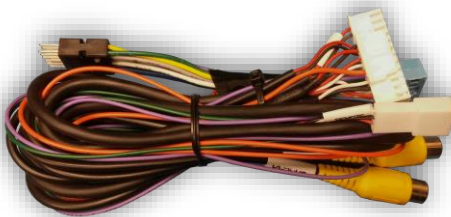
Power/CAN Harness

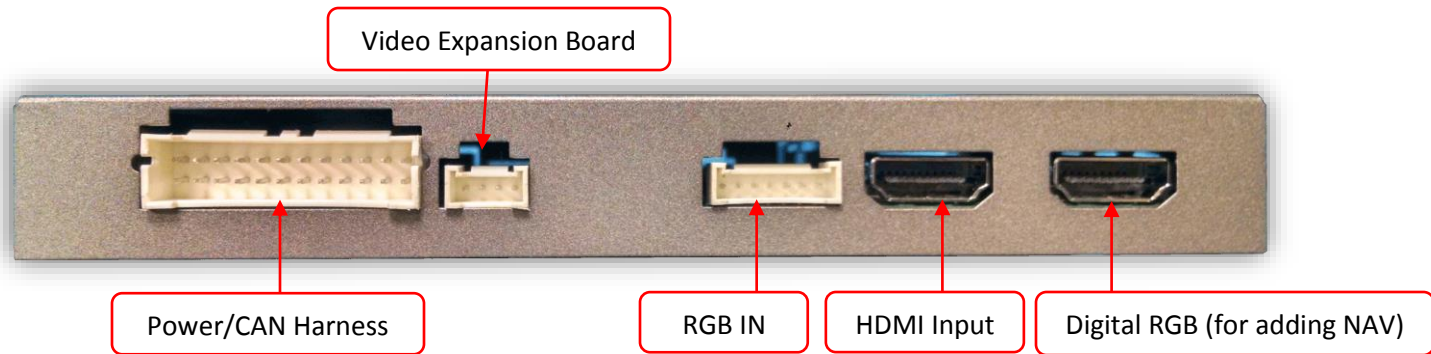AUDI-P60H Interface

A-Type LVDS Video Cable

Audio Output Cable

Infrared Receiver

OSD Menu Remote

Interface Connectors

HDMI Audio OUT

Video IN (from radio)

Video OUT
(to screen)

IR Receiver

Dip Switches

Video Expansion Board

Power/CAN Harness

RGB IN

HDMI Input

Digital RGB (for adding NAV)
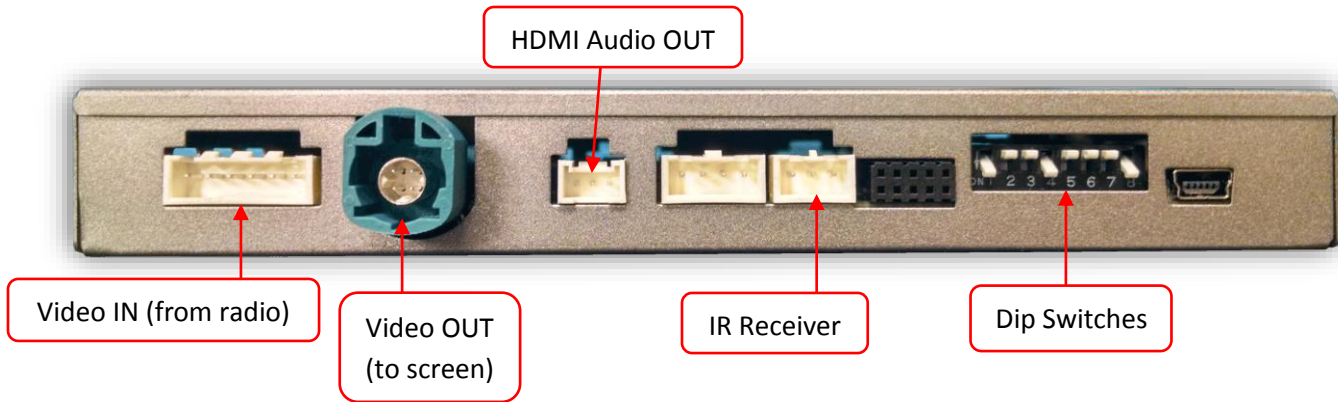
Dip Switch Settings

Dip SW:	1	2	3	4	5	6	7	8
UP	No NAV	N/A	N/A	OEM RVC	N/A	N/A	HIGH RES	*Keep DOWN*
DOWN	Adding NAV	N/A	N/A	ADDING RVC	N/A	N/A	LOW RES	*Keep DOWN*

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

AUDI-P60H Installation

1. Remove the MMI module located in glove box – this will require an 8mm socket and possibly a right-angle driver. Disconnect any associated harnesses and set the radio aside.

2. Grab the provided *'Power/CAN Harness'* from the AUDI-P60H kit. Connect the following wires to the *car:*
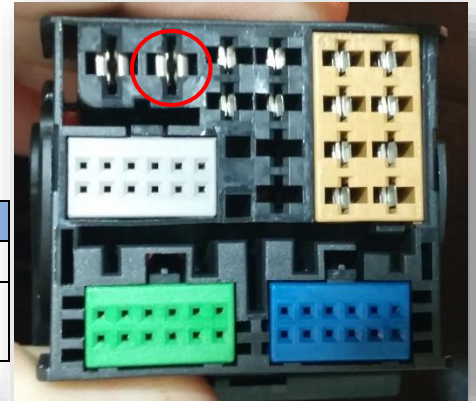
Interface wires	Connect to car	Location
Black (Ground)	Chassis Ground	PIN 15 (Radio plug)
Red (ACC 12v)	ACC 12v (+)	Black/White or Black/Blue @ pass fuse box
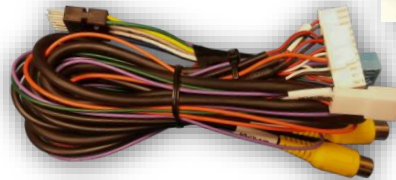
3. Locate the factory *Pink (For AUDI's with NAV, this connector is GRAY)*, 4-pin round connector that was removed from the radio in step 1. Connect this factory plug to the AUDI-P60H interface at the port labeled *'VIDEO OUT'*.*

4. Connect the smaller white plug side of the provided *LVDS Video Cable* to the port on the AUDI-P60H interface labeled *'VIDEO-IN'*.

5. Connect the free end of the provided *LVDS Video Cable* (green) back to the factory radio at the appropriate port.
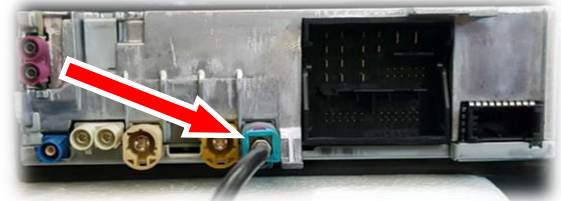
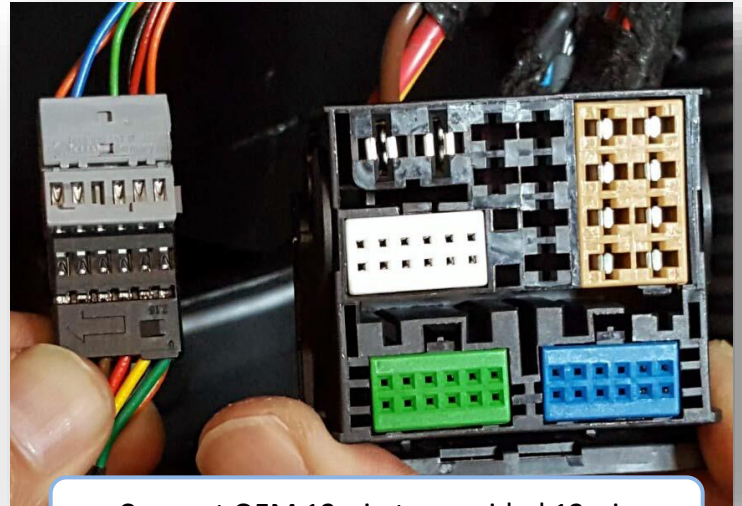6. Connect the provided 12-pin plug & play portion from the main power harness to the main factory MMI connector as shown below. Pay attention to the orientation, as this is vital to proper operation:

Remove gray OEM 12-pin

Connect OEM 12-pin to provided 12-pin (black, PIN-side). *NOTE: printed arrow location on provided 12-pin plug vs OEM plug.*

Connect the female 12-pin side of the plug & play portion to the OEM main MMI connector as shown. *Note the paint dot must face towards the thick power wires.*

If the connector does not secure properly, zip tie the harness in place to surrounding wires *leaving slack so that the connector stays in place.* Use a spot of glue on the back side if you're still concerned with this.

Note: sometimes it is easier to connect the main plug back to the MMI module first and then connect this 12-pin in.
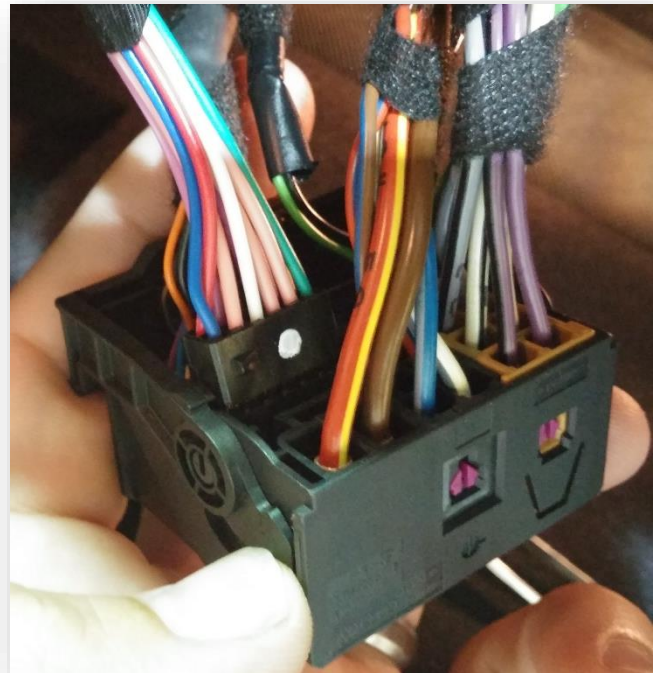
7. Connect ground and power for your camera, you may use the provided **purple** wire (labeled 'REAR12VOUT') for power for convenience. **NOTE:** *This power source will only supply 12v when the vehicle is in reverse (if forced rear camera is desired at any time, you'll need to use an ACC source for power instead).*

8. Connect the video feed from the camera to the RCA among the main power harness labeled 'CAMERA'.

9. Connect the white plug from the **Power/CAN Harness** to the port on the AUDI-P60H interface labeled *'POWER CAN'*.

10. Connect the HDMI Cable *(not provided)* from the HDMI source to the *HDMI-IN* port on the AUDI-P60H.
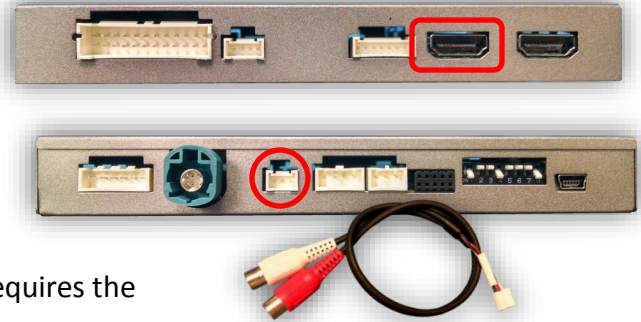
    a. If using HDMI, audio is extracted from the module via the provided *Audio Output Cable* from the port on the interface labeled '*HDMI AUDIO OUT'*. Connecting this signal to the vehicle often requires the MMI-AUX adapter.

11. **Optional:** If adding an additional composite video input (including front camera), connect the video signal to the RCA among the Power/CAN Harness labeled 'CVBSIN'**.**

12. **Optional:** Powering (12v) the **green wire** through a toggle switch (not included) among the power harness can be set to show either the *'CAMERA' RCA* or *'CVBSIN'* RCA at will. See OSD Menu settings (page 8 & 9) to adjust *'REVERSE LINE'*.

13. Start the car and test for proper functionality before replacing any dash pieces.

AUDI-P60H Operation

- If a rear camera was installed, placing the vehicle in reverse will show the connected camera's image, with dynamic guidelines for convenience.
- See below for activating additional video inputs:

Steering Wheel

Press & hold *BACK ARROW* (2 seconds) to cycle through installed & active video input options. Order: **OEM-NAV-AV1-AV2-AV3-HDMI-OEM**

OR

Press & Release *NAV/MAP* to cycle through installed & active video input options. Order: **OEM-NAV-AV1-AV2-AV3-HDMI-OEM**
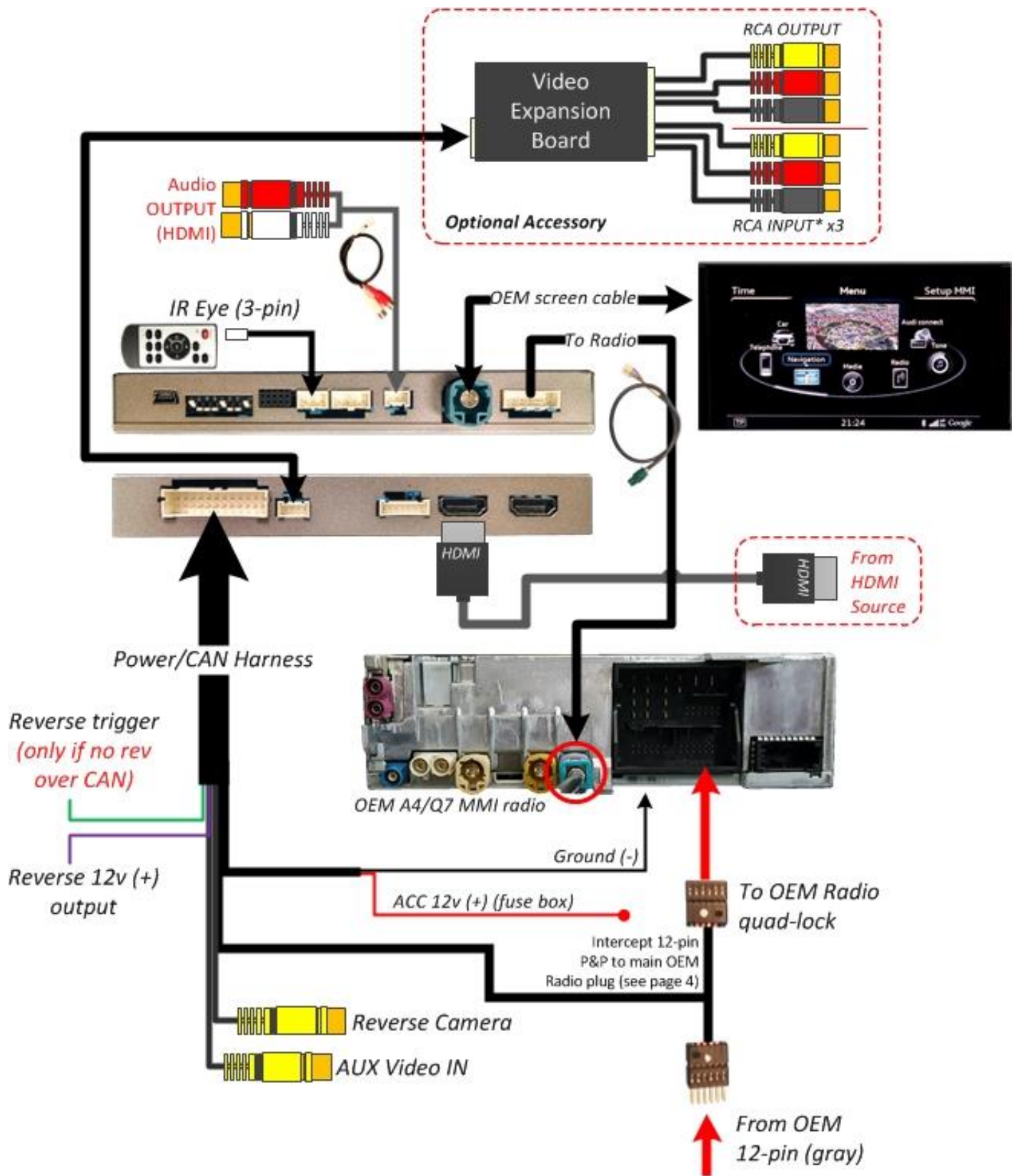
MMI Control

- Additionally, sending 12v (+) to the **green wire** through a toggle will force the *'CAMERA'* or *'CVBSIN'* video signal, selectable via the OSD menu. See page 8 & 9.

Note: These features will only function when active (see OSD Menu settings & Dip Switch settings)

AUDI-P60H Install Diagram

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

FPG ON/OFF
PDC ON/OFF
FPG POSITION
PDC POSITION
WARNING ON/OFF
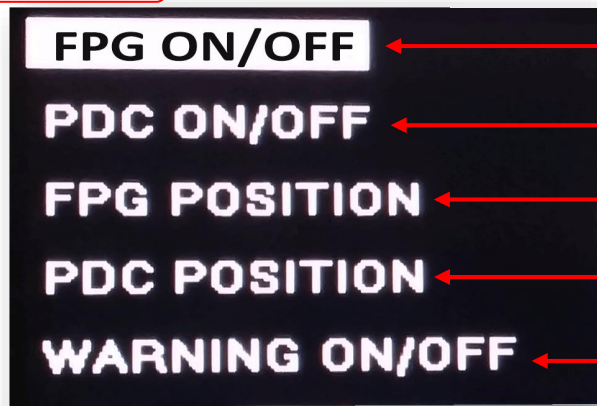
Functional Parking Guidelines ON/OFF

Parking Distance Control ON/OFF (while in reverse)

Adjust FPG Position

PDC

Adjust PDC Position

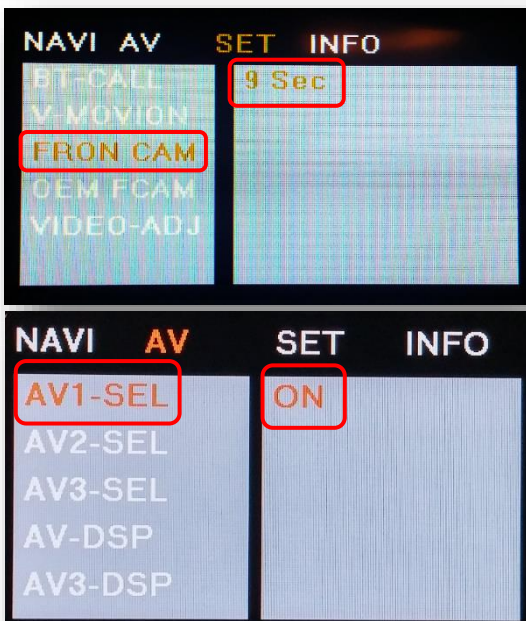'Safe to move?' ON/OFF

NAVI AV SET INFO
9 Sec
BT-CALL
V-MOVION
FRON CAM
OEM FCAM
VIDEO-ADJ

AUX VIDEO Menu

NAVI AV SET INFO
AV1-SEL ON
AV2-SEL
AV3-SEL
AV-DSP
AV3-DSP

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 the *NAV/MAP* button on the MMI controller to activate *NAV Input*
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*, leave *FRON CAM* off.

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

AUDI-P60H OSD Menu Options *continued*

- **BT-CALL:** How a (OEM setup) Bluetooth phone call is handled while in AV/HDMI mode:
  - ○ **ON -** When in AV/NAV mode, the unit will transition to the OEM screen when a Bluetooth phone call is active, then return when call is ended.
  - ○ **OFF -** There is no screen transition when a BT call is active. The screen will remain in whatever mode it is currently on.
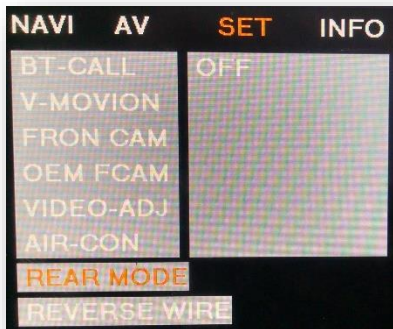- **V-MOVION:** N/A
- **FRON CAM:** Front camera timer (AV1) = without expansion board; (AV3) with expansion board
  - ○ **5s, 7s, 9s, 11s:** Choose one (timer, in seconds), for the amount of time the *front camera (AV1)* shows after the vehicle is transitioned out of reverse gear
  - ○ **OFF:** No timer activation
- **OEM FCAM:** N/A
- **VIDEO ADJ:** Adjust video settings for AV1/HDMI/NAV, etc
- **AIR-CON:** Used on vehicles that display the HVAC/volume information on the screen whenever an adjustment is made.
  - ○ **ON:** When in AV/HDMI mode, the screen will transition to the OEM screen to display the HVAC/volume adjustment, then auto transition back to AV mode.
  - ○ **OFF:** When in AV/HDMI mode, the screen will remain while HVAC/volume adjustments are made.
- **REAR MODE:** Used to determine operation when the vehicle is placed into reverse.
  - ▪ **ON:** RVC dip switch (#4) dependent (follows DS #4).
  - ▪ **OFF:** The unit will ignore the reverse gear/wire. (No screen transition in AV or OEM)
    - *DIP 4 ON*: Aftermarket camera input: In AV/HDMI or OEM, the screen will transition to the RVC input when reverse is detected. Will display any extra overlay info, PDC, active guidelines.
    - *DIP 4 OFF*: OEM equipped camera: In AV/HDMI the unit will transition into the OEM screen when reverse is detected.
- **REVERSE WIRE:** Providing 12v (+) to the **green wire** acts as an external activation for the selected input (connect through toggle switch, SVS-6, etc).
  - ○ **REAR MODE:** Follows the REAR MODE operation (with guideline overlay and any additional options)
  - ○ **REAR:** Displays the RVC input video in its raw form (no extra overlays)
  - ○ **AV1:** Displays AV1 input