



Advanced CarPlay/Android Auto integration for AUDI vehicles equipped with 3G MMI / MIB / MIB2 system



### **IT3-AUDI Kit Components**

(ALL Variants)



IT3-AUDI Interface



4 pin LVDS Y-Cable





WIFI/ BT Antenna



See T-Harness variants on next page.



### **IT3-AUDI Kit Components**

**T-Harness Variants (model specific)** 



IT3-MMI3G-A4 Main T-Harness HAR-Q5U



IT3-MIB2 Main T-Harness HAR-B9



IT3-MMI3G-A6/Q7 Main T-Harness HAR-C6



IT3-MIB2-A6/A7 Main T-Harness HAR-A7C



IT3-MMI3G-A8
Main T-Harness
HAR-A8



IT3-MMI3G-A6/A7 Main T-Harness HAR-A6



### **AUDI MMI (Radio) Locations**

Installation for IT3-AUDI takes place entirely at the RADIO tuner (CD Player)

#### **BENEATH SCREEN**



Most vehicles with 3G MMI or MIB2



GLOVE BOX

A3 MIB,

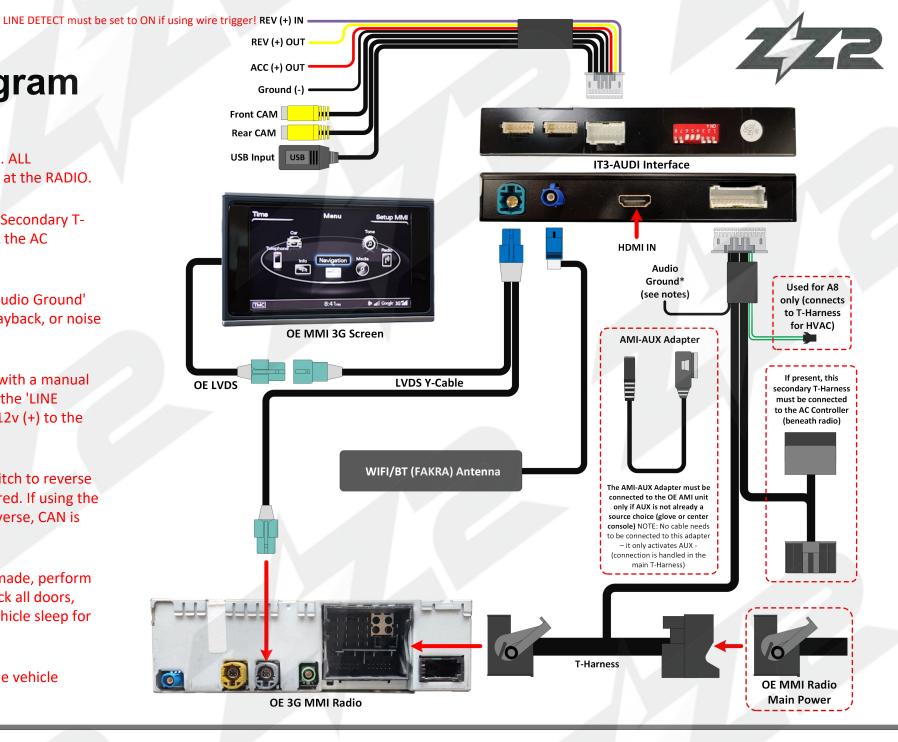
**Q5 3G MMI** 



### IT3-AUDI Install Diagram

#### **NOTEs:**

- Do not remove the screen. ALL connections are performed at the RADIO.
- Most vehicles require the Secondary T-Harness to be connected at the AC Controller.
- \*Only ground this black 'Audio Ground' wire if there is NO audio playback, or noise is present when using AUX.
- If the vehicle is equipped with a manual transmission, you must set the 'LINE DETECT' to ON and supply 12v (+) to the violet (REV (+) IN) wire.
- If CAN is being used to switch to reverse image, LINE DETECT is ignored. If using the wire trigger to switch to reverse, CAN is ignored.
- After all connections are made, perform a CAN reset before use! (lock all doors, remove prox-key and let vehicle sleep for ~10 minutes)
- Perform all testing with the vehicle RUNNING.





CarPlay / Android Auto + Camera input for Audi vehicles equipped with the 3G MMI / MIB / MIB2 System

NOTE: <u>A4/A5/Q5/A6/A7/A8/Q7/Q3 vehicles</u> - Quadlock is plug and play behind the radio and the secondary plug and play harness plugs into the AC controls.



For Q3-N (nav equipped), the secondary T-Harness (cam lock) is not used.



\*If the car is equipped with fiber optic, please remove it from the original quadlock and move it to the supplied plug and play harness.



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DIP								
1	2	3	4	5	6	Selection of car model	Model	
ON	ON	OFF	OFF	ON	ON	2013-2016 A3 (5.8 inch)		
ON	ON	OFF	ON	ON	OFF	2017- A3 (5.8 inch)		
ON	ON	ON	OFF	OFF	ON	2013-2016 A3 (7 inch)		
ON	ON	ON	OFF	OFF	OFF	2017- A3 (7 inch)	IT3-MIB2	
ON	ON	OFF	ON	OFF	OFF	2017- A4/S4/A5/S5 (7 inch); 2018- Q5 (7 inch)		
ON	ON	ON	OFF	ON	ON	2016-2018 Q7 (7 inch)		
OFF	OFF	OFF	OFF	OFF	OFF	2013-2017 Q5 (MMI); 12-16 A4/S4/A5/S5 - 12-15 A6/A7,HURRICAN*	IT3-MMI3G-A4	
OFF	OFF	OFF	ON	ON	ON	2009-2012 Q5 (MMI); 2009-2011 A4/S4/A5/S5 (MMI) (some 2012)	IT3-MMI3G-A6/A7	
OFF	OFF	ON	ON	OFF	ON	2010-2011 A6 (C6)	ITO MANIOO ACIOT	
OFF	OFF	OFF	OFF	ON	OFF	2010-2015 Q7	IT3-MMI3G-A6/Q7	
OFF	OFF	ON	ON	ON	ON	2016-2018 A6/A7	IT3-MIB2-A6/A7	
OFF	OFF	ON	ON	OFF	OFF	2014-2018 Q3 with NAV	IT3-MMI3G-Q3N	
OFF	OFF	OFF	OFF	OFF	ON	A8	IT3-MMI3G-A8	
OFF	OFF	OFF	ON	OFF	ON	Without MMI: 2009-2016 A4/A5/Q5	IT3-SYM	

DIP	ON	OFF	
7	Car without parking sensors	Car with parking sensors	
8	External microphone	OEM microphone	

NOTE: If PARK button is ON and sensors are currently active, the unit may not switch modes until sensors are cleared.



Factory test DIP setting (No.1~6):

OFF - OFF - ON - OFF - ON - OFF

**NOTE!** Please reboot the interface for effective after changing any DIP setting.







For older HURRICAN, cut yellow (12v batt) wire at module 'CAN' connector, extend to an ACC source. Also, must run reverse wire to violet wire, and change 'REVERSE LINE DETECT' to 'ON' if equipped with OE reverse camera.



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### **Operation Instruction:**



ATTENTION: With the latest system software (3.6.13), use <u>OEM Bluetooth streaming (source)</u> for all audio playback from CarPlay/Android Auto.

Select AUX input
in order to get
audio input



**NOTE!** Make sure switch to OEM Bluetooth (preferred) or AUX mode on original car stereo for audio before using the CarPlay integration.



NOTE! If a car without
AUX jack but with AMI,
please plug in an AMI
cable to factory AMI port,
and do not connect
anything with another
side of the cable.



### How to connect to Apple CarPlay / How to setup Bluetooth Phone Calls

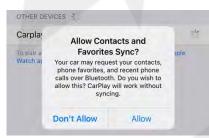
- 1. If you would like to use a cable to connect your iPhone, please use a certified Apple cable.
- 2. If you would to use a wireless connectivity, please follow the next steps.
- 3. Before pairing the iPhone with the system, please make sure you do a "hard reset" on the phone in order to prevent any malfunction. (Check phone manual/online)
- 4. Once you are done with the previous step go to Settings > Bluetooth and the phone should be able to find a Bluetooth device called CarPlay8\*\*\*\* under the Other Devices.



4. Select CarPlay8\*\*\*\* and a Bluetooth Pairing Request will be displayed on the screen with a code. Select "PAIR".



5. Right after the Pairing notification a new request to Sync your contact with the car will be displayed. Select "ALLOW" in order to have caller ID and access to your contacts through CarPlay.



6. A notification asking for a permission to connect your iPhone to the car even when the phone is locked will pop up. Select "Use CarPlay" and the CarPlay main screen should show up on the factory radio screen.



7. When the phone is connected push and hold the MEDIA/NAV button for 2 seconds to switch to CarPlay.

### **Bluetooth Phone Calls**

Please access the Main Menu of the Interface, by selecting the yellow ZZPLAY tile, and then go to SETUP > USING CAR'S BT CHANNEL and make sure that option is ON. After that go back to the main screen and RETURN to CarPlay/Android Auto. On the phone, please make sure the device is paired with the factory AUDI Bluetooth as well as the ZZPLAY unit.

When using the ZZPLAY system, you must be in Bluetooth Audio source (not AM, FM, AUX or any other source) in order to hear audio from CarPlay/AA. If the vehicle is not factory-equipped with Bluetooth, you must use AUX for the audio source (and BT Channel must be turned OFF).

# Audio Playback Options



To change these settings, you must access the interface main menu. Go to ZZPLAY>SETUP and scroll towards the bottom of the list. If 'BT Channel' does not exist, your system is out of date and needs to be updated. Contact ZZ2 for more information.



#### Use Car's BT Channel (ON):

Sends all CarPlay/AA audio (music & telephony) directly to *factory radio's Bluetooth stream source.* 

#### NOTES:

- Not all vehicles will be equipped with Bluetooth streaming - verify before using
- Phone must remain (Bluetooth) connected to the factory radio for phone calls & music
- Use **BT Audio** source (not AUX!) to hear music from CarPlay/AA
- Adjusting this feature (ON or OFF) will reboot the unit once



<u>Use Car's BT Phone (ON):</u> Sends CarPlay/AA music to AUX, but telephony to factory radio's Bluetooth system for phone calls only.

#### **NOTES:**

- Phone must remain (Bluetooth) connected to the factory radio for phone calls <u>only</u>
- Use AUX Input source (not Bluetooth Audio!)
   to hear music from CarPlay/AA
- Answer incoming phone calls from the steering wheel pickup button for best results
- Place outgoing phone calls using SIRI/Voice command for best results



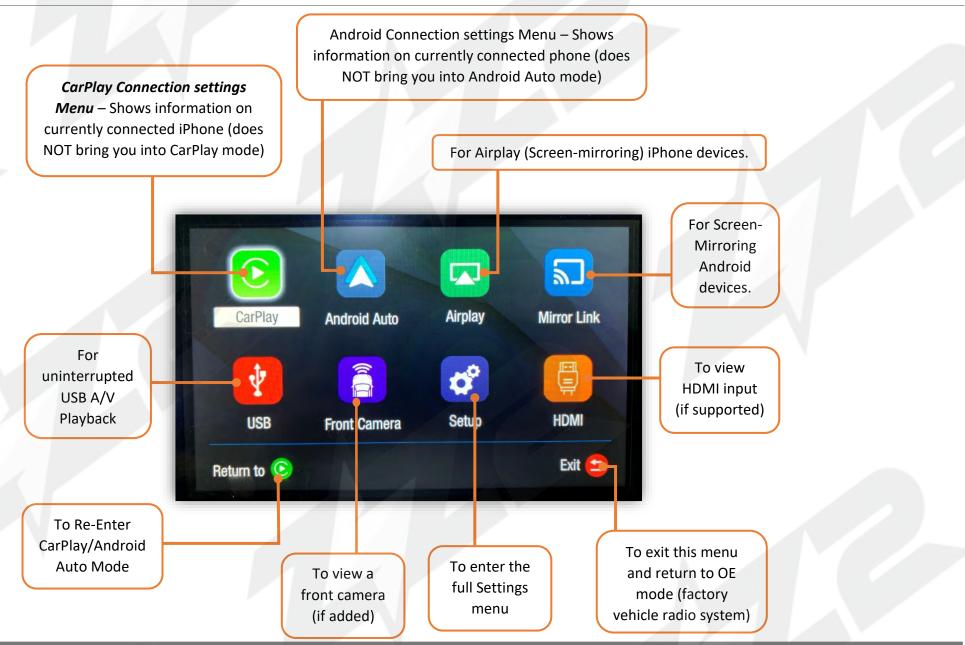
<u>Use Car's BT Channel & Phone (OFF):</u> Sends 100% of the audio from CarPlay/AA to the AUX input - including phone calls.

#### **NOTES:**

- Connection to factory Bluetooth not required
- May cause echoing during phone calls MIC settings inside 'AUDIO' section available for adjustment
- Must use this setup for Phone Mirroring feature for sound from phone when mirroring



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### CarPlay / Android Auto + Camera input for Audi vehicles equipped with the 3G MMI / MIB / MIB2 System

The next few pages overview the IT3 interface, navigating settings and explains entering/exiting all menus. There are (2) menu systems that exist outside of the OE radio system:

CARPLAY (or Android Auto) menu and the ZZPLAY Interface Menu. They operate independent of each other (the ZZPLAY Interface menu will function regardless of whether or not a phone is connected to the module). Settings for CARPLAY will only control CarPlay settings. Settings for the ZZPLAY Interface control things like reverse camera settings, audio output control settings and other vehicle/interface-specific parameters.

#### **CARPLAY**



#### ZZPLAY INTERFACE MENU



To enter the **ZZPLAY Interface Menu** from the CARPLAY system, locate the 'Exit' tile and select it. If there is no phone connected, simply using the activation button (which normally brings you into CARPLAY mode) will enter you in the **ZZPLAY Interface Menu.** 



If a phone is paired and you've entered the **ZZPLAY Interface Menu**, select 'Return to [icon]' to return to CarPlay mode.



Selecting 'Setup' will bring you to the **ZZPLAY**Interface Setup Menu with all options
pertaining to the specific vehicle and install.





Inside **System** includes Language, Display options, a Software Update prep mode (USB Updates – CONTACT US) and System Version information for this module. NOTE: The System Version information screen stores required information when updating the module – take a picture of this if you're planning to update the unit.



SDK Version: 25.0.0.7.0.0.2.0 CUST Version: ZZ2\_3.5.7.L MCU Version: 21.8.2.10 HW Version: Lexus\_1



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**Audio** provides audio level controls for the interface:

(Global Vol level, Music, Speech and Alert volumes are all separated out specifically for tuning the interface for the best user experience).



An array of *Microphone* settings are used specifically when using the *provided system microphone*. *ZZ2 recommends using the OEM Bluetooth system whenever possible for IT3 hardware (and in that case, these settings don't apply)*. In some cases where the provided microphone is required, follow these steps to reduce echo delay (OR run 'AEC Auto Setup below):

Before beginning, be in AUX mode, someone must be on the phone with you (outside of vehicle) to test, start the car and roll all windows up:



- Bring Microphone OP (gain) down as low as possible, to the point where you can still hear them clearly (typically 1-3)
- Start *Microphone Delay* at 0, bring up 1 detent at a time, testing audibly while you increase this setting (say: 'testing 1, 1, 1, 1', then 'testing 2, 2, 2, 2' as you go, etc). Stop when echo goes away.
- 3. Re-test the phone call after complete at different (OE) volume levels.

AEC Auto Setup will attempt to run an echo delay test automatically. For this test you cannot be on the phone to begin with, it uses a series of tones to determine how to adjust settings based on the interior of the vehicle.











**Reverse** configures all camera options, whether aftermarket or OEM.

**Reverse Camera** should be default set to 'Original' for OE camera, or select 'Aftermarket' if adding a reverse camera.

Reverse Line Detect activates the wire trigger (violet) for reverse camera (used for manual transmissions typically), found on the USB Media Harness. With this feature ON, it may also disable the reverse (over CAN data) command.

**Reverse Display Track** designates whether or not to display dynamic guidelines on the reverse image (aftermarket cam only).

**Reverse Display Radar** is only used when the vehicle is equipped with OE reverse sensors (typically it will show a visual radar screen next to the rear camera image screen).

**Front View Time** sets the length of time an added front camera (to Front RCA input) will show after leaving reverse gear.

**Reverse Match Original** adjusts the positioning of reverse screen to match original camera location.

Match 360 Display, or Ignore 360 State (vehicle dependent) relates to any vehicle with multiple cameras. Adjust this show those stitched or side cameras when in CarPlay/AA mode not. This feature is typically OFF.

CarPlay/AndroidAuto

Left Scrap

Right Scrap

**Top Scrap** 

**Bottom Scrap** 

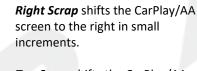
### IT3-AUDI

### CarPlay / Android Auto + Camera input for Audi vehicles equipped with the 3G MMI / MIB / MIB2 System



Carplay/Android Auto has adjustments for the CarPlay screen positioning (overall) and other rarely used CarPlay/AA screen features.

**Left Scrap** shifts the CarPlay/AA screen to the left in small increments.



**Top Scrap** shifts the CarPlay/AA screen upwards in small increments.

**Bottom Scrap** shifts the CarPlay/ AA screen to the downwards in small increments.

**Auto Dark Mode** dims the CarPlay/AA screen based on the Phone's current setting (or gets ignored).

**Enable Carplay U/D Key** changes certain CAN commands, DO NOT USE THIS FEATURE.







Back in Setup, *Wifi Channel (reboot required)* sets the WIFI channel used to connect to the phone. If all other factors have been checked (antenna placement, Low Data Mode off, etc) and you're still having wireless connectivity problems:

- On the phone, reset phone network settings: SETTINGS>GENERAL>RESET>RESET NETWORK SETTINGS
- 2. On the interface: Set *Wifi Channel (reboot required)* option to '6', then reboot and test.

Wheel Key Swap will adjust the CarPlay/AA navigation controls from UP=UP to UP=DOWN and from LEFT=LEFT to LEFT=RIGHT. NOTE: this is not supported in every vehicle.

**Touch Pad/Remote Lever** (Lexus only):

Mini Touch Pad > For vehicles with TOUCH PAD

Remote Lever > For vehicles with Joystick

**Using Car's BT Phone**: As of SW verison 3.6.13, this setting should no longer be used.

Using Car's BT Channel: As of SW version 3.6.13, this setting should be turned ON for every installation (unless the vehicle does not come equipped with OEM Bluetooth). Once turned ON, use OEM Bluetooth Audio source for all sound from the ZZPLAY unit. This is how ZZ2 always suggests to use these systems (for IT3 hardware).

*HiCar map confirmation*: This setting is never used in N.A. – leave *OFF* and ignore.





# IT3-AUDI FAQ

### CarPlay / Android Auto + Camera input for Audi vehicles equipped with the 3G MMI / MIB / MIB2 System

Question: I can't hear any audio from the CarPlay/Android Auto system.

Answer: Your OE system must be resting on BT Audio (if on latest module sw) or AUX mode in order to hear any sound from the kit. This includes during phone calls. NOTE: Some systems AUX input are not labeled 'AUX', it may be labeled 'Media Interface' or there may be an audio conversion to the vehicle's USB input. Check with your installer for more information.

Question: I'm hearing reports of a lot of echo or delayed echo on audio during a phone call. Why is this happening and how can I eliminate this?

Answer: This happens when using the OEM AUX input for audio instead of the OEM Bluetooth. When using AUX, the signal path travels through the OEM amplifier, and there is active time-alignment & processing on this audio channel which is the root cause. To avoid this problem, the module must have the latest firmware update (at least 3.6.13), and then inside ZZPLAY setup, turn on 'Using Car's BT Channel'. With this setting active, use factory Bluetooth Audio instead of AUX for all sound from CarPlay/AA.

Question: Sometimes my phone won't connect lately / Sometimes when it connects the screen goes black / Sometimes CarPlay kicks me out back to the interface menu.

Answer: For iPhone users, you must perform a 'Hard Reset' on the phone in use on average twice a month to clear certain cache and reset the processors (this will not wipe any data). Google search 'Hard Reset iPhone 13' (or whatever version iPhone version you have) and perform that task. After this is done properly, you will see a difference in speed and reliability (of pairing/connecting).

Question: Incoming text responses from SIRI are silent on CarPlay. It mutes the audio but I don't hear the read-out.

- Fix 1: Try a Forced Restart (hard reset, above)
- Fix 2: Disconnect from CarPlay (may require forgetting the unit entirely).. remain connected to the OEM Bluetooth source. Active SIRI from the phone while SIRI is responding, turn the volume UP using the phone volume keys as high as required.

Question: Using Android, I cannot get the phone to reliably connect wirelessly (or at all).

Answer: Android phones are more finicky and iPhones with their wireless connectivity. Make sure the OS is fully up-to-date. Clear the cache on the Android Auto application. The Android OS must be at least version 11. Some phones (TCL, Motorola) seem to have protocols that don't play nice with every system. If you run into this, use a good USB-C cable for the Android Auto Connection instead.



support@zz-2.com

929-220-1212

Toll free: 877-241-2526

Extension 2: Tech Support

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