

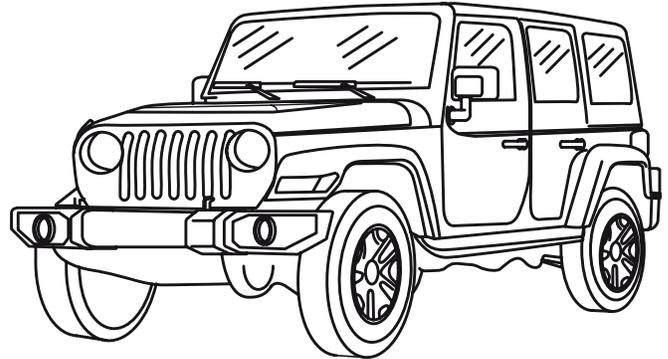
Jeep Wrangler

i407-WRA-JL

7" Restyle In-Dash System

Installation Manual

- Model: Wrangler JL 2018-Up
- Model: Gladiator JT 2020-Up



Jeep	Model	Year
	Wrangler JL **	2018 - Up
	Gladiator JT**	2020 - Up

** OEM amplified vehicles require the KCX-F200INT (sold separately)

* The specified vehicles have been tested and have met compatibility specs at the time of testing. Compatibility is not guaranteed if the manufacturer has made production changes to the listed vehicles above.

Introduction

- Congratulations on purchasing the i407-WRA-JL. This installation manual is designed to take you through the step-by-step installation of i407-WRA-JL into a 2018-Up Jeep Wrangler JL or Jeep Gladiator JT 2020-Up. Please familiarize yourself with the owners manual as this is a challenging installation. If you still have additional questions please call 1-800-TECH-101.

Note

- Design and specifications are subject to change without notice for improvement.

To Ensure Safe Use, Always Follow These Precautions

- The installation of this product requires specialized skills and experience. This is an installation that is challenging and time consuming even for installers with experience. A professional installer would typically take a minimum of 2-3 hours to complete this installation. We recommend that you have the product installed by an Alpine authorized dealer.
- Before you use this product, be sure to carefully read this installation manual and the separate user's manual so that you can use the product correctly. Alpine Electronics bears no responsibility for problems that arise as a result of failure to follow the instructions in the manuals.
- This manual includes a number of symbols that are intended to help you use the product safely, to prevent harm to you and others, and to protect against damage to property. These symbols and their meanings are listed below. Make sure you fully understand these symbols before you begin reading the main text.

Explanations of Injury and Damage That May Result from Incorrect Use

 Warning	Ignoring the content marked by this indication and using the product incorrectly is expected to lead to death or serious injury.
 Caution	Ignoring the content marked by this indication and using the product incorrectly is only expected to lead to injury or property damage.

Types of Precautions

 Forbidden	Indicates actions that are forbidden (must not be performed)
 Forbidden	Indicates that disassembly is forbidden.
 Mandatory	Indicates actions that are mandatory (must be performed)
 Warning	Marks content that should receive your full attention.

 **Warning**

Do not disassemble or modify the product. Doing so could lead to an accident, fire, or electric shock.  Forbidden

Store screws and other small objects where children cannot reach them. If one of those small objects is swallowed, consult with a doctor immediately. 

When replacing fuses be sure to use the fuses with the specified current rating. Failing to do so could lead to an accident or fire.   Mandatory Forbidden

Only connect the product to a 12 VDC negative ground car. Failing to do so could lead to an accident or fire.  Mandatory

Since this vehicle has two batteries, disconnecting the battery is not a good option. Take caution when testing circuits. Failing to do so could lead to electric shock or injury. 

Do not cut the insulation on a cord and take power from another device. Doing so could lead to fire or electric shock.  Forbidden

Do not install the product in a location where it will obstruct the driver's forward view; interfere with the operation of the steering wheel, gear shift, or the like; or pose a threat to passengers. Doing so could lead to an accident or injury.  Forbidden

When making a hole in the vehicle body, be careful to avoid damaging pipes, the fuel tank, electrical wiring, and the like. This kind of damage could lead to an accident or fire. 

When installing and grounding the product, do not use any of the bolts or nuts of the steering wheel, brakes, fuel tank, or the like. Doing so could make the brakes stop working or could lead to fire.  Forbidden

Do not install the product near the passenger-side airbag. Doing so could interfere with the operation of the airbag and lead to an accident or injury.  Forbidden

Bundle cords so that they don't interfere with driving. Wrapping cords around the steering wheel, gearshift, brake pedal, or the like could lead to an accident or damage equipment. 

 **Caution**

Connect the product properly according to the instructions. Failing to do so could lead to fire or an accident.  Forbidden

Do not sandwich cords between the seat railing or allow them to touch protrusions. Resulting breaks or shorts could lead to electric shock or fire. 

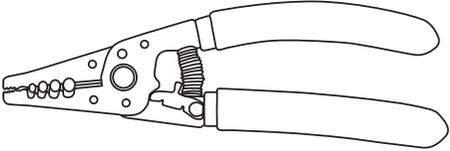
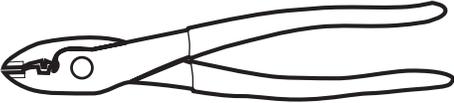
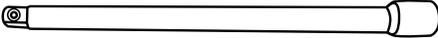
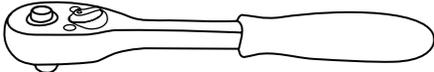
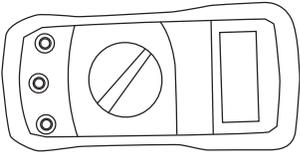
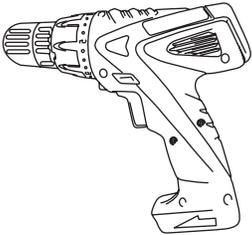
Do not block vents or heat sinks. Doing so could lead to fire or damage equipment. 

Use the accessories according to the instructions, and attach them securely. Failing to do so could lead to an accident or damage equipment.  Forbidden

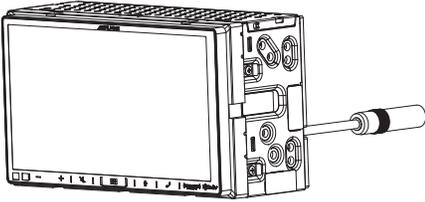
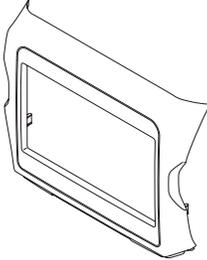
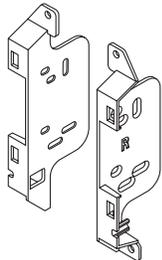
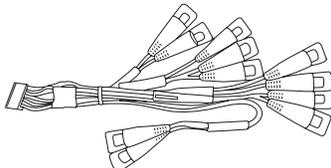
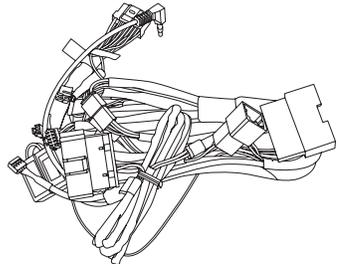
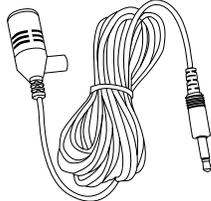
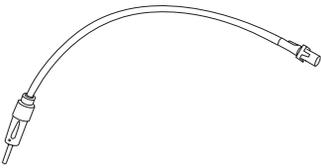
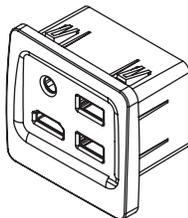
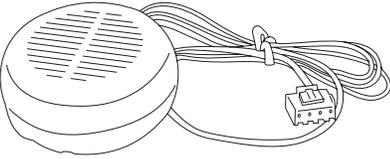
Do not install the product where it may be exposed to water or in a place with high levels of humidity or dust. Doing so could lead to fire or damage equipment.  Forbidden

The installation and wiring of this product requires specialized skills and experience. Have the product installed by an Alpine authorized dealer. 

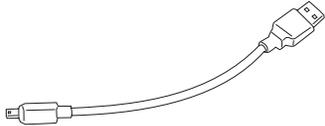
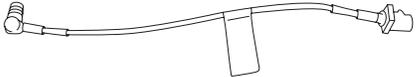
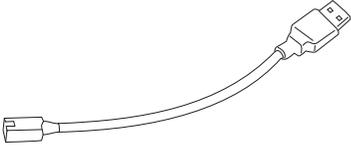
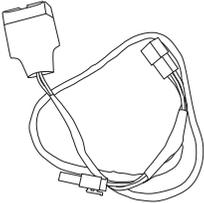
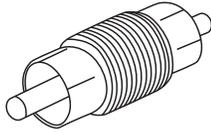
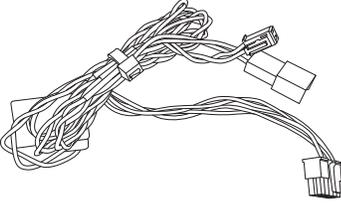
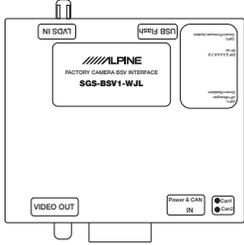
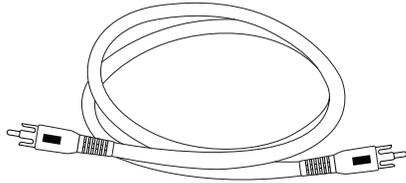
Tools Required

Wire Strippers	8mm Socket	7mm Socket
		
Wire Cutters	Extension	Ratchet
		
#2 Phillips Screwdriver	Torx T20	Panel Removal Tools
		
Digital Multimeter	Cordless Power Drill	
		

Accessory List

<p style="text-align: center;">iLX-407 Head Unit</p> 	<p style="text-align: center;">Dash Kit</p> 	<p style="text-align: center;">Mounting Brackets</p> 
<p style="text-align: center;">Maestro Module</p> 	<p style="text-align: center;">Camera/Preout Harness</p> 	<p style="text-align: center;">Main Harness</p> 
<p style="text-align: center;">External Bluetooth Mic</p> 	<p style="text-align: center;">FM/AM Antenna Adapter</p> 	<p style="text-align: center;">USB, HDMI, Aux Interface</p> 
<p style="text-align: center;">Chime Speaker</p>	<p style="text-align: center;">Documents</p>	
	 <p style="text-align: center;">Alpine Registration Card</p>	 <p style="text-align: center;">OM QR Card</p>  <p style="text-align: center;">Installation Manual</p>

Accessory List Continued

<p>Round Head Screws M5#8 (4pcs)</p>	<p>Maestro Flashing Cable USB Micro To Full Size</p>	<p>SiriusXM Radio Antenna Adapter (only for vehicles with factory SiriusXM)</p>
		
<p>Mini USB To USB For Center Console Power</p>	<p>USB Power Adapter</p>	<p>Camera Male To Male RCA Coupler (Not Used)</p>
		
<p>Camera Power Harness</p>	<p>Camera Module</p>	<p>Rear Camera RCA</p>
		

Factory Unit Disassembly Process

- 1 As a precautionary measure it's a good idea to mask out the dashboard and panels to prevent scratches.



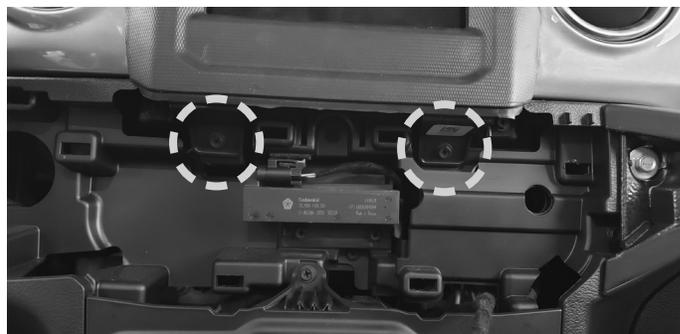
- 2 Unsnap the 6 clips and loosen the knee panel under the steering wheel using a panel removal tool.



- 3 Unsnap 10 clips, unplug the 2 harnesses, and remove HVAC panel using a panel removal tool.



- 4 Use #2 Phillips Screwdriver to extract (2) screws from the bottom of the radio bezel.



- 5 Unsnap 6 clips and remove radio bezel using a panel removal tool.

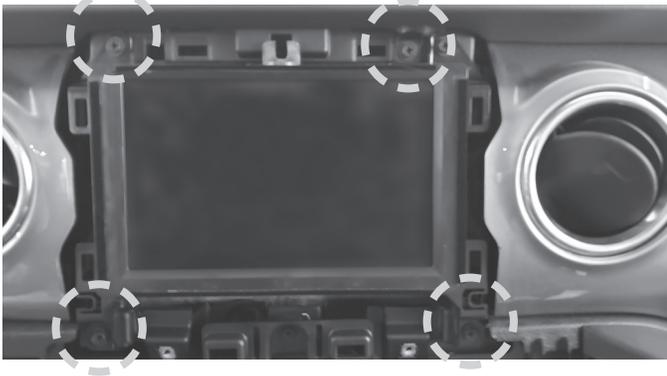


- 6 This shows where all the OEM clips are at to remove for step 5.



Factory Unit Disassembly Process (Continued)

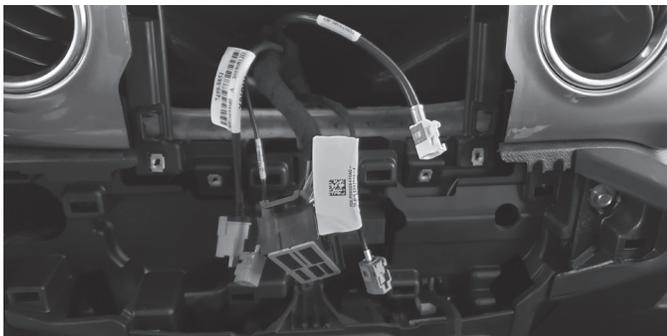
- 7 Use #2 Phillips Screwdriver to extract (4) screws from head unit. Disconnect and remove the radio.



- 8 Disconnect the harnesses behind the OEM head unit.



- 9 The disconnected harnesses from the previous step. These will be used later to connect to the main harness in the installation.



- 10 Open the glove compartment and remove all contents, push up the glove compartment travel stop and lower the door, pivot the glove compartment downward, release latch on left side of the glove compartment by pushing it upward, pull the glove compartment upward to remove it from the pivot.



Factory Unit Disassembly Process (Continued)

12 Remove the A pillar by removing the (2) 8mm screws and unclipping the panel. The screws can be exposed using a panel removal tool.



13 Loosen the clips around the top panel visor area.



14 Unclip 7 clips and remove the center media stack.

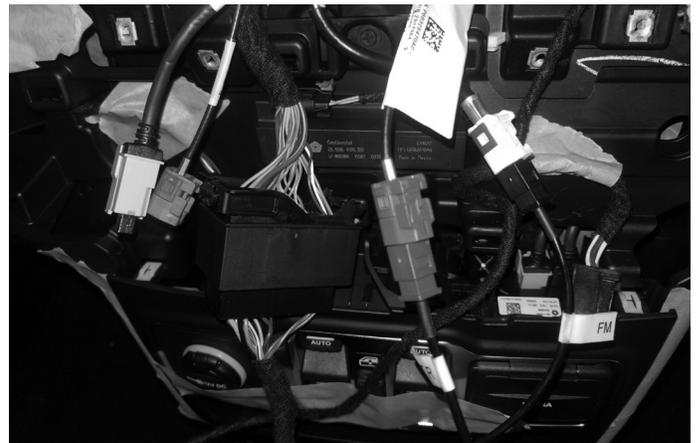


Installation Instructions

- 1 Mount the microphone next to the rear view mirror and run the cable behind the factory panels. Route as shown on the diagram on page 12.
- 2 Run the Bluetooth microphone cable down the A pillar along the OEM wiring. Route as shown on the diagram on page 12.



- 3 Route vehicle cable in main harness from radio cavity to glove box and connect it to OBDII gateway behind the glove box. If the gateway is fully occupied, unclip 1 connector from it and use T-harness.
- 4 At radio cavity, connect the main harness, white FM adapter, and green SiriusXM antenna, and other adapters to factory harness and secure them.

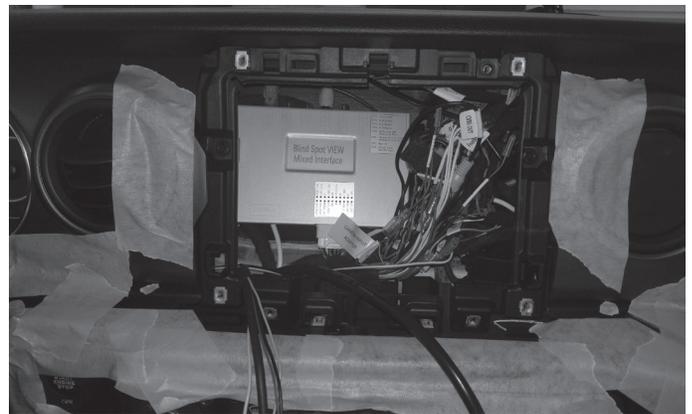


Installation Instructions (Continued)

5 If the vehicle has an OEM amplifier the KCX-F200INT will need to be purchased separately. This has 30" of cable so it can be routed behind the glovebox. It is important to do this so it can disappate heat properly. The audio settings will also need to be set to flat as shown on page 20.



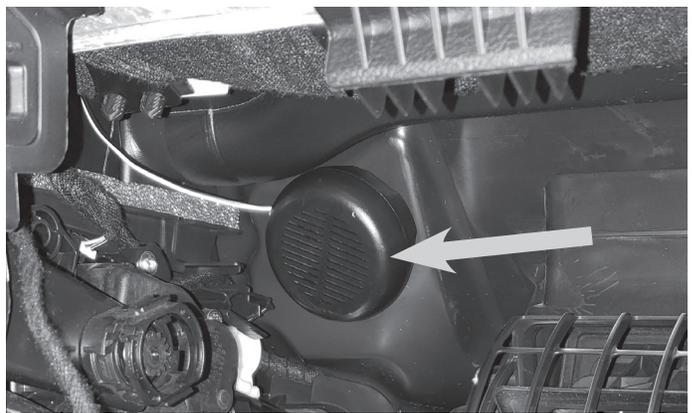
6 Connect the camera interface module to the violet or red factory camera plug and put it in right side of radio cavity. Dip switch 1 will need to be moved down for the Gladiator JT.



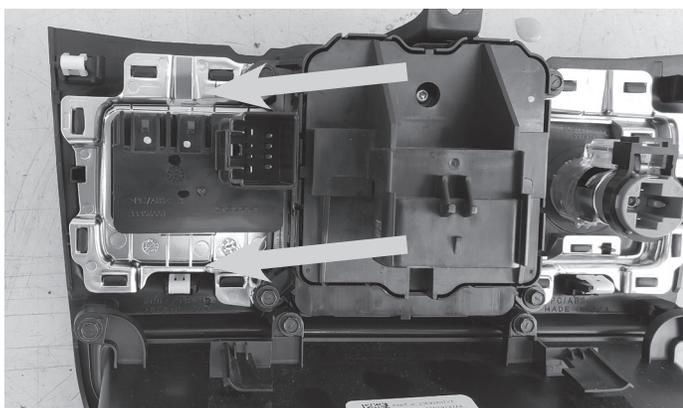
7 Attach the Maestro to the main harness and tuck it in left side of radio cavity.



8 Run chime speaker harness from Maestro module to behind the glove box and attach there.



9 Remove the OEM USB from the Center Media panel by unclipping the clips on the sides.



10 Insert the X409 USB HDMI box into the OEM Center Media panel.

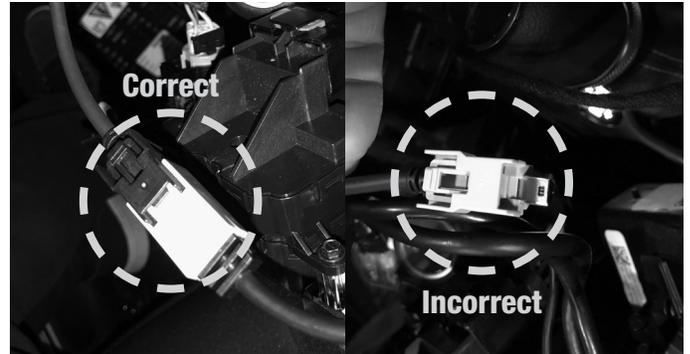


Installation Instructions (Continued)

- 11** Plug in the OEM USB and the USB from the box to the power adapter. The adaptor needs to be plugged into the BLACK micro usb.



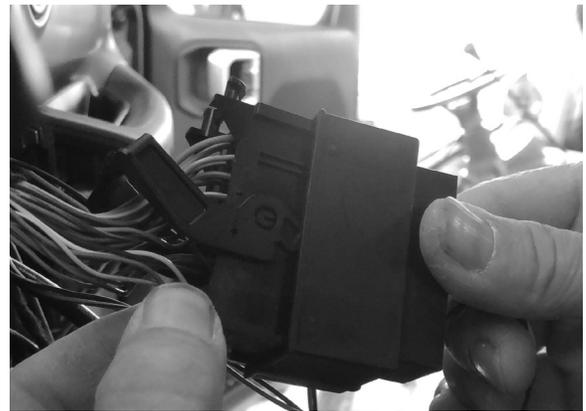
- 12** WARNING: There are 2 factory micro USB plugs in the dash behind the media center. One is black and one is grey. If the supplied adaptor is plugged into the grey micro USB the factory USB's will not charge. When it is plugged into the black plug all rear USB's can be used for charging (not data).



- 13** Attach the head unit to the mounting brackets using the (4) M5X8LMM supplied screws.



- 14** Connect the main harness, microphone, USB, HDMI, FM adapter, and other harnesses to the iLX-407 head unit and secure them. Mount the head unit to the dash using the (4) OEM screws removed in step 9 of the disassembly.

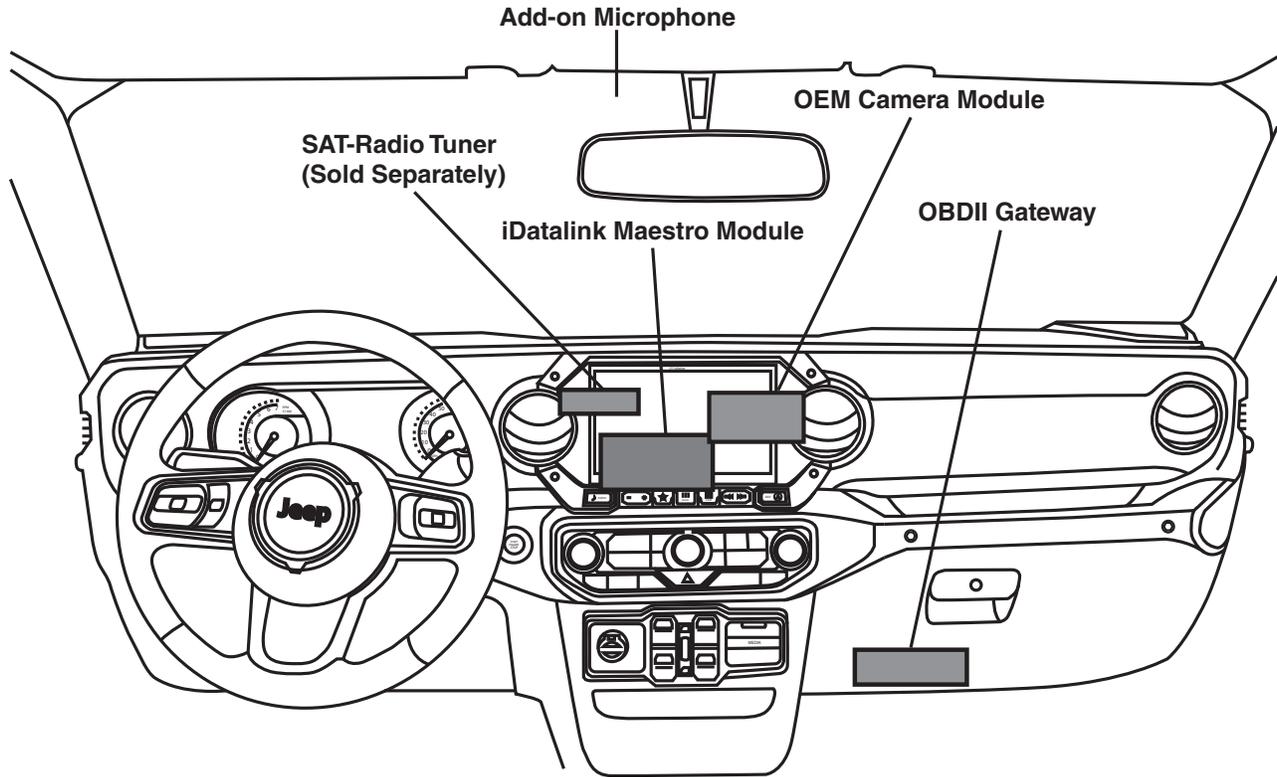


- 15** Clip in the dash kit and secure the it using the two screws removed in step 4 of the disassembly. Reinstall the rest of the factory panels to complete the installation.

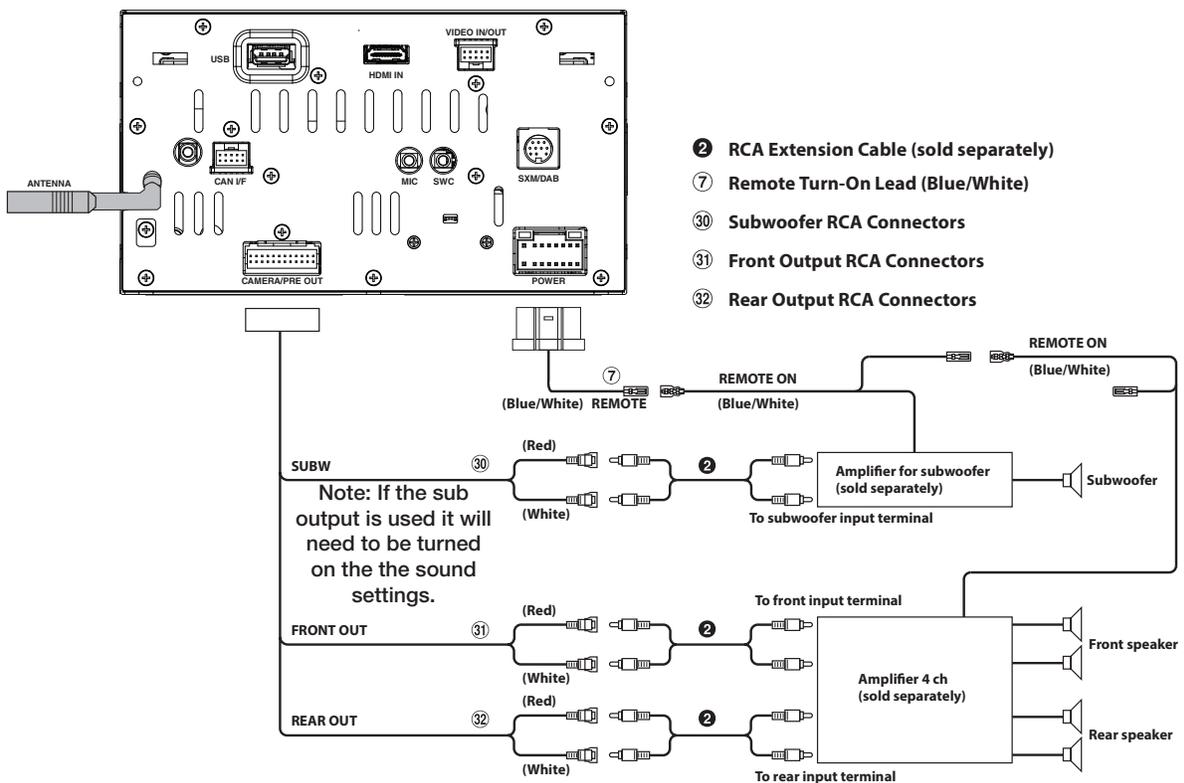


Component Locations

⚠ IMPORTANT: Follow the recommended component location shown below. Failure to do so, will result in poor GPS performance.

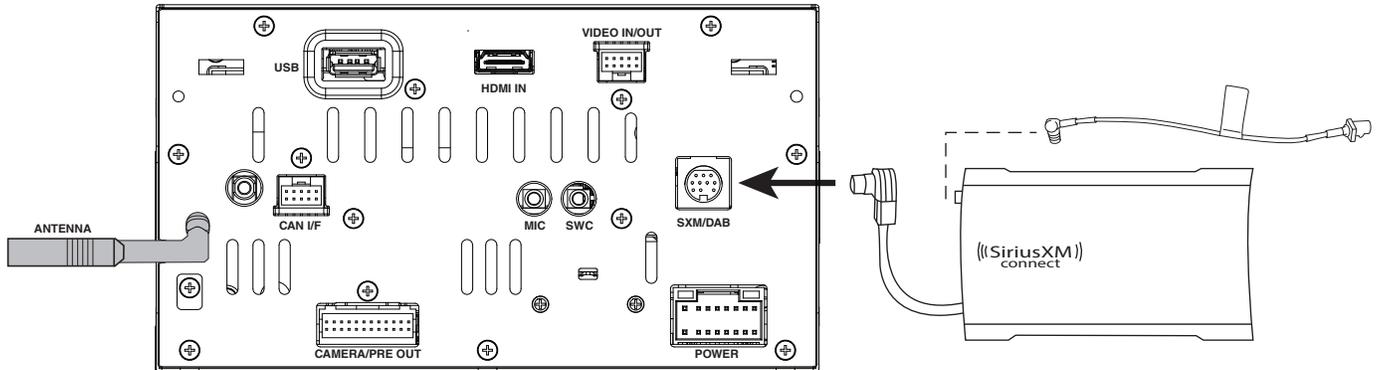


Connection Of An External Amplifier

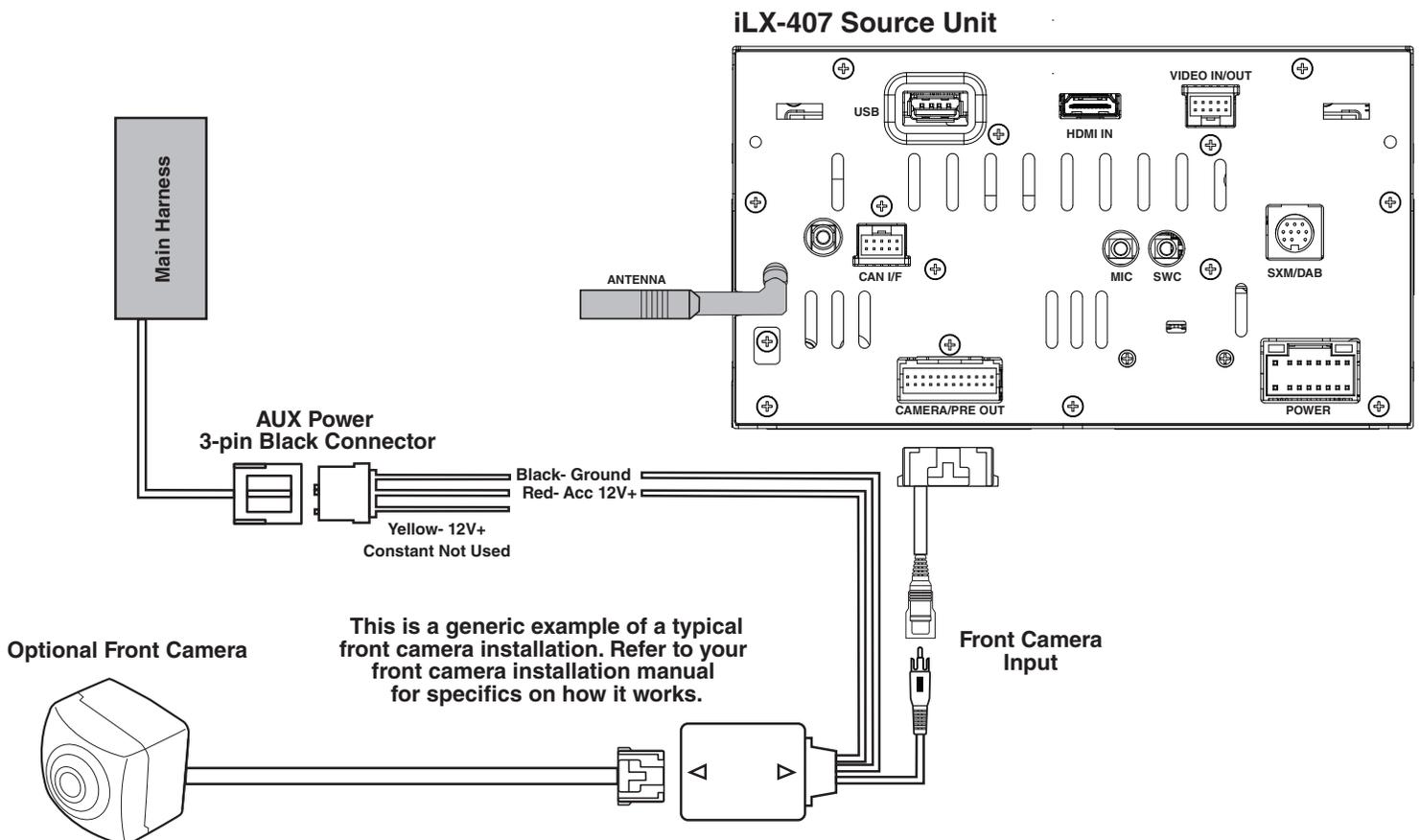


Connecting A SiriusXM Module (Sold Separately)

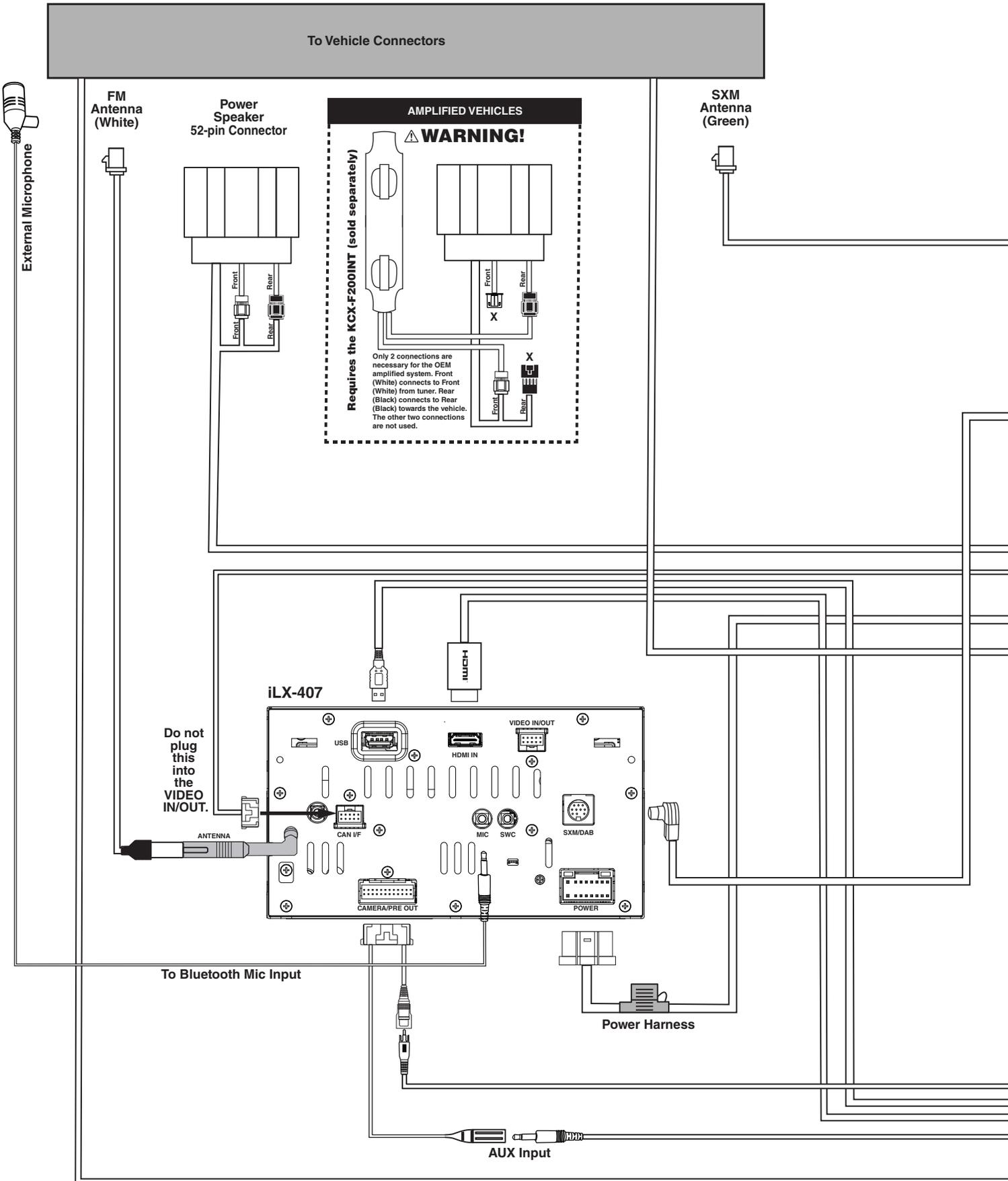
There is no way to integrate the factory SiriusXM tuner. Once the radio is removed, the factory SiriusXM is removed. As the title states, SiriusXM requires a tuner sold separately. This diagram shows how to integrate the antenna connection. For vehicles with factory SiriusXM connect the adapter to the factory SiriusXM antenna in the radio cavity. The factory SiriusXM antenna is located on the passenger side B-pillar. For vehicles without factory SiriusXM use the antenna that is included with the SXV300 SiriusXM Tuner.



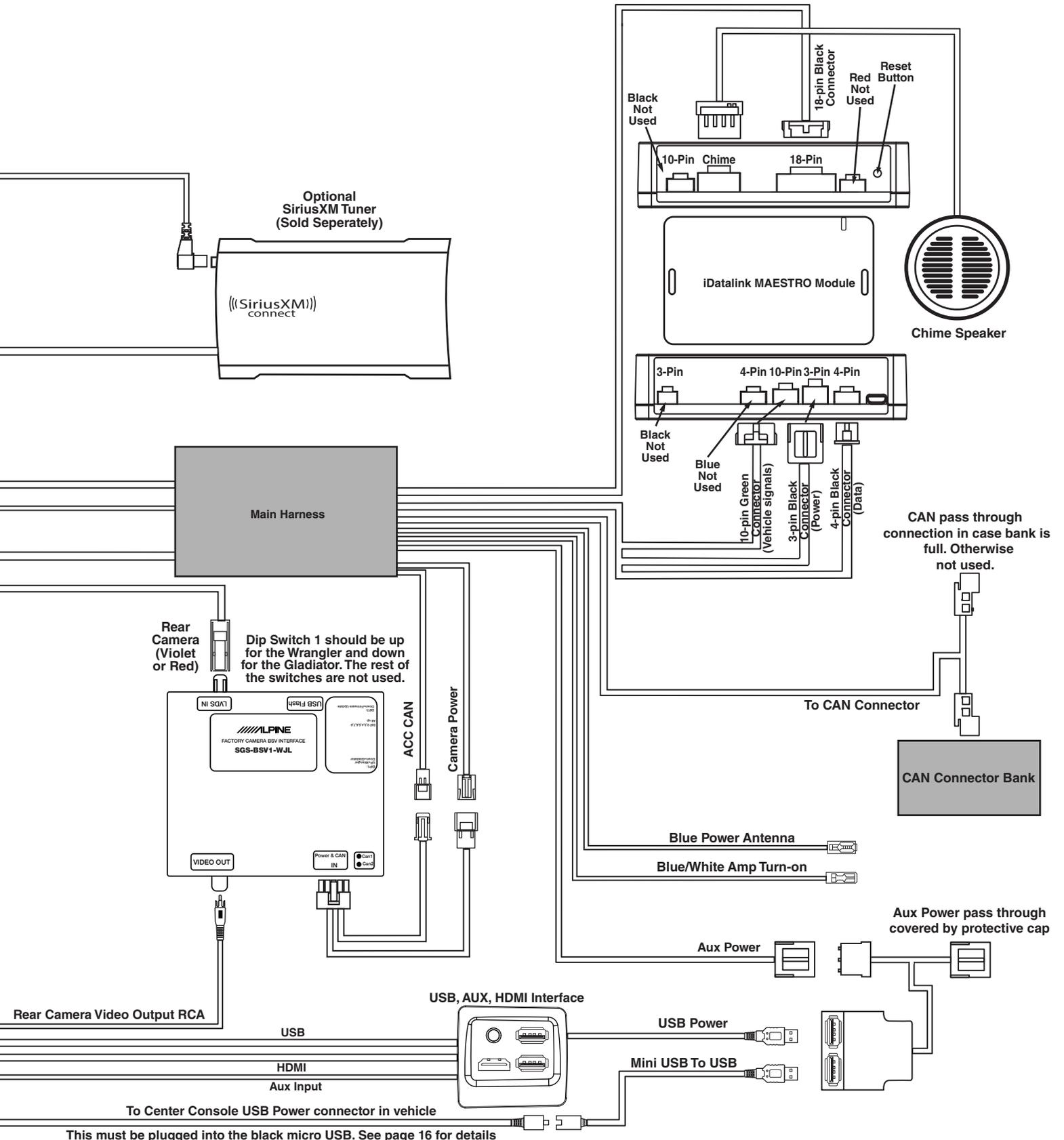
Connection Of Optional Front Camera



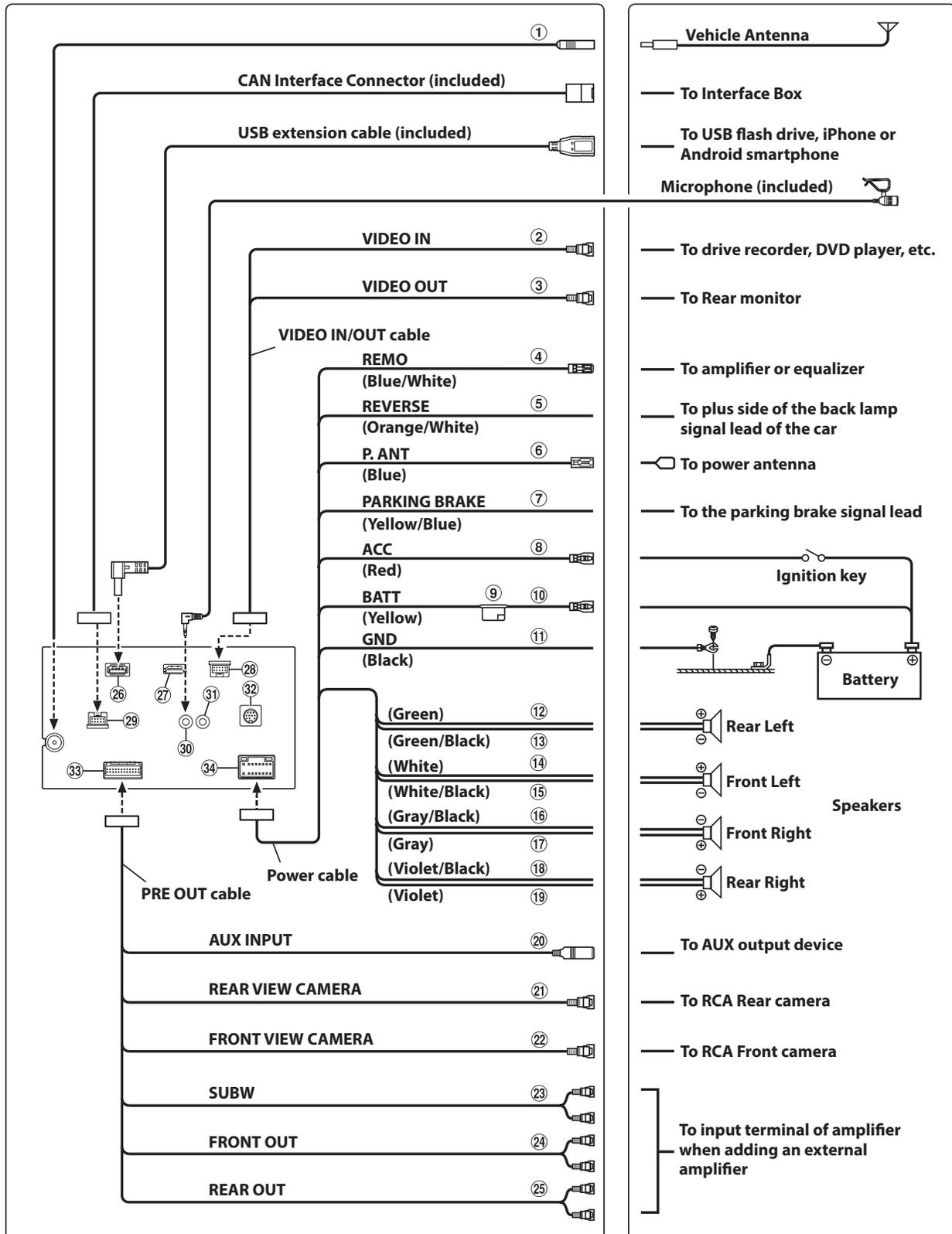
i407-WRA-JL Wiring Diagram Continued



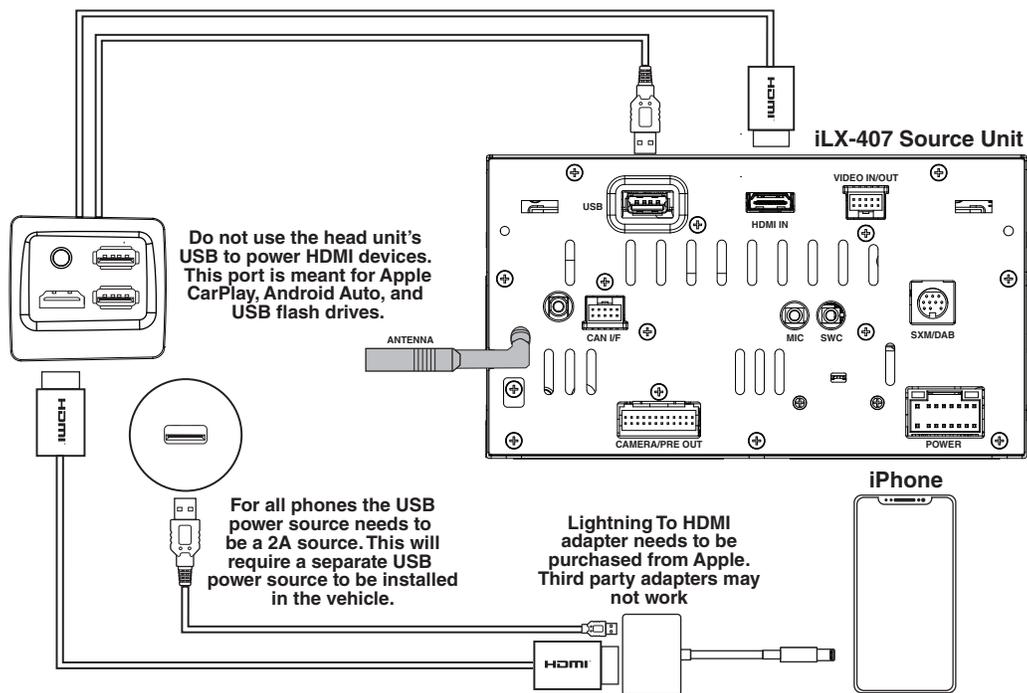
i407-WRA-JL Wiring Diagram Continued



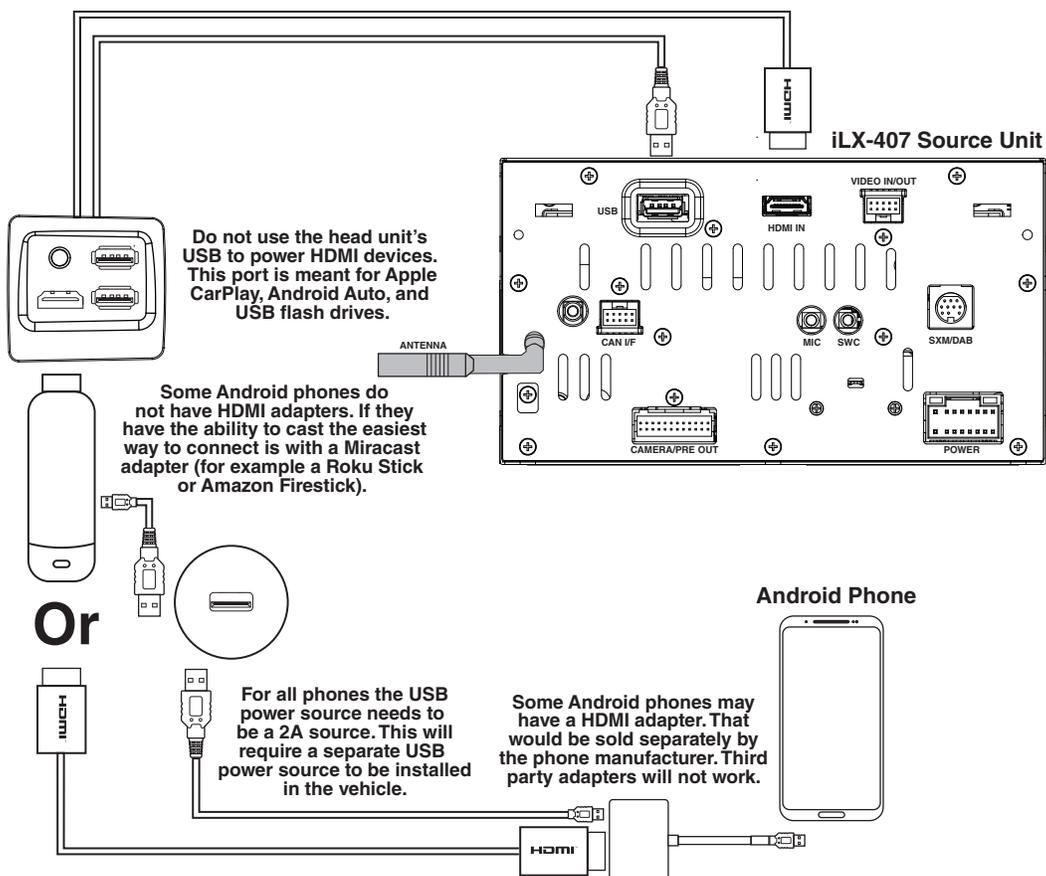
i407-WRA-JL Wire Descriptions



i407-WRA-JL HDMI Usage With An iPhone



i407-WRA-JL HDMI Usage With An Android Phone

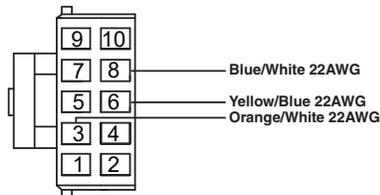


Wire Harness Pin Outs

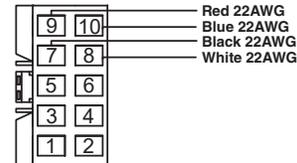
Radio Main



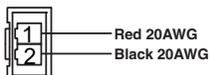
Radio I/O



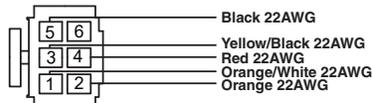
CAN I/F



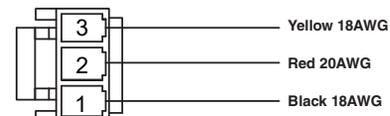
Camera Power



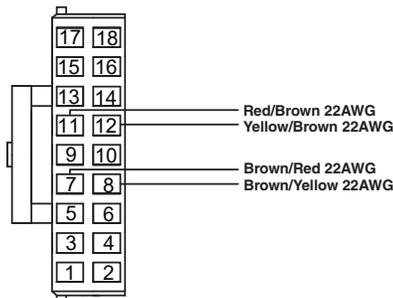
Rear Camera



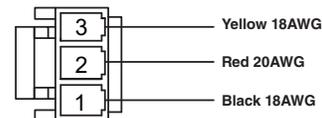
Aux Power



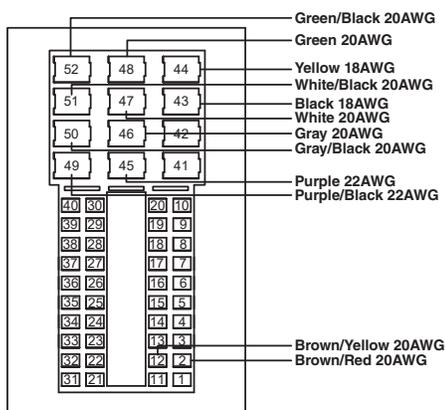
Data SWC



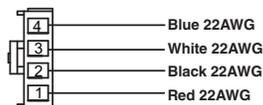
Maestro Power



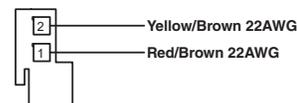
Wrangler Radio



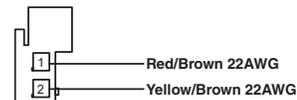
iDataLink



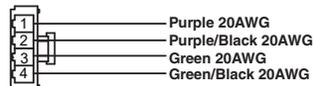
CAN Connector



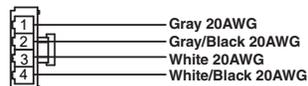
CAN Connector



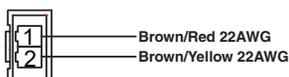
Speaker Harness



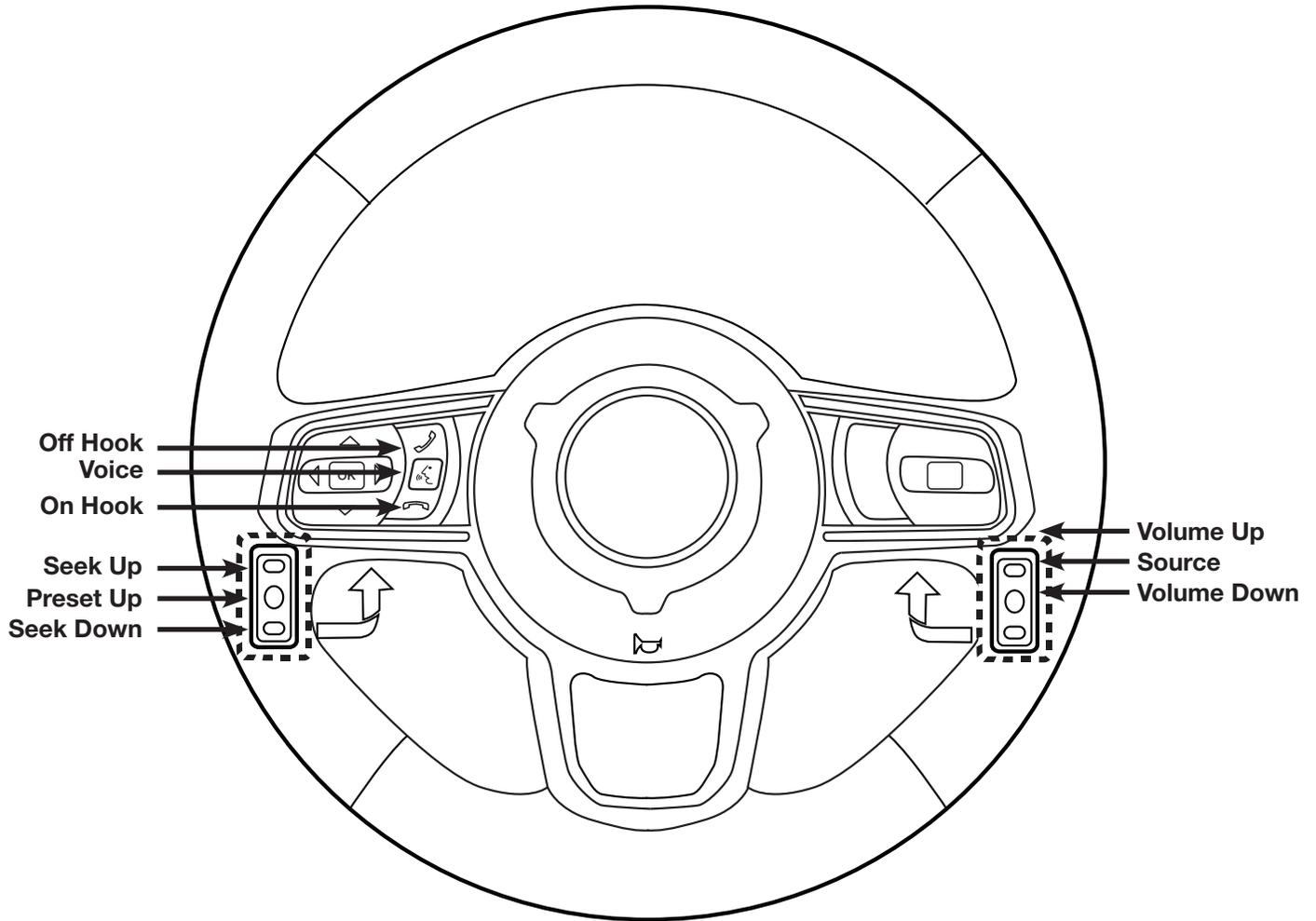
Speaker Harness



CAN



Steering Wheel Configuration



Button	Press Once	Press And Hold
Seek Up	Track +	None
Seek Down	Track -	None
Next Preset	Preset & Folder +	Preset & Folder -
Voice	Voice Or Siri	None
Off Hook	Answer Call	None
On Hook	Hang Up & Reject Call	None
Volume Up	Volume +	None
Volume Down	Volume -	Attenuation On/Off
Source	Source/Camera View	None

Set Up Guide

- 1 Turn the vehicle's Ignition switch to ACC.
- 2 Turn ON the i407-WRA-JL by pressing any key.
- 3 With the vehicle parked, engage the parking brake, release the parking brake and engage the parking brake again.
- 4 If a rear camera is present, turn it ON in the settings menu. (HOME/SETTINGS/CAMERA/REAR CAMERA/CAMERA SELECT/REAR/OK).
- 5 If a front camera is present, turn it ON in the settings menu. (HOME/SETTINGS/CAMERA/FRONT CAMERA/CAMERA SELECT/FRONT/OK).
- 6 If the AUX Input is being use be sure to turn it ON in the settings. (HOME/SETTINGS/GENERAL/AUX/AUX SELECT).
- 7 Vehicle information- Set the desired gauge information. (HOME/SETTINGS/GENERAL/IDATALINK).
- 8 For vehicles with an OEM amplifier the Time Correction, P-EQ, and X-Over must be set flat. (HOME/SETTINGS//SOUND).

Detailed descriptions of the settings can be found in the owners manual which can be downloaded from the support page of the website.

Retained Features

STEERING WHEEL CONTROLS	
Two Functions on Each Button	■
Standard and Expanded Radio Functions	■
NAVIGATION OUTPUTS	
Accessory Power Output (15A)	■
Parking Brake Output	■
Reverse Light Output	■
Vehicle Speed Pulse Output	■
Foot Brake Output	■
FACTORY AMPLIFIER	
Amplifier Turn on	■
Speed Compensated Volume (Premium Audio)	■
Digital Fader (Premium Audio)	■
DSP Settings (Premium Audio)	■
Gain Adjustment (Premium Audio)	■
SECONDARY VEHICLE DISPLAY (IF EQUIPPED)	
Audio Information Display	■
Hands Free Info Display	■
Navigation Info Display	■
VEHICLE SETTINGS	
Access And Modify Vehicle Settings	■
ADVANCED CAMERA FEATURES	
Front Camera Auto Control (Not Retained)	X
CLIMATE CONTROL	
Climate Display And Control On Radio	■
GAUGES	
Selectable Performance Gauges	■
"Track Pack" Gauges	■
Read/Reset Check Engine Codes	■
PARK ASSIST	
Retain Parking Assist Chimes	■
Distance Display On Screen	■
VEHICLE INFO	
Tire Pressure Display	■
Battery Voltage Display	■
Read/Reset Check Engine Codes	■
Door open Status and Warning	■
ACCESSORIES	
OEM Accessory Control Integration	■

Troubleshooting Guide

Symptom		Possible Cause	Remedy
1	iPhone not working with HDMI.	Not using Apple HDMI to Lightning adapter.	Purchase the HDMI to Lightning adapter directly from Apple. Not all 3rd party adapters work the same.
		Didn't plug USB power into a 2A source.	Do not plug into the USB from the Alpine head unit. A third party USB adapter will need to be used that is 2A.
2	Android phone is not working with HDMI.	Using incorrect HDMI adapter.	If the phone has the feature to use an HDMI adapter it must be the one purchased from the manufacturer of the phone, not a third party adapter.
		Miracast adapter isn't plugged into a 2A source.	Do not plug into the USB from the Alpine head unit. A third party USB adapter will need to be used that is 2A.
		Miracast adapter has resolution settings that are too high.	Plug the adapter into another monitor (for example a television in the home) and reduce the resolution settings.
3	iDatalink website says serial number is invalid.	Incorrect serial number is being used.	In the i407-WRA settings confirm the serial number. HOME/SETTINGS/GENERAL/ABOUT/VERSION INFORMATION.
		Serial number may not be in iDatalink database.	Call ADS at 1-866-427-2999 and verify.
4	No output from RCA's	Maestro module is flashed for amplified system.	Re-flash module for non-amplified system.
5	Navigation voices and/or Bluetooth audio can't be heard.	The vehicle has an OEM amplifier and the warning on page 14 was not followed.	Swap the front and rear speaker connectors as shown on page 14.
6	Steering wheel controls aren't working. Vehicle data isn't displaying.	Maestro module was not flashed.	Flash the maestro module as shown on page 5.
		Connection was not made properly.	Every harness needs to be plugged into its proper place. Follow pages 14 and 15 and ensure every connection is going exactly where it needs to be. Make sure the CAN IF connector did not get plugged into the VIDEO IN/OUT port accidentally.
7	Headunit will not turn on.	One of the power wires does not have proper voltage	Test the power wires with a digital multimeter and trace from there.
		4 pin Maestro data cable is disconnected or damaged.	Check for proper connection or disconnected pins.
		OBD2 cable is not plugged in.	Connect OBD2 connector to the OBD2 port.
		Main harness is not connected.	Check for proper connection or disconnected pins.
8	Cannot enter SETTINGS MENU.	Vehicle is in motion or parking brake is not engaged.	With vehicle in (P)PARK engage the parking brake. Release the parking brake and engage the parking brake a second time, as shown in the Setup Guide on page 20.

Troubleshooting Guide Continued

9	Only the front speakers are on for SXM Radio.	SXM Tuner has not been activated.	Activate SXM Tuner.
10	iPhone or Android phone is not recognized when connected to the USB cable, causing CarPlay or Android Auto to not function.	Loose or disconnected USB cable.	Check the USB connection behind the headunit.
		Non-compatible cable.	Use the cable supplied with the iPhone or Android phone and only plug into the extension provided with the head unit. Third party adapters like flush mount, OEM integration, and/or long extensions may not work. Only use USB extension that came with the head unit.
		Wrong USB port used.	The OEM USB's are only meant for charging. They can't transfer data. The only one that can is the bottom port of the USB, AUX, HDMI interface that is included.
11	Rear camera not automatically coming on when vehicle is in reverse.	The rear camera was not turned on in the setup menu.	Refer to Step 4 of the Set Up Guide on page 20.
12	Rear camera just shows blank image with guide cones.	The rear camera is not outputting an image.	Refer to page 15 and ensure all the connections are made exactly as shown and the dip switches are in the correct positions. A known good RCA source can be used into the head unit to let you know if the head unit is receiving the video signal and let you know if it's a connection on the camera side or going to the head unit.
13	Front camera image is reversed.	A front camera was not used.	A rear camera can not be used for the front of the vehicle. It will not display the image correctly and it will be reversed.
14	Installed an amplifier and it only gets sound on FM.	The power antenna wire was used instead of the remote wire.	The remote wire is what needs to be connected to the remote turn on lead of the amplifier.
15	Can't be heard when making phone calls.	The microphone is not plugged into the correct port.	The microphone needs to be plugged into the port labeled "MIC". If it gets plugged into the SWC port it will not function properly. Page 14 shows the correct port to plug into.
16	OEM USB's not charging.	The wrong micro USB was plugged into the USB power adapter.	There are 2 factory micro USB plugs in the dash behind the media center. One is black and one is grey. If the supplied adaptor is plugged into the grey micro USB the factory USB's will not charge. Make sure the black USB is plugged into the power adapter. See page 11 for details.