Saab KENWOOD Infotainment Upgrade 2007-2011
Saab 9-3 Installation Guide

HEDIN *PARTS*

Original Saab

Product highlights: General features:
- digital multimedia player with AM/FM tuner
- plays media loaded with MP3, WMA, and AAC music files (plus high-res WAV and FLAC)
- 6.75" capacitive touchscreen display
- Waze-ready with Apple CarPlay or Android Auto
- electronic viewing angle display adjustment (touchscreen does not physically move)
- front-panel controls with variable color illumination

Smartphone features:
- display and command of select music, navigation, and other apps with iPhone and Android
- wired Android Auto compatible with Google Assistant when using Android Auto
- wired Apple CarPlay compatible Siri Eyes Free control for select iPhones
- wired USB mirroring for select Android devices
- wired micro-HDMI mirroring for select Apple smartphones (cables sold separately)
- built-in Bluetooth with dual phone connection for hands-free calling and music streaming
- built-in iPhone and rapid Android charging via USB port (1.5 amps)

Audio/Visual features:
- 13-band graphic EQ
- digital time alignment
- Drive EQ boosts frequencies that are affected by road noise
- 2- and 3-way crossover

Expandability:
- Optional SiriusXM satellite radio tuner (additional module required)
- Optional Rear, Front Cameras (additional camera(s) required)
- inputs: front- and rear-camera inputs, USB-A cable input, rear micro-HDMI input, rear analog 3.5 mm A/V input (configurable for a third camera input)
- outputs: rear analog video output (RCA), 6-channel preamp outputs (4-volt front, rear, sub)

Other information:
- wired connection to parking brake required to access settings and other features on this receiver (the brake must be connected and set for video display)
- built-in amplifier (22 watts RMS/50 peak x 4 channels)
- compatible with most factory steering wheel audio controls

Tools Needed for Basic Installation (incl SiriusXM)

Plastic trim tools (for removing center vent)

Pocket screwdriver (slotted)

T25 Torx screwdriver

T20 Torx screwdriver

#2 Phillips screwdriver

Wire cutters

Electrical tape

10mm socket and wrench

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Optional Equipment: SiriusXM Tuner SXV300, Kenwood Rear Camera CMOS-230, USB port extension

HEDIN *PARTS*

Original Saab

Begin by carefully inserting/working a couple of plastic trim tools into the top edge of the center vent in different positions as shown. This will help release the upper tabs. At the same time using a pocket screwdriver in a specific hole, carefully pry down the pocket screwdriver (See A) while maintaining some pressure on the plastic trim tools (See B). The first tab is in the 4thhole from the right, the second tab is in the 9thhole from the right and the third tab is in the 4thhole from the left. After you loosen each tab, the vent should become free to remove. **IMPORTANT NOTE: To prevent the vents from breaking, never pull the adjusting buttons. Make sure that the correct catches are bent in. The catches which hold the vents in place can also be seen through the grille.**
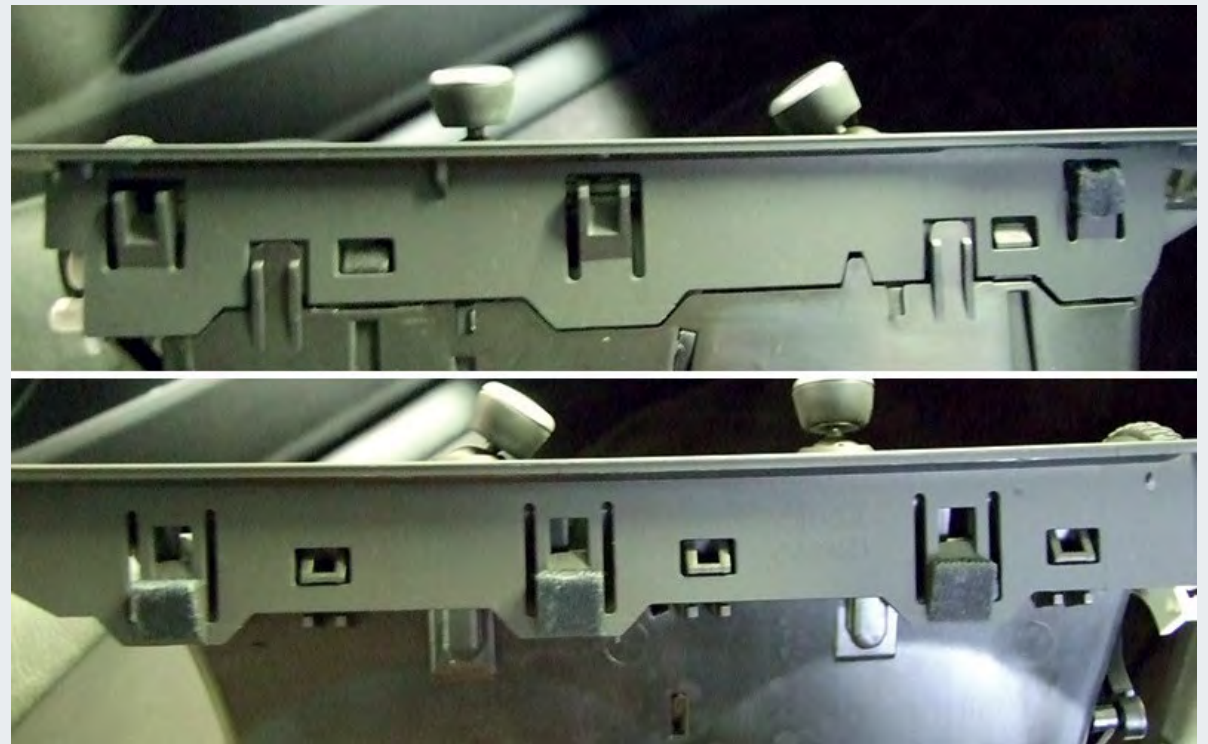
Once the vent has been removed there are 2 retaining bolts (Torx 25) on top of either side of the radio that hold it in place. Remove the T25 bolts and carefully slide out the radio. Save these screw for reinstalling the new radio. Carefully unplug the connectors from the back of the radio. (The Navigation radio shown below has an extra connector on the drivers side we will not use for this installation)

NOTE: The OEM radio does not need to be Divorced with TECH2 prior to removal.

HEDIN *PARTS*

Original ^Saab
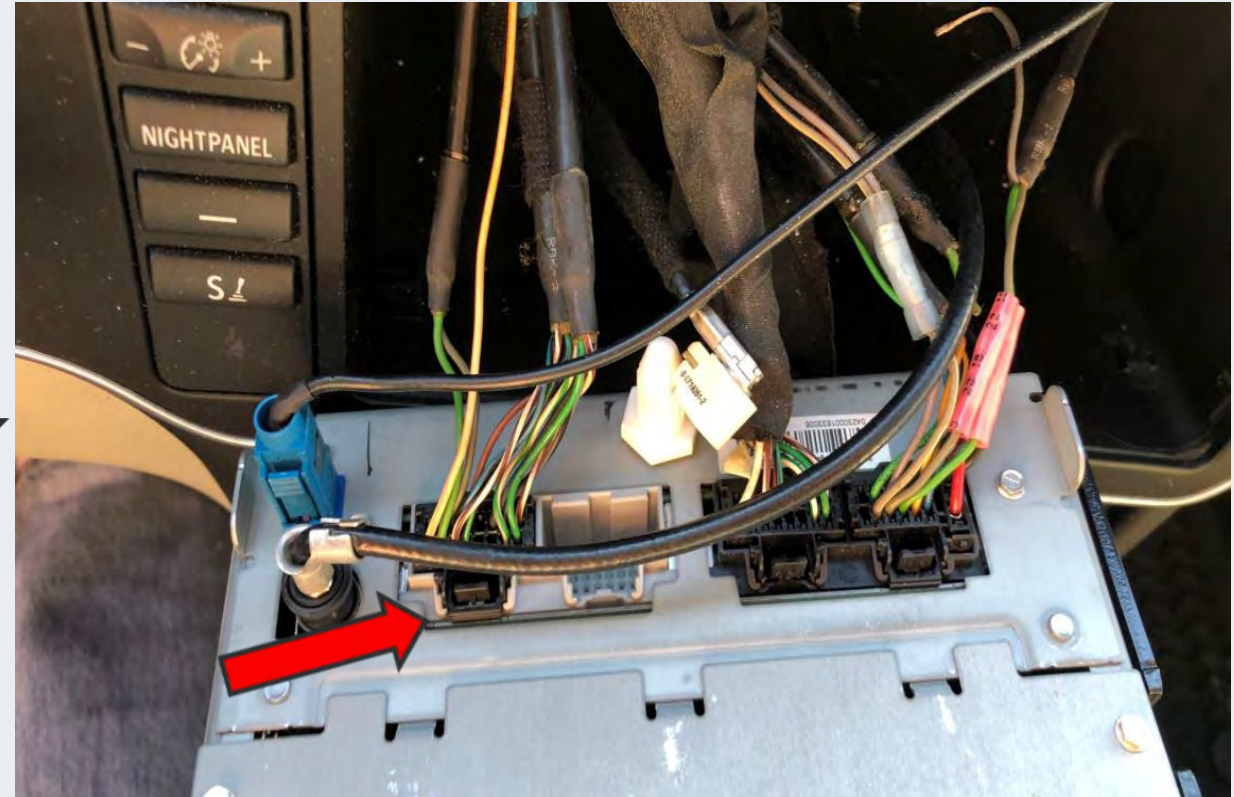
Discard the faceplate that came in the Kenwood box. We will use the faceplate and mounting sleeve from the kit
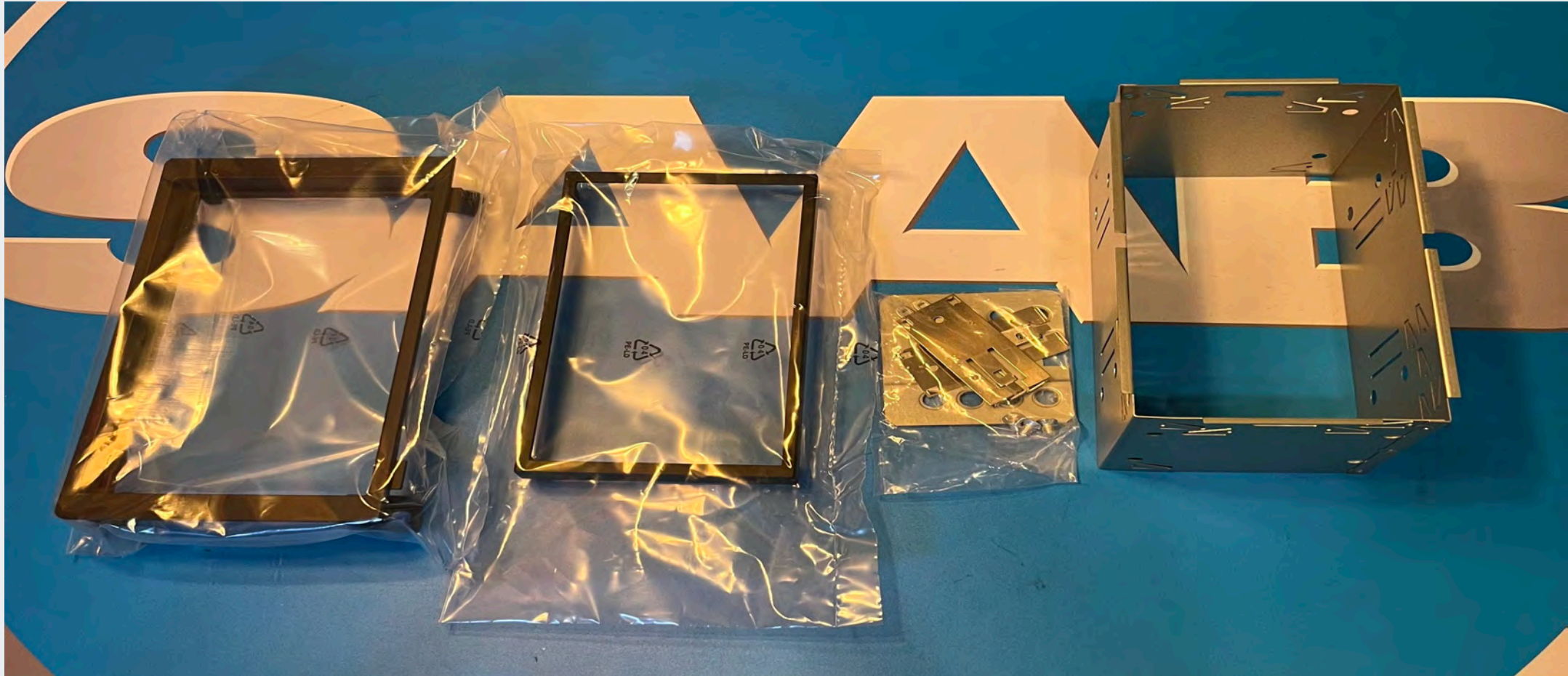
Insert the mounting sleeve into the front of the faceplate. It is a tight fit. The raised edge of the sleeve must set flush with the faceplate. Once the sleeve is fully seated and flush with the front of the bracket bend the tabs (see arrows) just behind the back edge of the bracket to secure the sleeve as tight as possible to the mount. Go all the way around the radio bending as many tabs as needed. This allows the radio mount to be held in place by the factory screws.
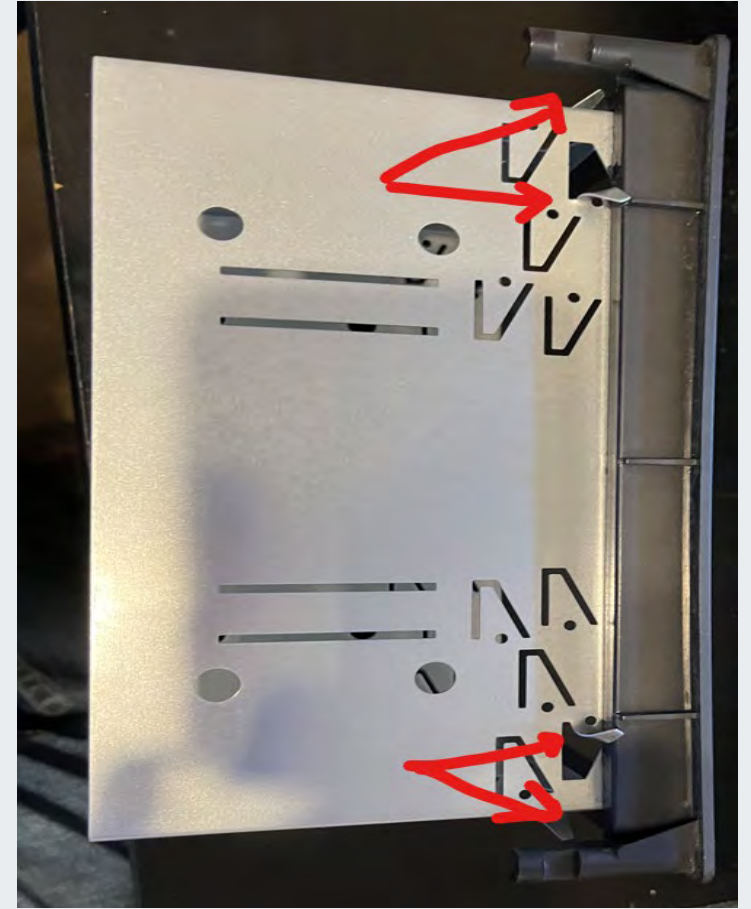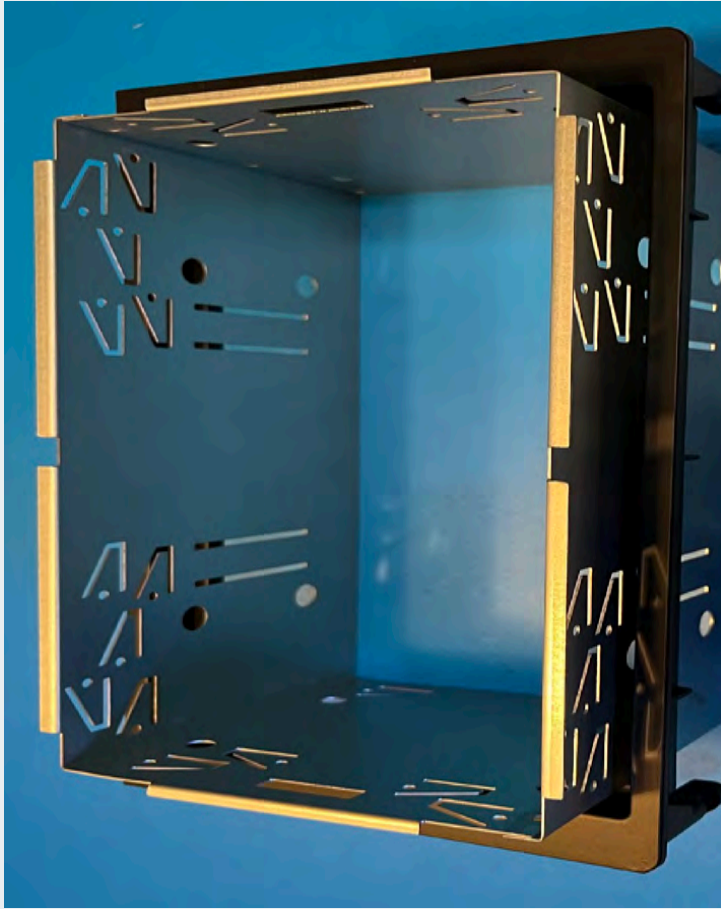
Attach the brackets with the locking insert as shown. Note the locking tabs must line up with the small slots in the bracket. The tab to bracket location affects the alignment of the radio to the faceplate. Make sure you used the same slots (for equal distance) on both sides, or the radio will not set flush.
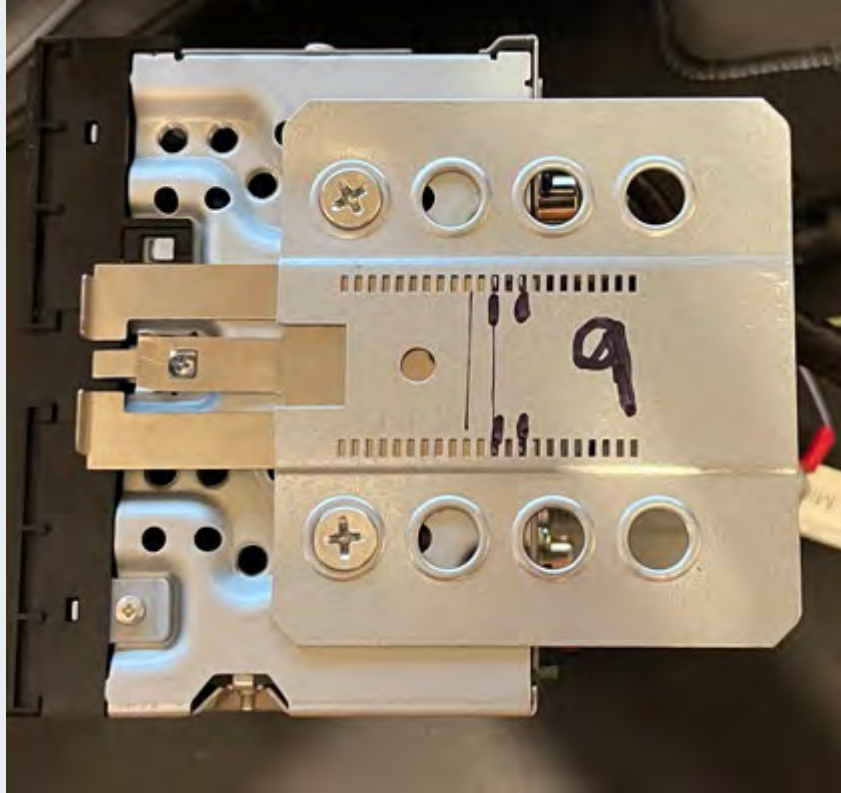
4dr Sedan/5dr Combi Microphone Installation : The microphone harness will reach to the OEM location in the overhead console for the Sedan/Wagon and a-pillar for the Convertible. TIP: Use a coat hanger to fish the microphone harness across the top of the Instrument cluster to the fuse panel cover on the driver's side of the dash. Route the microphone harness across the Instrument panel, up the A-pillar, under the headliner and into the overhead console into the area shown.

Sedan/Combi Microphone Installation: Use a small piece of foam to keep the Microphone pointed at the opening. The microphone clip will fit under the headliner to hold the microphone in place.

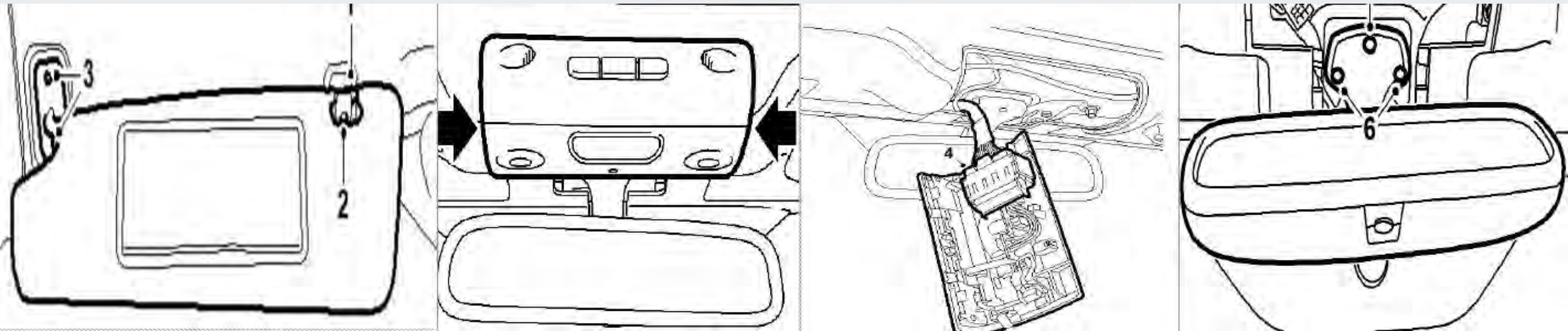## Convertible Microphone Installation : Sun and age will make these trim pieces very brittle. Be Careful!

In most cases it is easier to run the harness up the outside of the a-pillar and attach the microphone to the sun-visor. The supplied harness will reach to the OEM location in the A-pillar. The entire header trim will need to be removed to access the drivers side a-pillar trim to install the microphone in the stock location (SEE BELOW). Use a coat hanger to fish the microphone harness across the top of the Instrument cluster to the fuse panel on the driver's side of the dash.

1. Open the soft top.
2. Remove both sun visors.
3. Remove the interior lighting. Use a flat plastic trim tool.
4. Remove the connector from the interior lighting. The lighting unit remains hanging in the wiring harness to the sun visors.
5. Remove the cover.
6. Remove the interior rear-view mirror. Mirror with compass: Remove the connector.
7. Pull the windscreen trim down on the front, then pull back the trim and remove it.
8. Remove the sun visors' wiring harness from the trim.
9. Carefully pull the A-pillar trim in the top and bottom edge. Cars with microphone: Disconnect the connector from the microphone.
10. Assemble in reverse

Convertible Microphone Installation : Sun and age will make these trim pieces very brittle. Be Careful!

Open the top. Remove both sun-visors. Remove the interior lighting. Remove the cover. Remove the rear-view mirror.

Convertible Microphone Installation : Sun and age will make these trim pieces very brittle. Be Careful!
1.Carefully pull the center trim piece down on the front, then pull back the trim and remove it.
2.Carefully pull the A-pillar trim in the top and bottom edge to remove.
3.Attach microphone and reinstall the trim.
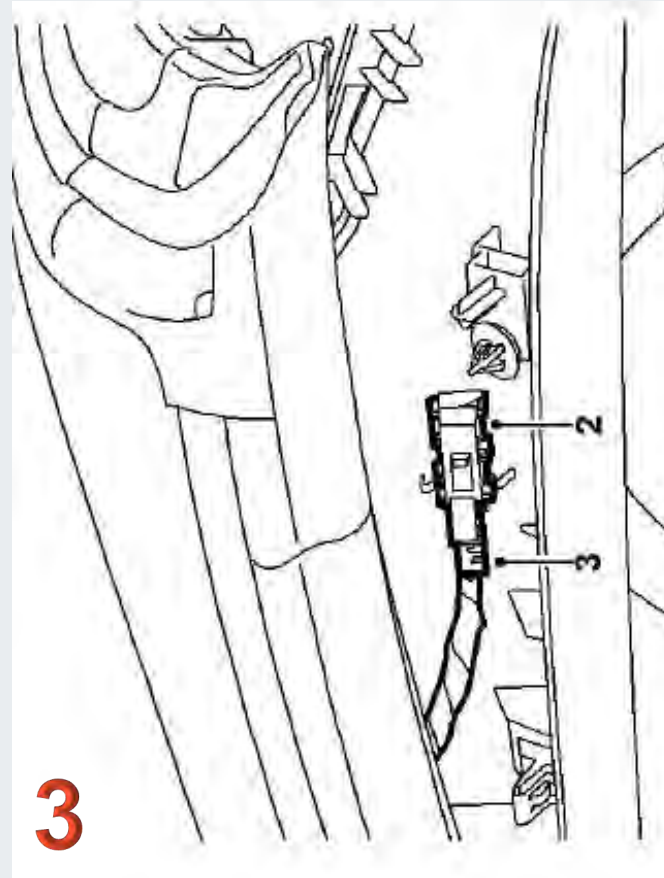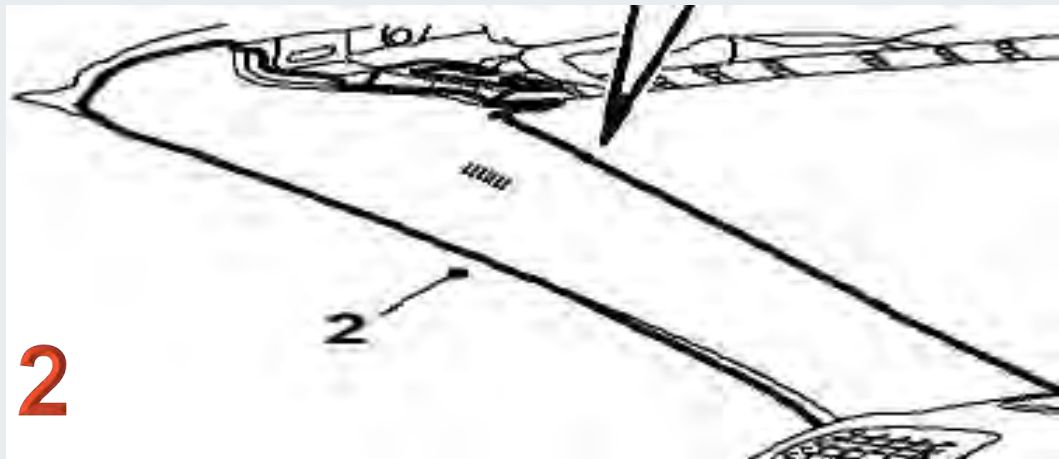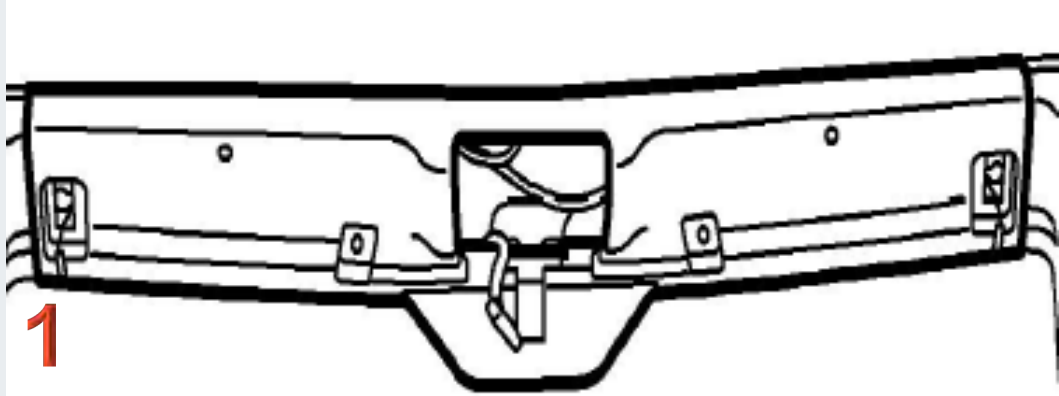
USB port locations Standard vs Optional remote placement.
Additional parts needed for remote location.
Install any optional USB port now.
Continue to next slide for standard installation.

Standard: Loose hanging port under the ACC panel in the center console

Optional: Smart Slot area using Accele USBRCS, CTUNIUSB.2 or PAC USBDMA6

Optional: Center Console area using (URWOOW USB3.0)

Locate the small harness shown below. Modify the small lead as shown for our application.
Do not cut the purple looped wire.
Cut the Orange and green wires that are looped together, then tape or heat shrink the ends to prevent grounding. Cover the 3.5 mm stereo lead with tape. we do not use it.
We only use the brown wire labeled Key 1. This brown wire plugs into the blue/yellow wire labeled Steering Wheel Remote Inputin the 16 pin Kenwood harness
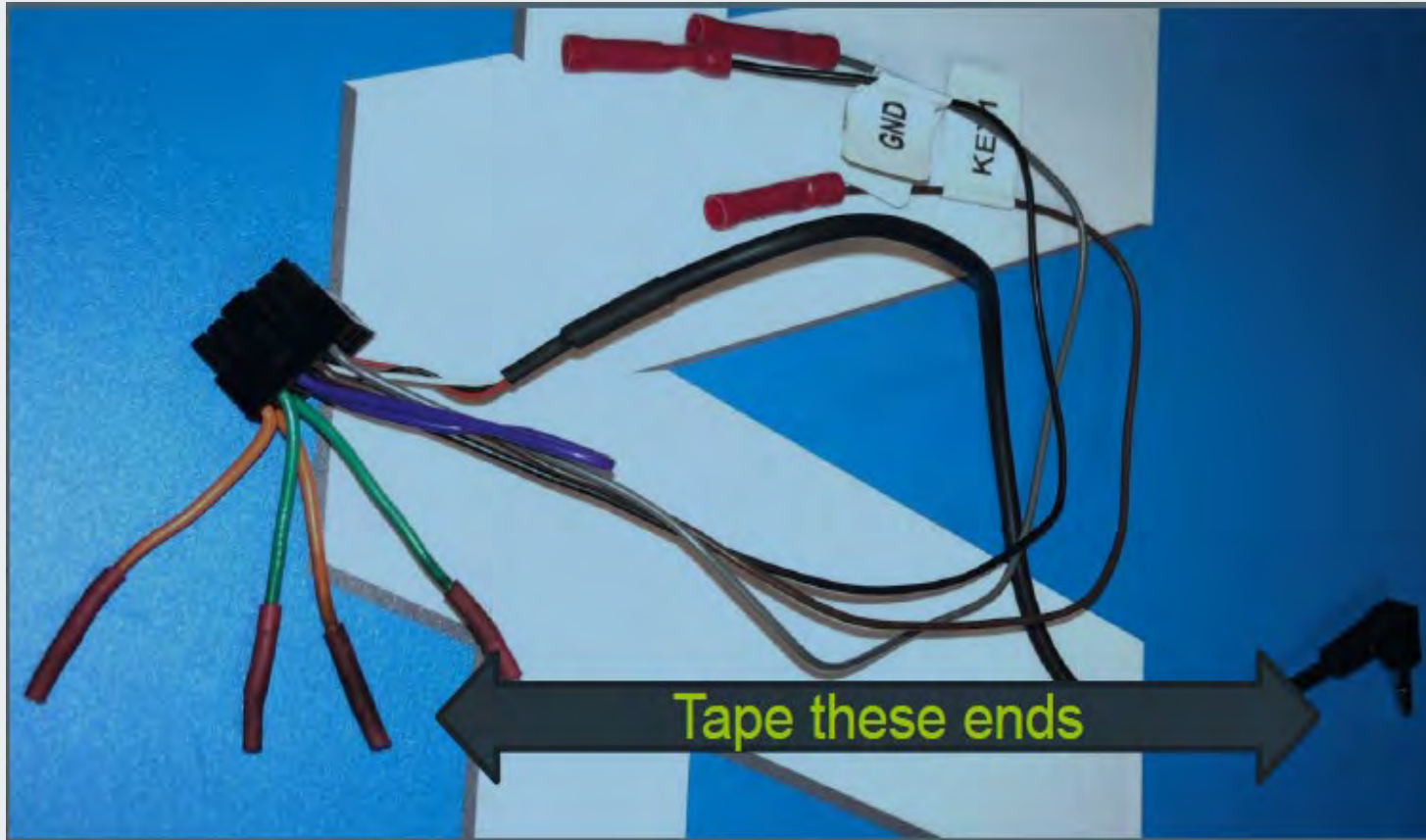
Depending on the harnesses included in your kit we may need to modify one.

When using the reddish brown speaker attenuation harness pay close attention to the speaker wire polarity, it may change as it passes through the connectors.

We must join the 16 pin Kenwood connector that came in the radio box to the the harness with the ISO connections. Your harness may have one large black square 16 pin ISO female connector or 2 rectangle 8 pin ISO connectors. Depending on the version we may have to cut one or both connectors off to join the wires to 16 pin Kenwood connector.

Plug the male side of red pigtail marked 217BV2 into the speaker side female connector.

The other ISO connector will have the Constant Power(Yellow), Switched power(Red), ground(Black), illumination(Orange) and P.Cont/Accessory/Amp/Antenna(Blue)
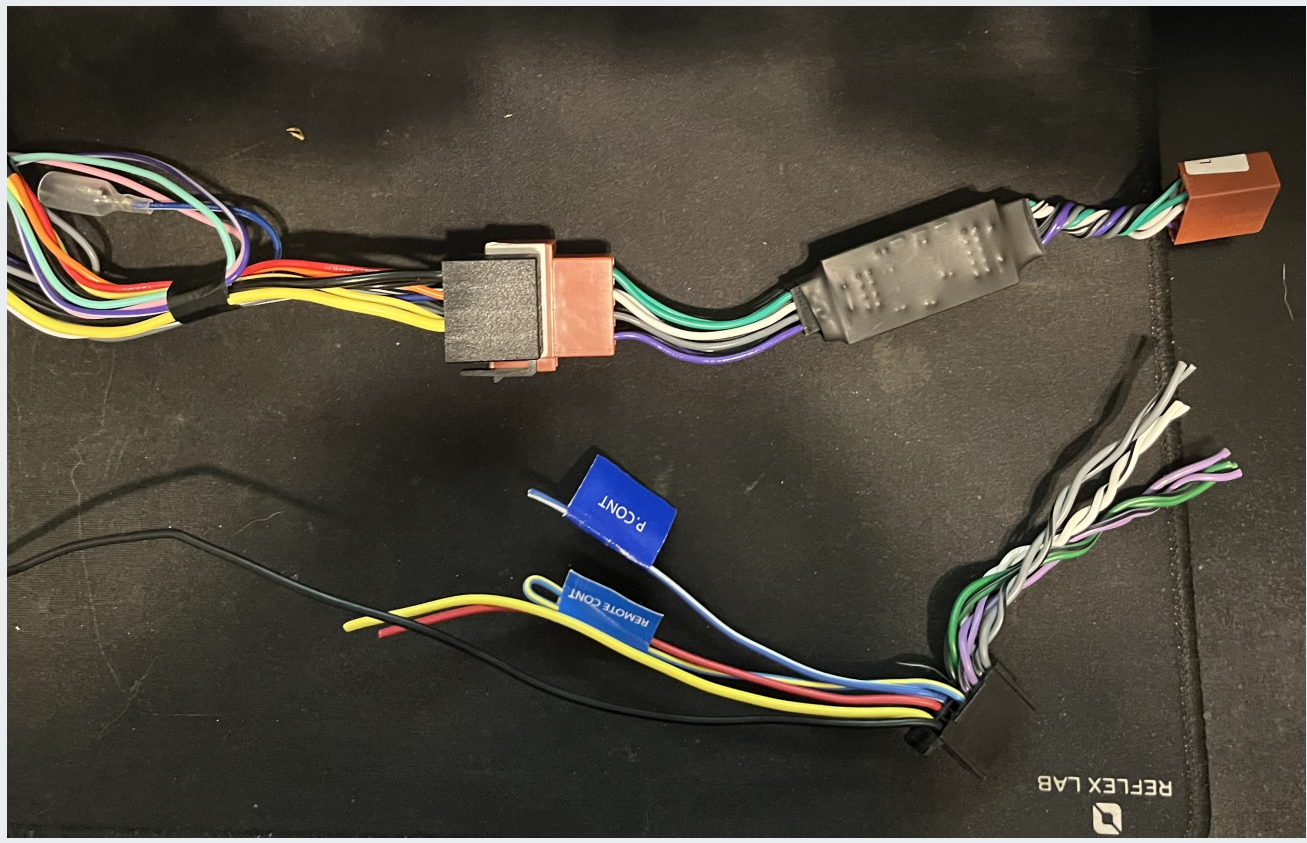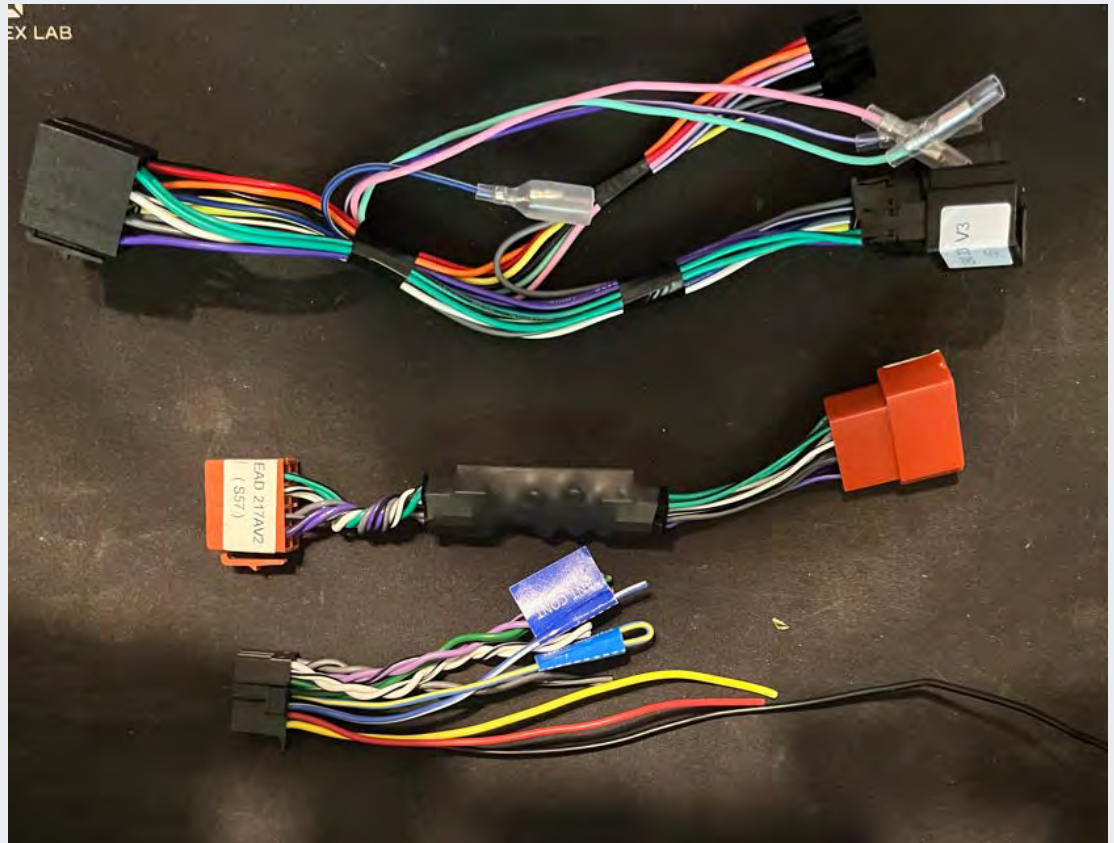
To use the speaker attenuation harness:
Plug the male side into the main harness. Cut the female side ISO connector off, leaving enough room to join the wires from the 16 pin pin connector that came in the Kenwood box. Join the wires together making sure the speaker polarity stays the same from the Kenwood 16 pin connector to the radio connectors. The ISO male side will plug into the radio harness. Note the wire colors when plugging in.
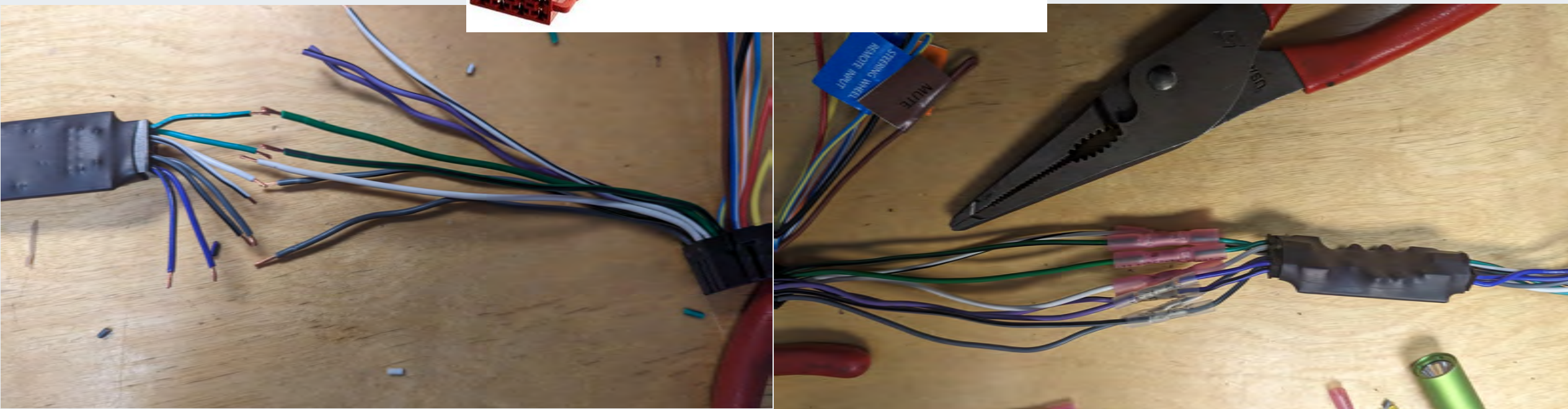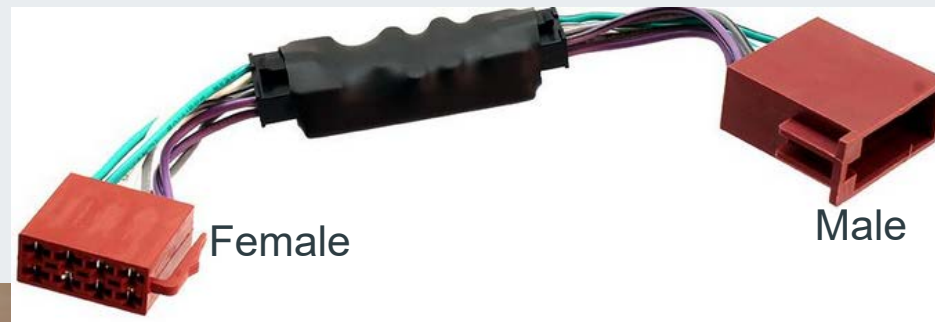
Female

Male

Cut off the female black 8 pin ISO connector and hard wire to the Kenwood 16 pin connection.

Match as shown

Constant Power(Yellow),

Switched power(Red),

Ground(Black),

Illumination(Orange), (optional)

P Control Accessory/Amp/Antenna(Blue).

Take the wires from the Kenwood 16 pin connector and match them up color for color with the 8 pin ISO connector.
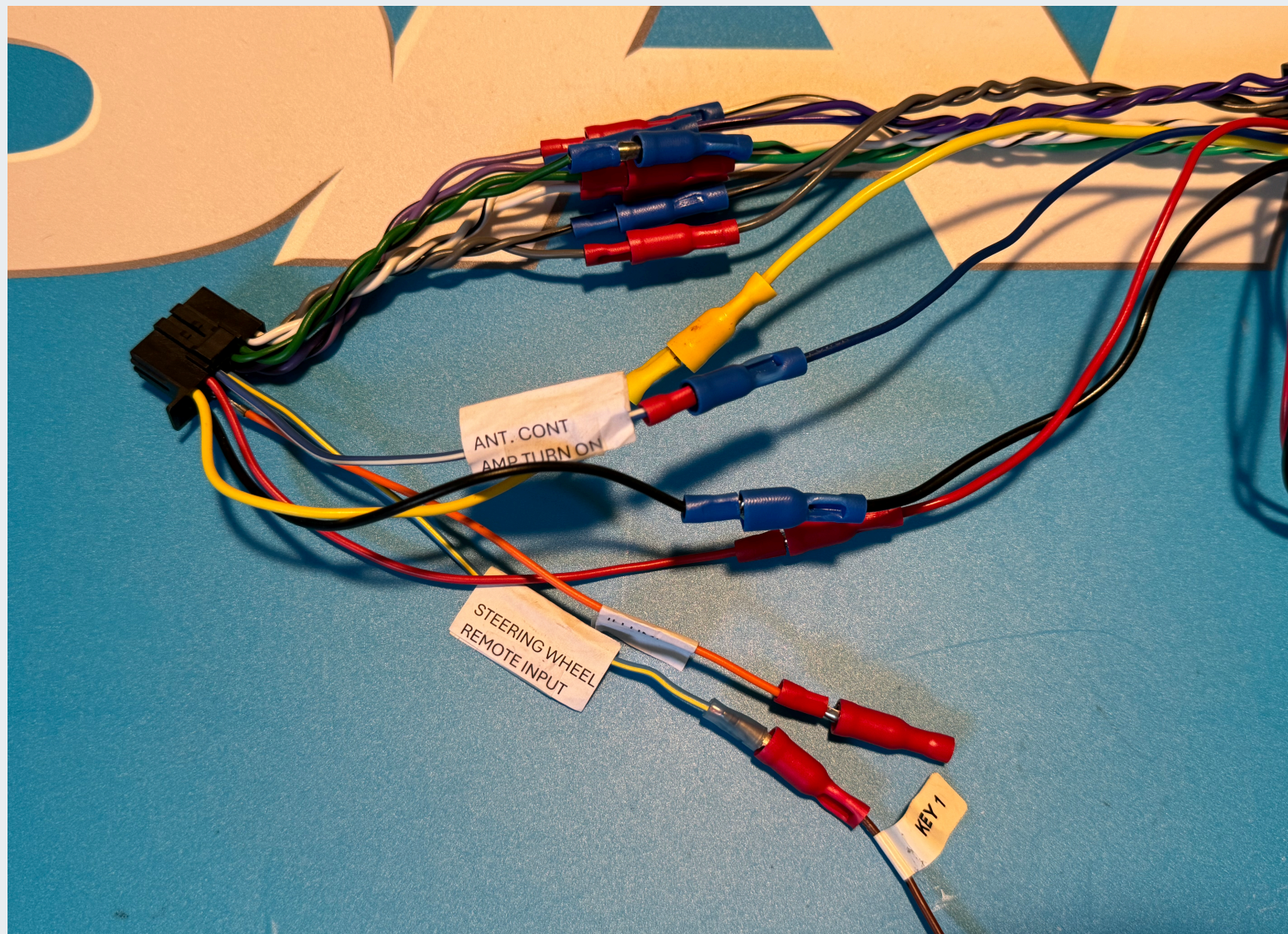
The harnesses should be assembled as shown below.

PRODUCT INFORMATION

This is a CAN-Bus steering wheel control interface for select Saab vehicles with Fujitsu Ten original stereos. This interface helps retain the steering wheel controls when upgrading to an aftermarket stereo.

WIRING KEY

IN WIRING HARNESS

Purple	Right Rear Speaker +	Yellow	Permanent 12V
Purple/Black	Right Rear Speaker -	Black	Ground
Green	Left Rear Speaker +	Red	Ignition 12V
Green/Black	Left Rear Speaker -	Orange	Illumination
Grey	Right Front Speaker +		
Grey/Black	Right Front Speaker -		
White	Left Front Speaker +		
White/Black	Left Front Speaker -		

ADDITIONAL CONNECTIONS

Pink	Speed Pulse
Green	Park Brake
Purple	Reverse Gear
Blue	Amp Remote

Both harnesses should be assembled and plugged into the radio prior to installation into the vehicle.
Let's go to the car. Before we install the radio, we need to install the microphone cable.

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Original Saab
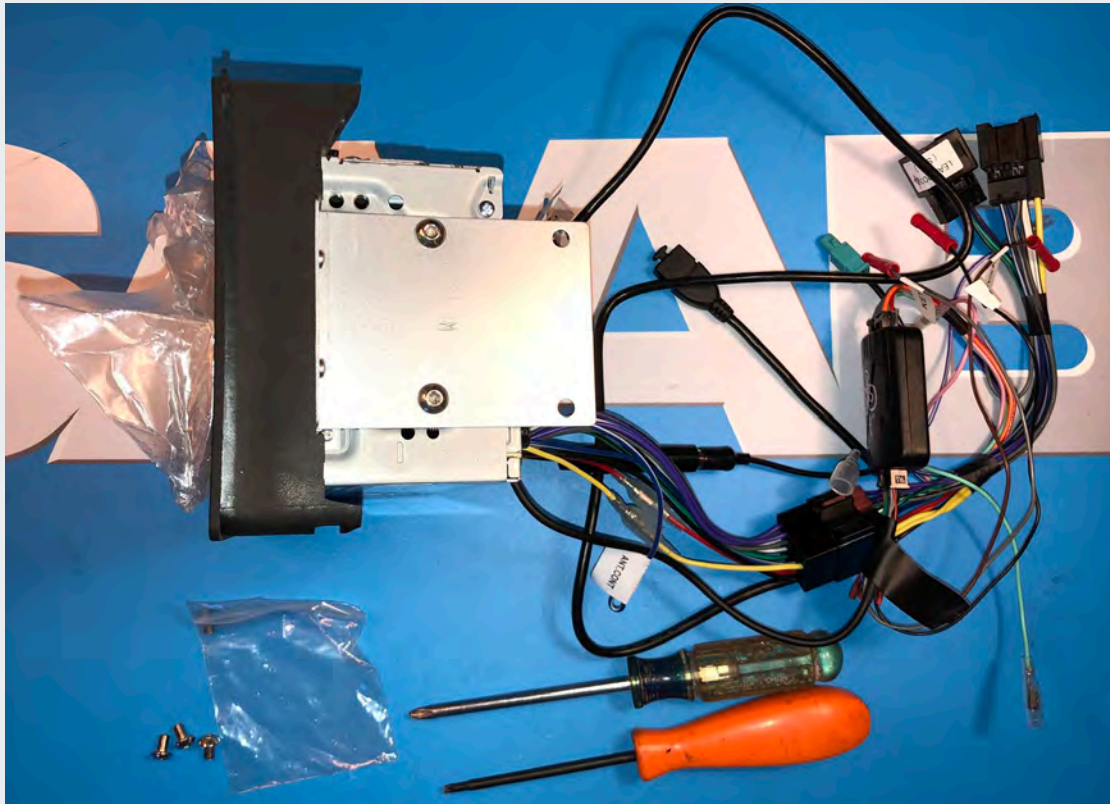
You must start the installation with the harness connected to the radio

• SiriusXM users install the XM module and antenna into dash area behind radio. Use double face tape to secure the antenna and module.

• Insert supplied Navigation antenna into dash area behind radio. Use double face tape to secure.

• Do not mount the XM or NAV antenna under any metal surface.

• Connect both black connectors first (they only fit one way) or the Steering controls will not function.

• Connect/Install the adapter for AM/FM antenna and plug in antenna.

• Route the USB port harness into the dash cavity to the desired location or connect to an optional USB extension cable

• Connect the brown wire labeled KEY1 in the CTMULTILEAD.2 harness to the light blue/green wire on the back of the radio harness labeled STEERING WHEEL REMOTE INPUT.

• Connect the light green PRK SW wire to constant ground if no camera is installed. If camera is used run wire to emergency brake switch.

• **Make sure you connected the blue and blue/white wires together** (This is the amp turn on, if you have no sound check this wire.)

• Connect any optional camera wiring

TIP: It is possible to use the auto dimming feature to dim the display when the headlights are on with additional work. This is not part of the standard installation. Locate the orange wire pin marked ILLUMI on the Kenwood pigtail. Tap the orange ILLUMI wire into the cigarette lighter illumination circuit in the center console below the ACC panel. The Radio display setting will also need to be changed in the radio as the auto dimming default is OFF.

HEDIN *PARTS*

Rear Camera

IMPORTANT TIP: When installing the optional Rear Camera those harness need to be installed before the radio is mounted. The Reverse signal is found at REC T-C pin-2; tap this wire and run a lead to the radio wire (purple/white) labeled REVERSE. Run the handbrake wire to the handbrake switch in the center console or to constant ground. The rear camera can be mounted to the bottom of the rear trunk handle in a suitable location. The light green PRK SW wire on the back of the radio MUST connected to the handbrake switch or to a constant ground. Switched power (+15) for the camera can be found at the Auxiliary/Cigarette Lighter socket of the ashtray (just below the ACC panel)
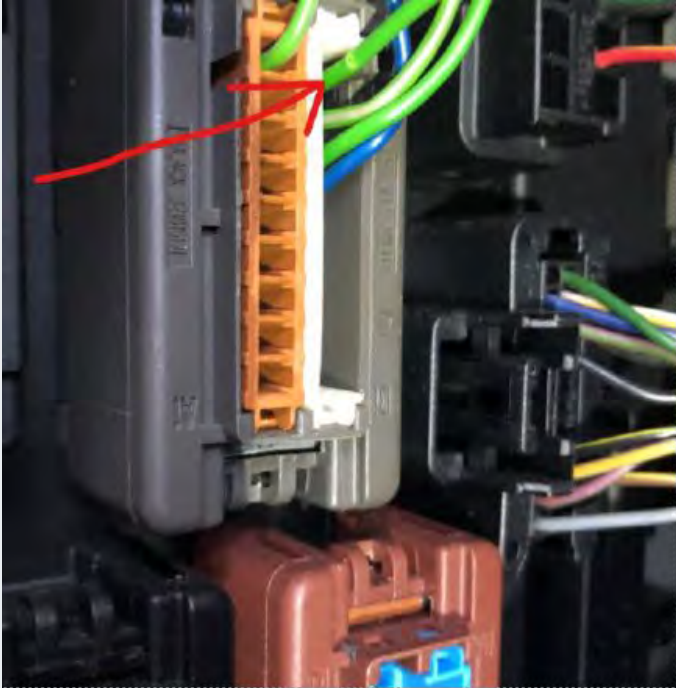
Final Installation: Once all the harnesses have been connected, begin to insert the unit.

- Insert the wiring while guiding the radio into place.
- Make sure to route the USB port harness into the dash cavity to the desired location as we insert the radio.
- The radio is held in place by the 2 T25 Torx screws we took out during removal.
- NOTE: Test the radio operation before reinstalling the upper vent.
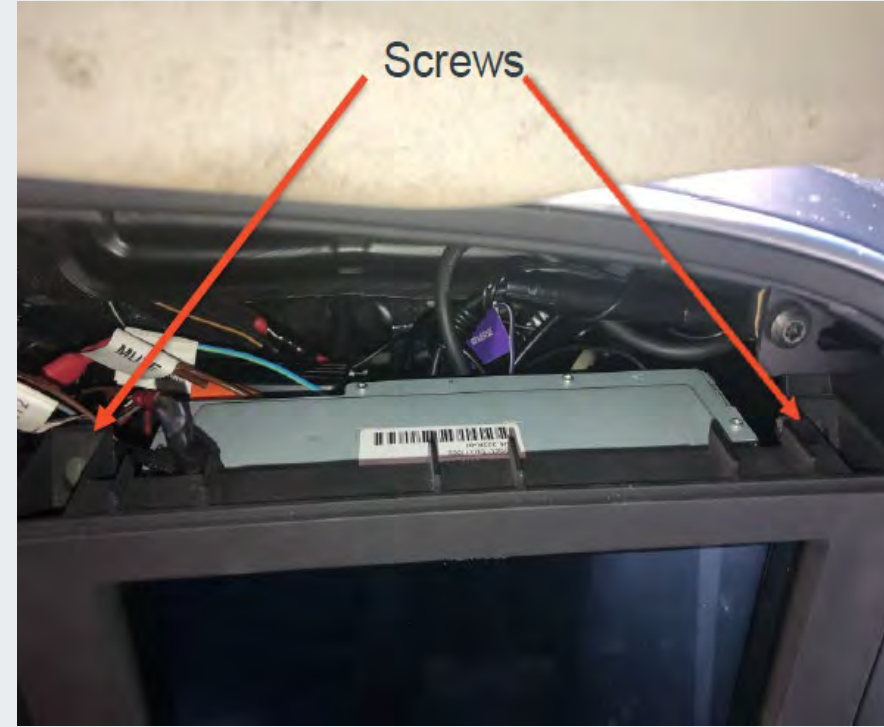
Final Installation: Before inserting the vent into place make sure there are no wires that may be in the way.

Test the radio operation before reinstalling the upper vent
Position and fit the center panel vent.
Make sure that the catches fasten securely.

Final Installation

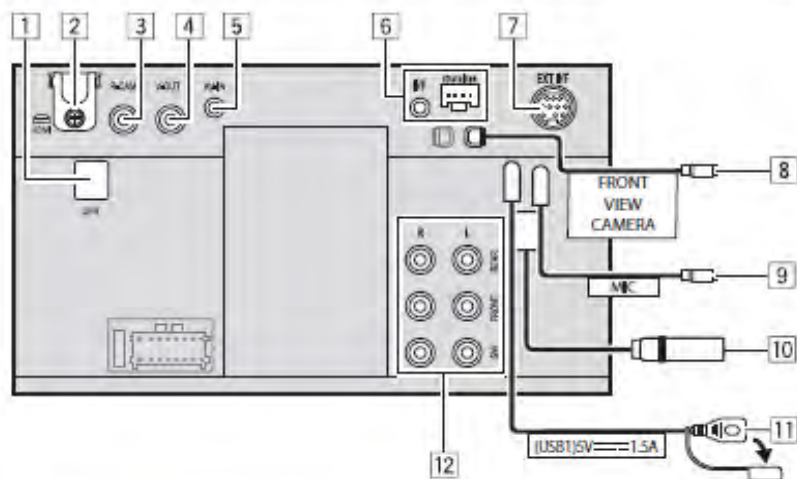The radio should turn off and on with the ignition switch.
Retained Accessory Power (RAP) is no longer active, the switch must be on for the radio to be on.
See the owner's manual for setup information

Installation and Connection

Connecting external components

1. GPS antenna input (GPS) (page 56)
2. HDMI terminal
3. Rear view camera input (R-CAM)
4. Video output (V-OUT)
5. Audio video input (AV-IN)
6. iDatalink input for connecting an ADS adapter (commercially available)
7. Expansion port for connecting SiriusXM Connect Vehicle Tuner (EXT I/F) (commercially available)
8. Front view camera input
9. Microphone input (MIC) (page 58)
10. Antenna terminal
11. USB terminal
12. Output terminals*
    - Left output (White)
    - Right output (Red)

    REAR: Rear speaker preouts
    FRONT: Front speaker preouts
    SW: Subwoofer preouts

For 3-way crossover:
REAR: Tweeter preouts
FRONT: Mid range speaker preouts
SW: Subwoofer preouts

* When connecting an external amplifier, connect its ground wire to the chassis of the car; otherwise the unit may be damaged.

2. Use HDMI cable KCA-HD200 (optional accessory).
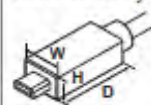
W: 11.1 mm or less
H: 7.7 mm or less
D: 21.5 mm or less

When you connect the cable to HDMI terminal, detach the fixture. After connecting the cable, attach the fixture back using the screw.

HDMI cable

Fixture
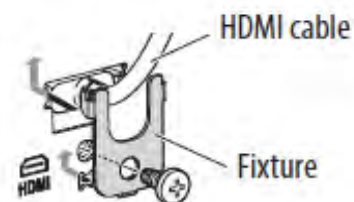
5. Connect the following type of 4-pole mini plug:

① Left audio
② Right audio
③ Ground
④ Composite video

7.

Antenna

EXT I/F

SiriusXM Connect Vehicle Tuner (Commercially available)

Wiring connection

Connect to the video out terminal of the front camera

MIC

5

Connect the antenna cord to the antenna terminal

FRONT VIEW CAMERA

10 A fuse

1

USB terminal (1 m)

(USB1)5V===1.5A

Connect a USB device

Purple with white stripe

REVERSE → To the car's reverse lamp harness when using the optional rear view camera

Light green

PRK SW ← Extension wire (**2**) → To the car's parking brake detection switch harness (For best safety, be sure to connect the parking sensor.)

White ⊕ / White with black stripe ⊖ → To front speakers (left) / Mid-range speakers (left) for 3-way crossover

Gray ⊕ / Gray with black stripe ⊖ → To front speakers (right) / Mid-range speakers (right) for 3-way crossover

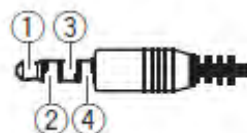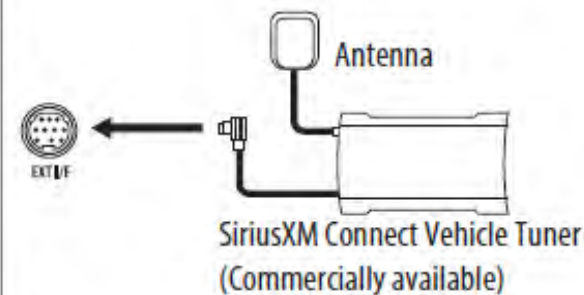Green ⊕ / Green with black stripe ⊖ → To rear speakers (left) / Tweeters (left) for 3-way crossover

Purple ⊕ / Purple with black stripe ⊖ → To rear speakers (right) / Tweeters (right) for 3-way crossover

Brown — MUTE → (Not used for this unit)

Orange with white stripe — ILLUMI → To the car light control switch

Light blue with yellow stripe — STEERING WHEEL REMOTE INPUT / REMOTE CONT → To the steering wheel remote control adapter (not supplied)

Blue with white stripe (12 V === 350 mA) — ANT.CONT / P.CONT → To the power control terminal when using the optional power amplifier (Or)
To the control terminal of the motor antenna or to the power terminal for the booster amplifier of film-type antenna

Red (Ignition wire)

Yellow (Battery wire) — Ignition key switch — Car fuse

Black (Ground wire) — To the car chassis — Car battery

ENGLISH

Software check:

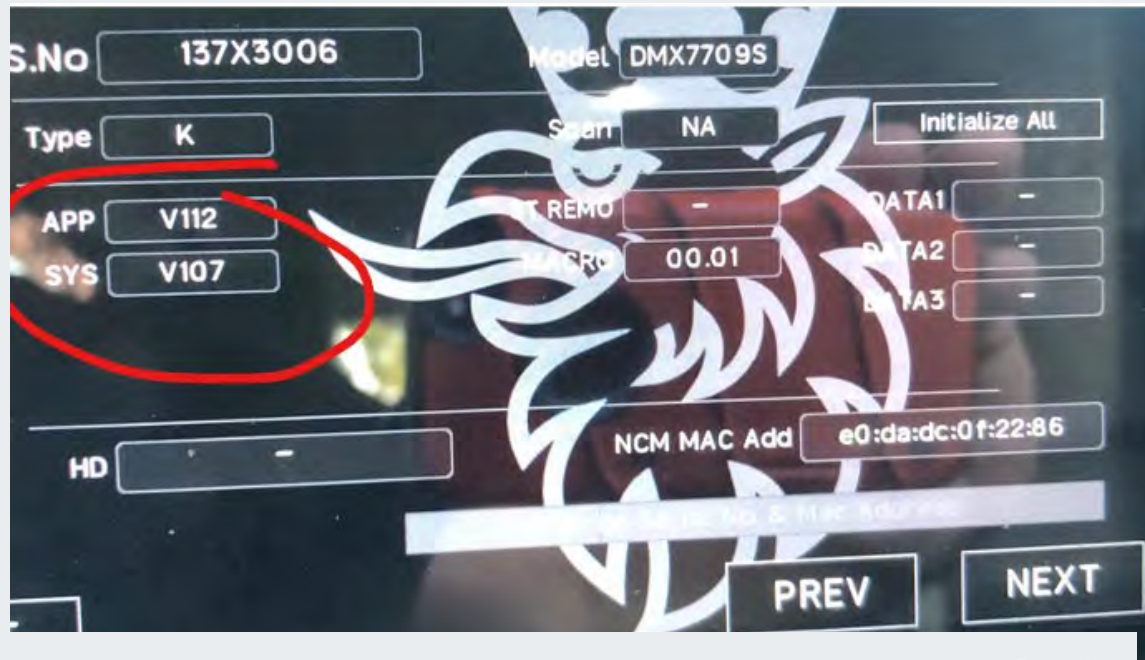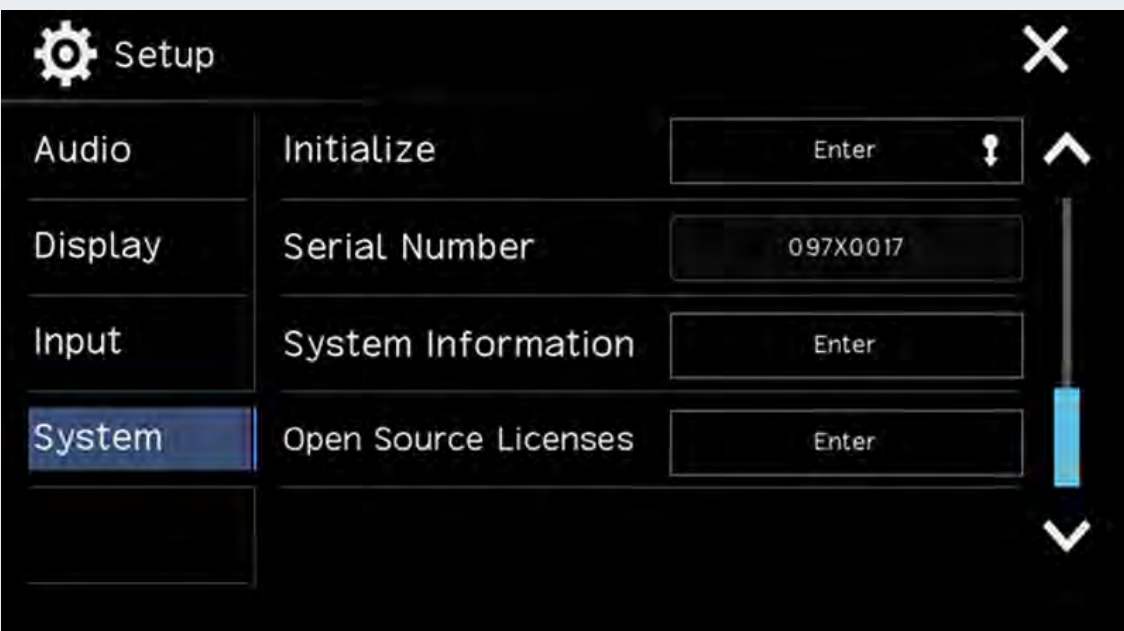Make sure the radio is updated with the latest software and firmware.

1. Press the <HOME>. 🏠 icon

2. Touch the <Source> ▦ icon

3. Touch the <SETUP> ⚙ icon

4. Touch the [System] tab

5. Enter the System Information screen. The latest APP is **V114** and SYS is **V111**

6. <mark>**ALWAYS INSTALL THE SYS UPDATE FIRST**</mark>

Kenwood DMX 7709S

Final checks.

If the receiver is stuck on a black screen during the update, then it more than likely froze mid update. This can happen for a variety of reasons but most commonly is caused by a USB that was not the proper size or had something else on the file structure.

This can be fixed. Load the update on to several different drives (2 or 3) and turn the receiver off. Swap the USB with a different one. Power the receiver back on. Then wait about 15-30 seconds. If nothing happens repeat process of switching drive until receiver reboots.

For updating, use a USB memory device with the specifications shown below.
Updating is not possible on USB memory devices with other specifications.
USB Standard: USB 2.0
Capacity: 8 GB to 32 GB
File system: FAT 32

KENWOOD

Firmware Reference
April 2023

April 1, 2023 - Firmware Update Reference Guide

This is a simple chart & guide to help in identifying if a receiver has already been updated with the latest firmware as of 4-1-2023.

The below firmware versions can be referenced from the receiver's software information screen.			
Receiver	**Application Version**	**System Version**	**MCU Version**
DMX8709S/809S	V115	No Updates	n/a
DMX7709S/709S	V114	V111	n/a
DDX5707S/57S	220124-V1.6.*.****	n/a	210521_1A or 210521_1B or 221207_1E
DMX4707S/47S	220121-V1.6.*.****	n/a	210521_1A or 210521_1B or 221207_1E

The below chart indicates any visibile markings/indications on product or packaging.				
Receiver	**Serial #s with Updated Firmware**	**Receiver Indication**	**Product Carton Indication**	**Master Pack Indication**
DMX8709S/809S	088Xxxxx +	None	Blue Dot / None*	Blue Dot / None*
DMX7709S/709S	078X0181 +	None	None	None
DDX5707S/57S	0770xxxx - 1770xxxx & 0680xxxx +	Yellow or Green Dot	Yellow or Green Dot	Yellow or Green Dot
DMX4707S/47S	0770xxxx - 1770xxxx & 0680xxxx +	Yellow or Green Dot	Yellow or Green Dot	Yellow or Green Dot

DMX4707S, DMX47S, DDX5707S, & DDX57S ONLY

These models WILL HAVE a yellow or green dot applied to the receiver, carton, and master pack.


DMX7709S & DMX709S ONLY

These models WILL NOT have any markings. Please reference the above firmware versions from the receiver's software info screen.

DMX8709S & DMX809S ONLY

*The updates applied to these models vary based upon production date. A blue dot applied to the carton and master pack indicate it's updated. No blue dot indicates it may or may not be updated, so you must verify by the receiver's serial # or software info screen.
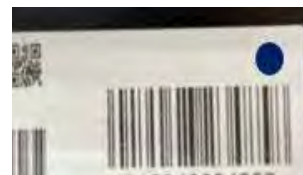
2022 NAVIGATION/MULTIMEDIA Receiver Firmware Update Guide

Introduction

- This document describes the procedure and precautions for upgrading the 2022 NAVIGATION/MULTIMEDIA receiver firmware.
- If an error occurs while you are updating the firmware, the 2022 NAVIGATION/MULTIMEDIA receiver may become unusable. Be sure to read the following procedure and precautions carefully before updating the firmware.

Target Model and Firmware Version

The updater can be used for the firmware versions of the models shown below.

Target models	Target firmware versions ➡ Updated versions	Updater file name (size)
DMX709S, DMX7709S, DMX7022S	Ver 110 or earlier ➡ V111	22ENT_SYS.upd, upd_info.dat (1.7 MB)

- For how to check your firmware version, refer to "Checking the Firmware Version".

Work Flow

Step 1.   Download the firmware files, and copy them to USB memory.

Step 2.   Update the firmware. **(It takes about 5 minutes.)**

Step 3.   Check that the firmware has been updated.

Creating the Update Media

Create the update media on your PC.

1. Download the Updates from the Web site.
2. Decompress the downloaded file.
3. Copy the decompressed file to the top of hierarchy in USB memory.
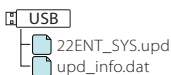
USB
├── 22ENT_SYS.upd
└── upd_info.dat

Caution

- **For updating, use a USB memory device with the specifications shown below. Updating is not possible on USB memory devices with other specifications.**
  USB Standard: USB 2.0
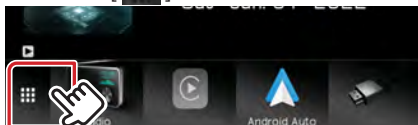 **Capacity: 8 GB to 32 GB**
  File system: FAT 32

- Do not copy the updater to a device containing audio files. Blank USB memory is highly recommended.
- Update cannot be performed if it is copied inside a folder.
- If the updater file name is changed, update cannot be performed.
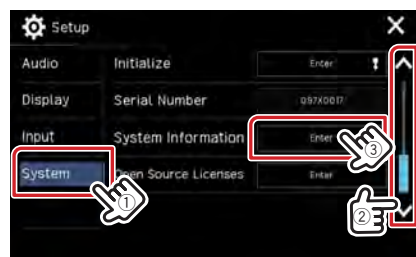
Checking the Firmware Version
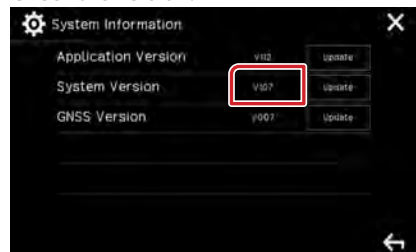
1. Press the <🏠 HOME> button.
2. Touch the [▦].

3. Touch the [SETUP (⚙)].

4. Touch the [System Information] to display the System Information screen.

5. Check the version.

Updating the Program

1. Press the <🏠 HOME> button.
2. Touch the [▦].
3. Touch the [SETUP (⚙)].
4. Touch the [System Information] to display the System Information screen.
5. Touch the [Update].

6. Connect the USB memory to update starts.
   (**It takes about 5 minutes.**)

   Caution: The screen may go blank for a few seconds.
   Do not unplug the USB memory or Power Off the unit during the Update Procedure.

7. Once the "Update completed" screen is displayed.
8. Remove the USB memory.
9. Turn the power off and on again.

10. Check that the firmware version is updated, by referring to "Checking the Firmware Version".

Precautions

- Be sure to park the vehicle in a safe place before updating. Keep the engine running in order to prevent battery from running out.
- Do not turn off the engine or Navigation/Multimedia receiver power while updating. Update cannot be performed correctly and the Navigation/Multimedia receiver may become unusable.

Kenwood Firmware Updates
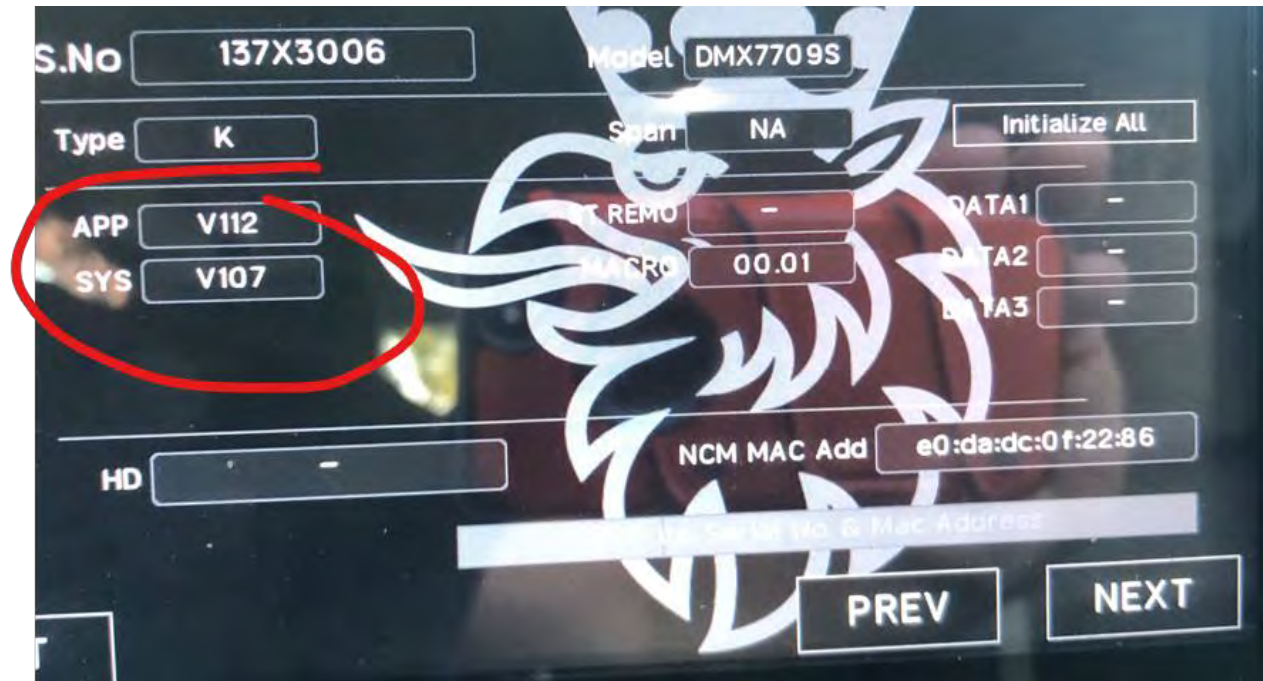
- **System Firmware Update (02.03.2023)**

Improved functions

(02.03.2023)
- Improved stability and performance.

The firmware for the following products have been updated.

2022MODEL
• DMX709S • DMX7709S • DMX7022S

Be sure to read and follow the instructions in the "2022 Navigation/Multimedia receiver Firmware Update Guide."

"2022 Navigation/Multimedia receiver firmware update Guide"(en) download(PDF:342KB)

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Caution

For updating, use a USB memory device with the specifications shown below. Updating is not possible on USB memory devices with other specifications.

- **USB Standard: USB 2.0**
- **Capacity: 8 GB to 32 GB**
- **File system: FAT 32**

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- (02.03.2023)
-
  Application Firmware Update
  (26.10.2022)

Improved functions

(26.10.2022)

- Improved ADS function. (Covered areas: North America)
- Improved stability.

The firmware for the following products have been updated.

2022MODEL
• DMX709S • DMX7709S • DMX7022S

Be sure to read and follow the instructions in the "2022 Navigation/Multimedia receiver Firmware Update Guide."

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For updating, use a USB memory device with the specifications shown below. Updating is not possible on USB memory devices with other specifications.

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- File system: FAT 32

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2007-2011 Saab 9-3 Installation Guide

HEDIN PARTS AND LOGISTICS

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