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# UNAVI F1 for Kia Optima Installation Guide

[4.3"/5" Color LCD w/OEM Rear-View Camera]



**MODEL: Kia Optima 2016+  
(Professional Use)**



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## **DISCLAIMER:**

This 'Do-It-Yourself Installation Guide' is intended for informational and reference purposes only. We do not recommend implicitly or explicitly, to anyone, performing any of the procedures described in this guide. We are also not responsible for any property damage, personal injury and/or death, or any other loss or damage that may result from following this informational guide.

Proceed with caution and care when performing modifications to your vehicle.

Be advised that making modification to your vehicle may void your manufacturer's warranty.

*Hyundai is a registered trademark of Hyundai Motor America.  
Kia is a registered trademark of Kia Motors America, Inc.*

*iPod is a registered trademark of Apple, Inc.  
Bluetooth is registered trademark of Bluetooth SIG, Inc.*

## **NOTE**

- Take care not to scratch the center fascia panel, dash trim, shift knob, etc.
- Eject disc before removing the audio unit to prevent damaging the CD player's load mechanism.
- Disconnecting the negative (-) battery terminal is recommended prior to installation.
- Do not touch the circuit board and the terminal connector of the flat cable with your bare hands.
- Make sure all connectors and cables are plugged in properly.
- All ground wires provided must be connected to chassis ground.

## **MAIN COMPONENTS**

(Not actual size, Items shown may vary)




Rear View

Optima fascia kit:

- Fascia
- Control keypad w/cable
- Main LCD Panel w/Mounting Bracket



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(Continued)



Front Replacement Bracket  
(model varies)



Mounting Brackets (Left & Right)



Control Box + SD Card



HUV0 Adapter Cable  
(incl. only for non-UVO kit)



Trip Interface Board  
(model varies)



GPS Antenna




External Speaker



SMART Cable

Supplied parts may vary slightly. All components shown in this document is subject to change without notice.

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## TOOLS REQUIRED:

- Masking Tape
- Double-sided Tape \*
- Electrical Tape
- Velcro
- Dash Trim Removal Tool \*
- Zip/Cable Ties
- Scissor \*
- Plastic/Tin Snips \*
- Pliers \*
- Screwdriver (Phillips-head, Magnetized) \*
- Magnetic Screw & Bolt Tray
- Power Drill \*
- Unibit \*
- Electrical Connectors & Tools - (Wire stripper, Crimper, T-Tap, etc.)
- Hand Saw/Reciprocating Saw \*
- Heat Gun

*\*Required Tools*

**Pre-installation picture of non-navigation equipped models**  
*(Trim levels may vary)*



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## TPMS (TIRE PRESSURE MONITORING SYSTEM) WARNING LAMP – ELECTROMAGNETIC INTERFERENCE

### SYMPTOM/CONDITION

The TPMS malfunction indicator lamp may be illuminated if the vehicle is moving around electric power supply cables or radio transmitters at police stations, government and public offices, broadcasting stations, military installations, airports, transmitting towers, etc. External electronic devices connected to the vehicle's power outlets (notebook computer, seat warmer, massager, coolers, GPS navigation, mobile phone charger, etc.) may also cause this condition. The TPMS malfunction indicator lamp generally turns off after the vehicle is removed from such interferences.

### DIAGNOSIS:

If the TPMS indicator lamp is ON, and all four wheel sensors are checked and are working correctly, external electronic devices connected to the vehicle's power outlets (notebook computer, seat warmer, massager, coolers, etc.) may be the cause of this condition. Car manufacturers are aware that any aftermarket device operating especially on the CAN-Bus system can trigger random warning lamps.

### ACTION:

1. Please inspect if there are any other electronic devices inside the vehicle that may cause electromagnetic interferences with the TPMS.
2. Drive the vehicle out of the strong electric field for about 5 minutes to verify that the condition is corrected.
3. Relocate the Control Box and its related cables away from the TPMS sensor (typically located behind the glove compartment).
4. If the above doesn't work, use a metallic shield wrap or a similar material to wrap around the Control Box and its cables with both ends of the shield connected to chassis ground at the point of entry.

## GPS ANTENNA INSTALLATION

The delay when the GPS receiver is first switched on is due to the latest ephemeris data being downloaded, which is essential for the GPS receiver. The data is valid for around 4 hours and takes approximately 20 seconds with a clear line of site to a satellite. It takes longer if using multiple satellites, for instance if the GPS receiver is moving during first acquisition.


The antenna needs to be facing the sky through a non-metallic enclosure. A metallic enclosure (including window tints) will prevent the RF signal being received by the antenna and cause a Faraday cage effect. Likewise, positioning the antenna near to obstructions such as laptop screen or where hands will be over the antenna should also be avoided, as the shielded will have a negative performance.

The GPS Antenna base is magnetic. On metal vehicles, position the antenna in the center of the vehicle at the highest point.

For vehicles with non-metallic mounting surfaces, a metal plate with adhesive strips has been included in the kit for easy mounting and installation. It is **STRONGLY** recommended to use this metal plate underneath the antenna as it will improve signal acquisition.

Once the antenna has been positioned, route the antenna cable carefully to avoid damage.

Position the GPS antenna in the center of the vehicle at the highest point with a clear view of the sky.

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**< DASH REMOVAL >**



Gently remove the side panel cover on the passenger side.  
*(Apply protective tapes and take care not to damage and scratch the interior dash and its related parts)*



Remove the screw located on the side panel as shown.


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Open the glove compartment, then carefully pull out the panel cover as shown.



Remove the 2 screws located behind the panel cover.

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Gently pull out the silver trim garnish (preferably) starting from the passenger side air vent...



...follow through toward the center dash panel to completely remove the garnish.




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Carefully remove the side garnish on the center console (passenger side only).



Remove the 3 screws to pull out the center air vent assembly.  
Disconnect all cables plugged behind it.

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**< RADIO DISASSEMBLY >**

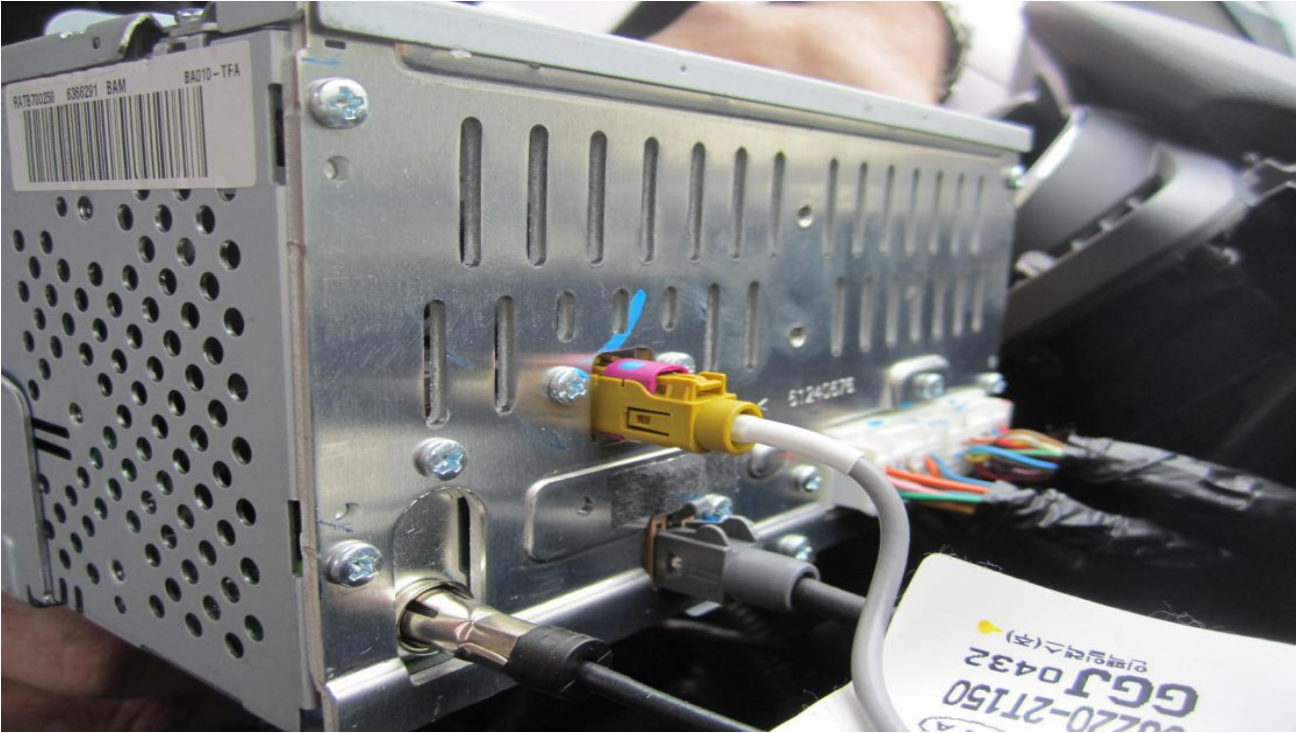


Gently pull off the center radio cover as shown.



Remove the radio head unit after loosening mounting screws (4ea).

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As the head unit is being pulled out, carefully disconnect all cables behind it.

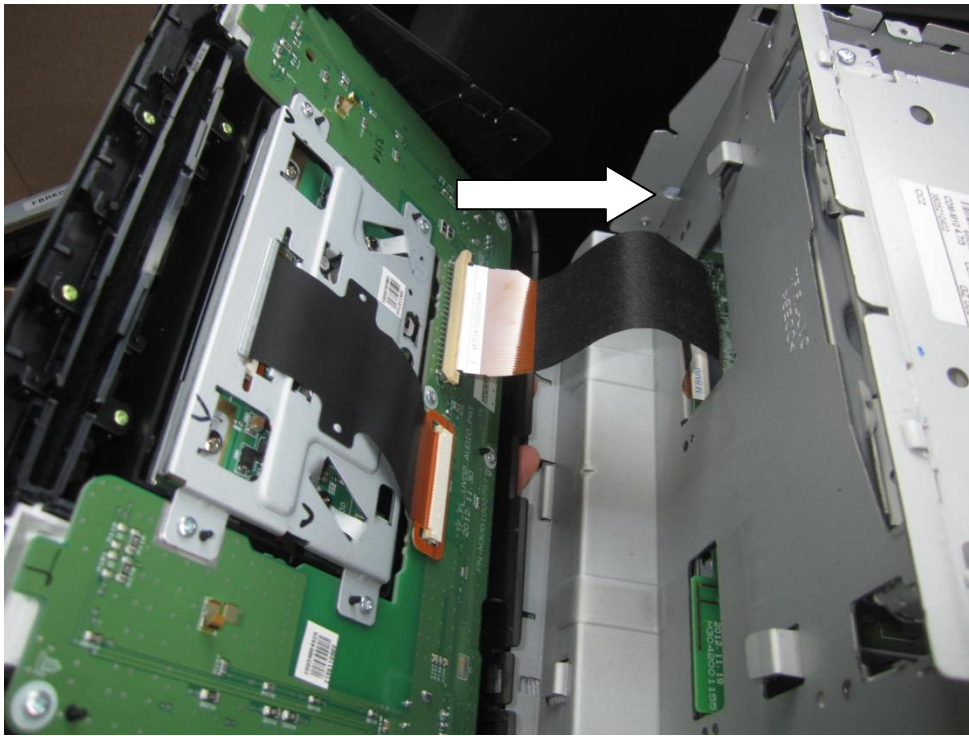
*(Images shown on this page may vary)*



Remove the radio mounting bracket on each side.

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**Proceed only if radio has UVO/eServices. If not, skip to page 17.**




Carefully disassemble the radio faceplate from the head unit.

*(Images shown on this page may vary)*



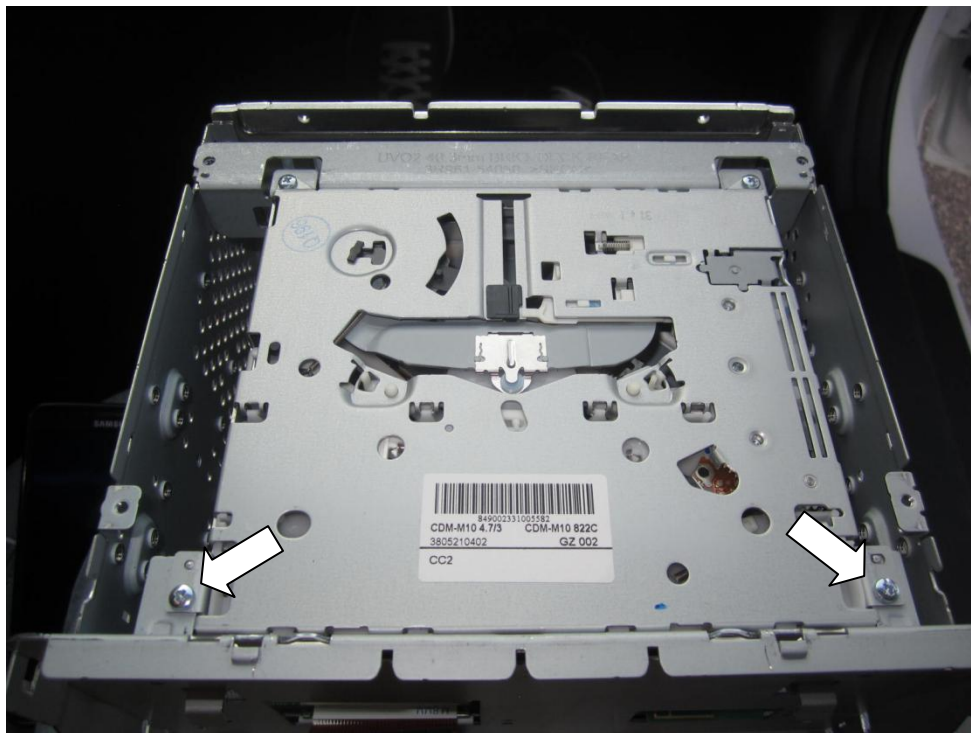
Disconnect the ribbon cable from the back of the faceplate ONLY. **\*\*Use Caution\*\***

	<b>CLASSIFICATION</b> <b>Installation Manual</b>	<b>SKU</b> <b>ENB-F1-K6U</b>	<b>DOCUMENT NO.</b> <b>F1-K-1</b>
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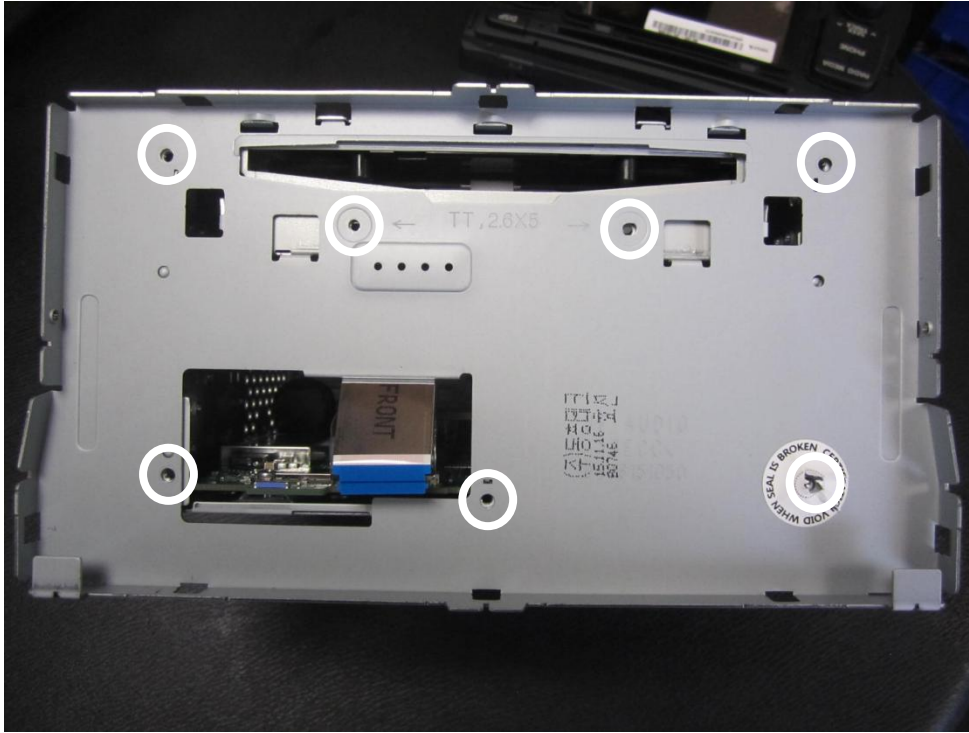
Remove the screws (4ea) on the head unit to remove the top cover.

*(Images shown on this page may vary)*



Remove the top cover after loosening the screws.  
 Remove the two screws as marked in white arrows shown above.

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Remove all screws securing the front bracket as shown.

*(Images shown on this page may vary)*



Please proceed with CAUTION when inserting the ribbon cable into the Trip interface board.  
DO NOT twist the cable as this may result in damaging the board and/or the radio!

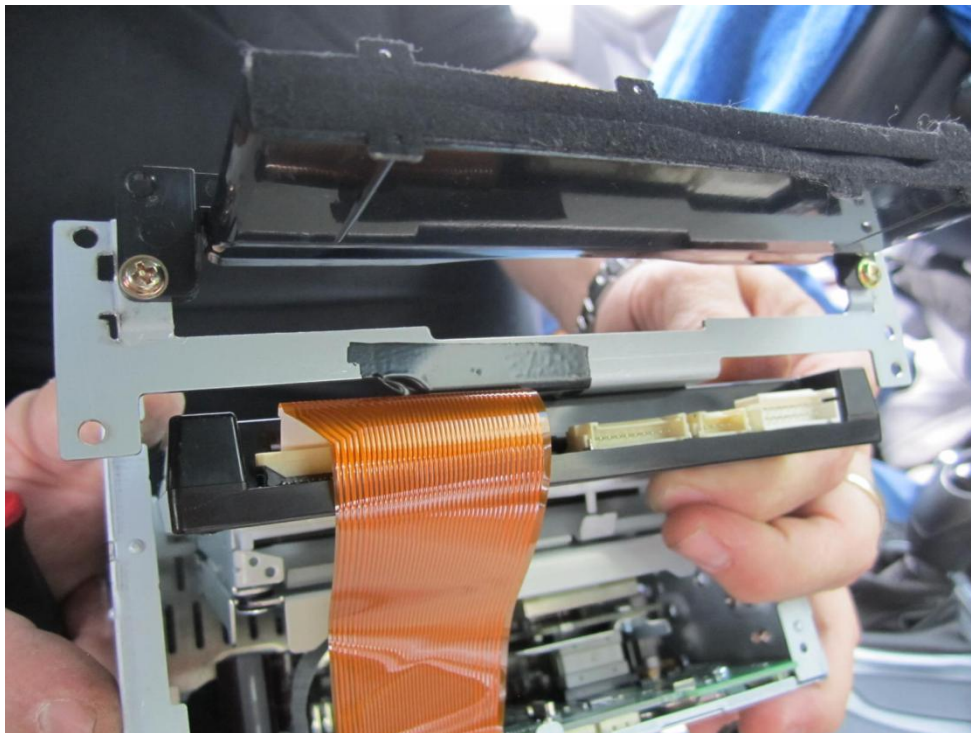
**[WARNING] This TRIP MODULE is designed for specific models. Improper use such as failure to follow instructions and use with incompatible radio will damage this module and the radio unit!**

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Assemble the Trip interface board onto the front replacement bracket piece as shown.  
(Use screws provided in the kit to mount the Trip interface board).

***(Images shown on this page may vary)***



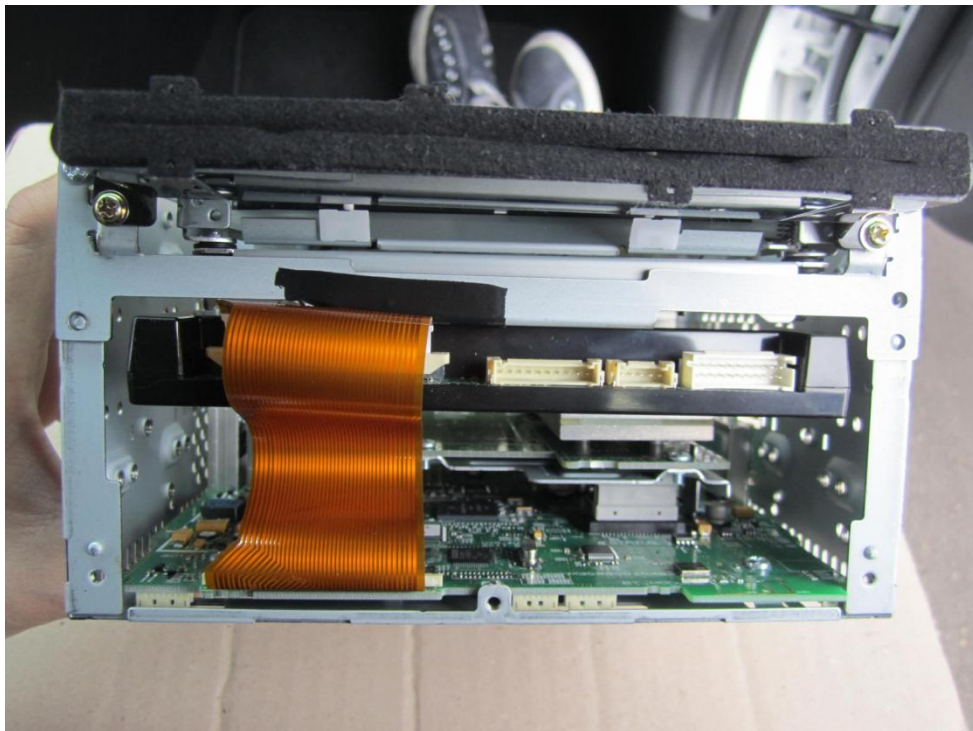
Front view of the Trip interface board mounted on to the front replacement bracket.  
Make sure the ribbon cable is seated evenly across the connector.

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Screw the front replacement bracket to the radio head unit and ensure it is mounted underneath the CD mechanism as shown.


*(Images shown on this page may vary)*



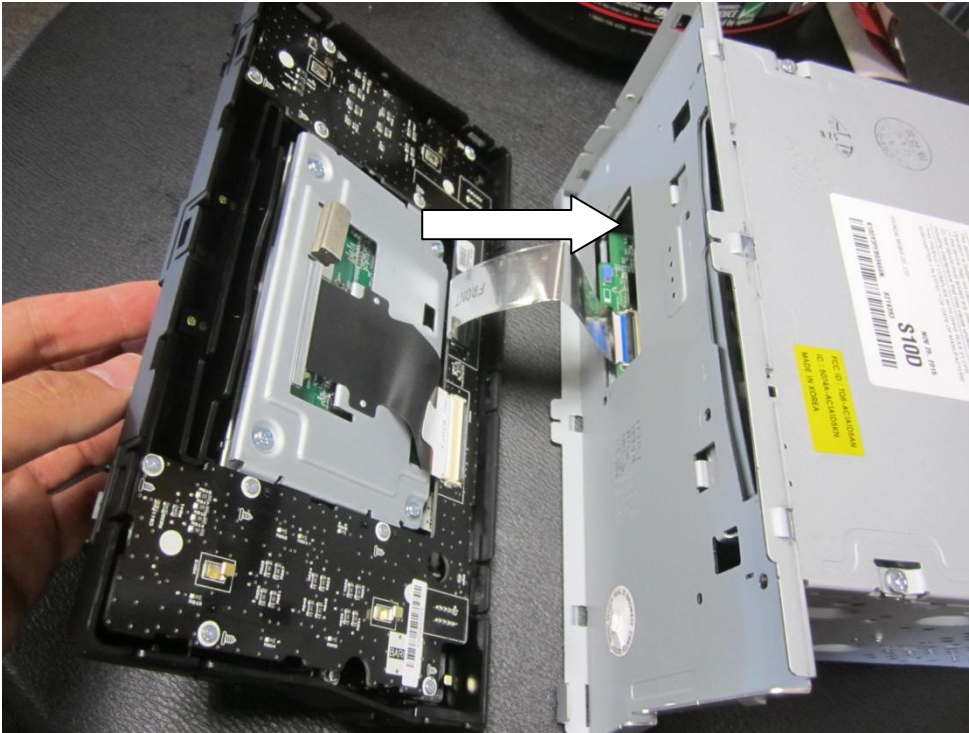
Front view of the front replacement bracket with Trip interface board assembled. Make sure the top cover is screwed back on to the radio unit.

**When done, skip to page 20.**



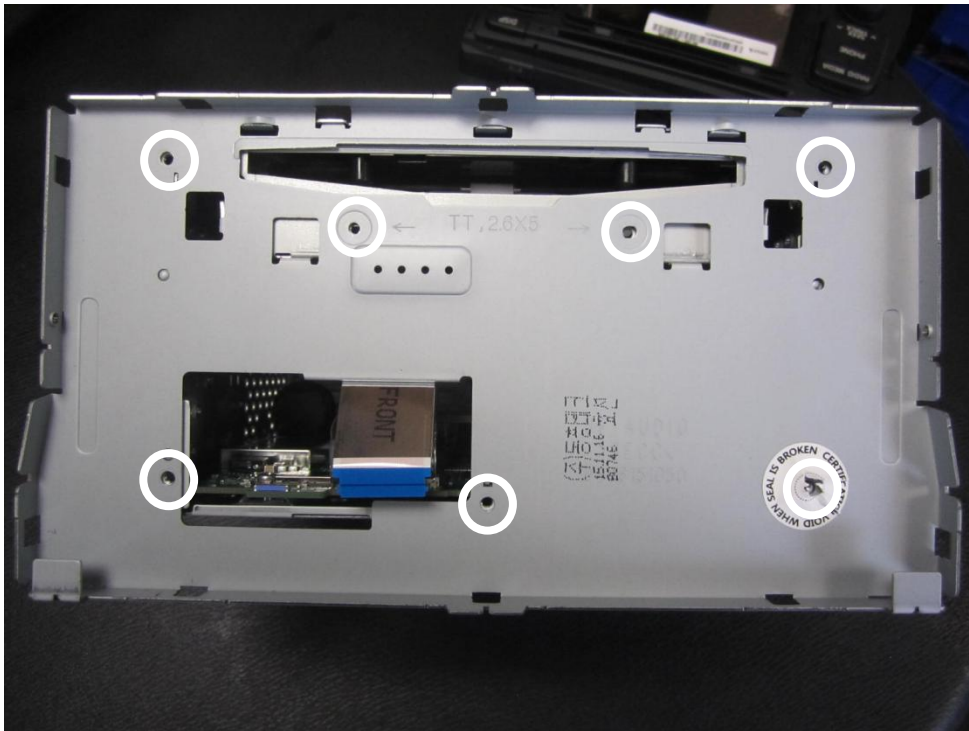
	CLASSIFICATION <b>Installation Manual</b>	SKU <b>ENB-F1-K6U</b>	DOCUMENT NO. <b>F1-K-1</b>	
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**Instructions for radio without UVO/eServices. Otherwise, go back to page 12.**




Carefully disassemble the radio faceplate from the head unit.  
Disconnect ribbon cable from the back of the faceplate ONLY. **\*\*Use Caution\*\***

***(Images shown on this page may vary)***



Remove all screws securing the front bracket as shown.

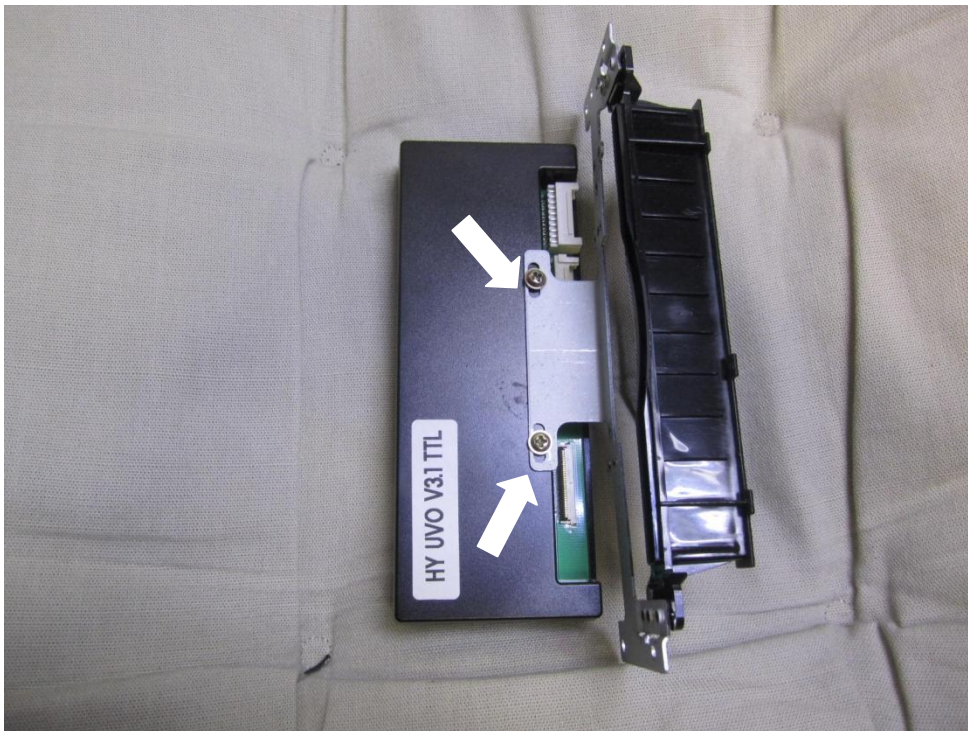
	CLASSIFICATION <b>Installation Manual</b>	SKU <b>ENB-F1-K6U</b>	DOCUMENT NO. <b>F1-K-1</b>	
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Please proceed with CAUTION when inserting the ribbon cable into the Trip interface board.  
DO NOT twist the cable as this may result in a damaged board and/or the radio!

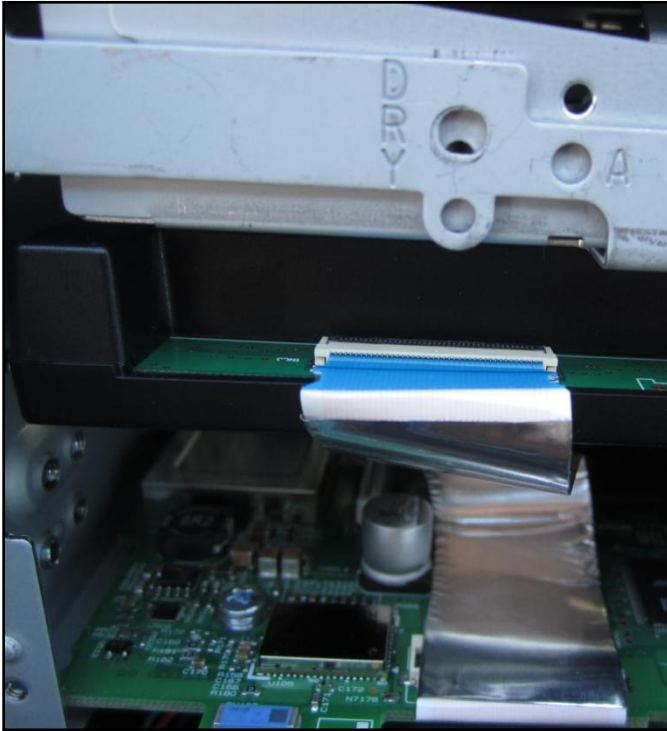
**[WARNING] This TRIP MODULE is designed for specific models. Improper use such as failure to follow instructions and use with incompatible radio will damage this module and the radio unit!**

*(Images shown on this page may vary)*



Assemble the Trip interface board onto the front replacement bracket piece as shown.  
*(Use screws provided in the kit to mount the Trip Interface board).*

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Please proceed with **CAUTION** when inserting the ribbon cable into the Trip Interface board.

**DO NOT** twist the cable as this may result in a damaged board and/or the audio unit!

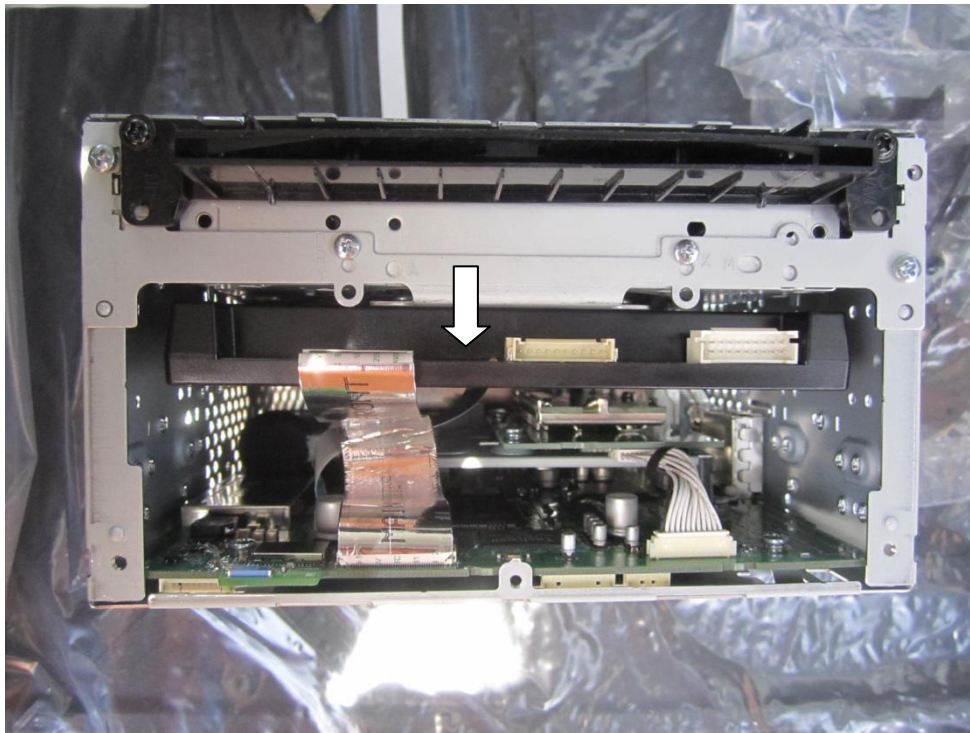
Head unit **MUST BE DISCONNECTED** from the vehicle prior to handling ribbon cable.

The Trip interface board is designed to communicate with either side of the pins.


*Connecting the ribbon cable between the trip interface board and the head unit:*

- Lift up the lock on the Trip interface board.
- Gently slide in the ribbon cable until it can't slide in any further. Make sure the ribbon cable is seated evenly across the connector.
- Push the lock down to secure the cable.

*(Images shown on this page may vary)*



\*Please check after installation when the radio unit is powered on\*  
Red LED lights on the circuit board will flash intermittently indicating data communication.

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**< REPLACEMENT RADIO BRACKET >**



Screw on the replacement mounting brackets (Left and Right) as shown.



Image of the center dash panel after removing the air vent and head unit.  
See next page for necessary modifications for the radio to sit properly in the dash.

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**< DASH MODIFICATION >**



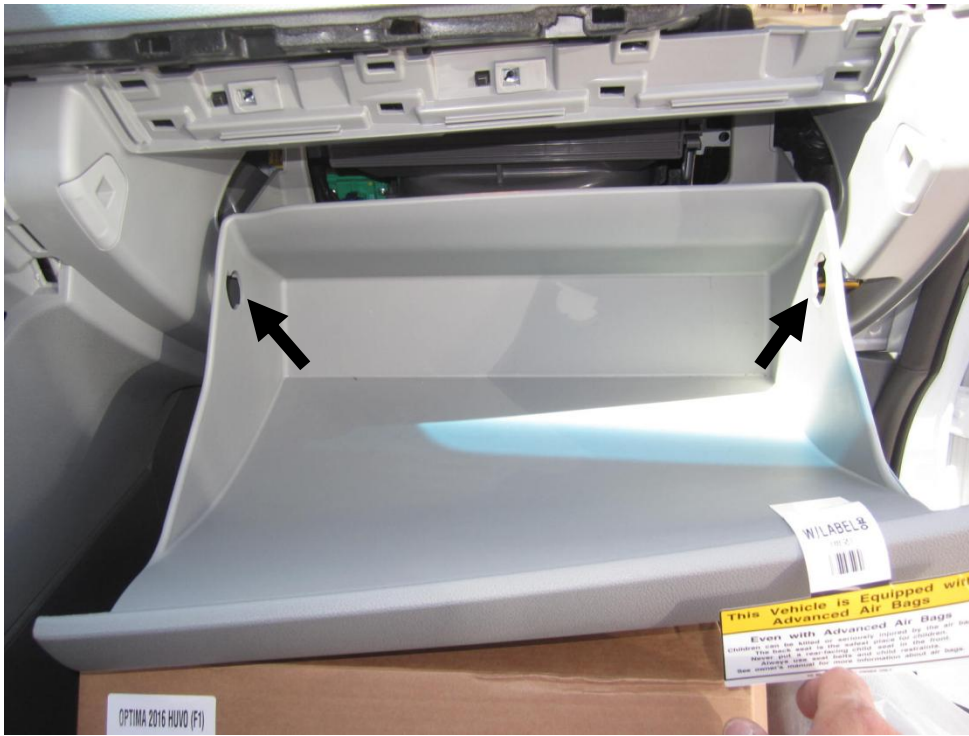
Cut off the plastic piece inside the dash along the white dotted lines.  
(This modification will not affect the ability to revert the radio to stock settings).



The air duct behind the dash may protrude more than others on certain vehicles.  
If radio fitment is obstructed by this, use a heat gun to soften the driver side air duct.

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**< CONTROL BOX INSTALLATION >**



Open the glove box and twist off the knobs on both sides to loosen the compartment.



Use Unitbit to drill a hole on the back of the glove box (about 3/4") just wide enough for the control box cable to slide through. **\*\*Proceed with Caution\*\***

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Route control box cable from the glove compartment toward the center dash panel.

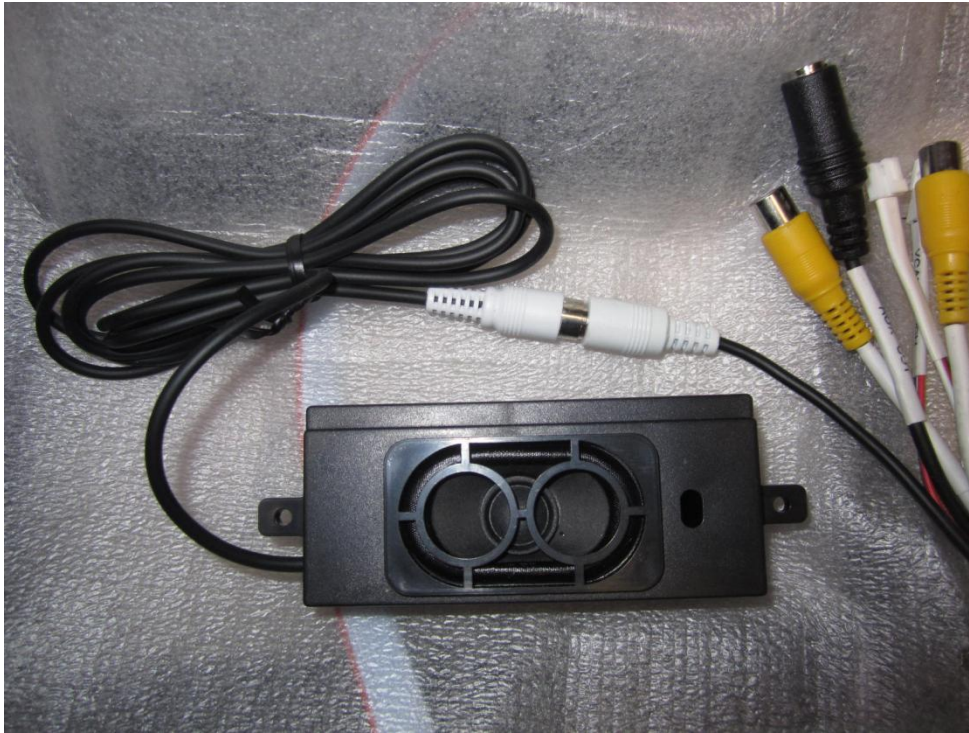
*(Images shown on this page may vary)*



Mount the control box inside the glove box using a double-sided tape or Velcro.

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**< EXTERNAL SPEAKER INSTALLATION >**




Connect the external speaker to the white female RCA plug on the 40-pin main cable. System sound/alerts will be heard only through this speaker when radio is in use. Audio output from the system will use the factory speakers in "AUX" mode only.



When installing the external speaker, choose a location closest to the driver (exposed or hidden) and where it can be mounted from causing any obstructions to other components.



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**< GPS ANTENNA INSTALLATION >**



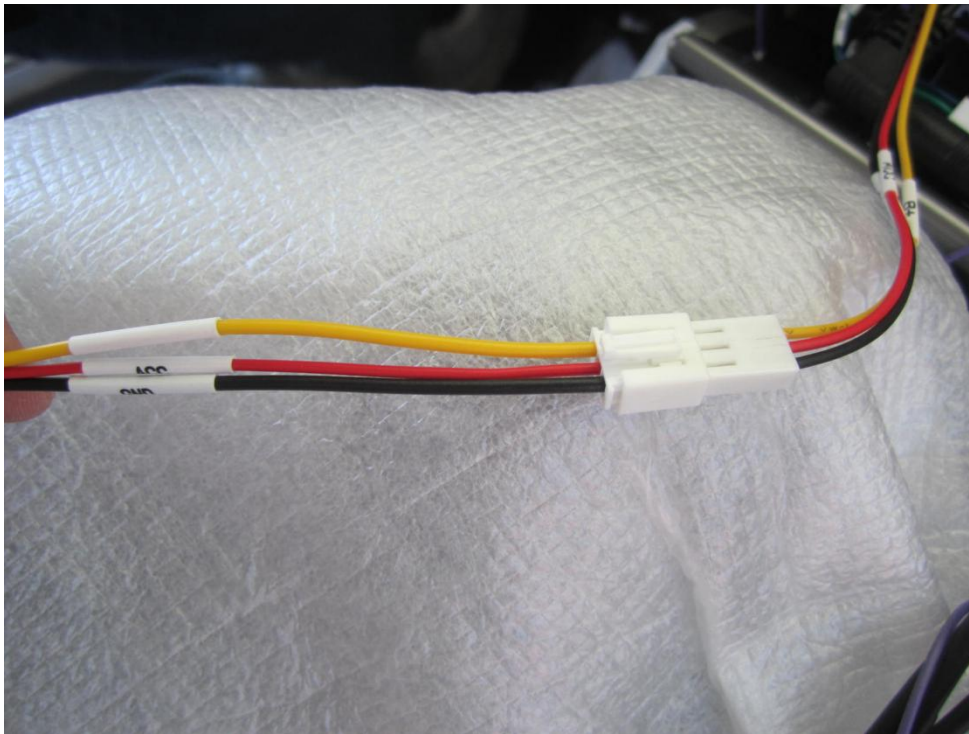
Make sure the GPS receiver is mounted (rounded side up facing the sky) to a non-metallic surface or on the front windshield glass. Route the antenna cable carefully to avoid damage.

*(Images shown on this page may vary)*



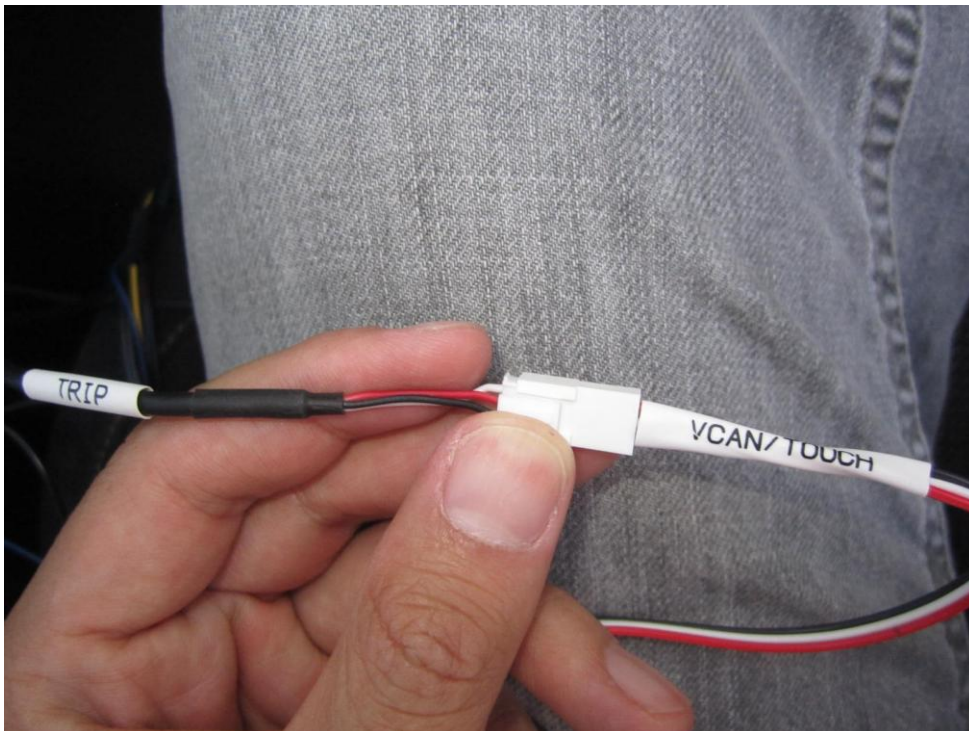
	CLASSIFICATION <b>Installation Manual</b>	SKU <b>ENB-F1-K6U</b>	DOCUMENT NO. <b>F1-K-1</b>
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**< LCD POWER & TRIP CABLE CONNECTIONS >**




Connect the 3-pin LCD power cable (Yellow: B+, Red: ACC, Black: GND).

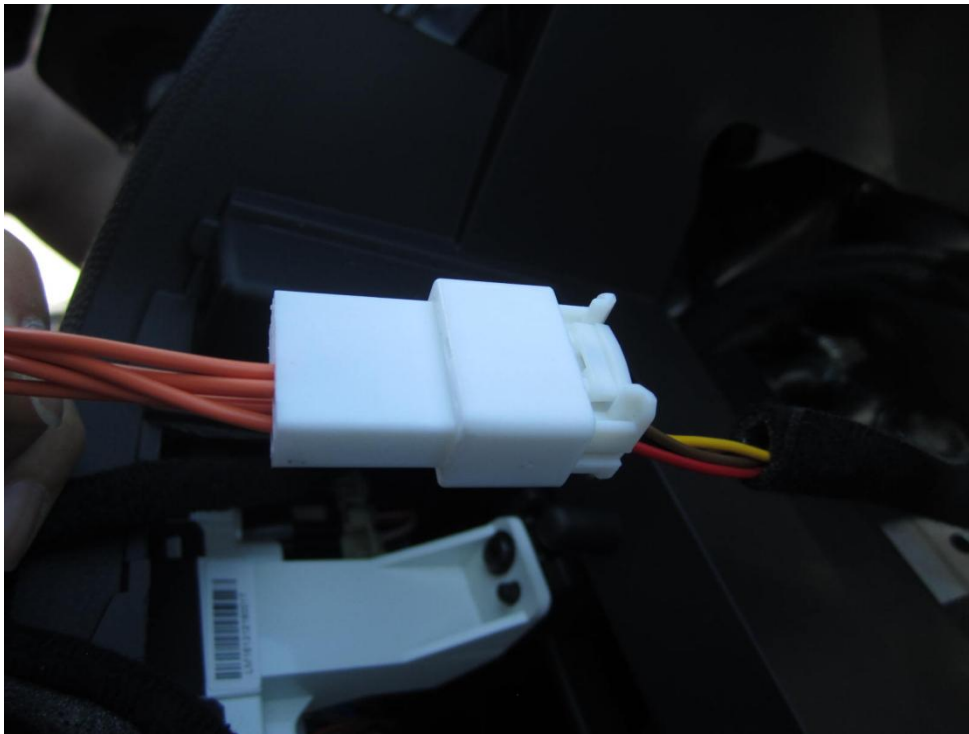
*(Images shown on this page may vary)*



Connect the 3-pin "TRIP" male connector to the "VCAN/TOUCH" female connector.

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**This page only applies to radio without UVO/eServices. Otherwise, skip to page 28.**



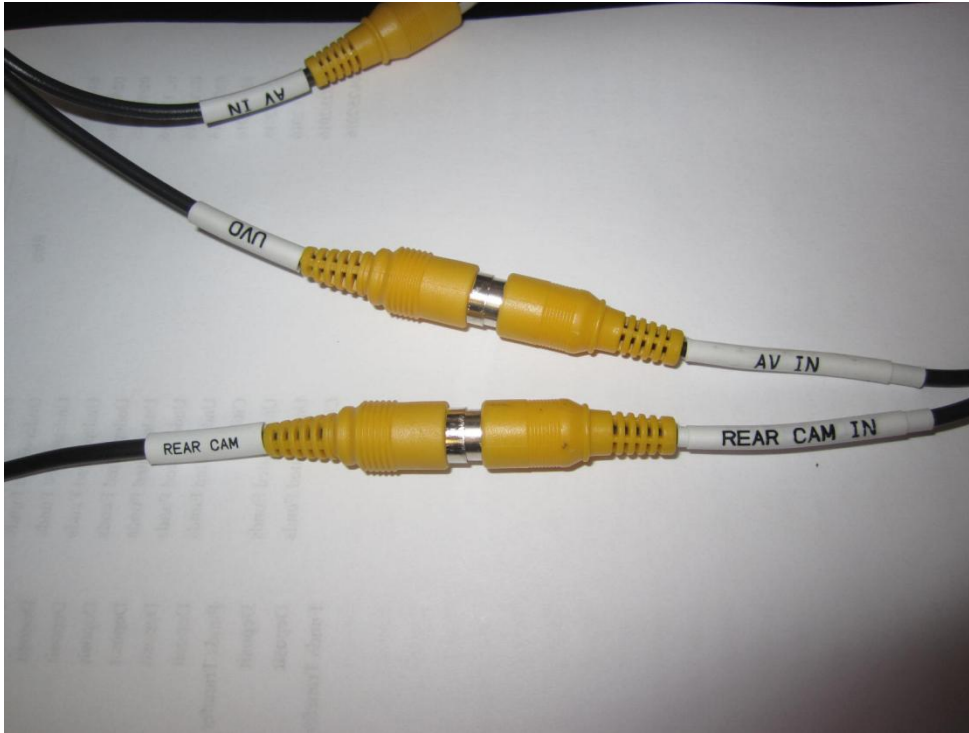
Connect the factory 16-pin “Connector C” to the HUVO adapter cable as shown.



Make sure the yellow male RCA plug (video out) on the HUVO adapter cable and the yellow female RCA plug (“REAR CAM IN”) on the 40-pin main cable are connected to each other.

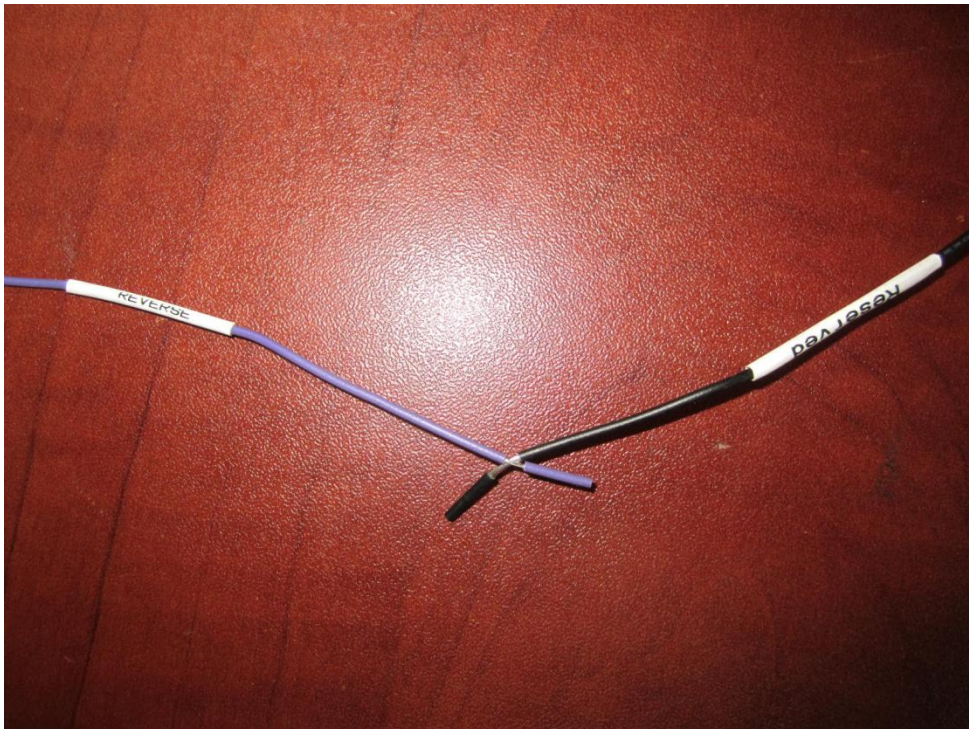
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< **FACTORY RADIO DISPLAY & REVERSE CAMERA VIDEO CONNECTIONS** >




Make sure the 2 yellow female RCA plugs ("AV IN" & "REAR CAM IN") are connected to the yellow male RCA plugs ("UVO" & "REAR CAM").

< **REVERSE TRIGGER CONNECTION** >

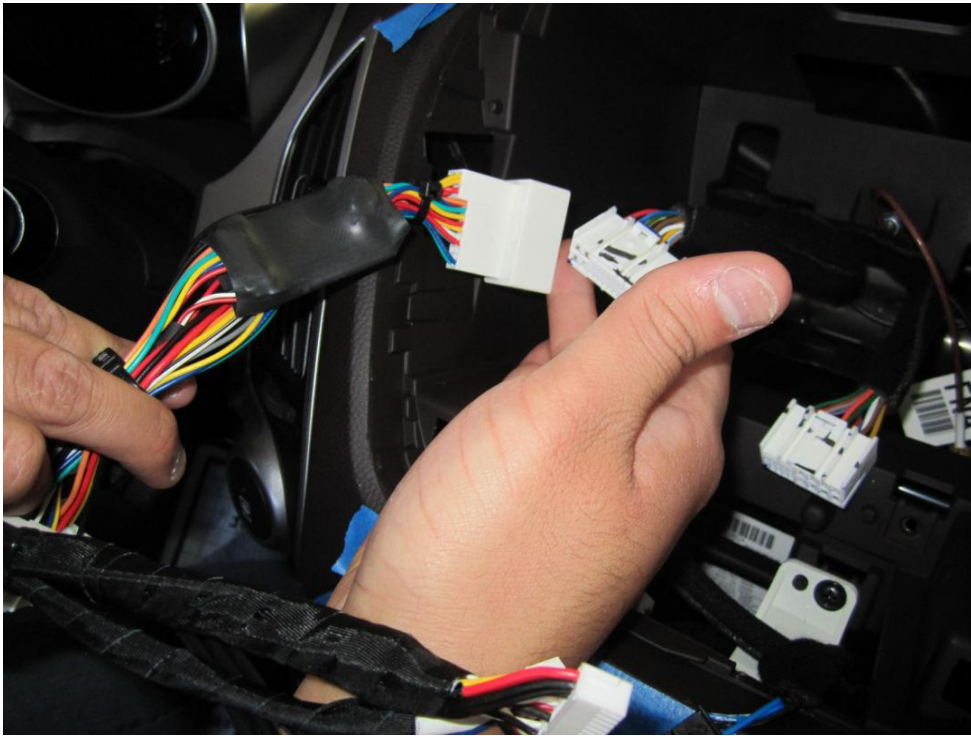


Make sure the reverse trigger wires are spliced into each other.

*Cable/wire colors and labels shown on this document may vary.*

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**< FINAL ASSEMBLY >**

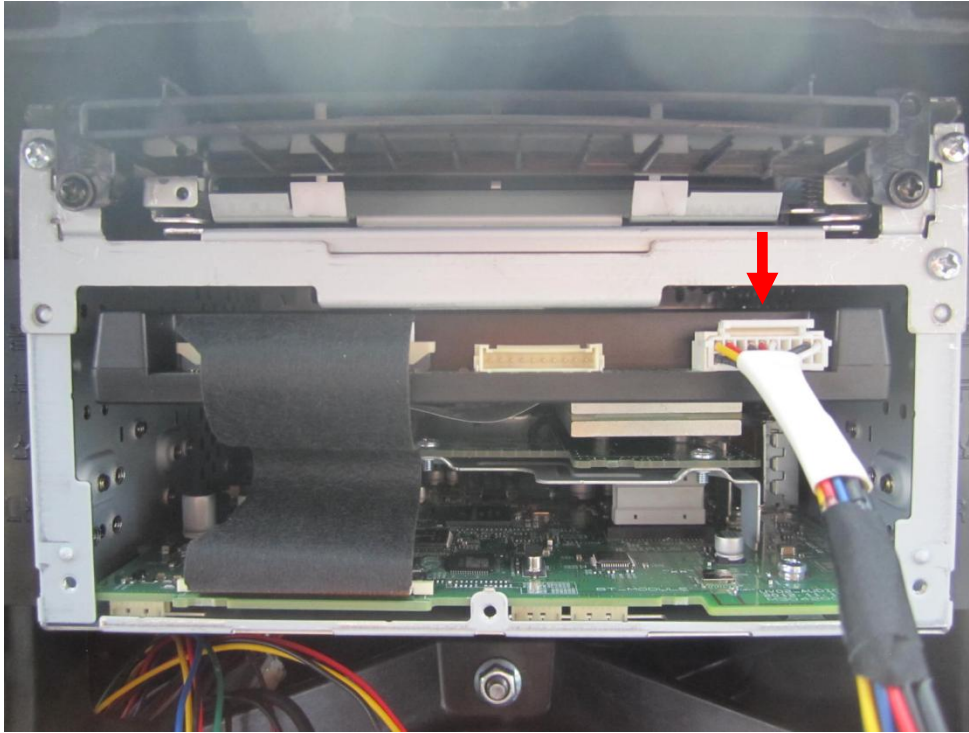


Connect main radio harness (24-pin) to the SMART cable; plug in remaining behind the radio.  
Clear of any obstructing cables and mount the head unit back into the dash panel.



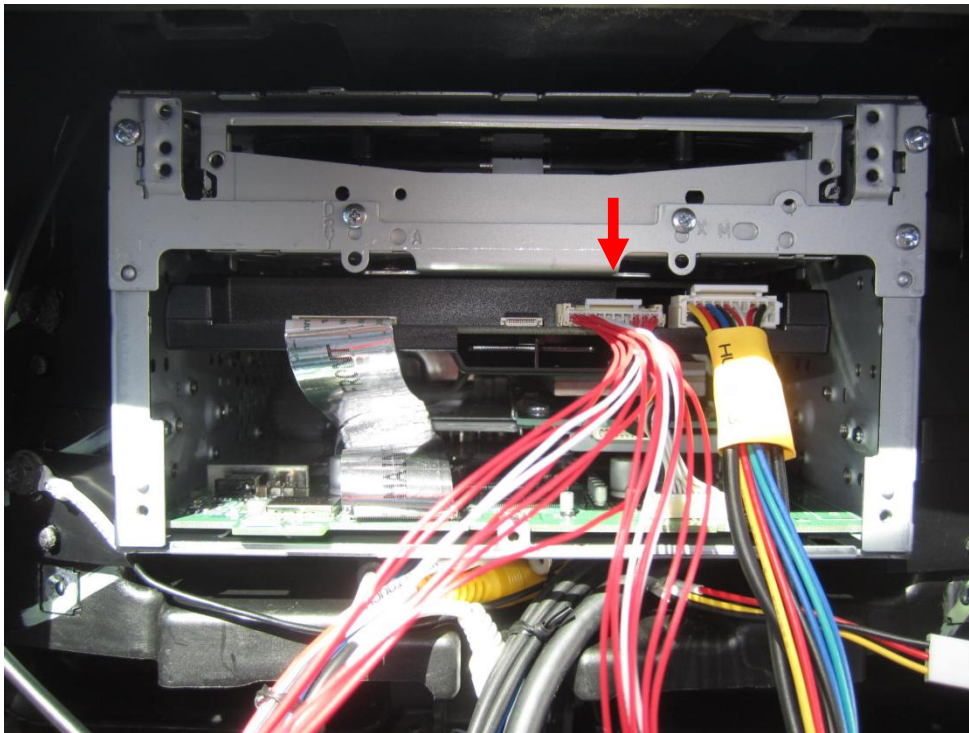
Check cables are not being too tightly squeezed in the back of the head unit.  
*\*Depending on individual vehicle characteristics, the plastic CD guide may not be required.*

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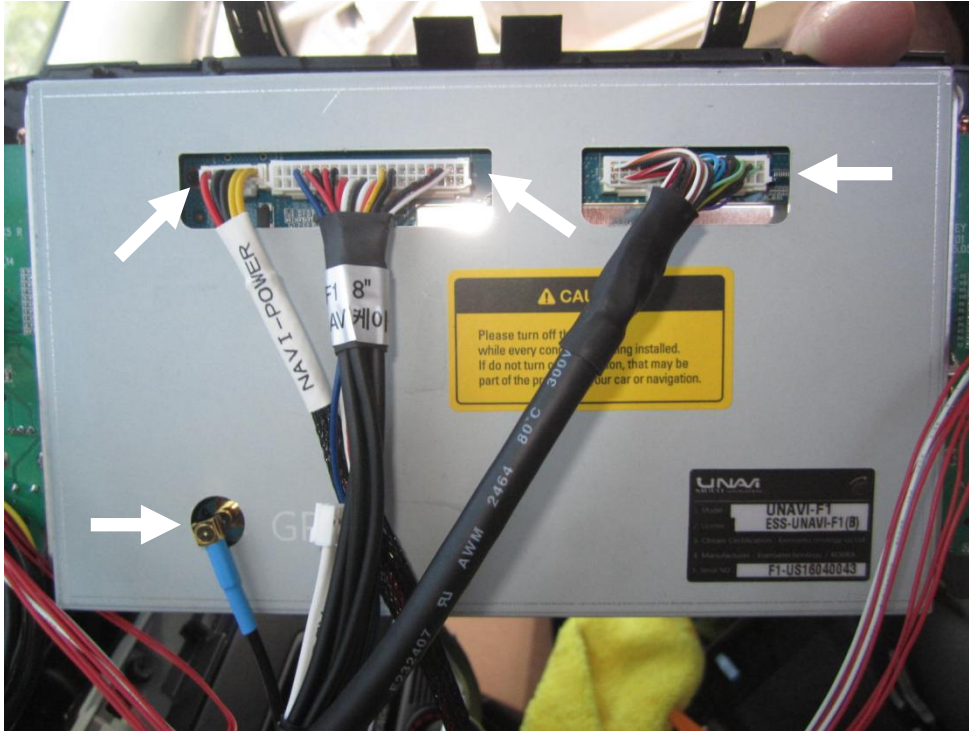
Plug in the 20-pin (KUVO/HUVO) cable to the Trip interface board.

*(Images shown on this page may vary)*



Plug in the 10-pin (keypad) cable to the Trip interface board.


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Connect GPS antenna to the “GPS” port located behind the LCD screen.  
Plug in remaining cables behind the LCD panel as shown.



Carefully assemble the Unavi fascia kit and make sure the CD guide is aligned with the bezel.  
*\*If CD doesn't insert/eject or fascia kit doesn't fit properly, try removing the CD guide.*

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Assemble the center air vent assembly and silver garnish back into the dash.

### Installation Complete!



For additional information, please visit [www.buyunavi.com](http://www.buyunavi.com) or call 855-558-6284.

- Thank you for choosing UNAVI -