

Installation manual for **DVI HA-HDD with HA-HDD harness**

In the box:

- DVI HA-HDD – video interface
- HA-HDD – plug-and-play wiring harness
- Installation manual

IMPORTANT: Please read all precautions first.



This manual is applied to:

MAKE	MODEL	YEAR
ACURA	ILX	2013-2014
ACURA	MDX	2010-2013
ACURA	RDX	2013-2014
ACURA	TL	2009-2013
ACURA	TSX	2011-2013
ACURA	ZDX	2010-2013
HONDA	ODYSSEY	2011-2013
HONDA	PILOT	2012-2013

CONTENTS:

Precautions	pg 1.
After the installation	pg 2.
Wiring legend and description	pg 2.
Plug-and-play harness	pg 3.
Wiring connection	pg 3.
Harness installation	pg 4.
Testing the DVI HA-HDD operation	pg 4.
Adjusting the Screen	pg 4.
Vehicle reassembly checklist	pg 5.
Vehicle specific instructions	pg 6-11.

PRECAUTIONS: Please read before you start the installation

- Please study these instructions carefully before installing NavTool interface.
- Many new vehicles use low-voltage or data-bus systems that can be damaged by test lights and logic probes. Test all circuits with a digital multi-meter before making connections.
- Do not disconnect the battery if the vehicle has an anti-theft-coded radio, unless you have the radio code.
- If installing an external push button switch, check with the customer about where to install the switch.
- To avoid accidental battery drainage turn off the interior lights or remove the dome light fuse.
- Roll down a window to avoid being locked out of the car.
- Use of this product in a manner different to its intended way of operation may result in property damage, personal injury, or death.
- Set Parking brake.
- Remove the negative battery cable.
- Protect fenders before starting.
- Using protective blankets to cover front seats, interior of the vehicle and center console.
- Always install a fuse 6-12 inches away from NavTool interface, 5 amp fuse should be used.
- Always secure NavTool interface with Velcro or double side tape to prevent rattling of the interface.
- When securing NavTool interface make sure that panels can be closed back easily.
- Use electrical tape on all you connections and splices, do not leave any exposed connections.
- Route all wires along factory harnesses, try not to drill or make any unnecessary holes.
- Make sure you are not connecting to any data wires; always check your connections with a multi meter.
- Always use help of a professional installer to prevent any damage to the vehicle or NavTool interface.

After the installation

- Test all functions of NavTool Interface.
- Check operation of all dashboard components such as AC, hazards lights, headunit etc.
- Check to see if all reinstalled panels are mounted properly.

Wiring legend and description

Video Input: Composite or Component depending on configuration, utilized for iPhone/iPod/iPad, DVD player, or any other external video source.

Audio Input (if equipped): stereo audio connection utilized for connecting audio from video source to factory stereo system.

USB Input (if equipped): utilized only for charging, possible uses iPhone/iPod/iPad.

Red Wire: +12V Accessory power input, do not connect to +12V constant power. An accessory wire will show +12V when the key is in the accessory and run positions. It will not show +12V during cranking. Always use a fuse within 12 inches of the point you obtain +12V accessory power.

Black Wire: chassis ground connection.

We recommend that you do not use a factory ground. Ground all your components to the same point in the vehicle. Scrape away any paint and use a factory bolt or make your own ground with a self-tapping screw and a star washer.

Gray Wire: emergency brake input also known as foot brake or handbrake; gray wire must rest at ground in order for Video 1 to operate.

Brown Wire: depending on configuration

If interface is configured with component video input and activation via cancel button, brown wire is utilized for switching interface into composite video mode, green RCA is used in place of yellow RCA in composite version. If interface is configured for component video input and external push button control, brown wire is utilized for push button input.

Connecting supplied push button switch (if equipped):

Connect one side of push button switch to ground and connect other side of push button switch to brown wire of NavTool interface.

Operating NavTool interface via radio cancel button (if equipped):

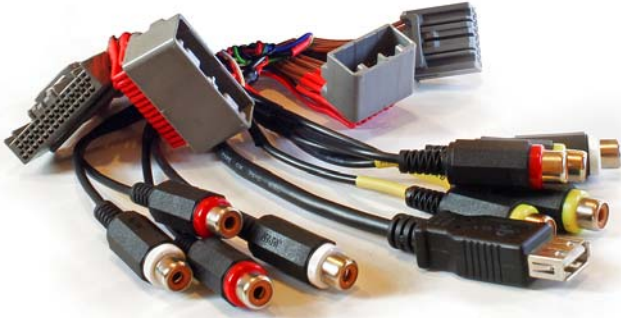
Press and hold cancel button for 3 second to activate video input, Press and hold cancel button for 3 second to return back to the original navigation screen.

Operating NavTool interface via push button (if equipped):

Single push will activate Video input, press and hold push button for more than 2 seconds to return back to the original navigation screen.

If installing an external push button switch, check with the customer about where to install the switch.

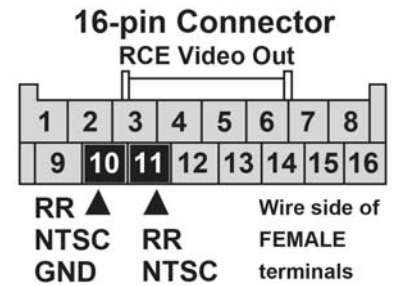
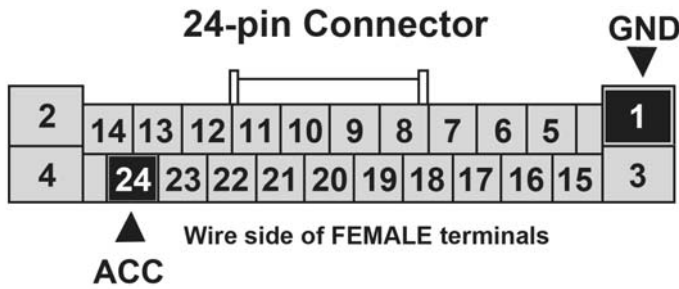
Plug-and-play harness



PLUG-AND-PLAY HARNESS: unplug matching connector from HONDA/ACURA navigation radio, connect male connector of HA-HDD plug-and-play harness into navigation radio, connect previously disconnected factory male connector into female connector of HA-HDD plug-and-play harness, and connect 24 and 12 pin connectors of HA-HDD plug-and-play connector into NavTool interface.

Wiring connections

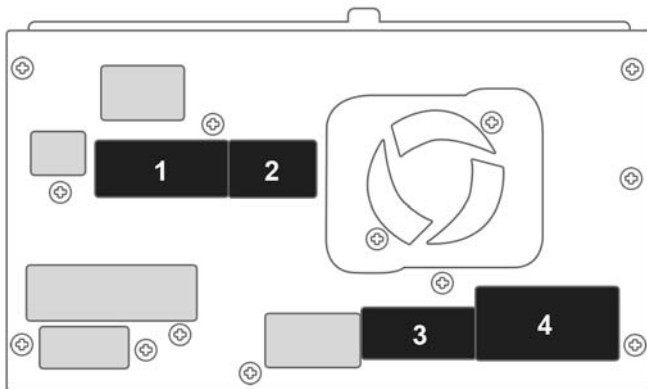
Wires for HA-HDD are as follows: Accessory – Purple Wire, Ground – Black Wire



There are two types of navigation radios which are compatible with DVI HA-HDD. The diagrams below show which connectors are used on both types.

Type – 1

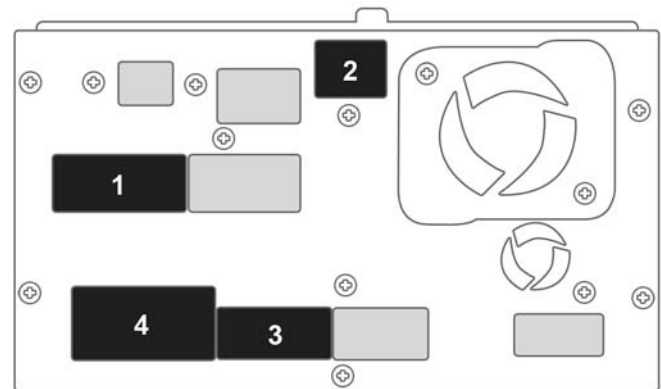
ACURA ILX 2013-2014, ACURA RDX 2013-2014, ACURA TL 2009-2013



1. Connector (16 pin)
2. Connector (28 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Type – 2

ACURA MDX 2010-2013, ACURA TSX 2011-2013, ACURA ZDX 2010-2013, HONDA ODYSSEY 2011-2013. HONDA PILOT 2012-2013

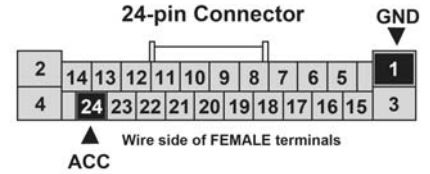


1. Connector (28 pin)
2. Connector (8 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Harness installation

All connections in HONDA/ACURA vehicles are done at the navigation radio.

1. Locate and strip the **GROUND** and **ACCESSORY** wires then connect the appropriate wires: **Accessory** – Purple Wire, **Ground** – Black Wire. See diagram for the pin locations.



2. Connect the supplied harness to the appropriate connectors of the radio. Check markings on the cables to identify the correct ones.

3. Plug in NavTool interface to the harness and connect all plugs to corresponding connectors of the interface. Connect **Audio/Video** and **USB** cables. Check markings on the cables to identify the correct connections.

Vehicle specific dashboard disassembly instructions are located at the end of this manual

ACURA ILX	2013-2014	- page 6 »	ACURATSX	2011-2013	- page 10 »
ACURA MDX	2010-2013	- page 7 »	ACURA ZDX	2010-2013	- page 11 »
ACURA RDX	2013-2014	- page 8 »	HONDA ODYSSEY	2011-2013	- page 12 »
ACURA TL	2009-2013	- page 9 »	HONDA PILOT	2012-2013	- page 14 »

Testing NavTool operation

Step 1: turn on the ignition, blue LED lights up right of the main 24pin connector.

Step 2: test operation of video 1, engage the parking brake and press the push button once or cancel button for three seconds, video 1 should turn on and OSD will display “Video 1” on top left corner of the screen, connected video source will display on the screen if no source is connected OSD will display a “no signal” message.

Step 3. Press and hold cancel button for three seconds or push button for several seconds to return back to the navigation screen

Adjusting the Screen: Image Quality Tune-up (Only if image appear shaking)

Turn on the testing pattern in order to check the appearance of the image, and adjust settings if necessary.



Step 1: Switch to the video source by holding the CANCEL button (1) for three seconds.

Step 2: Press INFO button (2) until the test pattern appear.

Step 3: By rotating the wheel (3) adjust the lines so they are straight.

Step 4: Save settings by pressing ENTER (4).

Vehicle reassembly checklist

When doing vehicle reassembly please make sure to go over the list and check all features for proper operation:

- Check to see if all connectors behind the screen, radio, HVAC etc. were reconnected.
- Check LCD screen shuts off with key off, and turns on with key on.
- Check touch-screen operation.
- Check heat and AC controls operation.
- Check AM/FM/SAT radio reception.
- Check CD player/changer operation.
- Check GPS signal reception.
- Check cigarette lighter or +12V power source for accessory or constant power.
- Check to see if any other panels that were removed during installation and now being reassembled have any electrical connector.
- Turn on parking light and check all dashboard lights operation.
- Check all panels for proper fit, make sure no gaps are left behind.

If all steps above are checked off, you will save time, money and have an extremely happy customer. All above steps eliminate any unnecessary customer comebacks to your shop.

If you require any further assistance please call our tech support

MON-FRI: 9AM-9PM, SAT-SUN: 12PM-6PM EST

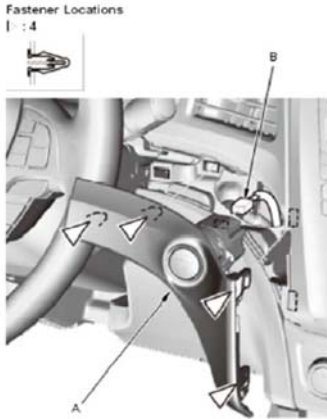
877.NAV.TOOL (877-628-8665)

or you can e-mail us at

techsupport@navtool.com seven days a week.

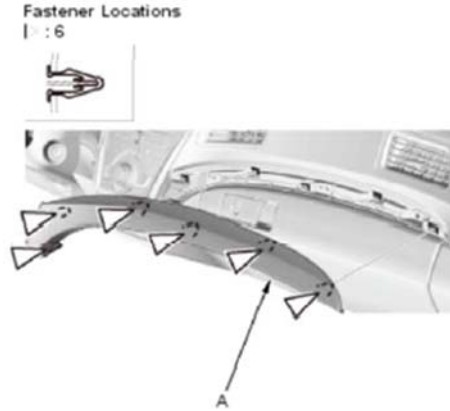
Acura ILX Audio-Navigation Unit Removal

1. Driver's Inner Dashboard Trim



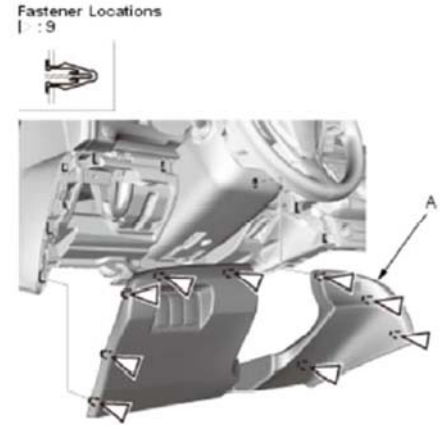
1. Remove the driver's inner dashboard trim (A).
2. Disconnect the engine start/stop switch connector (B).

2. Passenger's Dashboard Trim Panel



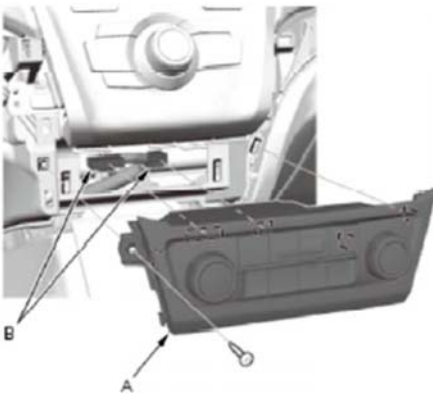
1. Remove the passenger's dashboard trim panel (A).

3. Driver's Dashboard Lower Cover



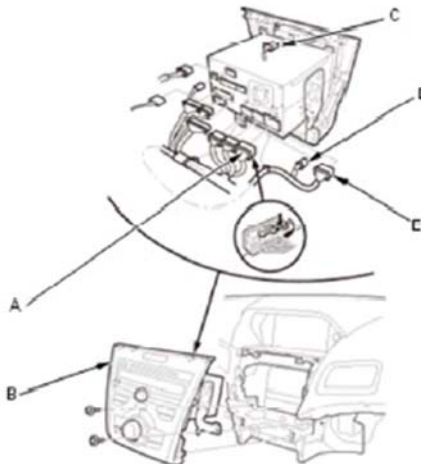
1. Remove the driver's dashboard lower cover (A).

4. Driver's Dashboard Lower Cover



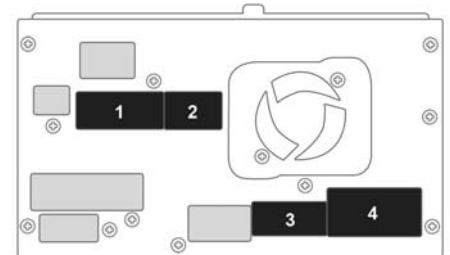
1. Pull the climate control unit (A).
2. Disconnect the climate control unit connectors (B).

5. Audio-Navigation Unit Assembly

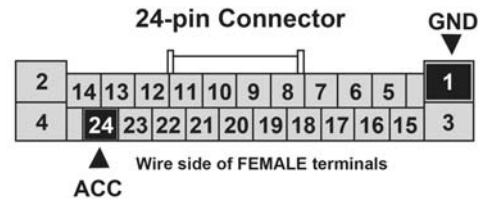


1. Pull out the audio-navigation unit assembly (B).
2. Disconnect the hazard warning switch connector (C), the interface dial connector (D), the audio-navigation switch panel connector (E), and the audio-navigation unit connectors.

Cables connecting HA-HDD to Audio-Navigation unit - Type 1



1. Connector (16 pin)
2. Connector (28 pin)
3. Connector (24 pin)
4. Connector (24 pin)



Wires for HA-HDD are as follows:

Accessory – Purple Wire,
Ground – Black Wire

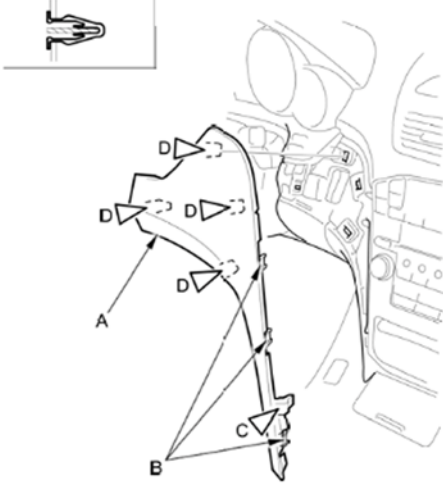
NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (if you have touched it, wipe it off thoroughly).

Acura MDX Audio-Navigation Unit Removal

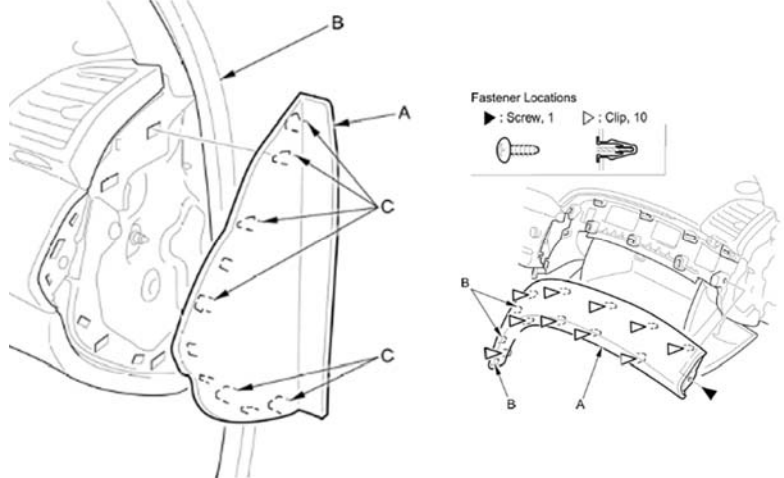
1. Remove the driver's inner dashboard trim (A)

Fastener Locations
C, D ▷ : Clip, 5



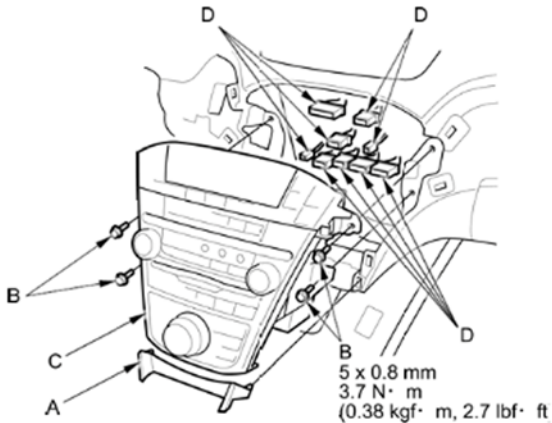
1. Gently pull out along the edge beside the audio unit by hand to release the lower hooks (B) and the clip (C).
2. Detach the upper clips (D).

2. Open the front door, and remove the passenger's dashboard side cover (A).



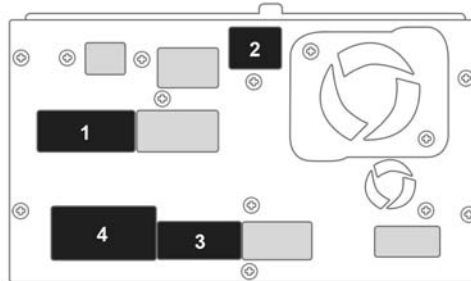
1. Pull out the front door opening seal (B), as needed.
2. Gently pull out the front edge of the side cover, and pry the rear edge with a trim tool to release the hooks (C), then remove the side cover.
3. Open the glove box.
4. Remove the passenger's dashboard trim (A).
5. Remove the screw.
6. Gently pull

3. Driver's Dashboard Lower Cover



1. Make sure you have the anti-theft codes for the audio-navigation unit.
2. Remove the driver's inner dashboard trim, and the passenger's dashboard trim.
3. Remove the console lower trim (A) and the bolts (B), then pull out the audio-navigation unit (C).
4. Disconnect the connectors (D), then remove the audio-navigation unit.
5. Remove the climate control unit.

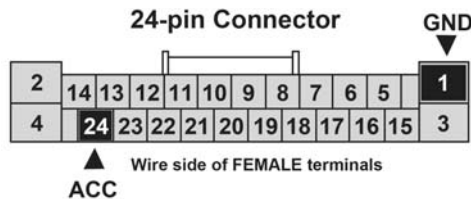
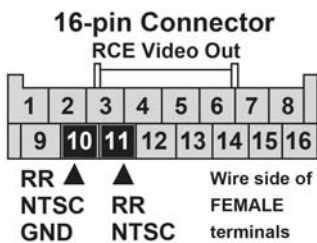
Cables connecting HA-HDD to Audio-Navigation unit – Type 2



1. Connector H (28 pin)
2. Connector G (8 pin)
3. Connector B (24 pin)
4. Connector A (24 pin)

Wires for HA-HDD are as follows:

Accessory – Purple Wire,
Ground – Black Wire



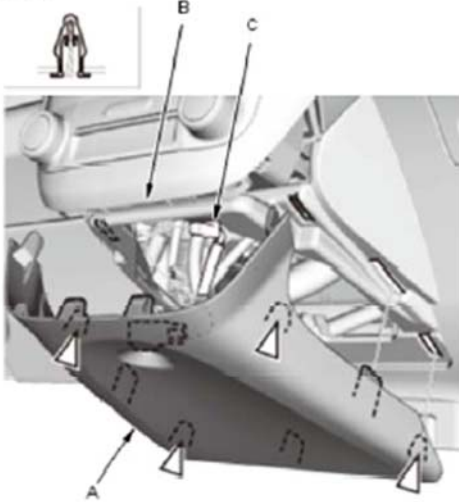
NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

Acura RDX Audio-Navigation Unit Removal

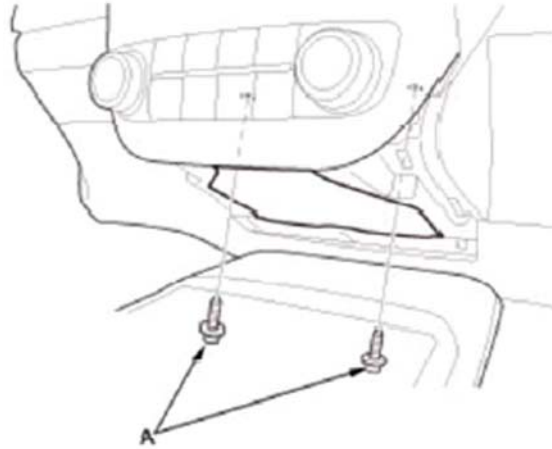
1. Remove the Dashboard Center Lower Panel

Fastener Locations
1 : 4



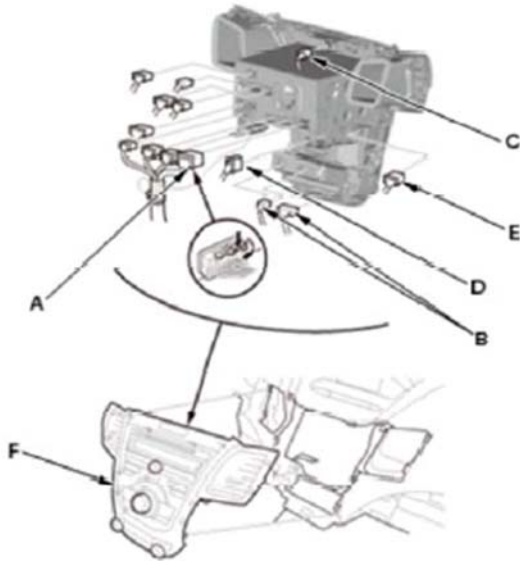
1. Using a plastic trim tool, pry between the dashboard center lower panel (A) and the audio bezel (B), then pull down on each side to release the clips.
2. Disconnect the center lower panel light connector (C).

2. Remove Dashboard Center Panel



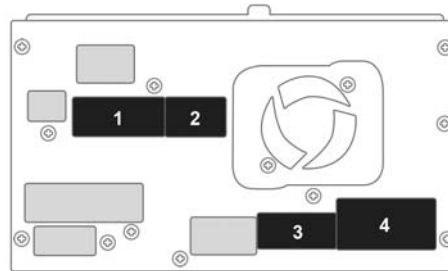
1. Remove the dashboard center lower panel.
2. Remove the bolts.

3. Disconnecting the Audio-Navigation unit



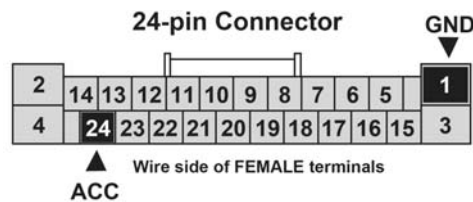
Disconnect the climate control unit connectors (B), then disconnect the hazard warning switch connector (C), the interface dial connector (D), the audio-navigation switch panel connector (E), and the audio-navigation unit connectors, and remove the dashboard center panel (F).
NOTE: There is a lever lock on audio-navigation unit connector A.

Cables connecting HA-HDD to Audio-Navigation unit – Type 1



1. Connector (16 pin)
2. Connector (28 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Wires for HA-HDD are as follows:
Accessory – Purple Wire,
Ground – Black Wire

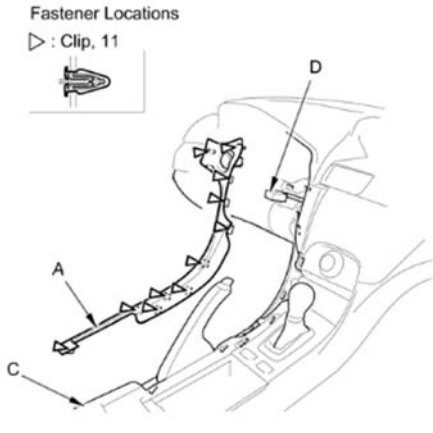


NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

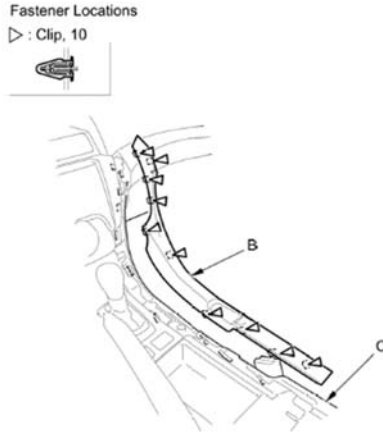
Acura TL Audio-Navigation Unit Removal

1. Remove the dashboard center trims (A, B).



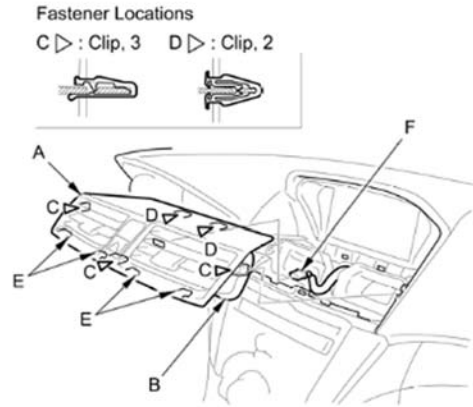
Driver's side

1. Gently pull up the lower area of the trim to detach the clips from the edge of the center console (C).
2. Disconnect the engine start/stop switch connector (D) (for some models).



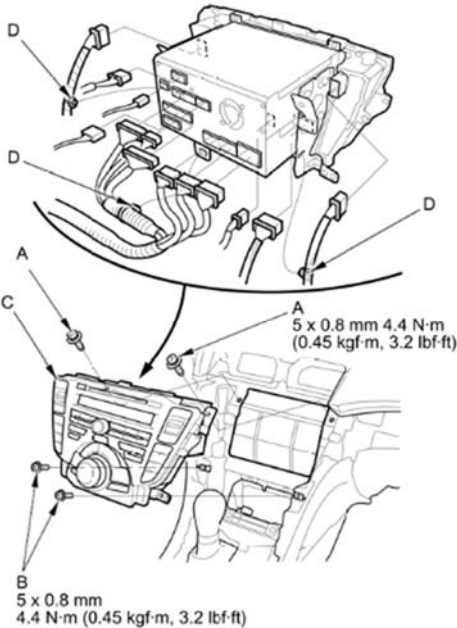
Passenger's side

3. Remove the dashboard center vent (A).

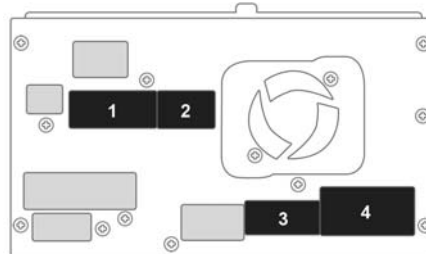


1. Insert a hook-shaped tool into one side of the center vent until it hooks to the back edge of the duct (B).
 2. Carefully pull out one side of the dashboard center vent partially to release the clips (C, D) and the hooks (E), then do the same on the other side.
 3. Disconnect the hazard warning switch/passenger's airbag cutoff indicator connector (F).
- NOTE: Do not pull on the vent louvers or the edge of the vent, or you may damage them.

4. Disconnecting Wires



Cables connecting HA-HDD to Audio-Navigation unit - Type 1



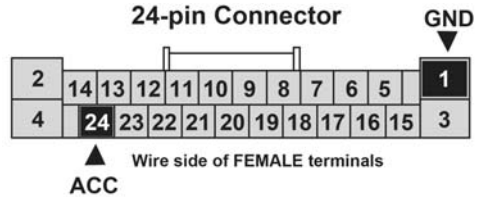
1. Connector (16 pin)
2. Connector (28 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Wires for HA-HDD are as follows:

Accessory – Purple Wire,

Ground – Black Wire

24-pin Connector



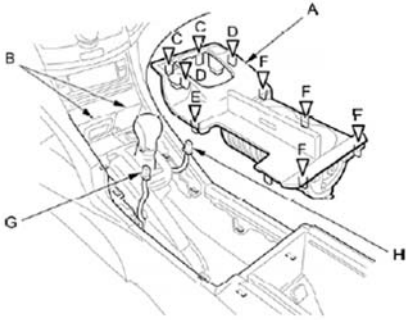
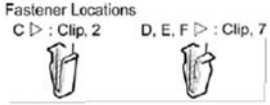
1. Make sure you have the anti-theft code.
2. Remove the dashboard center trim.
3. Remove the dashboard center vent.
4. Carefully remove the bolts (A) and bolts (B), then pull the audio-navigation switch panel (C) out.
5. Disconnect the connectors, and detach the clips (D).
6. Remove the climate control switches.
7. Remove the bolts (A) and the stays (B).

NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

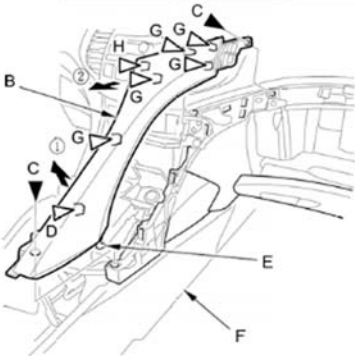
Acura TSX Audio-Navigation Unit Removal

1. Remove the center console panel (A).



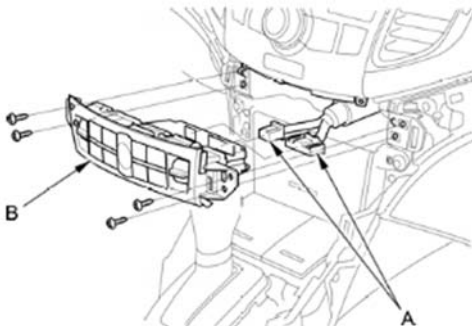
1. Open the center pocket lids (B).
2. Gently pull up the front edge of the panel to make a gap, and pry the panel with the trim tool to detach the front clips (C, D).
3. Hook the edge of the panel beside the parking brake lever up with the appropriate trim tool to detach the clip (E).
4. Pull up the panel to detach the clips (F) along the edge.
5. Disconnect the driver's seat heater switch connector (G) and the front passenger's seat heater switch connector (H).

4. Remove passenger's dashboard trim



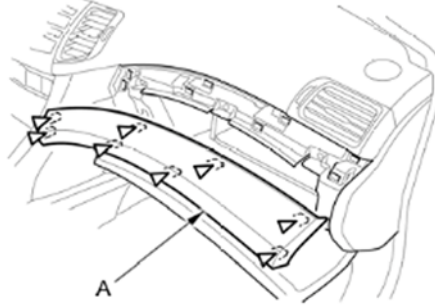
1. Remove the screw(s) (C).
2. Pull up the lower area of the trim to detach the clip (D) and to release the hook (E) from the edge of the center console (F).
3. Pull out the trim to detach the clips (G, H).

5. Remove center console panel



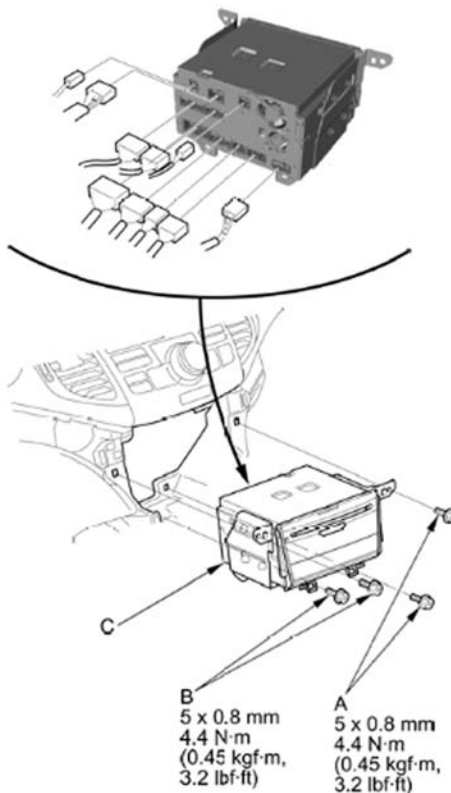
1. Remove the self-tapping screws. Disconnect the connectors (A), then remove the climate control unit (B).

2. Remove right dashboard trim (A).



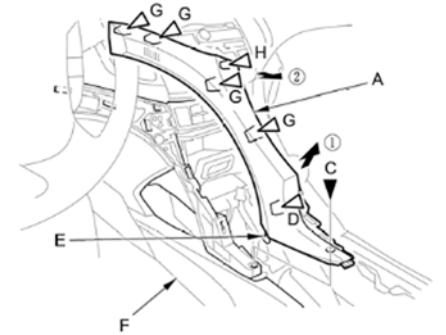
1. Open the glove box.
2. Pull out on the bottom edge of the trim by hand.
3. Detach the clips along the trim.

6. Remove and disconnect Audio-Navigation unit assembly



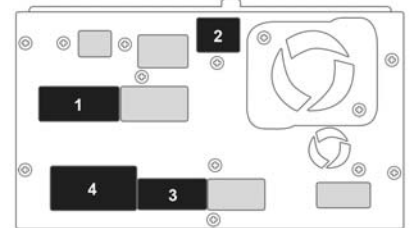
1. Remove the bolts (A) and brackets (B) from the audio-navigation unit.
2. Disconnect all cables as shown.

3. Remove Driver's dashboard trim



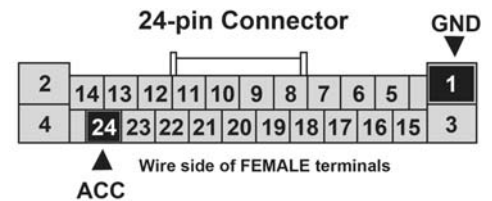
1. Remove the screw(s) (C).
2. Pull up the lower area of the trim to detach the clip (D) and to release the hook (E) from the edge of the center console (F).
3. Pull out the trim to detach the clips (G, H).

Cables connecting HA-HDD to Audio-Navigation unit – Type 2



1. Connector (28 pin)
2. Connector (8 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Wires for HA-HDD are as follows:
Accessory – Purple Wire,
Ground – Black Wire



NOTES:

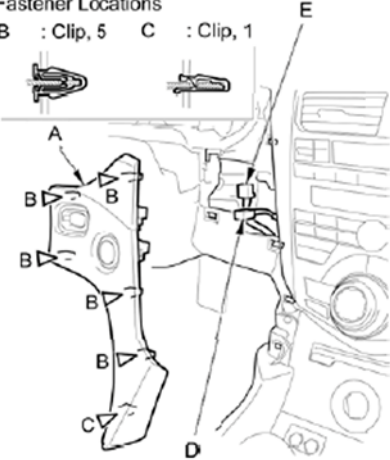
- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

Acura ZDX Audio-Navigation Unit Removal

1. Remove the driver's inner dashboard trim (A).

Fastener Locations

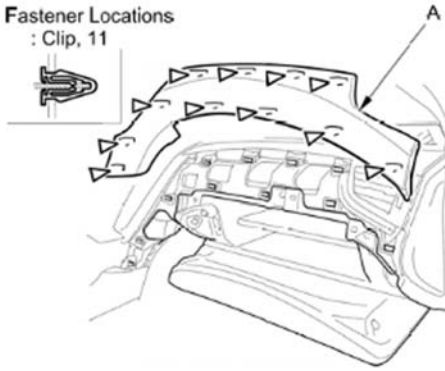
B : Clip, 5 C : Clip, 1



1. Pry up the edge of the trim to detach the clips (B, C).
2. For some models: Disconnect the engine start/stop switch connector (D) and the remote slot connector (E).

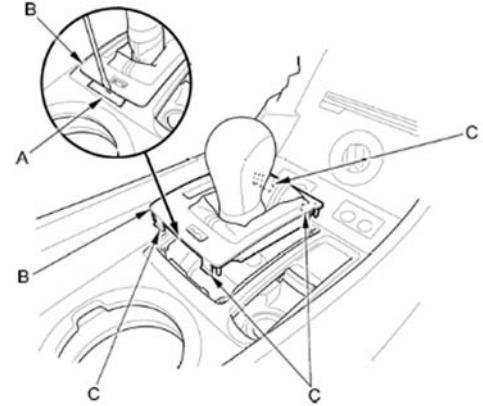
2. Remove passenger's dashboard trim (A).

Fastener Locations
: Clip, 11



1. Pry up the edge of the passenger's dashboard trim (A) to detach the clips, and remove the trim.

3. Remove shift lever boot base (B).

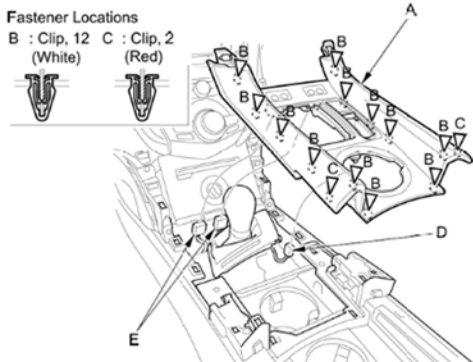


1. Apply protective tape (A) to the console panel along the side edge of the shift lever boot base (B). Pry up on the edge of the shift lever boot base with a flat-tip screwdriver to release the hooks (C).

4. Remove center console panel (A).

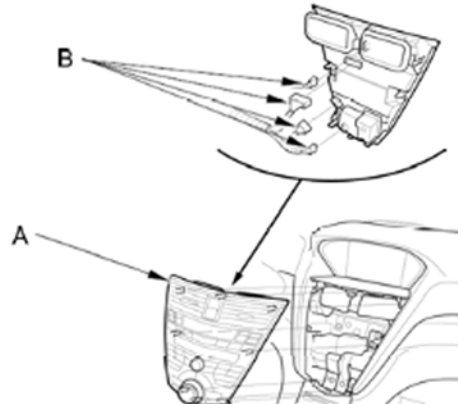
Fastener Locations

B : Clip, 12 (White) C : Clip, 2 (Red)



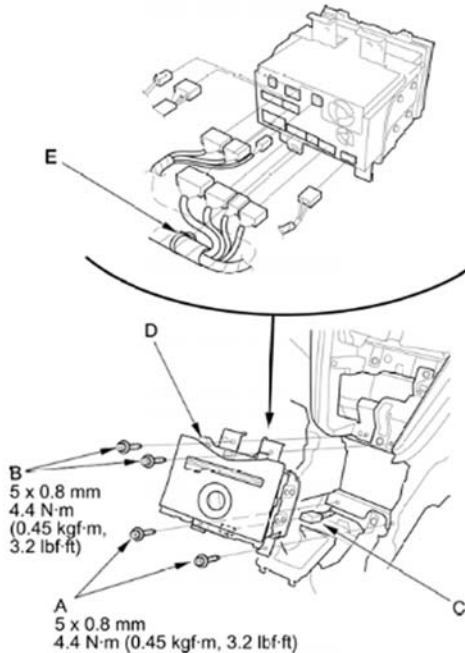
1. Pull out the center console panel (A) to detach the clips (B, C). Disconnect the accessory power socket connector (D) and the seat heater switch connectors (E). Remove the panel.

5. Remove audio-navigation and VAC switch panel (A).



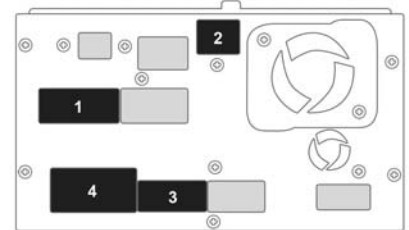
1. Pull the audio-navigation and HVAC switch panel (A) out, then disconnect the connectors (B) from the audio-navigation and HVAC switch panel.

6. Remove and disconnect Audio-Navigation unit assembly



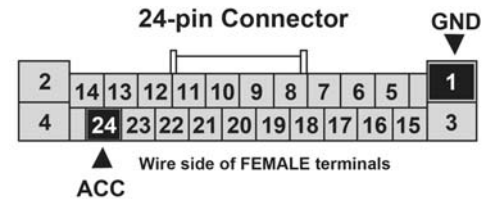
1. Make sure you have the 5-digit anti-theft code.
2. Carefully remove the bolts (A) and bolts (B), then disconnect the connector (C), and pull the audio-navigation unit (D) out.
3. Disconnect the audio-navigation unit connectors, and detach the clip (E).
4. Remove the bolts (A) and brackets (B).

Cables connecting HA-HDD to Audio-Navigation unit – Type 2



1. Connector (28 pin)
2. Connector (8 pin)
3. Connector (24 pin)
4. Connector (24 pin)

Wires for HA-HDD are as follows:
Accessory – Purple Wire,
Ground – Black Wire

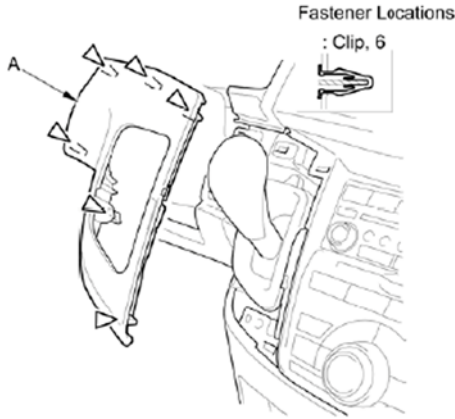


NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

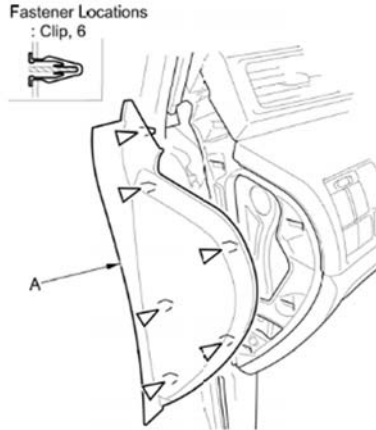
Honda Odyssey Audio-Navigation Unit Removal

1. Remove center middle panel (A)



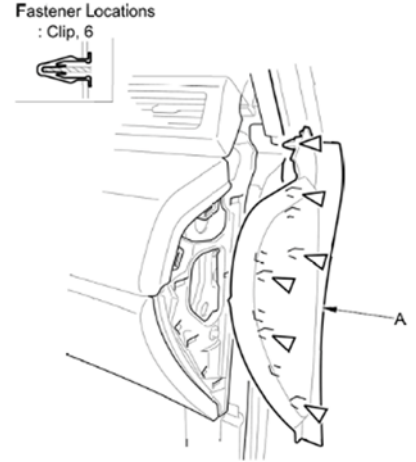
1. Pull out the center middle panel (A) to detach the clips, then remove it.

2. Remove driver's side lid (A)



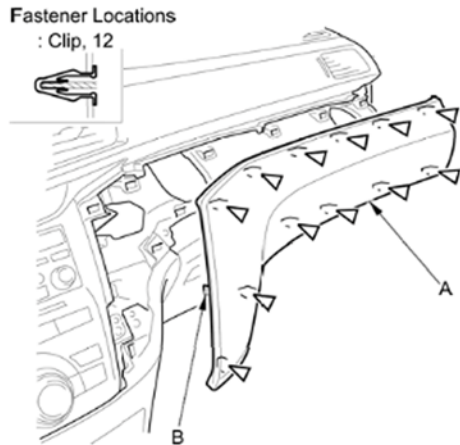
1. Pull out the driver's dashboard side lid (A) to detach the clips, then remove it.

3. Remove passenger's side lid (A)



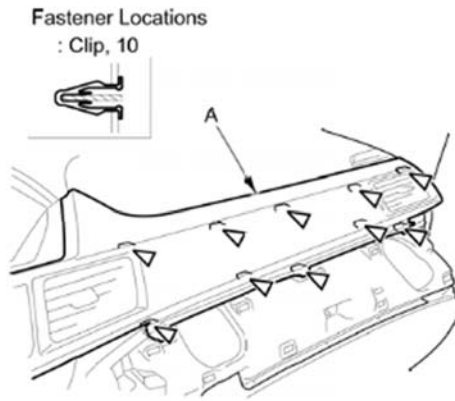
1. Pull out the passenger's dashboard side lid (A) to detach the clips, then remove it.

4. Remove passenger's middle panel (A)



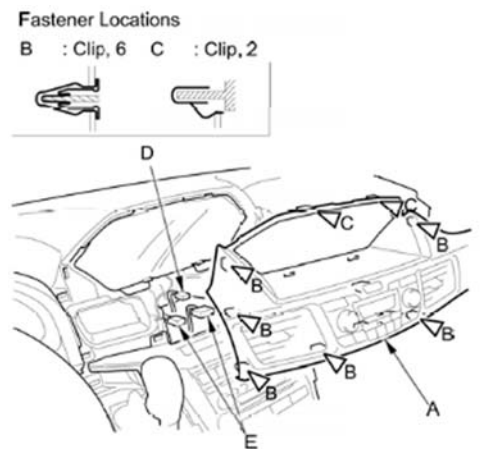
1. Pull out the passenger's middle panel (A) to detach the clips and to release the hook (B), then remove it.

5. Remove the center panel (A)



1. From the passenger's side, pull out the center panel (A) to detach the clips.

6. Detaching clips from the center panel

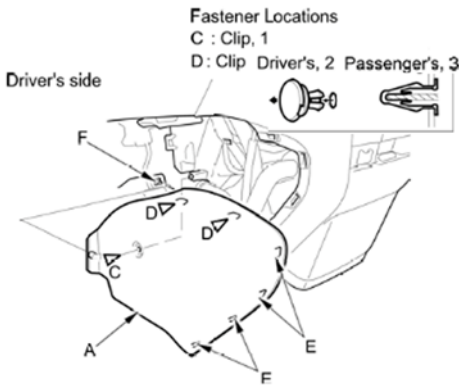


1. From the center area, pull out the center panel (A) to detach the clips (B, C), and disconnect the hazard warning switch connector (D) and the HVAC control unit connector or climate control unit connectors (E), then remove the panel.

CONTINUED ON THE NEXT PAGE

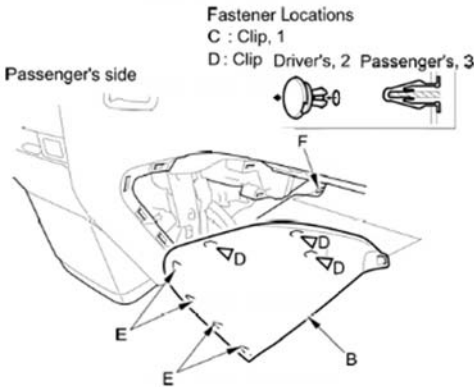
Honda Odyssey Audio-Navigation Unit Removal

7. Remove driver's heater panel (A)



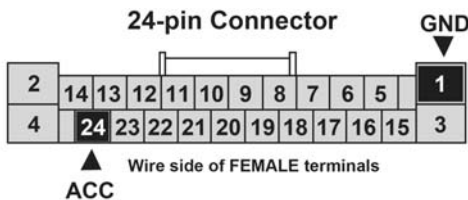
1. From under the dash, remove the driver's heater panel (A).
2. Pull out the panel to detach the clips (C, D) and to release the hooks (E).
3. Release the panel from the stud (F).

8. Remove passenger's heater panel (A)

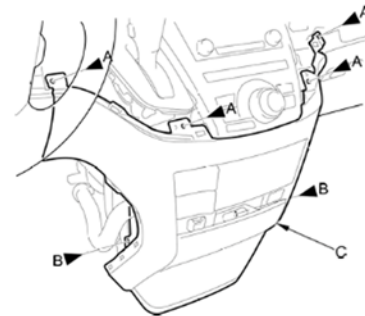
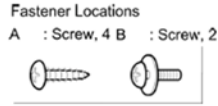


1. From under the dash, remove the passenger's heater panel (B).
2. Pull out the panel to detach the clips (C, D) and to release the hooks (E).
3. Release the panel from the stud (F).

Wires for HA-HDD are as follows:
Accessory – Purple Wire,
Ground – Black Wire

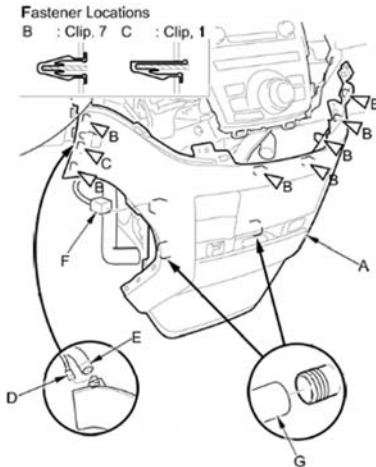


9. Remove the screws (A, B) from the center lower console.

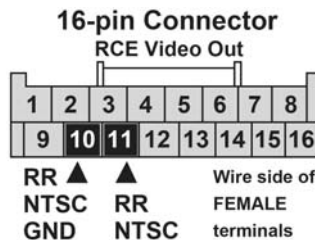


3. Remove the screws (A, B) securing the center lower console (C).

10. Remove the center lower console

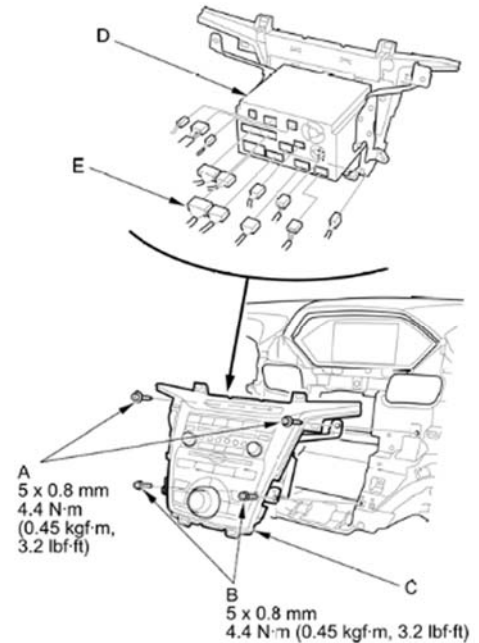


1. Remove the center lower console (A).
2. Pull out the console to detach the clips (B, C).
3. Disconnect the humidity/in-car temperature sensor connector (D) and the air hose (E).
4. Disconnect the center lower console subharness connector (F).

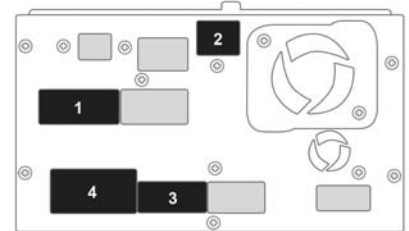


11. Remove and disconnect Audio-Navigation unit assembly

1. Apply protective tape (A) to the console panel along the side edge of the shift lever boot base (B). Pry up on the edge of the shift lever boot base with a flat-tip screwdriver to release the hooks (C).



Cables connecting HA-HDD to Audio-Navigation unit – Type 2



1. Connector (28 pin)
2. Connector (8 pin)
3. Connector (24 pin)
4. Connector (24 pin)

NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).

Honda Pilot Audio-Navigation Unit Removal

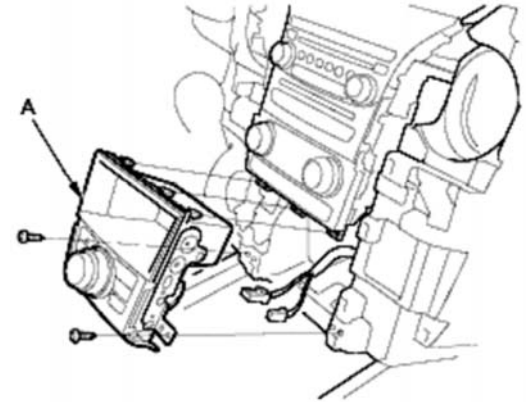
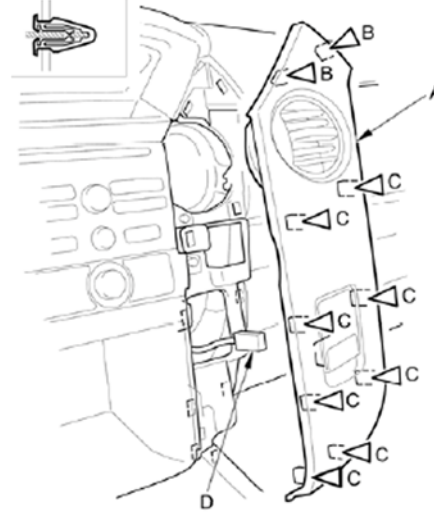
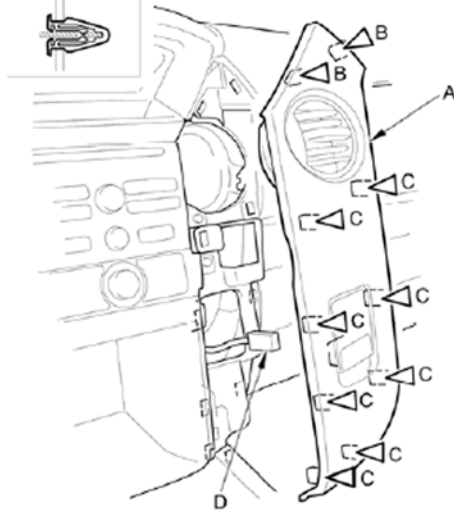
1. Remove the driver's center panel (A).

2. Remove the passenger's center panel (A).

3. Remove and disconnect driver's Dashboard Lower Cover

Fastener Locations
B, C ▷: Clip, 10

Fastener Locations
B, C ▷: Clip, 10

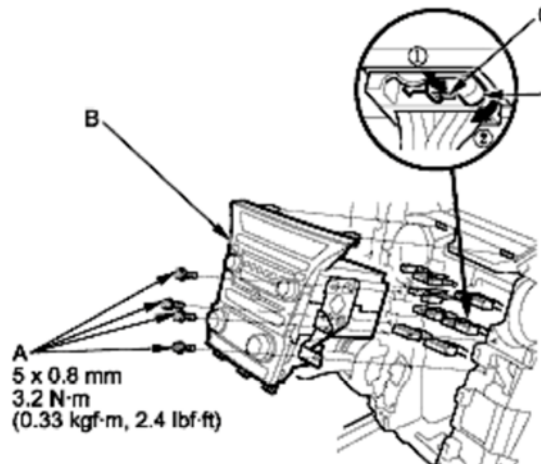


1. Shift the shift lever in to the N position.
2. Starting at the top, gently pull the driver's center panel out to detach the clips (B), then pull the panel out to detach the remaining clips (C).
3. Disconnect the hazard warning switch connector (D) and the VTM-4 switch connector (E) (for some models).

1. Starting at the top, gently pull the passenger's center panel out to detach the clips (B), then pull the panel out to detach the remaining clips (C).
2. Disconnect the front accessory power socket connector (D).

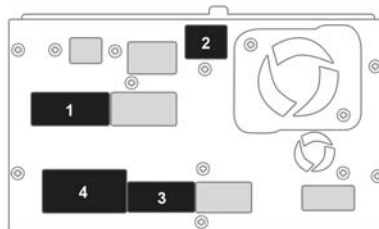
1. Make sure you have the anti-theft codes for the audio-navigation unit.
2. Remove the driver's inner dashboard trim, and the passenger's dashboard trim.
3. Remove the console lower trim (A) and the bolts (B), then pull out the

3. Driver's Dashboard Lower Cover



1. Make sure you have the anti-theft codes for the audio-navigation unit.
2. Remove the driver's inner dashboard trim, and the passenger's dashboard trim.
3. Remove the console lower trim (A) and the bolts (B), then pull out the

Cables connecting HA-HDD to Audio-Navigation unit – Type 2



1. Connector (28 pin)
2. Connector (8 pin)
3. Connector (24 pin)
4. Connector (24 pin)

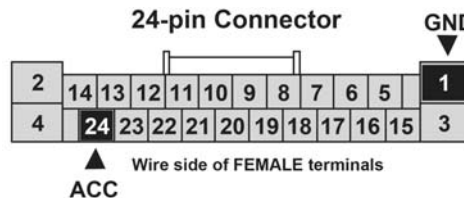
**Wires for HA-HDD are as follows:
Accessory – Purple Wire,
Ground – Black Wire**

16-pin Connector
RCE Video Out

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
RR ▲	▲						
NTSC	RR						
GND	NTSC						

Wire side of FEMALE terminals

24-pin Connector



NOTES:

- Do not touch the circuit board(s) with your bare hands.
- Discharge static electricity from your body
- Do not touch the terminal connector of the flat plate cable with your bare hands (If you have touched it, wipe it off thoroughly).