

Genuine Accessories



Vehicle Model: **Elantra**

Model Year 2019-
 Part No. F3F57 AC600
 Language English
 Rev. Date 8/2/2018

Accessory: **Remote Engine Start - Key Start**

Difficulty: (B)

Note: Difficulty stated above reflects the minimum level of expertise required to install the accessory:
 (A) Customer
 (B) Dealer Technician
 (C) Master Technician or Specialist

Application Notes

Vehicle must be equipped with mechanical key start.
Ensure vehicle does NOT have SMART KEY (PUSH BUTTON IGNITION SYSTEM).
This kit is NOT backwards compatible (does NOT apply to Elantra 2017-2018 model years).

Vehicle should be equipped with automatic transmission, power door locks, and power windows. If these features are not equipped on the vehicle, do not proceed with install.

Instructional Symbols / Definitions

	Denotes warnings that may lead to serious physical injury or vehicle damage		Denotes quality processes to be checked prior to moving to the next step	Denotes personal protective equipment (PPEs) that may be required for a step. Examples of safety equipment icons noted below:			
	Denotes cautions to be taken to avoid physical injury or electronic component damage		Denotes specific tools that are necessary to complete a step		Glasses		Gloves
	Denotes cautions to be taken to avoid vehicle and component damage	N O T E	Denotes important information to be reviewed during the step		Mask		Hearing Protection

Basic Required Tools

Ratchet	10mm Deep Well Socket	12mm Socket	Extension	Torque wrench	#2 Phillips Screwdriver	Wire Cutters
Trim Removal Tool	Clean Cloth	50/50 Isopropyl Alcohol (70%) and Water Mix				

Part Weight (Gross)	
0.80	lbs
0.36	kg

FMVSS 110 Compliance Information

All dealers must determine if the Net weight they have added in the form of all options or accessories, when added to the weight of all Port/Dealer Installed options or accessories, exceeds the lesser of 1.5% of GVWR or 100 lbs. If the additional weight does exceed the lesser of the indicated thresholds, a "Load Carrying Capacity Reduced" label must be installed. A black, fine-point, indelible marker must be used to write by hand onto the label, the reduced carrying capacity in kilograms or pounds, which is the total weight of all added options and accessories.
Load Label Part Number: NP070-09003

Technical Support



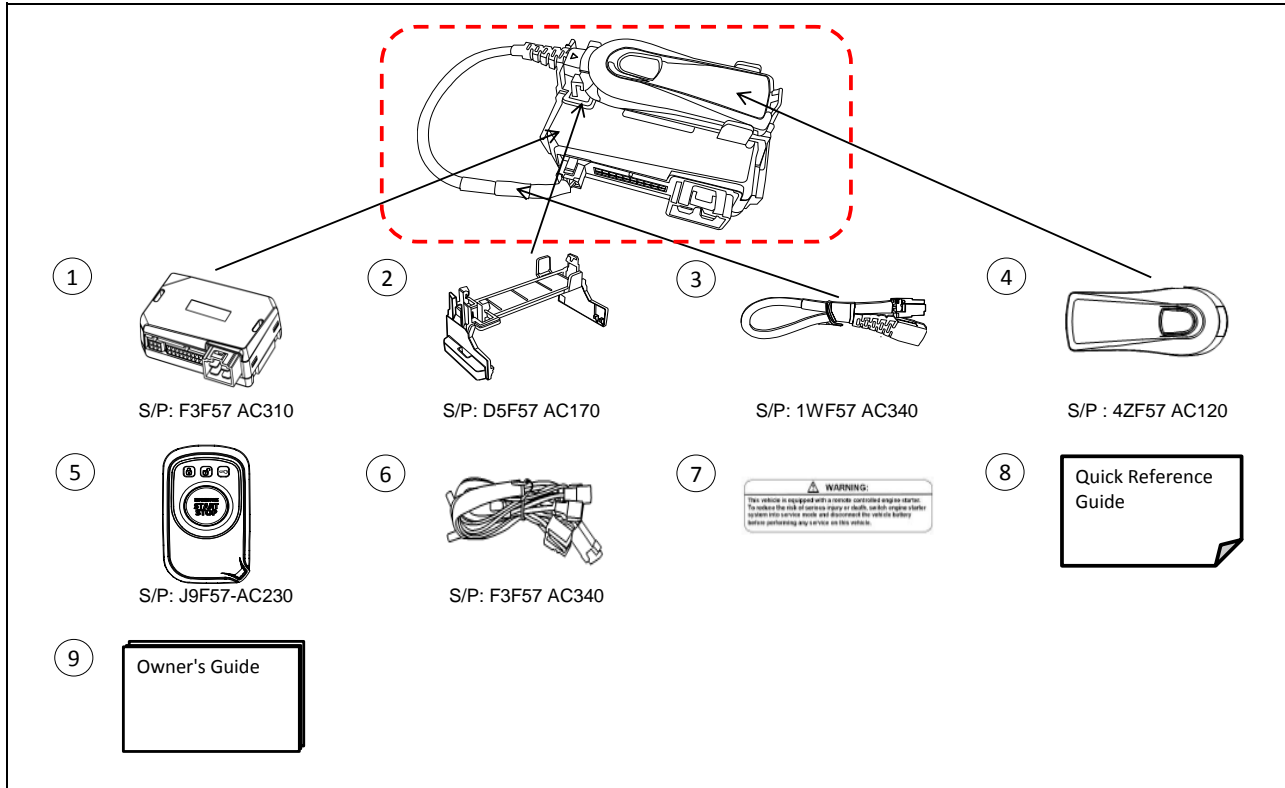
Authorized dealers use: (1) 855-225-7344
 Hours: M-F - 9am-5pm Pacific Standard Time

Notes to the installer:

- 1) Read the entire Installation Instructions prior to beginning the installation of the part.
- 2) Make sure the vehicle is completely clean and dry in the area(s) the part is to be installed.
- 3) Ensure the vehicle is properly protected in the area(s) that the accessory is to be installed.
- 4) NEVER place tools on painted surfaces, seating surfaces, dash pad, console or floor carpet/mats.
- 5) Always wear appropriate personal protective equipment, including gloves, safety glasses, etc., when required.
- 6) Record radio presets prior to disconnecting battery power, if needed.
- 7) Ensure the transportation fuse is set to "ON" before starting the install.
- 8) Roll down the driver's window and adjust the power seats (if applicable) prior to disconnecting battery power, if needed.
- 9) **To prevent stress on the remote start wire harness, ensure the tilt steering column is fully extended before installing the kit.**
- 10) Vehicle should be at room temperature.
- 11) **The order of the disassembly and reassembly steps have been optimized for maximum efficiency and the correct installation of the Remote Engine Start kit. Disassemble vehicle components (including harness connectors) and install the kit components according to each step, as indicated. Avoid disassembling or reassembling any components in advance to prevent unnecessary labor time and/or installation errors.**

Genuine Accessories

Kit Overview



No.	Qty	Description	No.	Qty	Description
1	1	Control Module	6	1	Harness
2	1	Antenna Bracket	7	1	Warning Label
3	1	Antenna Harness	8	1	Quick Reference Guide
4	1	Antenna	9	1	Owner's Guide
5	2	1 Way Transmitter Fob			

Hardware Kit Contents

A	
11	Wire Tie*

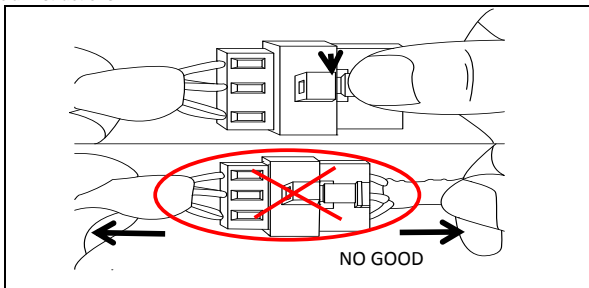
* Indicates extra components intentionally included in kit as spares.
Follow instructions for proper placement of each component.

Hardware Total
11

Radio Presets - record customer preset frequencies if disconnecting battery power

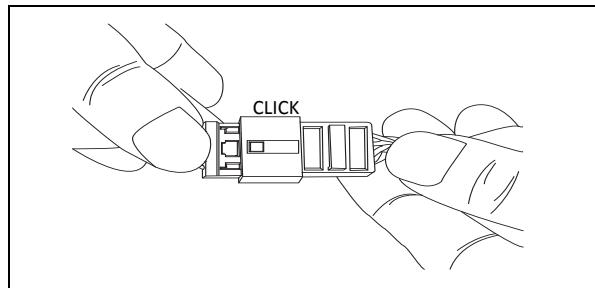
FM1 _____ FM2 _____ FM3 _____ FM4 _____ FM5 _____
 FM6 _____ FM7 _____ FM8 _____ FM9 _____ FM10 _____
 AM1 _____ AM2 _____ AM3 _____ AM4 _____ AM5 _____
 SAT1 _____ SAT2 _____ SAT3 _____ SAT4 _____ SAT5 _____

Special Instructions



Disconnecting Connectors

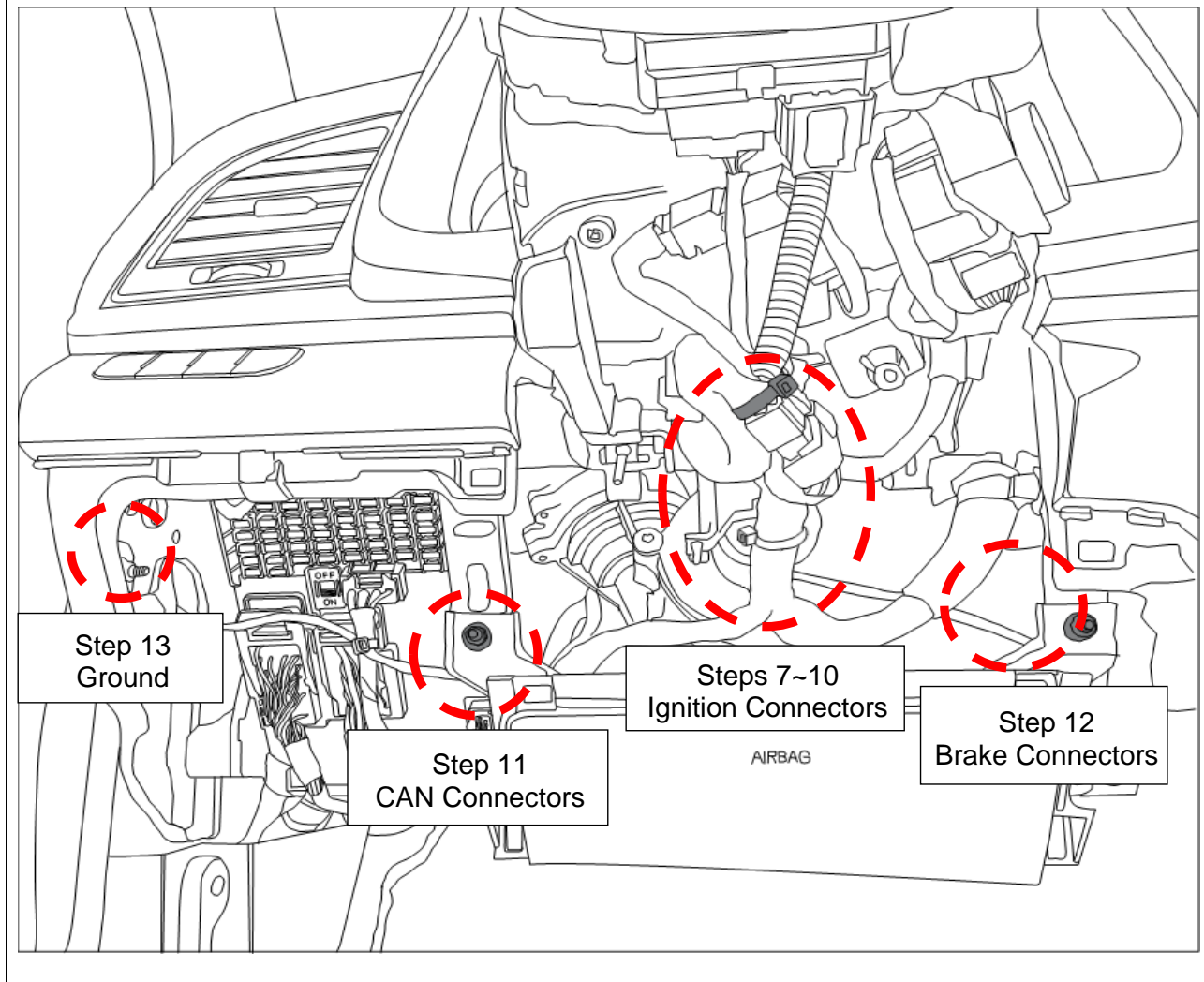
When disconnecting connectors, grasp the connectors, not the wire.




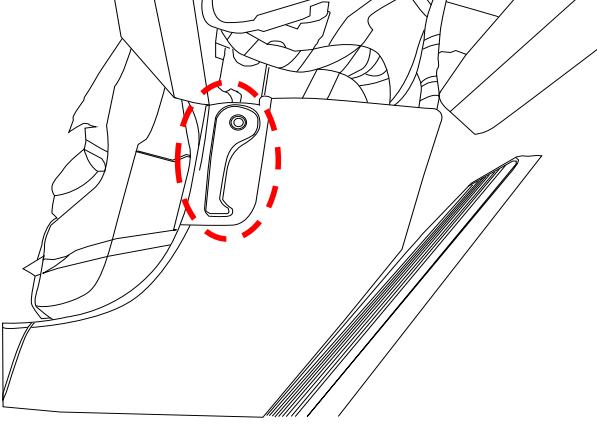
Locking Connectors


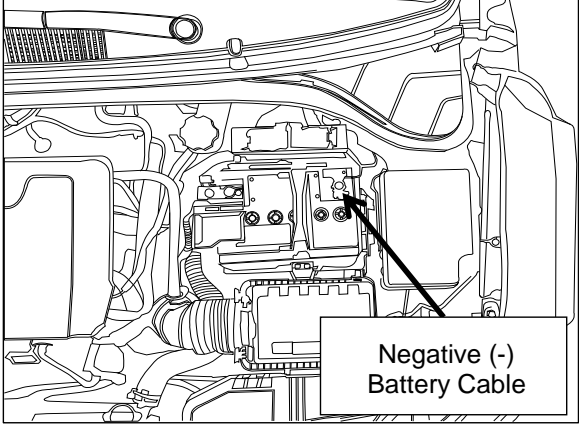

When locking connectors, listen for a click indicating they are securely locked.


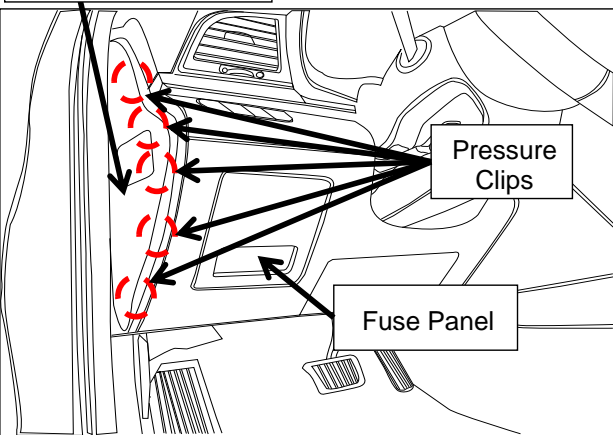

Remote Start Harness Connector Locations


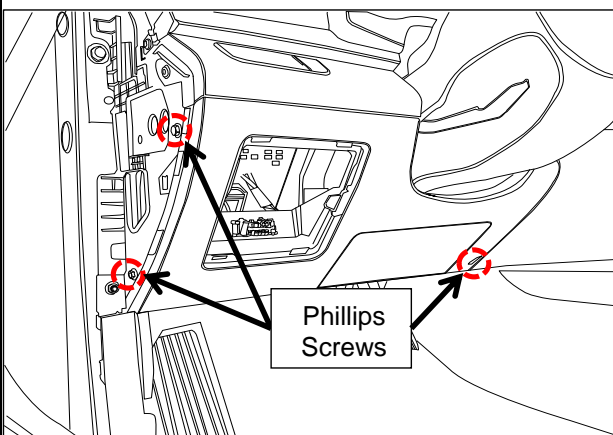



Genuine Accessories


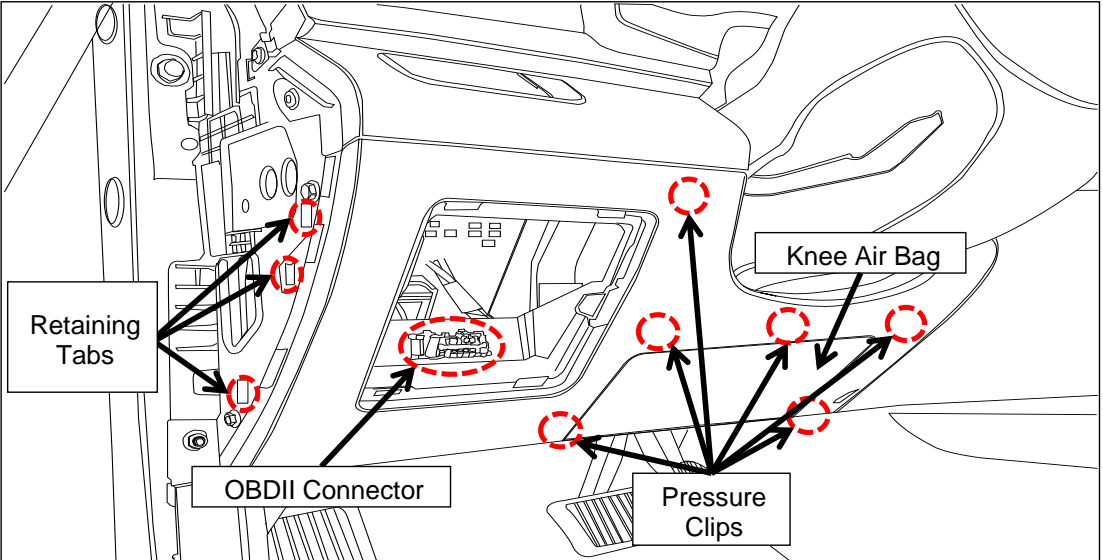

1		
		
N O T E	<p>A. Open the Driver's Door Window. B. Move the Driver's Seat to the rearmost position. C. Record all pre-set radio stations (if applicable). D. Pull the Hood Lever to open the Hood.</p>	


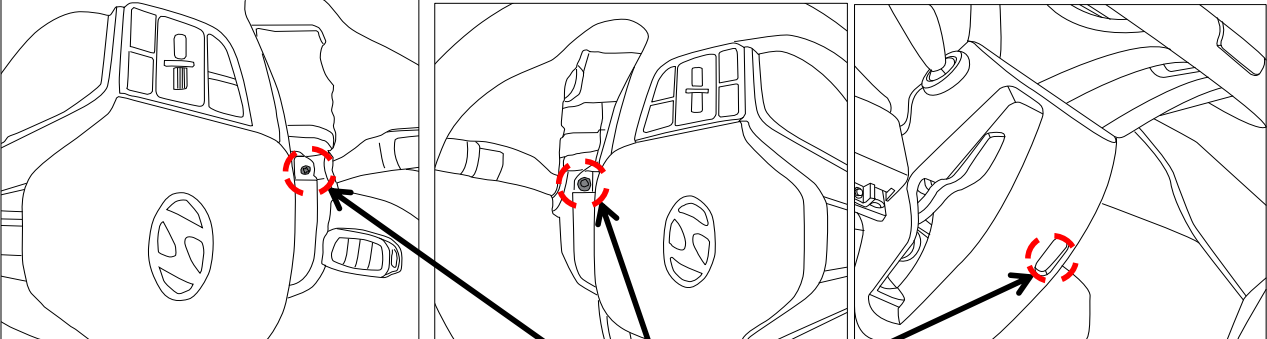

2		Ratchet and 10mm Deep Well Socket
 <p style="text-align: right; margin-right: 50px;">Negative (-) Battery Cable</p>		
N O T E	<p>A. Remove the Negative (-) Battery Terminal Cover, if applicable. B. Disconnect and isolate the vehicle's Negative (-) Battery Cable.</p>	
 <p>WARNING! Shock Hazard. Do not touch vehicle's negative battery terminal to vehicle's positive battery terminal. Serious physical injury or electronic component damage may occur.</p>		

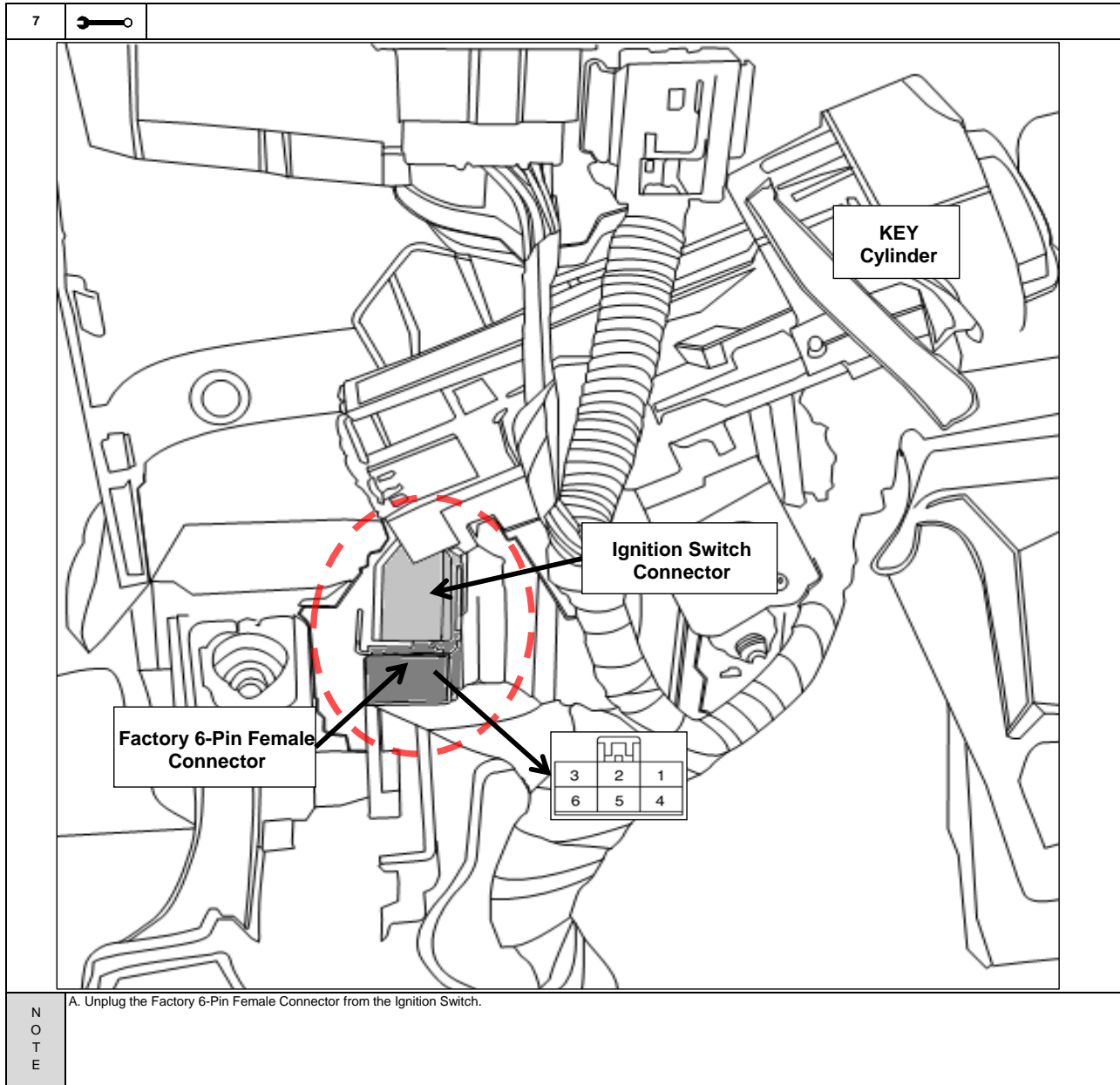
3		Trim Removal Tool
 <p style="text-align: center;">Dash End Cap Panel</p> <p style="text-align: center;">Pressure Clips</p> <p style="text-align: center;">Fuse Panel</p>		
N O T E	<p>A. Remove the fuse panel cover. B. Gently pull the weatherstrip back from the dash area. C. Using a trim removal tool, remove the driver's side dash end cap panel by prying outward to disengage the five (5) pressure clips. D. Store the removed parts in a safe location for reinstallation.</p>	
 <p>Caution: Do not damage the Dash Panel, Fuse Panel Cover or Dash End Cap. Make sure no pressure clips remain in the dash board.</p>		

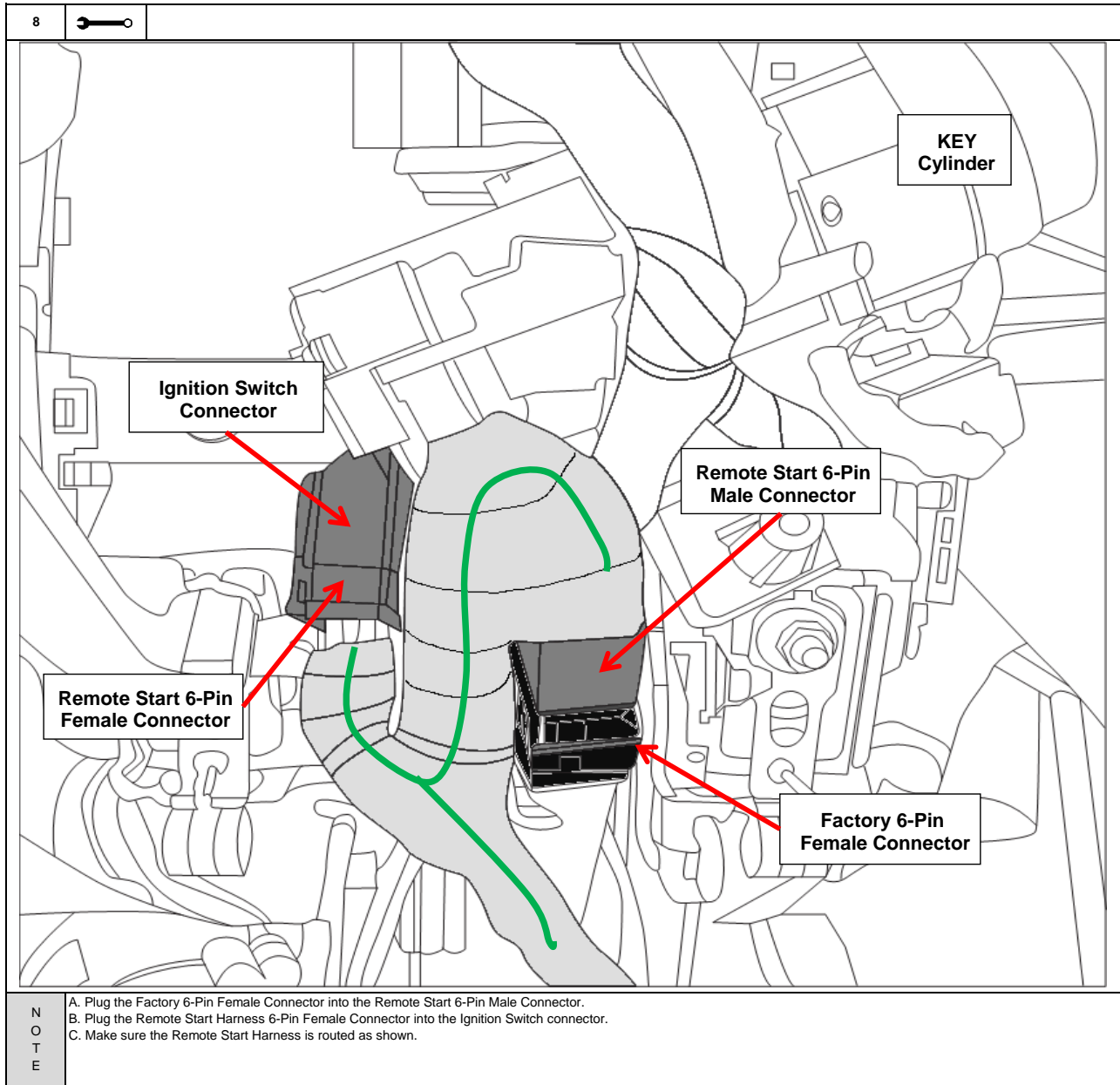
4		#2 Phillips Screwdriver
 <p style="text-align: center;">Phillips Screws</p>		
N O T E	<p>A. Using a Phillips Screwdriver, remove the two (2) phillips screws from the side of the lower dash panel as shown. B. Using a Phillips Screwdriver, remove the one (1) phillips screw from the bottom of panel as shown. C. Store the removed screws in a safe location for reinstallation.</p>	
 <p>Caution: Do not damage the Lower Dash Panel.</p>		


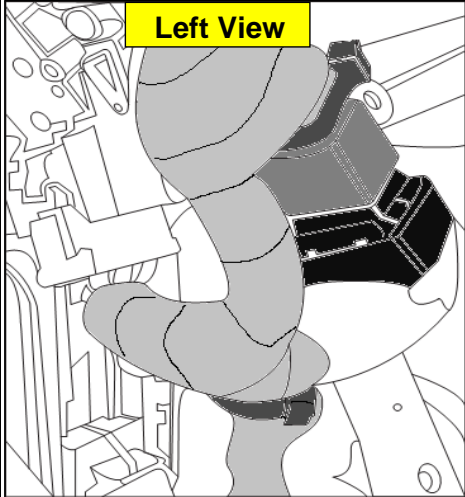
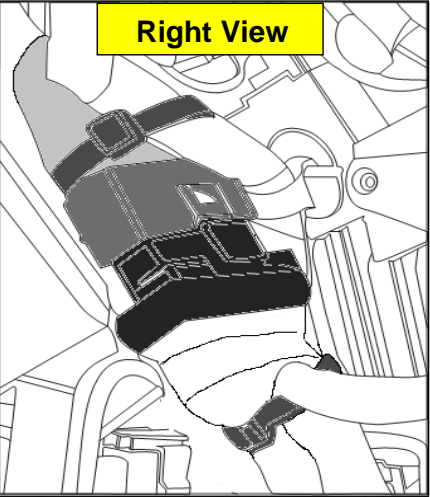
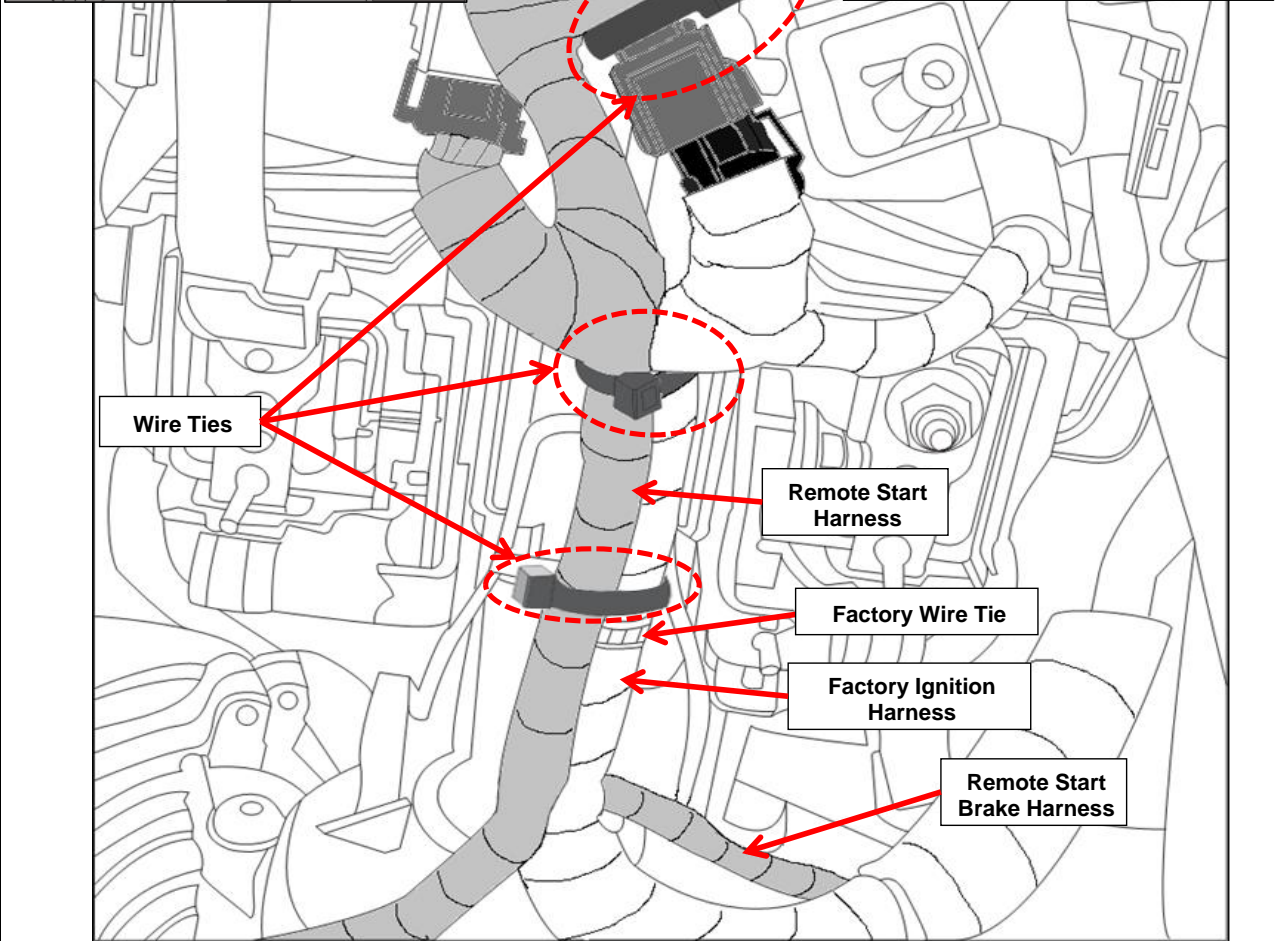
Genuine Accessories


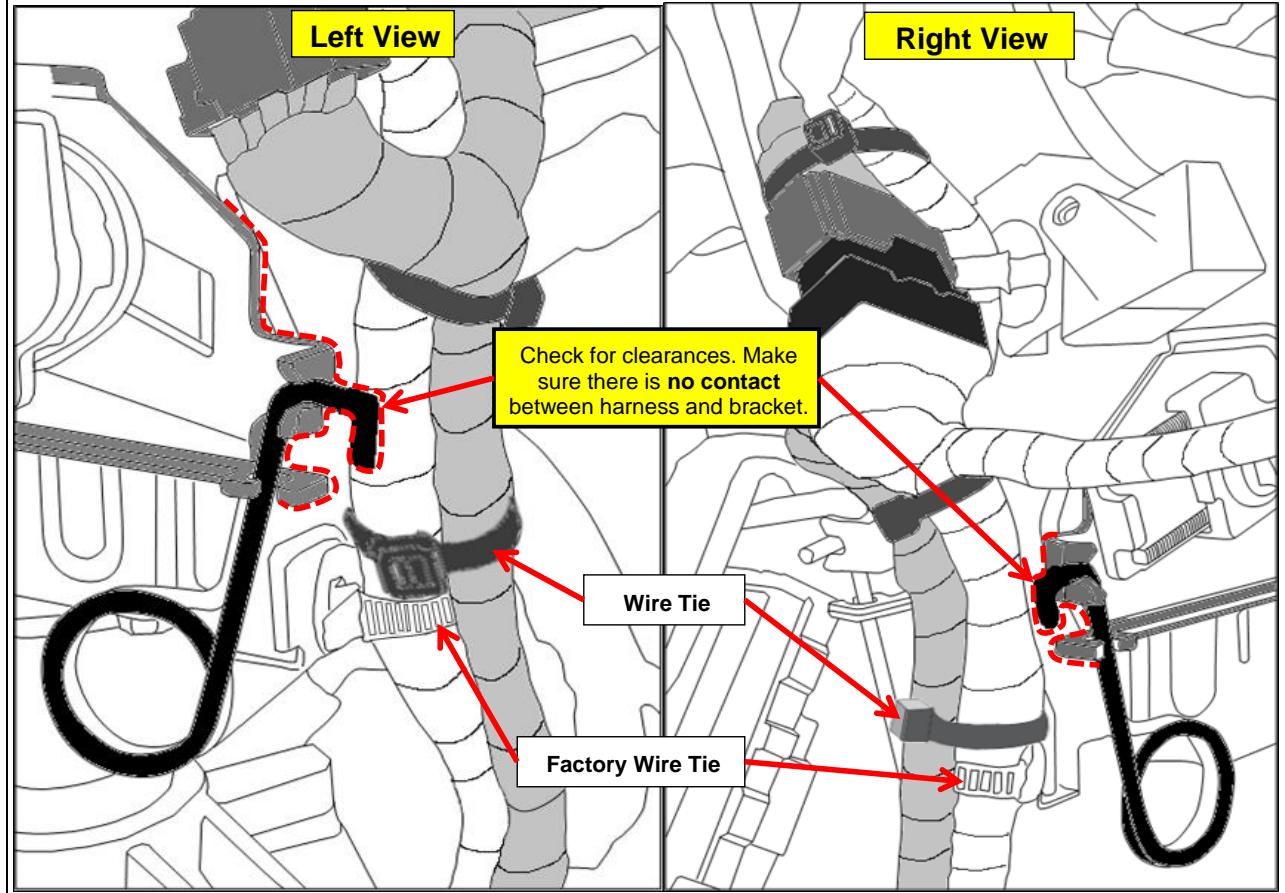

5	 Trim Removal Tool
	
N O T E	<p>A. Disconnect the OBDII Connector. B. By hand, dislodge the Lower Dash Panel. C. Disconnect any Electrical Connectors from the Lower Dash Panel, if applicable. D. Store the removed part in a safe location for reinstallation.</p>
 <p>Caution! Do not damage the Lower Dash Panel, OBDII Connector or Electrical Connectors. Do not damage or scratch the Knee Air Bag Trim Panel.</p>	

6	 #2 Phillips Screwdriver and Trim Removal Tool
	
N O T E	<p>A. Release the Upper Steering Column Shroud, using trim removal tool to expose the two (2) screws. B. Remove the three (3) Phillips Screws securing the Lower Steering Column Shroud as shown. - Rotate the Steering Wheel as needed to access the two (2) Upper Screws. NOTE: Insert key and turn to the ACC position, in order to prevent steering wheel from locking. C. Release the Tilt Adjust Lever on the Steering Wheel Column. D. Carefully remove the Lower Steering Column Shroud to access the 6-Pin Ignition Switch Connector. E. Adjust the Tilt Steering Wheel to the fully extended position and lock into place. F. Store the removed parts in a safe location for reinstallation.</p>
 <p>Caution: Do not damage the Steering Column Shroud, Steering Wheel or Steering Column.</p>	




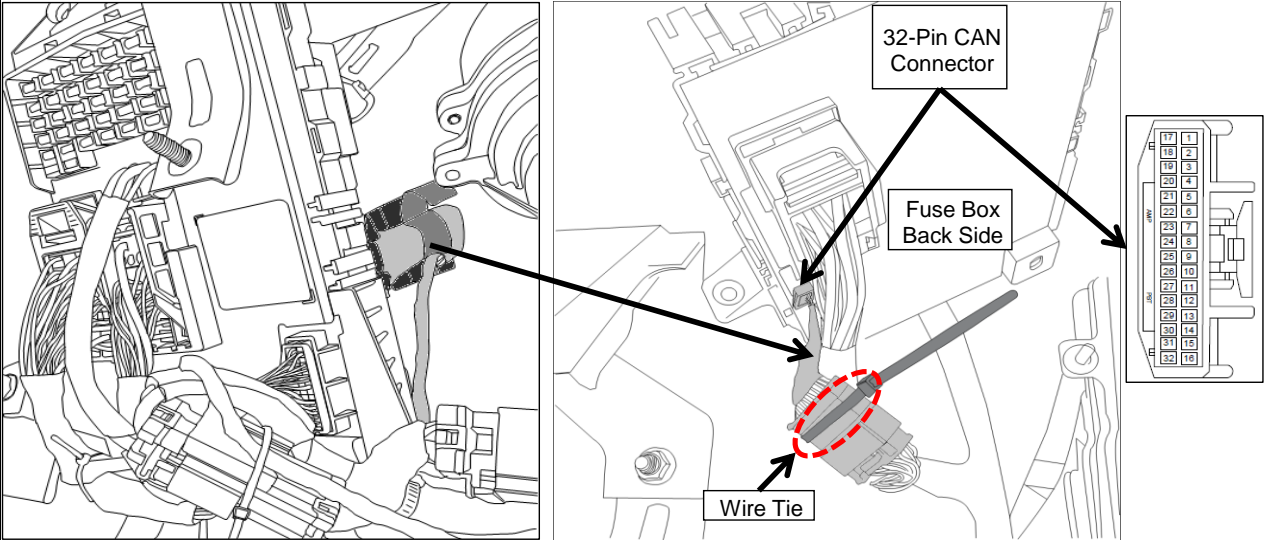


9	 Wire Cutters
<div style="background-color: yellow; padding: 2px; border: 1px solid black; display: inline-block;">Left View</div> 	<div style="background-color: yellow; padding: 2px; border: 1px solid black; display: inline-block;">Right View</div> 
	
<p style="text-align: center;">Wire Ties</p>	<p style="text-align: center;">Remote Start Harness</p> <p style="text-align: center;">Factory Wire Tie</p> <p style="text-align: center;">Factory Ignition Harness</p> <p style="text-align: center;">Remote Start Brake Harness</p>
<p>N O T E</p>	<p>A. Adjust the Remote Start Ignition Harness and Factory Ignition Harness as needed to make sure there are no rub or pinch areas or contact points with steering column components and the tilt mechanism / springs.</p> <p>B. Make sure the steering column is fully extended / tilted up and locked in place before installing the wire ties.</p> <p>C. Make sure the Remote Start Harness is routed as shown and Control Module Connectors are routed between the Fuse Box and over the MDPS Harness towards the bulkhead.</p> <p>D. Using three (3) Wire Ties, secure the Remote Start Harness to the Factory Ignition Harness as shown.</p> <p>E. Trim excess Wire Tie material.</p>

10			
			
<p>N O T E</p>	<p>A. Move the Steering Column through it's full range of motion to ensure that Remote Start Harness and Factory Harness do not interfere with vehicle components or make contact with sharp edges of steering column.</p> <p>B. Make sure the steering column is fully extended / tilted up and locked in place.</p>		
	<p>Move the Steering Column through it's full range of motion to ensure that Remote Start Harness and Factory Harness do not interfere with vehicle components or make contact with sharp edges of steering column. Make sure the Remote Start Harness and Factory Harness do not contact any sharp parts in the steering column, including the tilt mechanism springs.</p>		

Genuine Accessories


11  Wire Cutters

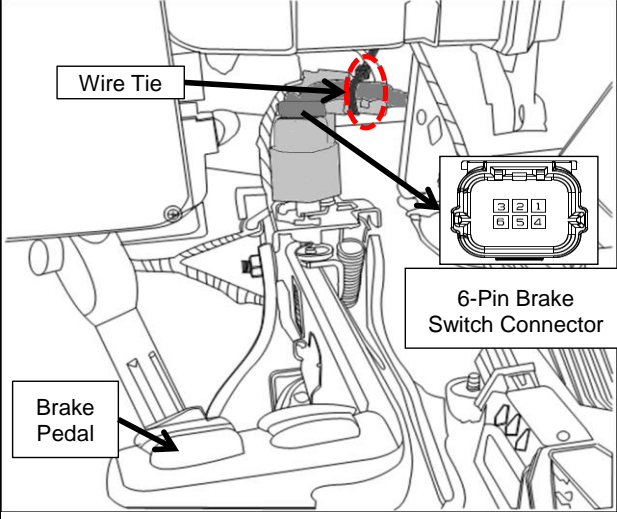


NOTE

- Route the 32-Pin CAN Connector and Harness behind the Fuse Box.
- Locate the factory 32-Pin Female CAN-Connector, found on the back side of the Fuse box, as shown above.
- Disconnect the 32-Pin CAN Connector from the back side of the Fuse Box.
- Connect the corresponding Remote Start T-Harness Connector to the 32-Pin CAN Connector and Fuse Box (back side).
- Using one (1) Wire Tie, secure the 32-Pin CAN Connector to Vehicle Harness as shown.
- Trim excess Wire Tie material.

CAUTION! There is an identical type of 32-Pin Connector underneath the Fuse Box. Do not remove this connector.


12  Wire Cutters

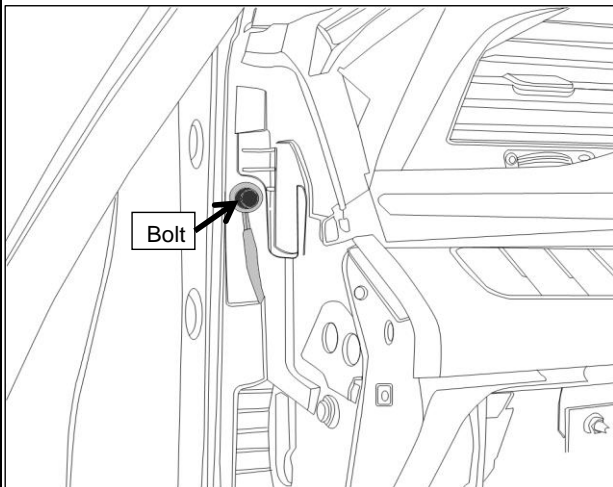


NOTE

- Route to 6-Pin Brake Switch Connector and Harness across and behind the knee air bag and over to the Brake Switch.
- Locate the Factory Female 6-Pin Connector, located on the Brake Switch as shown above.
- Disconnect the Factory Female 6-Pin Connector from the Brake Switch and plug it into the corresponding Remote Start T-Harness Connector.
- Plug the corresponding 6-Pin Remote Start Harness Connector into the Brake Switch, **make sure all the connectors are locked together.**
- Using a Wire Tie, secure the 6-Pin Brake Switch Connector to the Remote Start Harness and to the Factory Brake Switch Harness.
- Trim excess Wire Tie material.

CAUTION! Route Brake Switch wire harness under steering column. Make sure there is adequate clearance between wire harness and steering components.

13  Ratchet, Torque Wrench, Extension, and 12mm Socket



NOTE

- Remove the 12mm bolt from the upper left dash, just to the left of the air vent as shown.
- Route the Ground Wire, across the front of the Fuse Box, as shown above, then up and over to the 12mm Bolt hole.
- Insert the 12mm Bolt into the Ground Wire Ring Terminal, then reinstall.
- Torque the 12mm Bolt to:
16.7 ~ 21.6 N.m (1.7 ~ 2.2 kgf.m, 12.3 ~ 15.9 lb-ft).


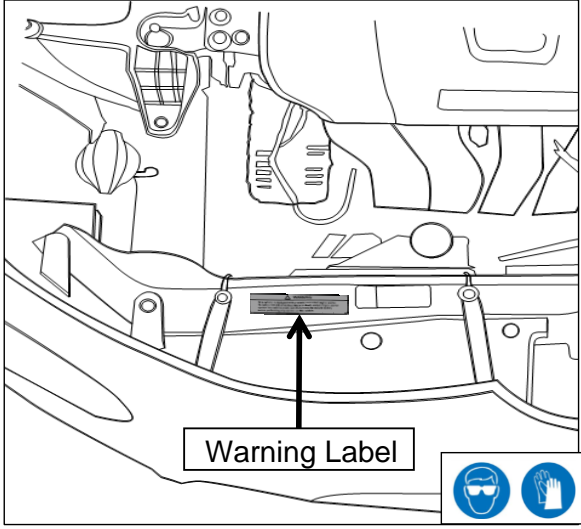

Genuine Accessories


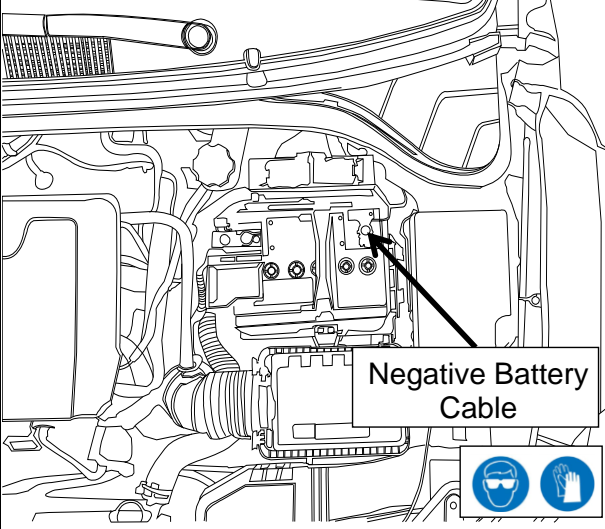

14	🔧	
N O T E	<p>A. Connect the 20-Pin Connector (black) to the Control Module. B. Connect the 4-Pin Connector (black) to the Control Module. C. Verify the following: - Control Module is attached to Antenna Bracket. - Both black 6-Pin connectors are attached to Antenna and Control Module.</p>	
<p>Ensure that each Connector is fully seated in the Control Module and in the Antenna.</p>		


15	🔧	Wire Cutters
N O T E	<p>A. Using two (2) Wire Ties, secure the Remote Start Ground Wire as shown. B. Trim excess Wire Tie material.</p>	


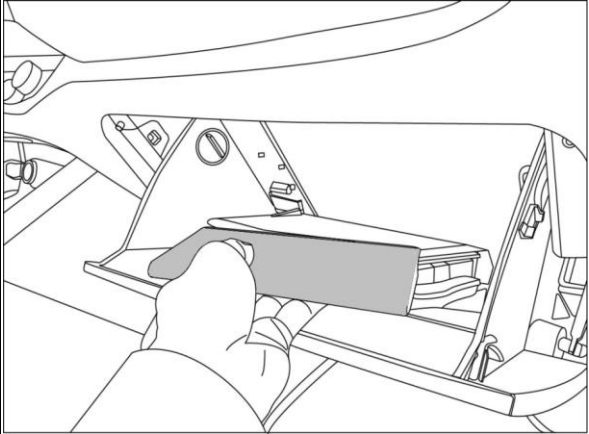
16	🔧	Wire Cutters
N O T E	<p>A. Position the Control Module Assembly (Control Module + Antenna + Antenna Harness + Antenna Bracket) close to the Grommet on Bulkhead, as shown. B. Using two (2) Wire Ties, secure the Control Module Assembly to left side of the Factory Harness as shown. C. Trim excess Wire Tie material.</p>	
<p>Ensure the Control Module Assembly is fully seated on the left of Factory Harness. Ensure the Control Module Assembly does not interfere with the Steering Column Shaft.</p>		


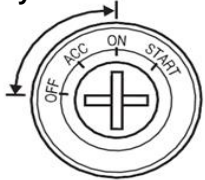



Genuine Accessories

17		Clean Cloth and 50/50 Mix of Isopropyl Alcohol (70%) and Water
		
N O T E	<p>A. Clean the left top surface of the Radiator Cover. - Ensure the surface is completely dry.</p> <p>B. Remove the Adhesive Liner from the Warning Label, then secure the label to the Radiator Cover as shown.</p>	
	<p>Ensure the surface is completely dry before installing the Warning Label. Ensure the label is aligned straight with the edge of the Radiator Cover and without air bubbles under the label.</p>	

18		Ratchet, 10mm Deep Well Socket, Extension, and Torque Wrench
		
N O T E	<p>A. Reconnect the Negative (-) Battery Cable. Torque to: 5.0 – 6.0 N.m (0.5 – 0.6 kgf.m, 45 – 52 lb-in).</p> <p>B. Reinstall the vehicle's Negative (-) Battery Cover, if applicable.</p> <p>C. Reinstall the weather strip at dash area to allow Driver's Door to close properly.</p> <p>D. Close the Hood, Trunk and all Doors.</p> <p>E. Test the LOCK / UNLOCK function using Factory Key Fob.</p>	
	<p>NOTE: If vehicle is not responding, carefully re-check all wiring connections. If the vehicle is still not responding, follow the Troubleshooting at the end of the instructions.</p>	




















19		
<p>GO TO → Function Check</p>		
N O T E	<p>A. Perform the Function Check at the end of the Instructions.</p>	

20		#2 Phillips Screwdriver
		
N O T E	<p>A. Reinstall all removed parts in reverse order of disassembly starting with the Lower and Upper Steering Column Shroud.</p> <p>B. Reconnect the OBDII Connector and any Electrical Connectors if applicable, on the Lower Dash Panel.</p> <p>C. Reinstall the Lower Dash Panel.</p> <p>D. Reinstall the Driver's Side Dash End Cap Panel.</p> <p>E. Reinstall the Fuse Panel Cover.</p> <p>F. Place the Quick Reference Guide and the Owner's Guide into the Glove Box.</p> <p>G. Attach the Remote Start Fobs to each of the Factory Key Fob Rings.</p>	








A	
<p>Remote Start Transmitter Fob Pairing Procedure (not necessary for new installations - only needed if fob is replaced)</p>	
<p>Remote Start Fob</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Key 5X</p>  </div> <div style="font-size: 2em;">→</div> <div style="text-align: center;">  </div> </div>	
<p>N O T E</p>	<p>A. Open driver's door. B. Insert the Key into the ignition. Turn the key from OFF to ON position five (5) times within 5 seconds C. After step 2 within 5 seconds. Press  button on the 1st Remote Start Fob one time. D. After registering the 1st Remote Start Fob, within another 5 seconds, Press  button on the 2nd Remote Start Fob one time. E. Verify that both Fobs are functioning correctly by performing lock/unlock function.</p>
<p>Note: The remote start key Fobs come paired to the system from the factory, and should not require re-pairing. Note: The remote engine start system can recognize up to three (3) remotes Fobs; the kit includes two (2) remote Fobs. If a new Fob, or additional Fob is needed later, the Fob pairing process should be done with the original Fob or oldest available Fob.</p>	

Genuine Accessories

Function Check

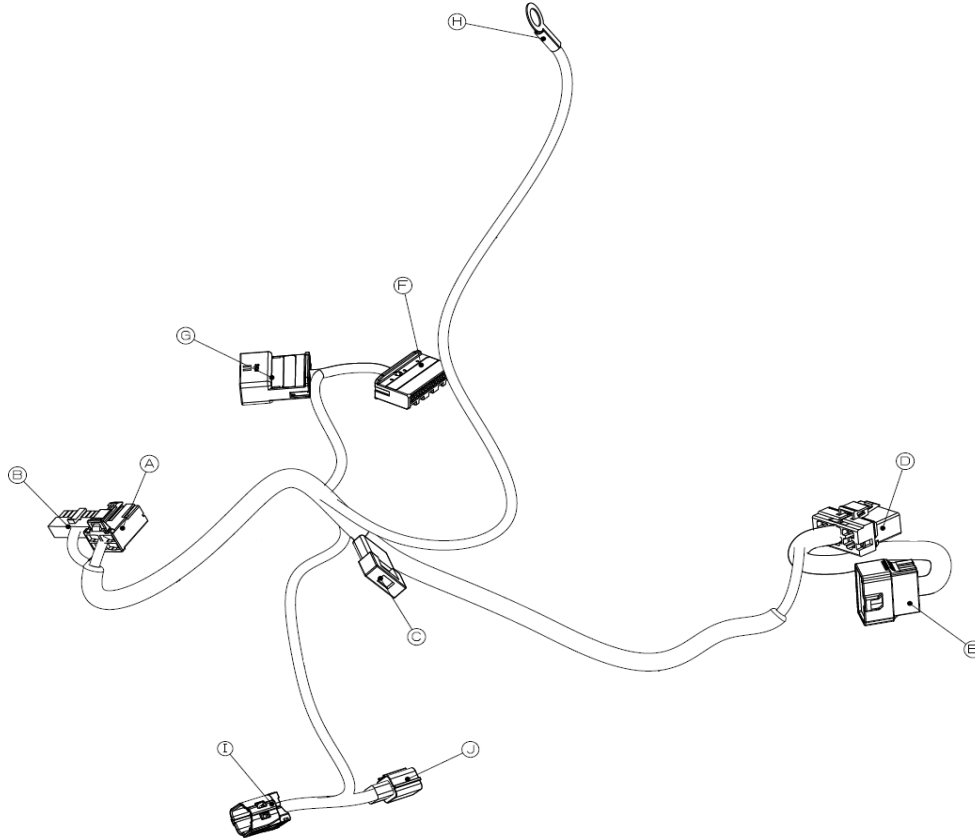
Issue / Concern	Items to be Checked
 1. Press  button one time. (All doors, hood & trunk are closed).	Transmitter Fob LOCK icon will flash, vehicle signal lights will flash, and all doors will LOCK.
 1. Press  button 2 times. 2. Press  button 2 more times.	Transmitter Fob UNLOCK icon will flash, vehicle signal lights will flash, and Driver's door will UNLOCK. Transmitter Fob UNLOCK icon will flash, vehicle signal lights will flash, and all doors will UNLOCK.
 1. Press  button one time. 2. Within 3 seconds, press and hold  button for 2 seconds.	Transmitter Fob LOCK icon will flash, vehicle signal lights will flash, and all doors will LOCK. Transmitter Fob KEY icon will flash, the engine will crank and start, the vehicle signal lights will flash.
 While the vehicle is running via remote start, 1. Press  button two (2) times. 2. Press  button two (2) additional times.	Transmitter Fob UNLOCK icon flash, vehicle signal light flashes twice and Driver's door will UNLOCK. Transmitter Fob UNLOCK icon flash, vehicle signal light flashes twice and All doors will UNLOCK.
 While the vehicle is running via remote start, 1. Press  button one (1) time.	Transmitter Fob LOCK icon will flash, vehicle signal lights will flash, and all doors will LOCK.
 While the vehicle is running via remote start, 1. Press brake pedal.	The engine will stop.
 While the vehicle is running via remote start, 1. Press and hold  button for two (2) seconds.	Transmitter Fob KEY icon will flash, and the engine will stop.
 While the vehicle is running via remote start, 1. Open the hood.	The engine will stop.
 While the vehicle is running via remote start, 1. Open any door.	The engine will stop after approximately thirty (30) seconds.
 While the vehicle is running via remote start, 1. Open trunk.	The engine will stop after approximately fifty (50) seconds.

Troubleshooting

Item to be Checked	Result
 The vehicle does not LOCK by using the Remote Start Key Fob.	Check the vehicle status 1. Engine is OFF. 2. Accessory function is OFF. 3. All doors are closed. 4. Hood and Trunk are closed.
 The vehicle LOCKS, UNLOCKS, but does not START (no cranking sound).	Ensure the Valet Mode is OFF. (Refer to Owner's Guide for details.) Ensure that the buttons are properly activated. Buttons may not recognize a command if the LED icon light is still flashing. The installation might be faulty. Call Technical Support on Page 1.
 The vehicle LOCKS, UNLOCKS, but does not START and there is CRANKING sound from the engine.	Check that the vehicle battery is not dead. The installation might be faulty. Call Technical Support on Page 1.
 The remote does NOT LOCK / UNLOCK and does not START the vehicle. The Remote LED lights flash when buttons are pressed.	The Transmitter Fob is not paired to the Control Module. Follow the Remote Start Fob Pairing Procedure in the Installation Instructions.
 The LED icon lights on the Transmitter Fob does not light up.	The Transmitter Fob batteries are dead. Refer to the Owner's Manual for instructions to change the batteries.
 The Engine turns off when entering the vehicle, while running under Remote Start mode.	Vehicle will shut off automatically after thirty (30) seconds, if key is not in IGN ON position, as noted in the Owner's Manual in the "Driving Off" section. Verify the key is in the ignition ON position within 30 seconds after opening the doors. Verify the brake pedal is pressed after the key is in ignition ON position.
 Engine does not turn off immediately when the brake pedal is pressed after starting engine with remote.	Verify Driving OFF Mode after remote starting. Engine does not turn off after Driving Off Mode even when the brake pedal is pressed. Verify the brake connector is correctly installed. (refer to Step 12).

Genuine Accessories

Wiring Diagram



(A) FEMALE 4P Module CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	IGN-1	IG2 Output	AVS 3.0	W
2	IGN-2	START Output	AVSS 0.85	Y
3	IGN-3	IG1 Output	AVS 3.0	G
4	IGN-4	(+12V) BATT	AVS 3.0	R

(D) FEMALE 6P Ignition CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
2	IGN-2	IG2 Output	AVS 3.0	W
3	IGN-3	START Output	AVSS 2.0	Y
4	IGN-4	IG1 Output	AVS 3.0	G
5	IGN-5	(+12V) BATT	AVS 3.0	R

(G) MALE 32P CAN CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
17	CAN-17	B CAN-H	AVSS 0.3	BF
18	CAN-18	B CAN-L	AVSS 0.3	W

(B) FEMALE 20PIN Input/Output CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	(-)GND	GND	AVSS 0.5	B
2	(-)GND	GND	AVSS 0.5	B
9	(+)PIC#3	Footbrake Input	AVSS 0.3	W/B
19	CAN-HIGH	B CAN-H	AVSS 0.3	BF
20	CAN-LOW	B CAN-L	AVSS 0.3	W

(E) MALE 6P Ignition CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
2	IGN-2	IG2 Output	AVS 3.0	W
3	IGN-3	START Output	AVSS 2.0	Y
4	IGN-4	IG1 Output	AVS 3.0	G
5	IGN-5	(+12V) BATT	AVS 3.0	R

(H) Ground Terminal

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	GND	Ground	2.0mm 84mm Thick 0.5mm	

(C) 2P FUSE (30A)

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	30F-1	To Man	AVS 3.0	R
2	30F-2	To Vehicle	AVS 3.0	R

(F) FEMALE 32P CAN CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
17	CAN-17	B CAN-H	AVSS 0.3	BF
18	CAN-18	B CAN-L	AVSS 0.3	W

(I) FEMALE 6P Brake Switch CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
5	FBRK-5	FOOTBRAKE Input	AVSS 0.5	W/B

(J) MALE 6P Brake Switch CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
5	FBRK-5	FOOTBRAKE Input	AVSS 0.5	W/B