

# Genuine Accessories



Vehicle Model **Elantra**

Model Year 2017-  
 Part No. F3F57 AC500  
 Language English  
 Rev. Date 6/21/2016

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).**

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		
	Denotes cautions to be taken to avoid vehicle and component damage	<b>N O T E</b>	Denotes important information to be reviewed during the step		

**Basic Required Tools**

Ratchet	10 mm Socket	12 mm Socket	Extension	Torque wrench	#2 Phillips Screwdriver	Wire Cutters

Trim Removal Tool	Clean Cloth	50/50 Isopropyl Alcohol (70%) and Water Mix

All dealers must determine if the 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.

**Technical Support**

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

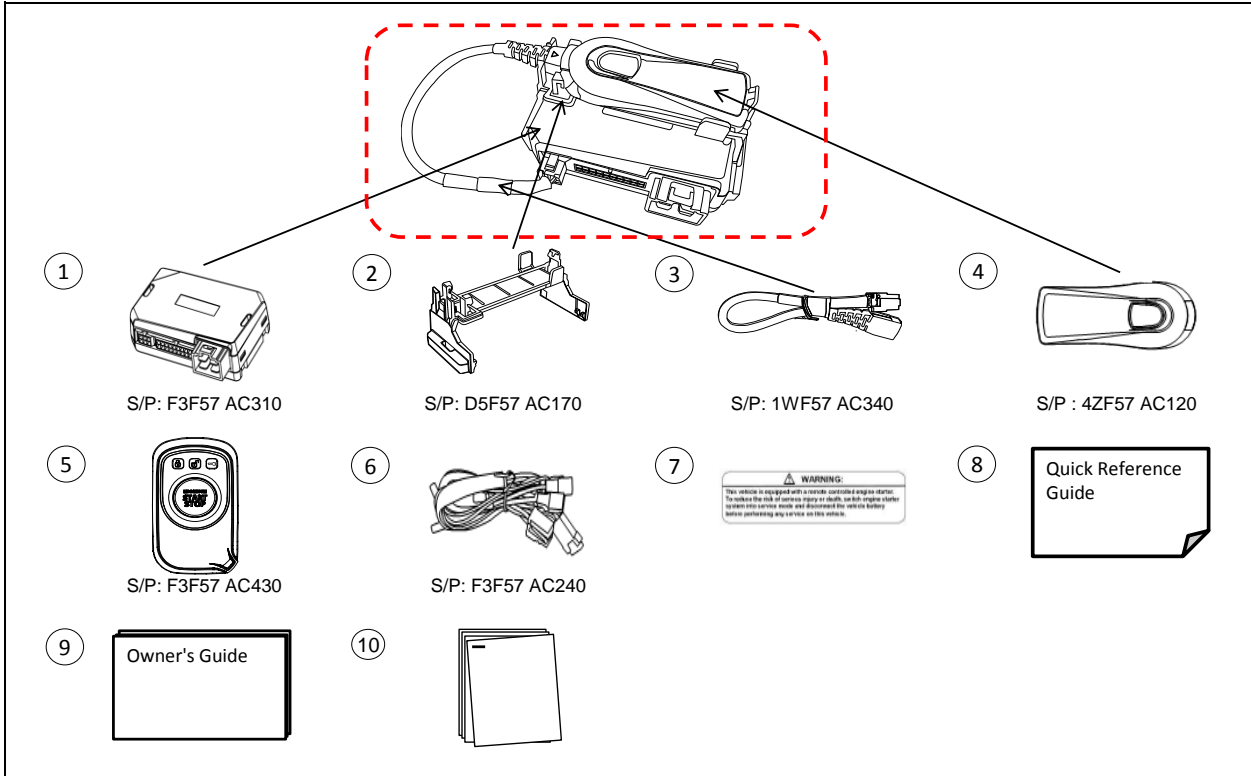
**Notes to the installer:**

- 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.**

Part Weight (Gross)	
<b>0.90</b>	lbs
<b>0.41</b>	kg

# 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	10	1	Installation Guide

## Hardware Kit Contents

A	
11	Wire Tie*

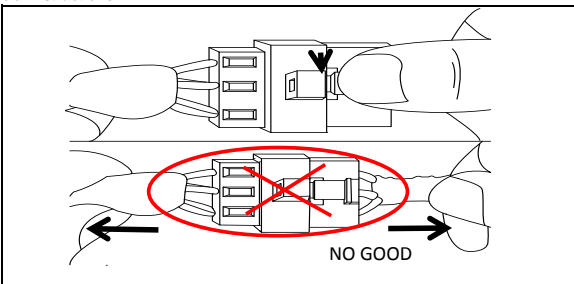
\* Indicates extra components intentionally included in kit as spares.  
Follow instructions for proper placement of each component.

Hardware Total
11

## Radio Presets - record customer preset frequencies if disconnecting battery power

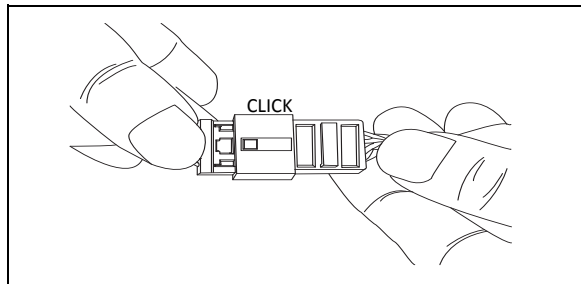
FM1 \_\_\_\_\_ FM2 \_\_\_\_\_ FM3 \_\_\_\_\_ FM4 \_\_\_\_\_ FM5 \_\_\_\_\_  
 FM6 \_\_\_\_\_ FM7 \_\_\_\_\_ FM8 \_\_\_\_\_ FM9 \_\_\_\_\_ FM10 \_\_\_\_\_  
 AM1 \_\_\_\_\_ AM2 \_\_\_\_\_ AM3 \_\_\_\_\_ AM4 \_\_\_\_\_ AM5 \_\_\_\_\_  
 SAT1 \_\_\_\_\_ SAT2 \_\_\_\_\_ SAT3 \_\_\_\_\_ SAT4 \_\_\_\_\_ SAT5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

## Special Instructions



### Disconnecting Connectors

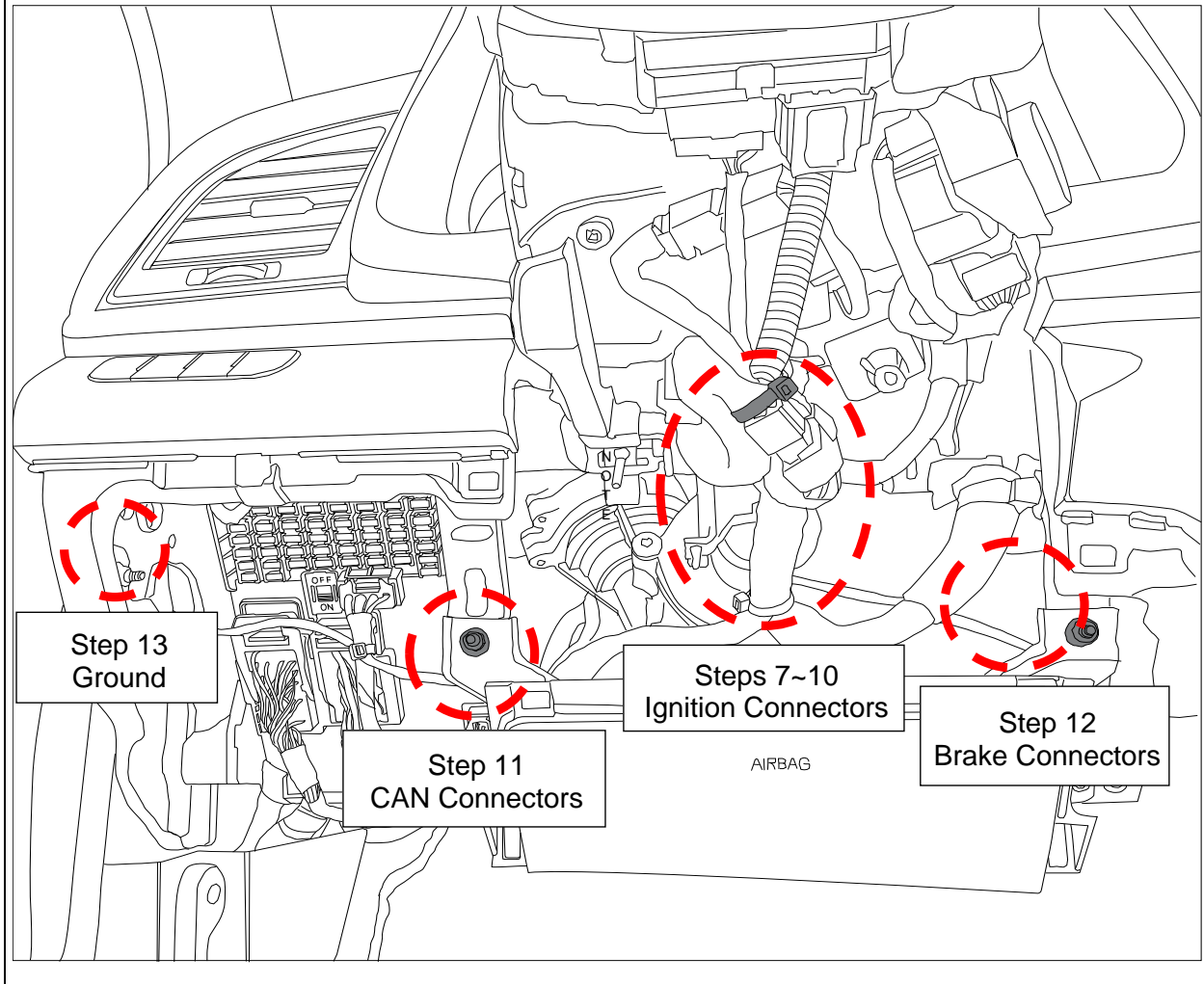
When disconnecting connectors, grasp the connectors, not the wire.




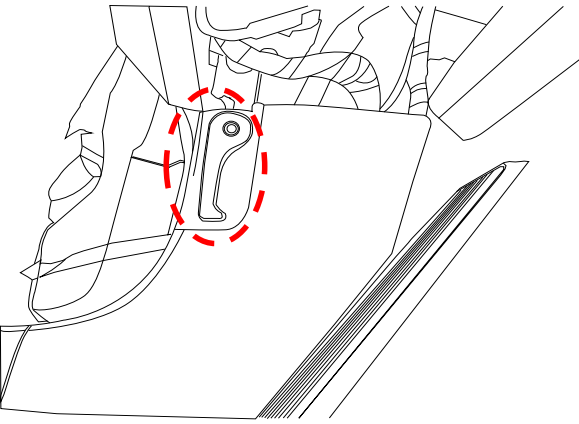
### Locking Connectors


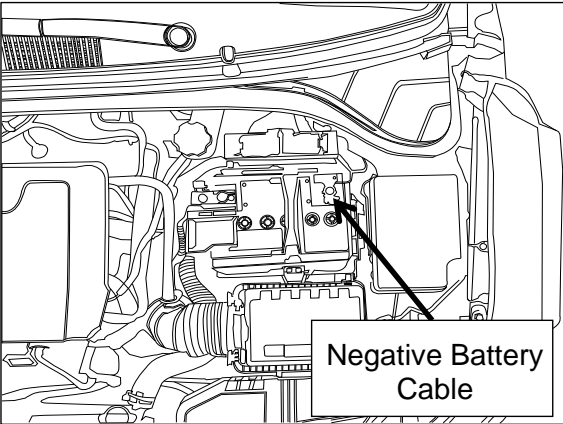


When locking connectors, listen for a click indicating they are securely locked.


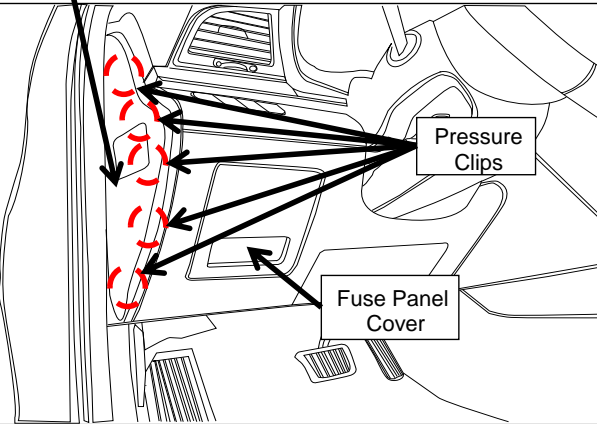

### Remote Start Harness Connector Locations


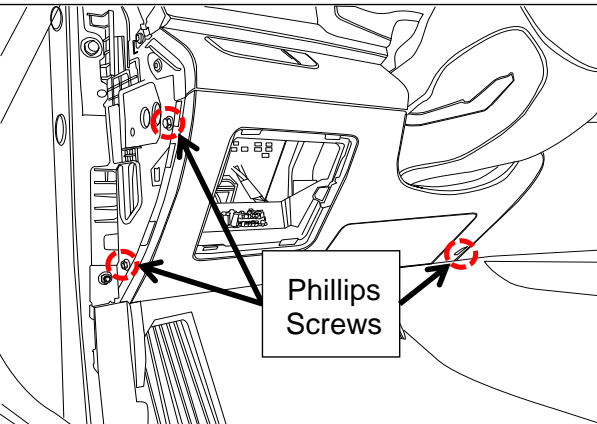



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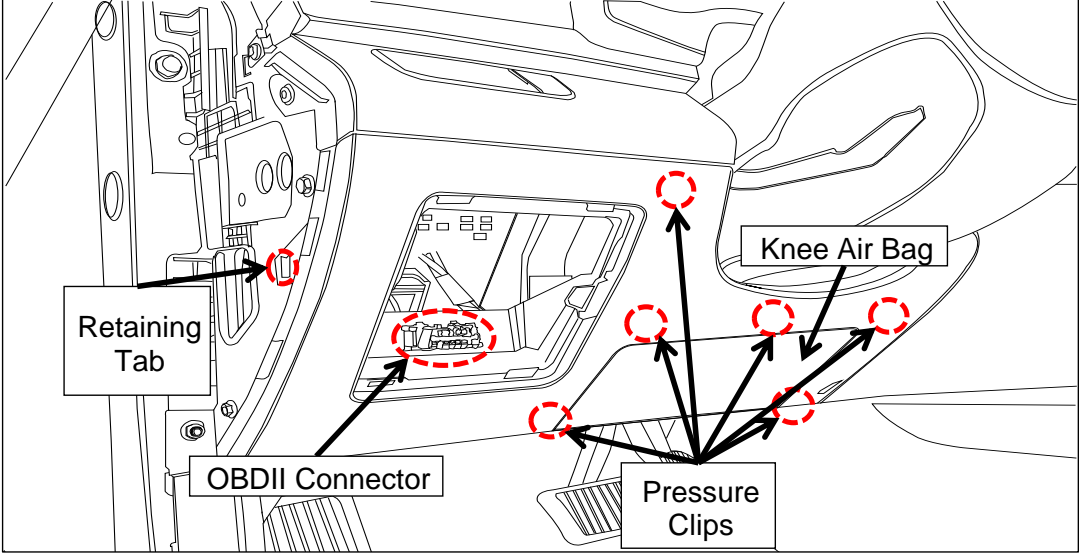

1		
		
N O T E	<ol style="list-style-type: none"> <li>1. Open the Driver's Door Window.</li> <li>2. Move the Driver's Seat to the rearmost position.</li> <li>3. Record all pre-set radio stations (if applicable).</li> <li>4. Pull the Hood Lever to open the Hood.</li> </ol>	


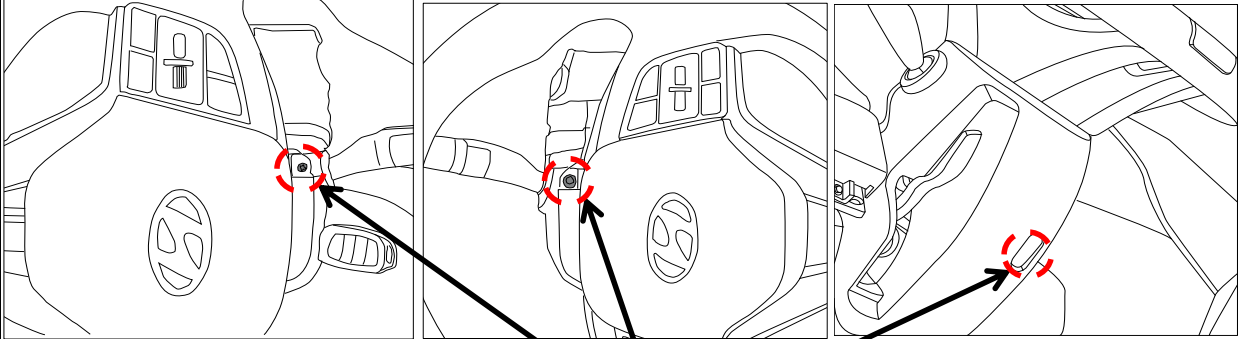
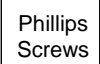

2		Ratchet and 10mm Socket
 <div style="position: absolute; top: 20px; right: 20px; border: 1px solid black; padding: 5px;"> <b>Negative Battery Cable</b> </div>		
		
N O T E	<ol style="list-style-type: none"> <li>1. Disconnect and isolate the vehicle's Negative Battery Cable.</li> </ol>	
 <b>WARNING! 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.</b>		

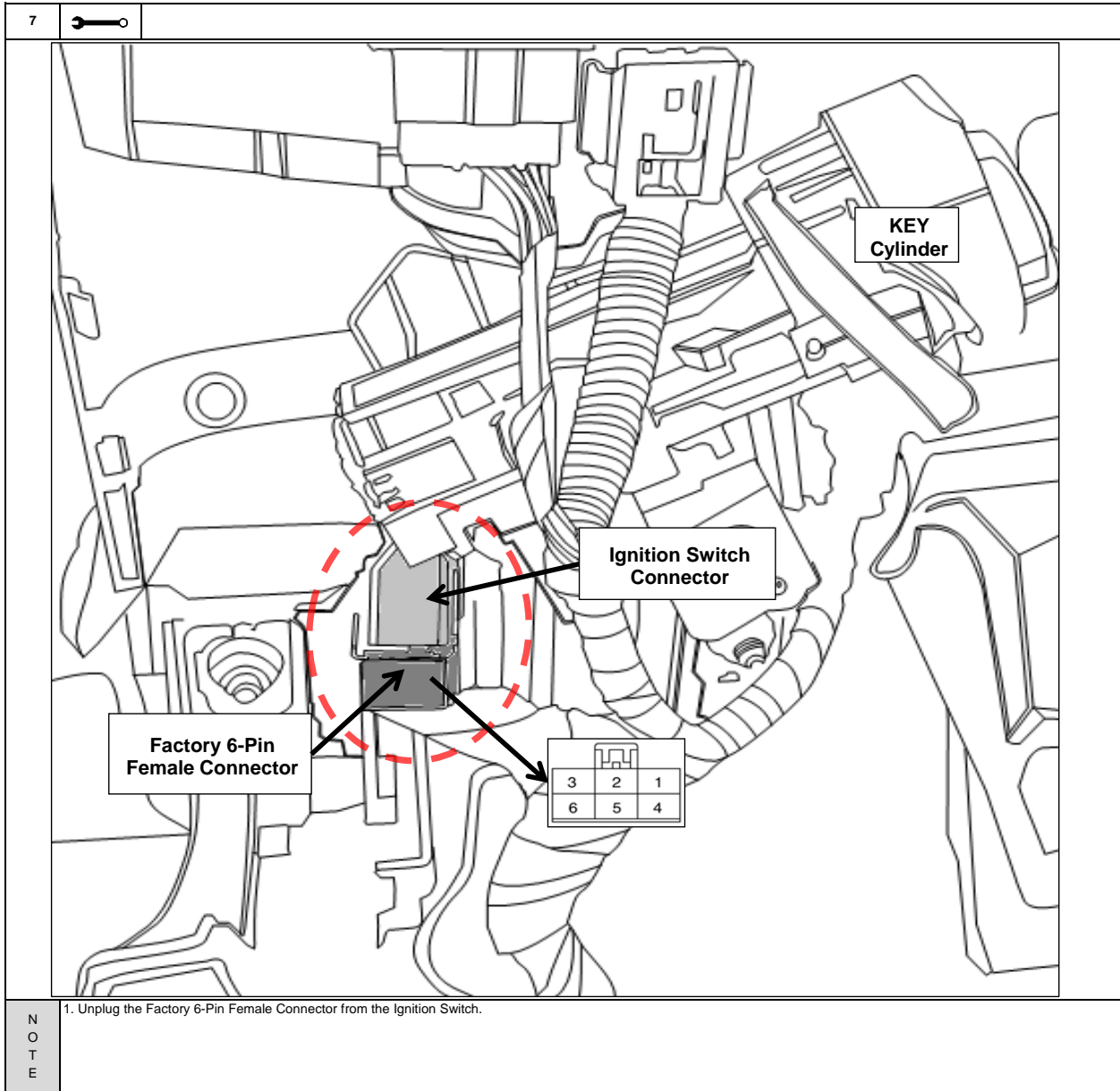
3		Trim Removal Tool
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Dash End Cap Panel</div> 		
N O T E	<ol style="list-style-type: none"> <li>1. Remove the fuse panel cover.</li> <li>2. Gently pull the weather strip back from the dash area.</li> <li>3. Using a trim removal tool, remove the driver's side dash end cap panel by prying outward to disengage the five (5) Pressure clips.</li> <li>4. Store the removed parts in a safe location for reinstallation.</li> </ol>	
 <b>Caution: Do not damage the Dash Panel, Fuse Panel Cover or Dash End Cap. Make sure no pressure clips remain in the dash board.</b>		

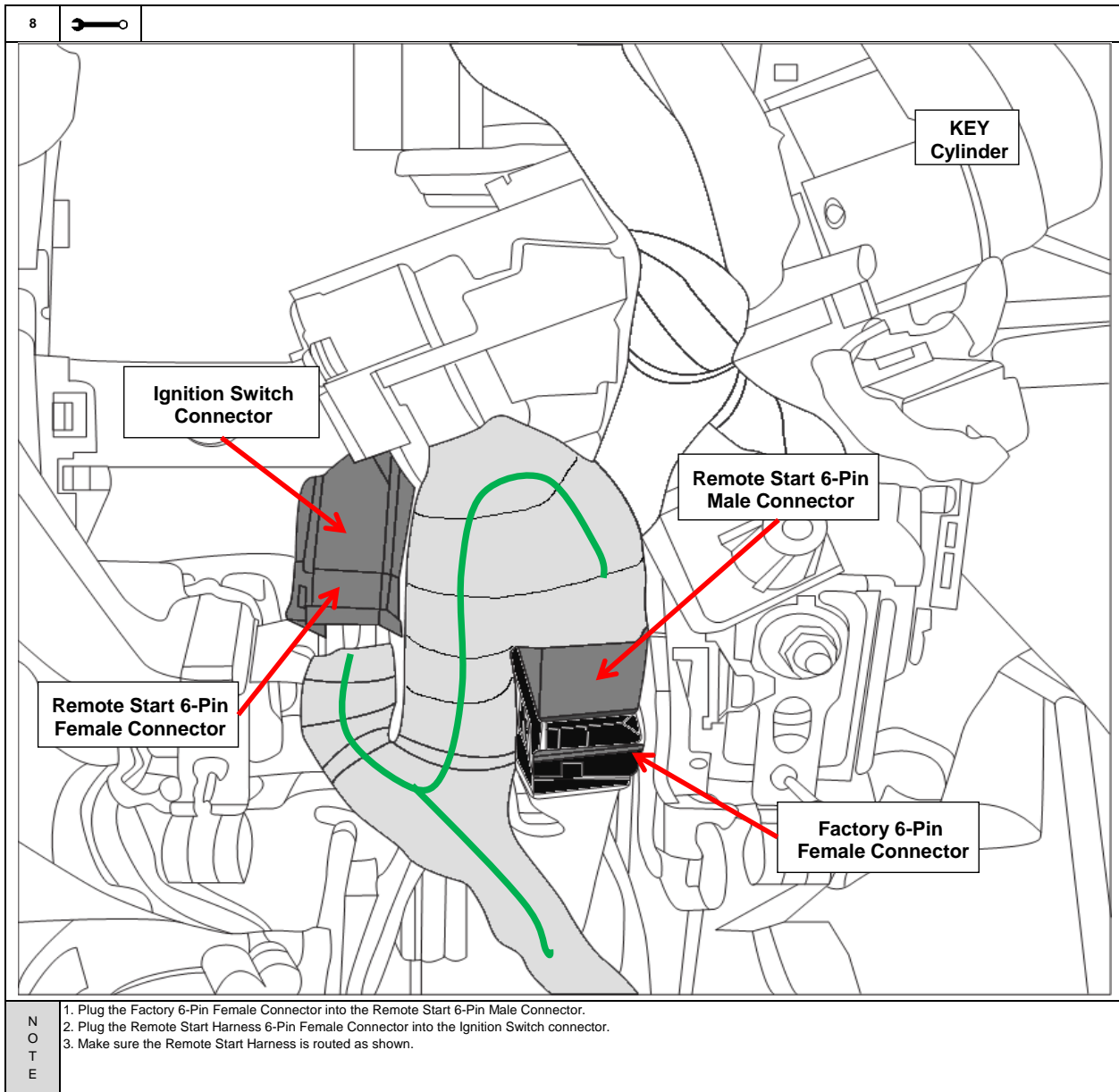
4		#2 Phillips Screwdriver and Trim Removal Tool
		
N O T E	<ol style="list-style-type: none"> <li>1. Using a Phillips Screwdriver, remove the two (2) phillips screws from the side of the lower dash panel as shown.</li> <li>2. Using a Phillips Screwdriver, remove the one (1) phillips screw from the bottom of panel as shown.</li> <li>3. Store the removed screws in a safe location for reinstallation.</li> </ol>	
 <b>Caution: Do not damage the Lower Dash Panel.</b>		

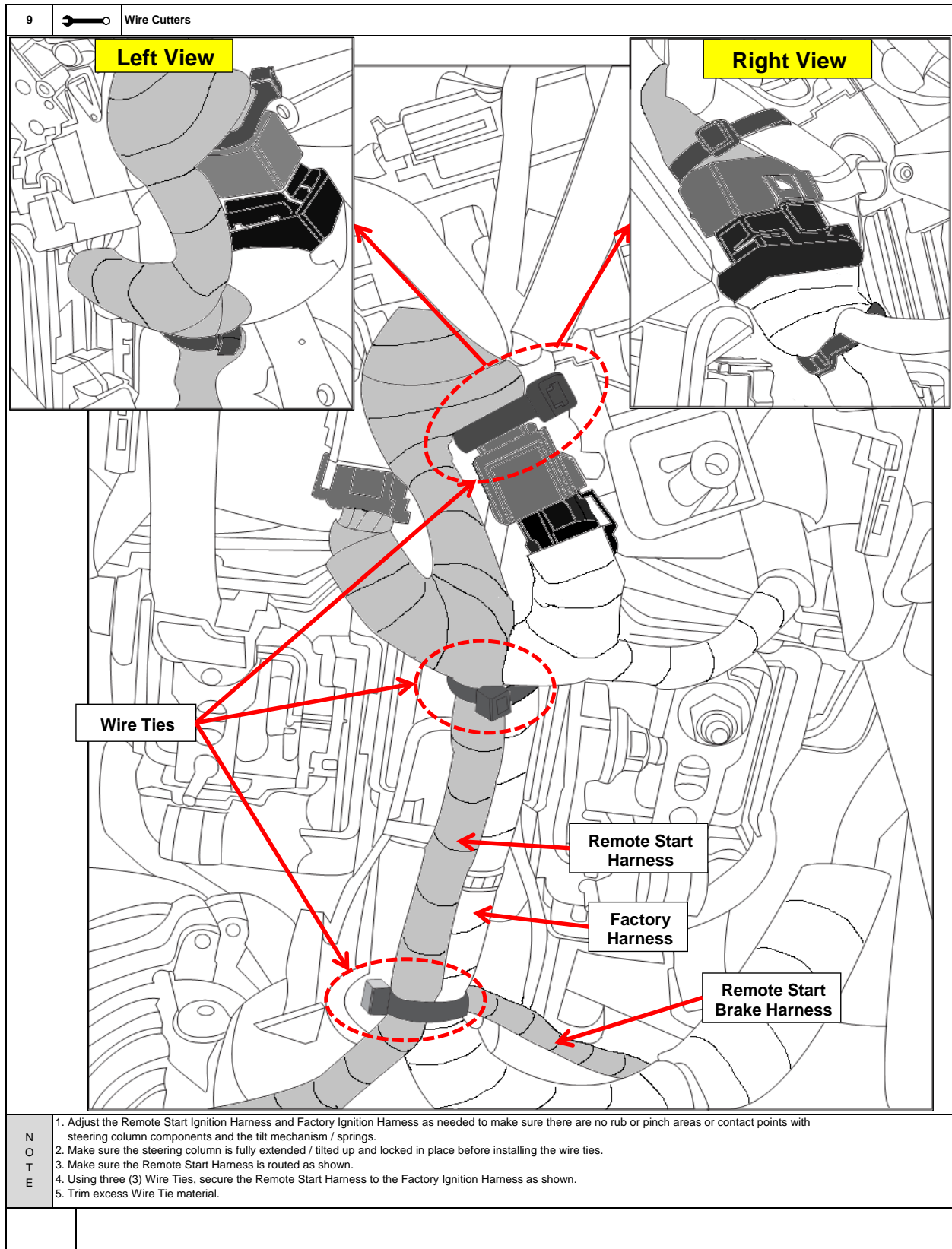
# Genuine Accessories

5	 Trim Removal Tool
	
N O T E	<ol style="list-style-type: none"> <li>1. Disconnect the OBDII Connector.</li> <li>2. By hand, dislodge the Lower Dash Panel.</li> <li>3. Disconnect any Electrical Connectors from the Lower Dash Panel, if applicable.</li> <li>4. Store the removed part in a safe location for reinstallation.</li> </ol>
 <b>Caution! Do not damage the Lower Dash Panel, OBDII Connector or Electrical Connectors. Do not damage or scratch the Knee Air Bag Trim Panel.</b>	

6	 #2 Phillips Screwdriver and Trim Removal Tool
	
	
N O T E	<ol style="list-style-type: none"> <li>1. Release the Upper Steering Column Shroud, using trim removal tool to expose the two (2) screws.</li> <li>2. Remove the three (3) Phillips Screws securing the Lower Steering Column Shroud as shown.             <ul style="list-style-type: none"> <li>- Rotate the Steering Wheel as needed to access the two (2) Upper Screws.</li> </ul> </li> <li>3. Release the Tilt Adjust Lever on the Steering Wheel Column.</li> <li>4. Carefully remove the Lower Steering Column Shroud to access the 6-Pin Ignition Switch Connector.</li> <li>5. Adjust the Tilt Steering Wheel to the <b>fully extended position</b> and lock into place.</li> <li>6. Store the removed parts in a safe location for reinstallation.</li> </ol>
 <b>**NOTE : To access screws, insert key and turn to the ACC position, in order to prevent steering wheel from locking. Caution: Do not damage the Steering Column Shroud, Steering Wheel or Steering Column.</b>	

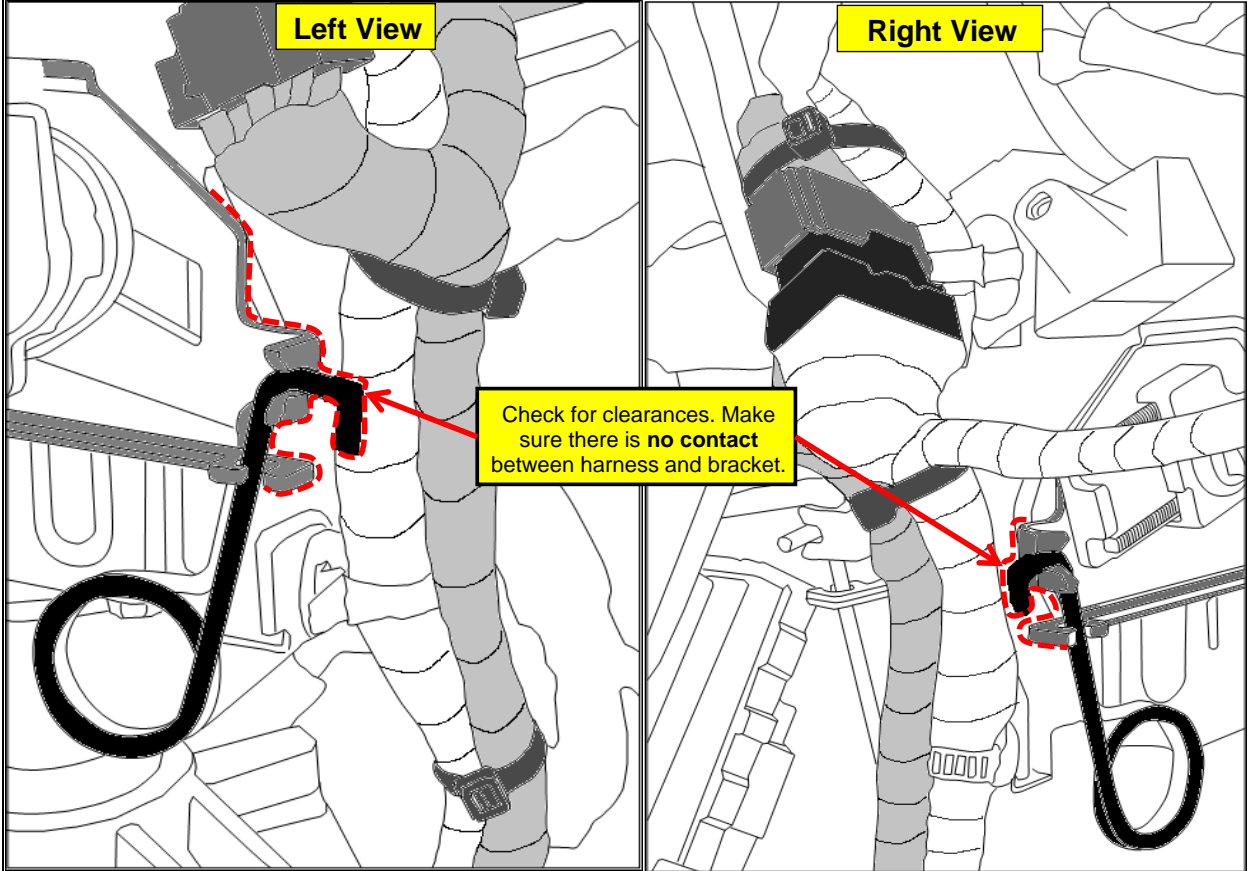








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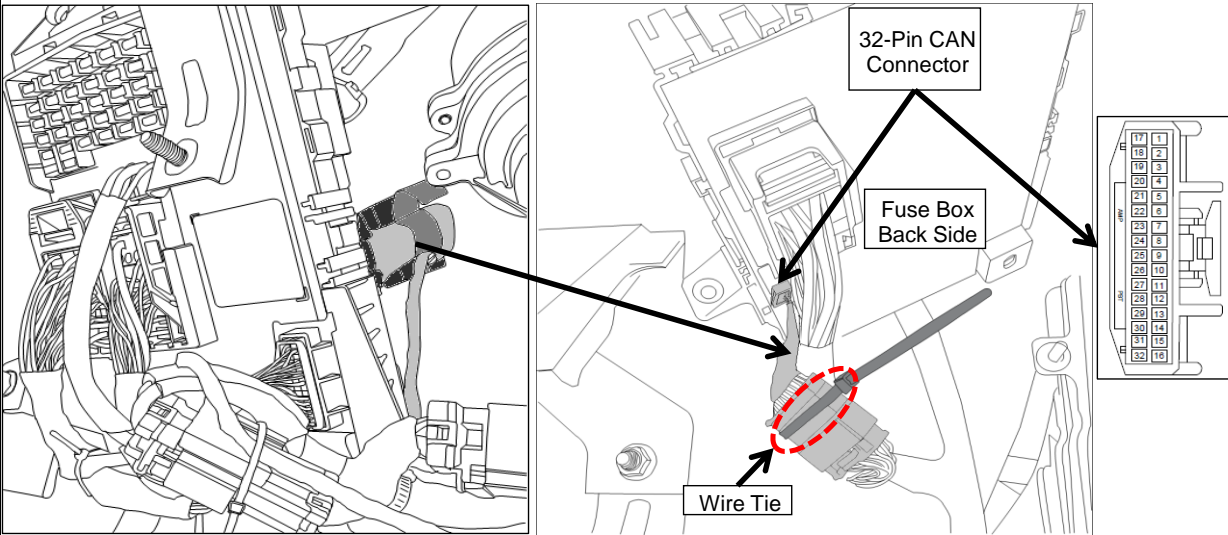

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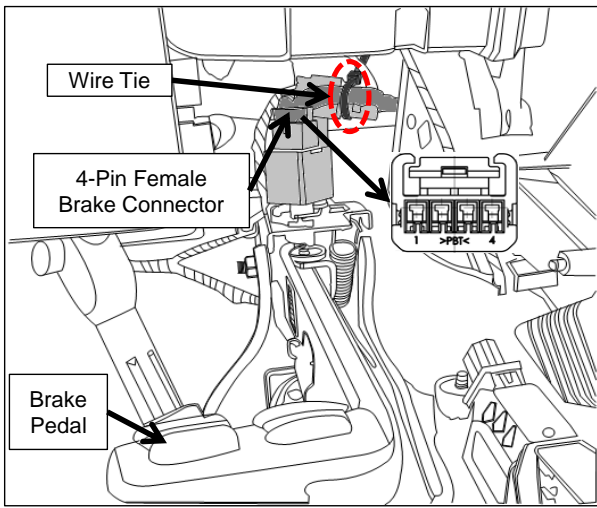

1. Move the Steering Column through it's full range of motion to ensure that Remote Start Harness and Factory Harness do not interfere with vehicle components or make contact with sharp edges of steering column
2. Make sure the steering column is fully extended / tilted up and locked in place


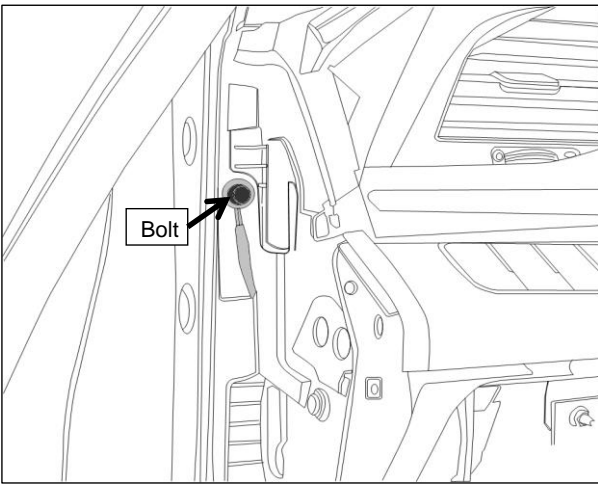


**Move the Steering Column through it's full range of motion to ensure that Remote Start Harness and Factory Harness do not interfere with vehicle components or make contact with sharp edges of steering column. Make sure the Remote Start Harness and Factory Harness do not contact any sharp parts in the steering column, including the tilt mechanism springs.**

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11	 Wire Cutters
	
N O T E	<ol style="list-style-type: none"> <li>1. Route the 32-Pin CAN Connector and Harness behind the Fuse Box.</li> <li>2. Locate the factory 32-Pin Female CAN-Connector, found on the back side of the Fuse box, as shown above.</li> <li>3. Disconnect the 32-Pin CAN Connector from the back side of the Fuse Box.</li> <li>4. Connect the corresponding Remote Start T-Harness Connector to the 32-Pin CAN Connector and Fuse Box (back side).</li> <li>5. Using one (1) Wire Tie, secure the 32-Pin CAN Connector to Vehicle Harness as shown.</li> <li>6. Trim excess Wire Tie material.</li> </ol>
 <b>CAUTION!</b> There is an identical type of 32-Pin Connector underneath the Fuse Box. Do not remove this connector.	

12	 Wire Cutters
	
N O T E	<ol style="list-style-type: none"> <li>1. Route to 4-Pin Brake Switch Connector and Harness across and behind the knee air bag and over to the Brake Switch.</li> <li>2. Locate the Factory Female 4-Pin Connector, located on the Brake Switch as shown above.</li> <li>3. Disconnect the Factory Female 4-Pin Connector from the Brake Switch and plug it into the corresponding Remote Start T-Harness Connector.</li> <li>4. Plug the corresponding 4-Pin Remote Start Harness Connector into the Brake Switch.</li> <li>5. Using a Wire Tie, secure the 4-Pin Brake Switch Connector to the Remote Start Harness and to the Factory Brake Switch Harness.</li> <li>6. Trim excess Wire Tie material.</li> </ol>
 <b>CAUTION!</b> 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 12 mm Socket
	
N O T E	<ol style="list-style-type: none"> <li>1. Remove the 12 mm bolt from the upper left dash, just to the left of the air vent as shown.</li> <li>2. Route the Ground Wire, across the front of the Fuse Box, as shown above, then up and over to the 12 mm Bolt hole.</li> <li>3. Insert the 12 mm Bolt into the Ground Wire Ring Terminal, then reinstall.</li> <li>4. Torque the 12 mm Bolt to: 16.7 ~ 21.6 N.m (1.7 ~ 2.2 kgf.m, 12.3 ~ 15.9 lb-ft).</li> </ol>


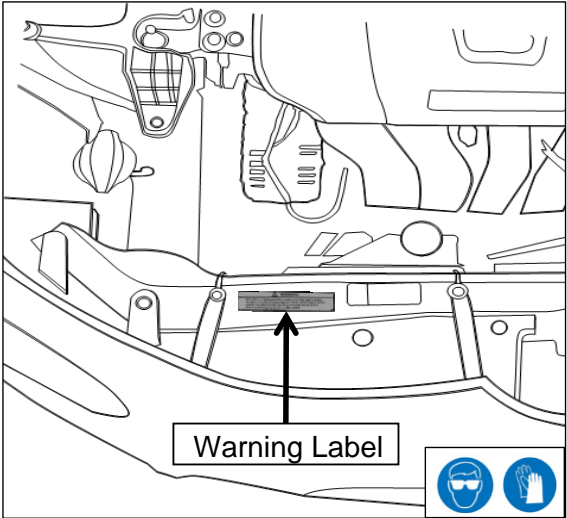

# Genuine Accessories


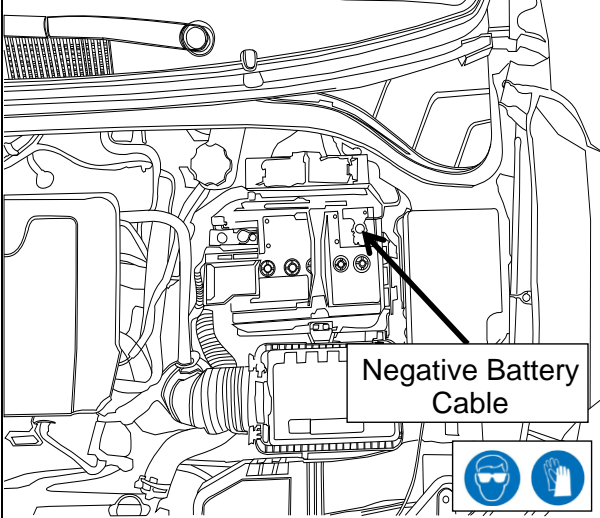

14	🔧	
N O T E	<ol style="list-style-type: none"> <li>1. Connect the 20-Pin Connector (black) to the Control Module.</li> <li>2. Connect the 4-Pin Connector (black) to the Control Module.</li> <li>3. Verify the following: <ul style="list-style-type: none"> <li>- Control Module is attached to Antenna Bracket.</li> <li>- Both black 6-Pin connectors are attached to Antenna and Control Module.</li> </ul> </li> </ol>	
<b>Ensure that each Connector is fully seated in the Control Module and in the Antenna.</b>		


15	🔧	Wire Cutters
N O T E	<ol style="list-style-type: none"> <li>1. Using two (2) Wire Ties, secure the Remote Start Ground Wire as shown.</li> <li>2. Trim excess Wire Tie material.</li> </ol>	


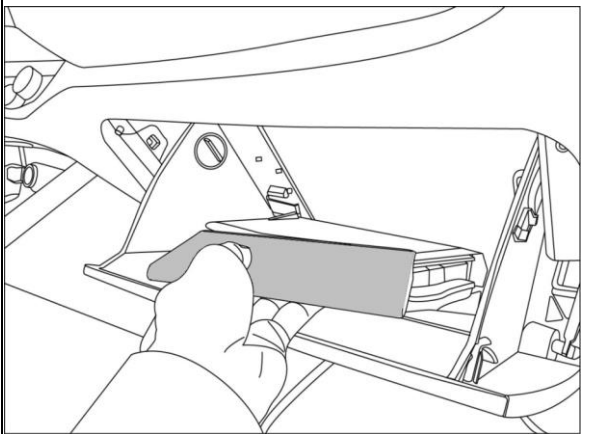
16	🔧	Wire Cutters
N O T E	<ol style="list-style-type: none"> <li>1. Position the Control Module Assembly (Control Module + Antenna + Antenna Harness + Antenna Bracket) close to the Grommet on Bulkhead, as shown.</li> <li>2. Using two (2) Wire Ties, secure the Control Module Assembly to left side of the Factory Harness as shown.</li> <li>3. Trim excess Wire Tie material.</li> </ol>	
<b>Ensure the Control Module Assembly is fully seated on the left of Factory Harness.</b> <b>Ensure the Control Module Assembly does not interfere with the Steering Column Shaft.</b>		


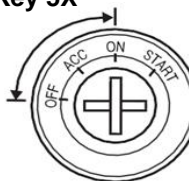



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17		Clean Cloth and 50/50 Mix of Isopropyl Alcohol (70%) and Water
		
N O T E	<ol style="list-style-type: none"> <li>1. Clean the left top surface of the Radiator Cover. - Ensure the surface is completely dry.</li> <li>2. Remove the Adhesive Liner from the Warning Label, then secure the label to the Radiator Cover as shown.</li> </ol>	
	<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, 10 mm Socket, Extension, and Torque Wrench
		
N O T E	<ol style="list-style-type: none"> <li>1. Reconnect the Negative Battery Cable. Torque to 4.0-6.0 N-m (0.4-0.6 kgf-m, <b>34.8-51.6 lb-in</b>).</li> <li>2. Make sure the Transportation Fuse is in the "ON" position.</li> <li>3. Replace the weather strip at dash area to allow Driver's Door to close properly.</li> <li>4. Close the Hood, Trunk and all Doors.</li> <li>5. Test the LOCK / UNLOCK function using Factory Key Fob.</li> </ol>	
	<p><b>NOTE:</b> 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><b>GO TO → Function Check</b></p>		
N O T E	<ol style="list-style-type: none"> <li>1. Perform the Function Check at the end of the Instructions.</li> </ol>	

20		#2 Phillips Screwdriver
		
N O T E	<ol style="list-style-type: none"> <li>1. Reinstall all removed parts in reverse order of disassembly.</li> <li>2. Place the Quick Reference Guide and the Owner's Guide into the Glove Box.</li> <li>3. Attach the Remote Start Fobs to each of the Factory Key Fob Rings.</li> </ol>	








A	
<p align="center"><b>Remote Start Transmitter Fob Pairing Procedure</b> (not necessary for new installations - only needed if fob is replaced)</p> <p align="center"><b>Remote Start Fob</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="215 373 422 577"> <p><b>Key 5X</b></p>  </div> <div data-bbox="446 472 527 514" style="font-size: 2em;">➔</div> <div data-bbox="560 399 690 598">  </div> </div>	
N O T E	<ol style="list-style-type: none"> <li>1) Open driver's door.</li> <li>2) Insert the Key into the ignition. Turn the key from OFF to ON position five (5) times within 5 seconds</li> <li>3) After step 2 within 5 seconds. Press  button on the 1st Remote Start Fob one time.</li> <li>4) After registering the 1st Remote Start Fob, within another 5 seconds, Press  button on the 2nd Remote Start Fob one time.</li> <li>5) Verify that both Fobs are functioning correctly by performing lock/unlock function.</li> </ol>
<p><b>Note: The remote start key Fobs come paired to the system from the factory, and should not require re-pairing.</b></p> <p>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

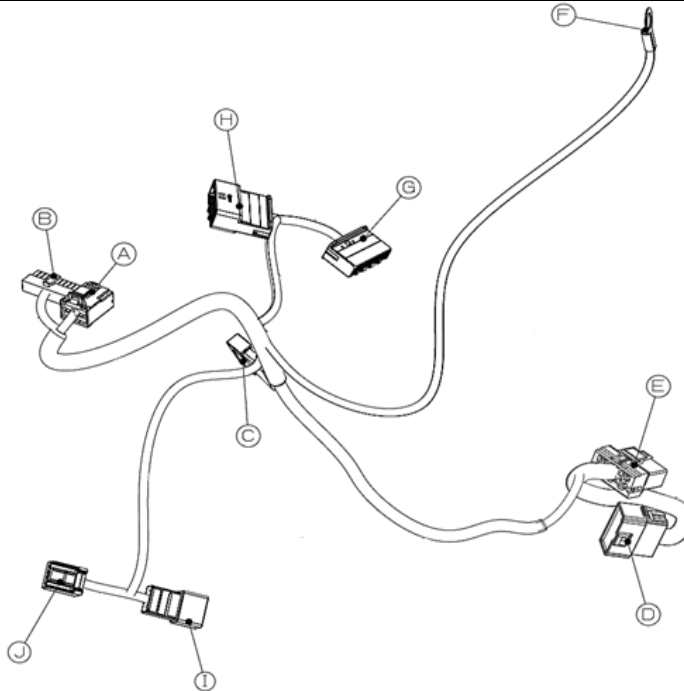
Issue / Concern	Items to be Checked
 1. Press  button one time. (All doors, hood & trunk are closed).	Transmitter Fob LOCK icon will flash, vehicle signal lights will flash, and all doors will LOCK.
 1. Press  button 2 times. 2. Press  button 2 more times.	Transmitter Fob UNLOCK icon will flash, vehicle 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 shut down immediately.
 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).

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## Wiring Diagram



**A) FEMALE 4P Module CONNECTOR**

		MAKER	KET
		HOUSING	M6610047-5
		TERMINAL	ST730269-3
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
1	IGN-1	IG2 Output	AVS 3.0
2	IGN-2	START Output	AVSS 0.85
3	IGN-3	IG1 Output	AVS 3.0
4	IGN-4	+12V BATTERY	AVS 3.0

**B) FEMALE 20PIN Input/Output CONNECTOR**

		MAKER	MOLEX
		HOUSING	43025-2000(B)
		TERMINAL	43030-0001
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
1	(-)GND1	MAIN Module GND1	AVSS 0.3
2	(-)GND2	MAIN Module GND2	AVSS 0.5
9	(+)PIC3	Footbrake Input	AVSS 0.3
19	CAN-H	B CAN-H	AVSS 0.3
20	CAN-L	B CAN-L	AVSS 0.3

**C) 2P FUSE (30A)**

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC
1	30F-1	To Main	AVS 3.0
2	30F-2	To Vehicle	AVS 3.0

**D) MALE 6P Ignition CONNECTOR**

		MAKER	KET
		HOUSING	M6620048
		TERMINAL	ST740255-3
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
2	IGN-2	IG2 Output	AVS 3.0
3	IGN-3	START Output	AVSS 2.0
4	IGN-4	IG1 Output	AVS 3.0
5	IGN-5	+B	AVS 3.0

**E) FEMALE 6P Ignition CONNECTOR**

		MAKER	KET
		HOUSING	M6610049
		TERMINAL	ST730269-3
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
2	IGN-2	IG2 Output	AVS 3.0
3	IGN-3	START Output	AVSS 2.0
4	IGN-4	IG1 Output	AVS 3.0
5	IGN-5	+B	AVS 3.0

**I) MALE 4P Footbrake CONNECTOR**

		MAKER	KUM
		HOUSING	HK261-04010
		TERMINAL	TK201-00100
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
4	FBRK-4	FOOTBRAKE Input	AVSS 0.5

**J) FEMALE 4P Footbrake CONNECTOR**

		MAKER	KUM
		HOUSING	HK265-04010
		TERMINAL	TK205-00100
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
4	FBRK-4	FOOTBRAKE Input	AVSS 0.5

**F) Ground Terminal**

		MAKER	KET
		Part No.	ST710285-3
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC
1	GND	Ground	ENCLOSURE BATTERY TRUCK 008M 2005240800 00550

**G) FEMALE 32 CAN CONNECTOR**

		MAKER	AMP
		HOUSING	1318747-1
		TERMINAL	2005427-1
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
17	CAN-17	B CAN L	AVSS 0.3
18	CAN-18	B CAN H	AVSS 0.3

**H) MALE 32 CAN CONNECTOR**

		MAKER	AMP
		HOUSING	1612268-1
		TERMINAL	2005154-1
NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	AWG
17	CAN-17	B CAN L	AVSS 0.3
18	CAN-18	B CAN H	AVSS 0.3