

Genuine Accessories



Vehicle Model: **Santa Fe**

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

Model Year 2019-
 Part No. S2F57 AC300
 Language English
 Rev. Date 5/3/2018

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	N O T E	Denotes important information to be reviewed during the step		
				Glasses	Gloves
				Mask	Hearing Protection

Basic Required Tools

Ratchet	10mm Deep Well Socket	12mm Socket	8mm Socket	Extension	#2 Phillips Screwdriver	Wire Cutters
Trim Removal Tool	Clean Cloth	50/50 Isopropyl Alcohol (70%) and Water Mix	Torque wrench			

Part Weight (Gross)

0.87	lbs
0.39	kg

FMVSS 110 Compliance Information

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.
Load Label Part Number: NP070-09003

Technical Support



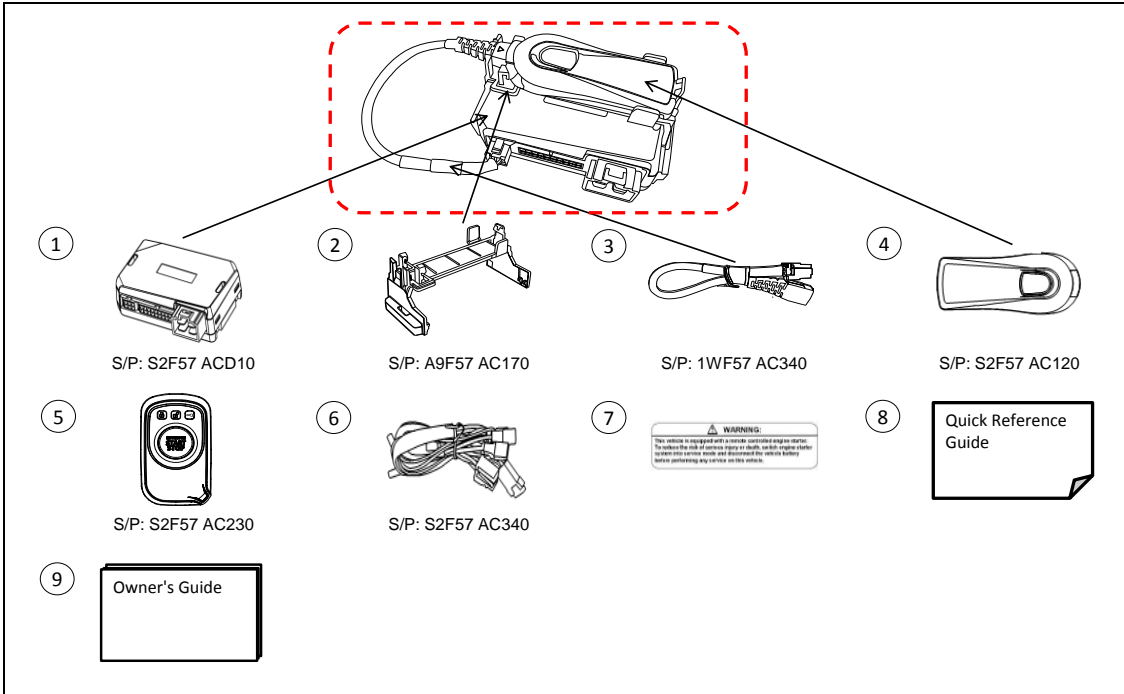
Authorized dealers use: (1) 855-225-7344
 Hours: M-F - 9am-5pm Pacific Standard Time

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 Roll down the driver's window and adjust the power seats (if applicable) prior to disconnecting battery power, if needed.
- 8 To prevent stress on the remote start wire harness, ensure the tilt steering column is fully extended before installing the kit.
- 9 Vehicle should be at room temperature.
- 10 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.


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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	
9	Wire Tie*

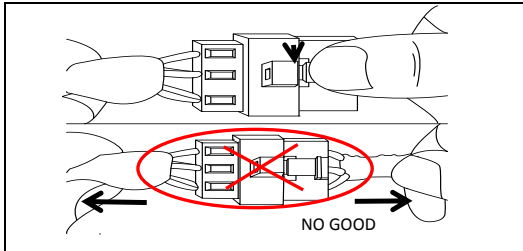
* Indicates extra components intentionally included in kit as spares.
Follow instructions for proper placement of each component.

Hardware Total
9

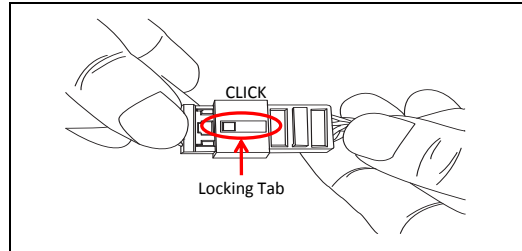
Radio Presets - record customer preset frequencies if disconnecting battery power

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

Special Instructions

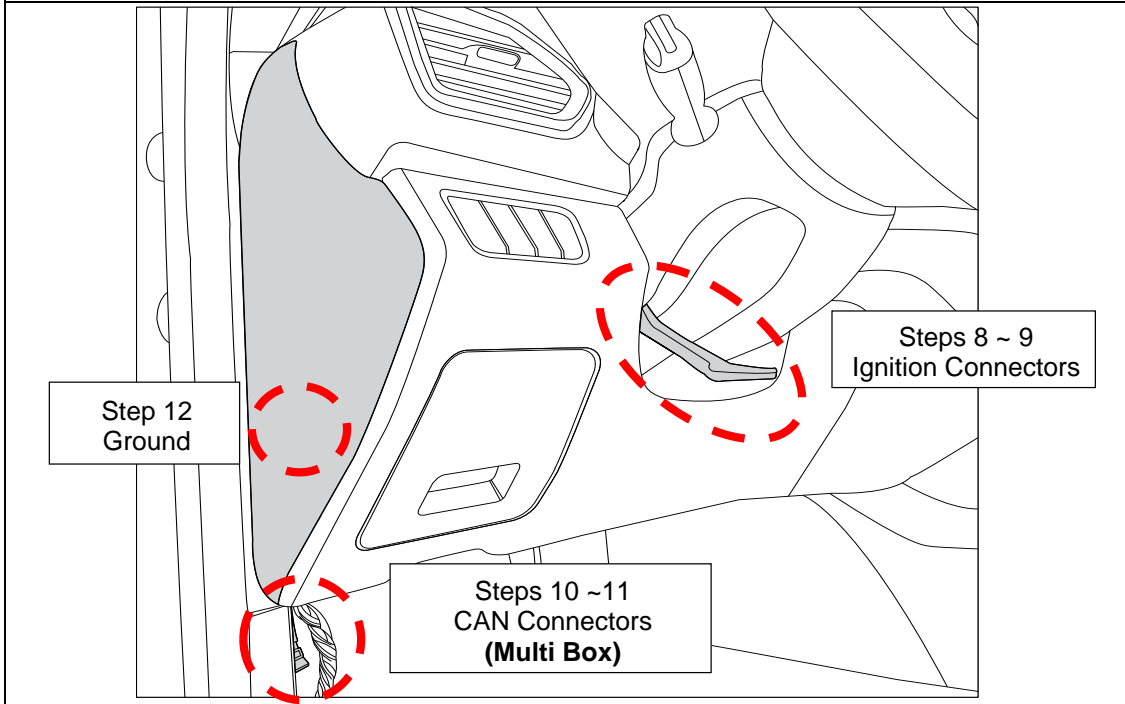



Disconnecting Connectors
When disconnecting connectors, grasp the connectors, not the wire.

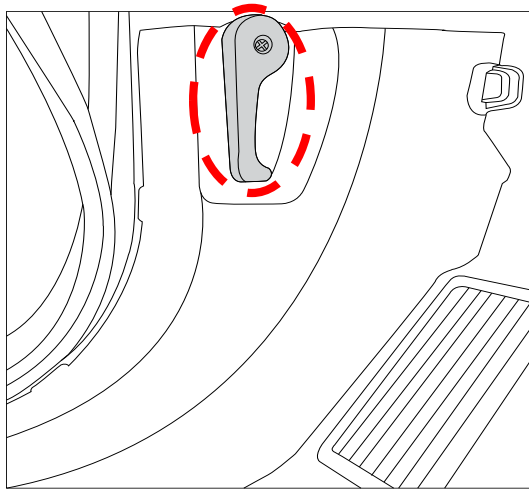


Locking Connectors
When locking connectors, listen for a click indicating they are securely locked.

Remote Start Harness Connector Locations For Reference




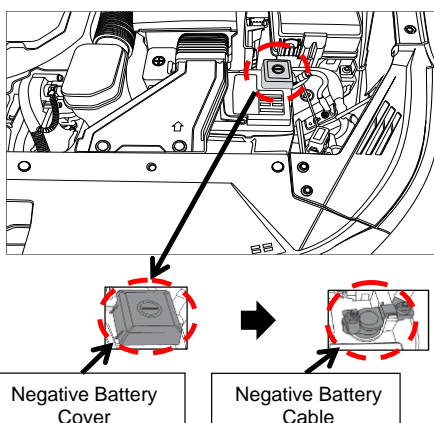
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- A. Lower the Driver's Door Window.
- B. Move the Driver's Seat to the rearmost position.
- C. Record all pre-set radio stations (if applicable).
- D. Pull the Hood Lever to open the Hood.

2  Ratchet, Extension and 10mm Deep Socket


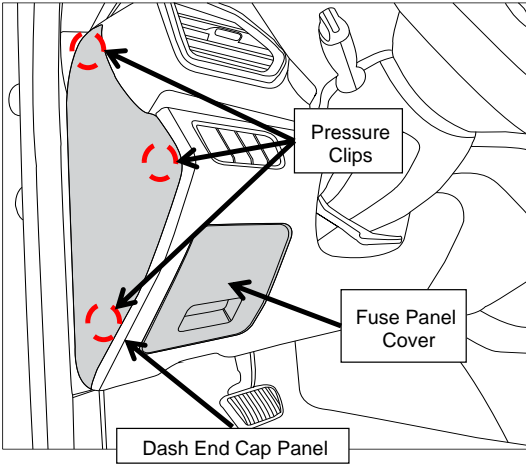




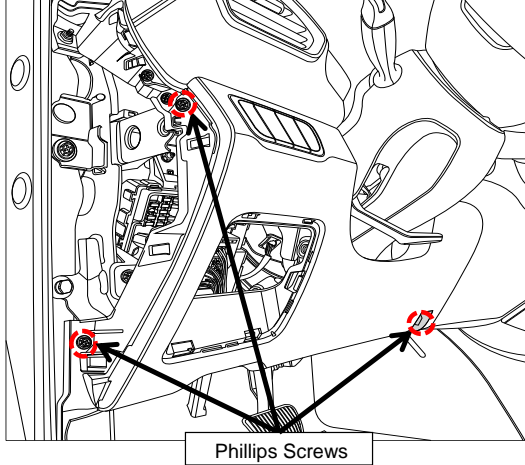

**N
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T
E**


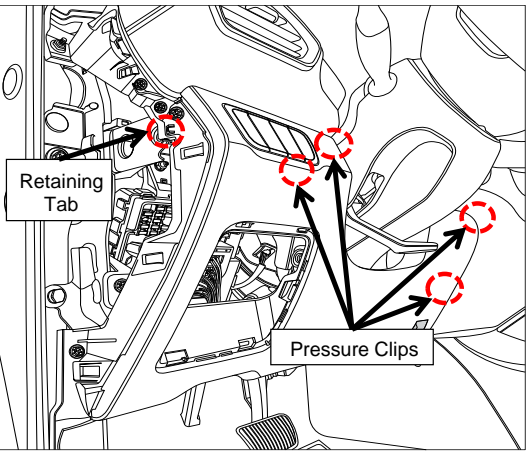

- A. Remove the vehicle's Negative (-) Battery Cover.
- B. Disconnect and isolate the vehicle's Negative (-) Battery Cable.


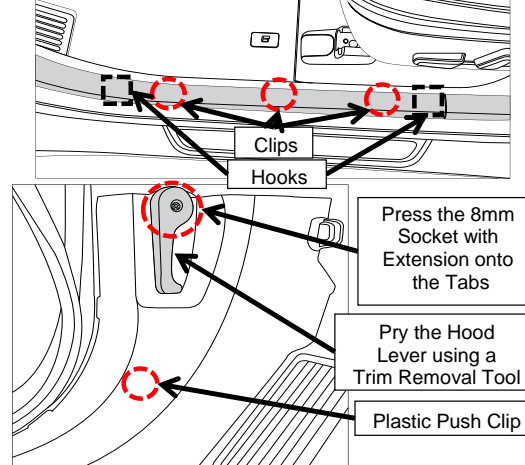

 **WARNING! Shock Hazard. Do not touch vehicle's negative battery terminal to vehicle's positive battery terminal. Serious physical injury or electronic component damage may occur.**

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3		Trim Removal Tool
		
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 three (3) 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>	

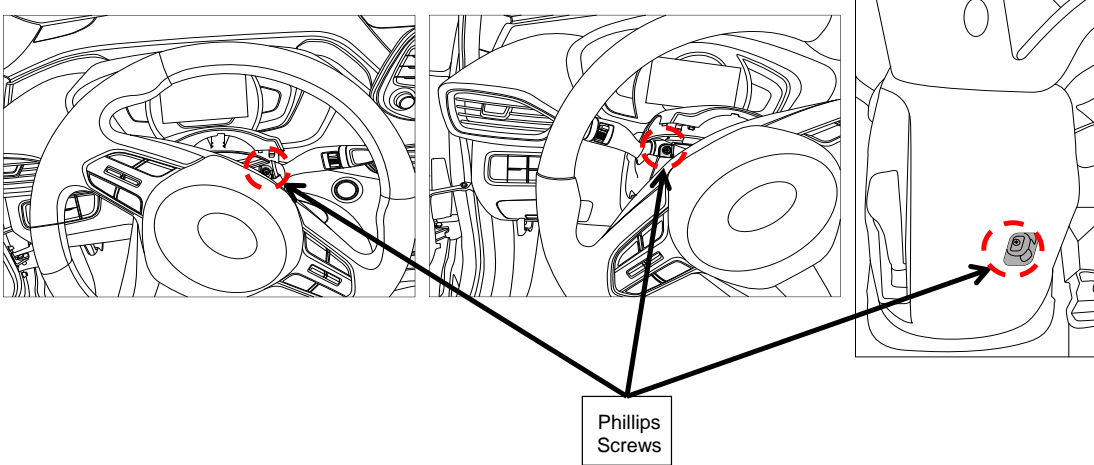
4		#2 Phillips Screwdriver
		
N O T E	<p>A. Using a Phillips Screwdriver, remove the two (2) phillips screws from the side of the Lower Dash Panel as shown. B. Using a Phillips Screwdriver, remove the one (1) phillips screw from the bottom of panel as shown. C. Store the removed screws in a safe location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

5		Trim Removal Tool
		
N O T E	<p>A. Using a Trim Removal Tool, release the Retaining Tab as shown. B. By hand, dislodge the Lower Dash Panel. C. Disconnect any Electrical Connectors including OBDII Connector 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.</p>	

6		8mm Socket, Extension, Trim Removal Tool
		
N O T E	<p>A. Dislodge the Weatherstrip from the Driver's Kick Panel along the Door Threshold Panel. B. Remove the Driver's Door Threshold Panel. C. Remove the Hood Release Lever. D. Remove the Driver's Kick Panel. E. Store the removed parts in a safe location for reinstallation.</p>	
	<p>Caution! Be careful not to damage the parts or clips during removal.</p>	

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#2 Phillips Screwdriver and Trim Removal Tool



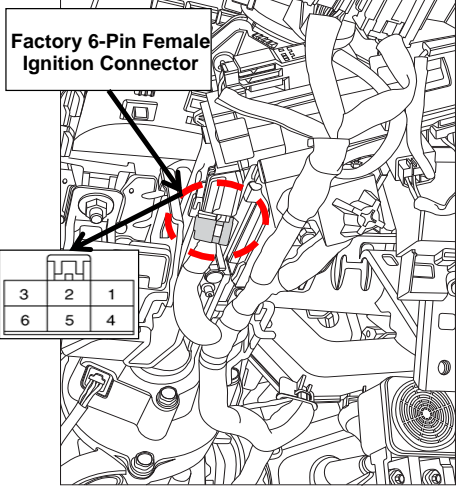
Phillips
Screws

N O T E	<p>A. Release the Upper Steering Column Shroud using a trim removal tool.</p> <p>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.</p> <p>C. Release the Tilt Adjust Lever on the Steering Wheel Column.</p> <p>D. Carefully remove the Lower Steering Column Shroud to access the 6-Pin Ignition Switch Connector.</p> <p>E. Adjust the Tilt Steering Wheel to the <u>fully extended position</u> and lock into place.</p> <p>F. Store the removed parts in a safe location for reinstallation.</p>
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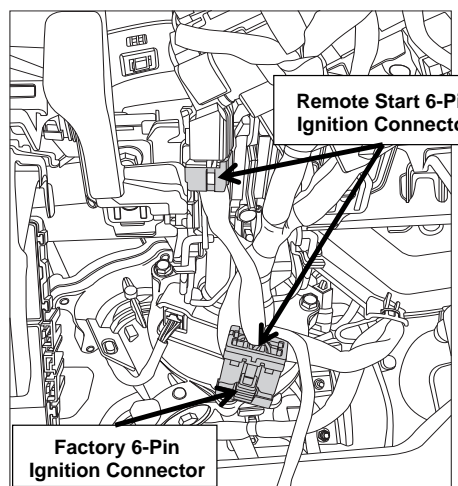
****NOTE :** To access screws, insert key and turn to the ACC position in order to prevent steering wheel from locking.

Caution: Do not damage the Steering Column Shroud, Steering Wheel or Steering Column.

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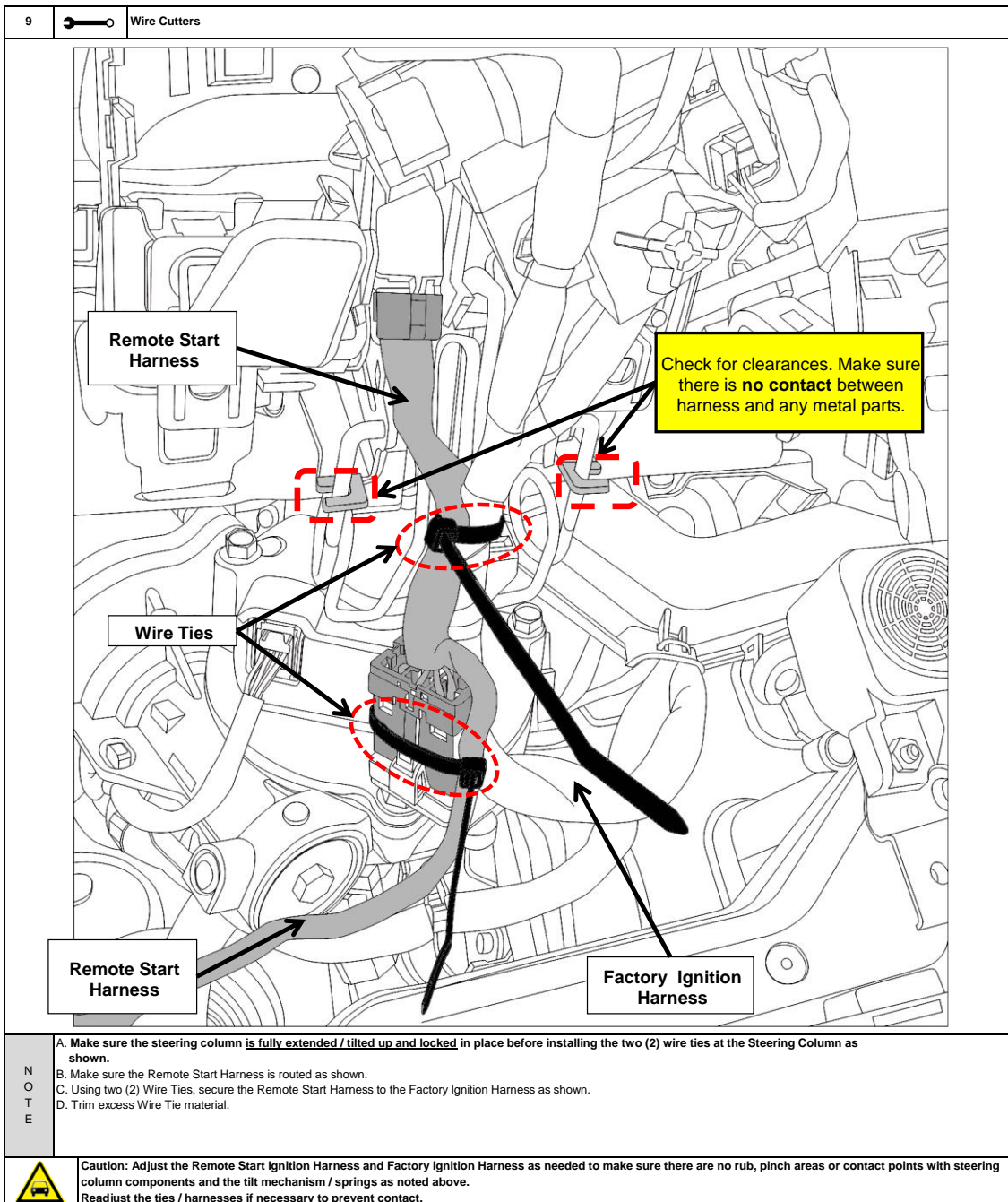


N O T E	<p>A. Unplug the Factory 6-Pin Female Connector from the Ignition Switch.</p> <p>B. Plug the Factory 6-Pin Female Connector into the Remote Start 6-Pin Male Connector.</p> <p>C. Plug the Remote Start Harness 6-Pin Female Connector into the Ignition Switch connector.</p> <p>D. Make sure the Remote Start Harness is routed as shown.</p>
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Caution: Do not damage the Steering Column Shroud, Steering Wheel, Ignition Switch Connector or Steering Column.

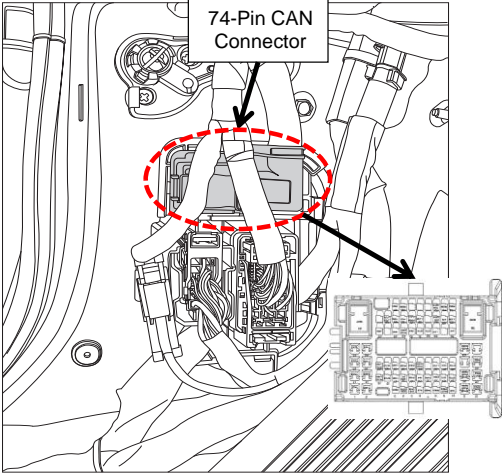
Caution: Make sure that both 6-pin connectors are fully locked together.

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10  **74-Pin CAN Connector**

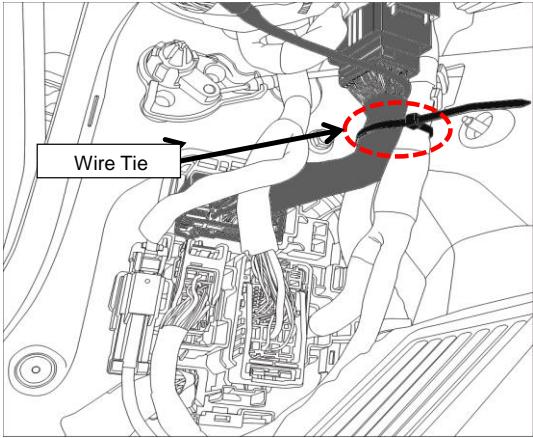


74-Pin CAN Connector

NOTE

- Disconnect the 74-pin CAN Connector from the Driver's Kick Panel area.
- Connect the corresponding Remote Start Harness connector to the 74-pin CAN Connector, and the vehicle connector.

11  **Wire Cutters**




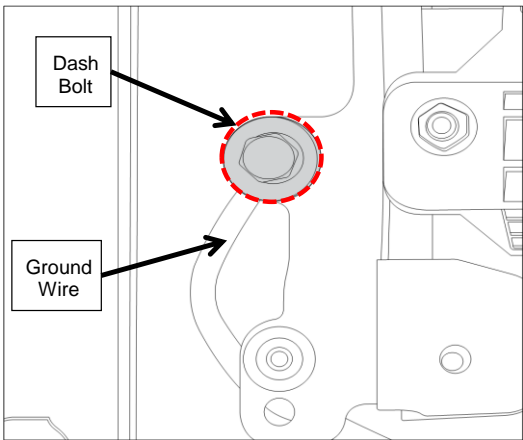
Wire Tie

NOTE

- Using one (1) Wire Tie, secure the Remote Start Harness, as shown.
- Trim excess Wire Tie material.

Caution! Make sure the Remote Start Harness does not interfere with the re-installation of the Driver's Kick Panel.

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




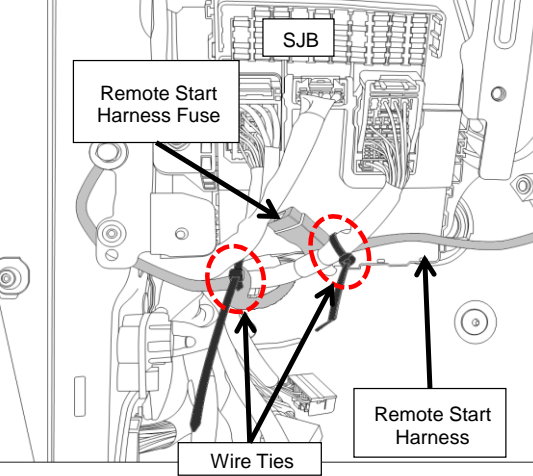
Dash Bolt

Ground Wire

NOTE

- Remove the 12mm Dash Bolt from the bracket located by the Fuse Box, as shown.
- Route the Ground wire, as shown over to Dash Bolt area.
- Insert the 12mm Dash Bolt into the Ground wire Ring Terminal, and reinstall.
- Torque to 19.2 N-m (1.96 kgf-m, 14.16 lb-ft).

13  **Wire Cutters**



SJB

Remote Start Harness Fuse


Wire Ties

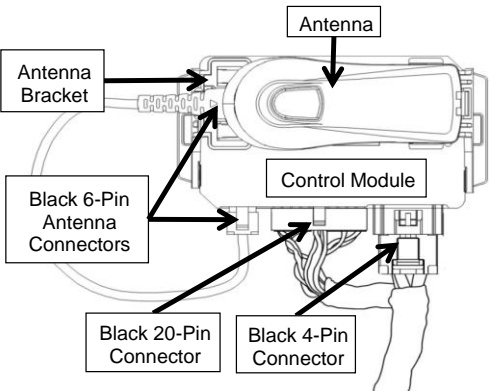
Remote Start Harness

NOTE

- Using two (2) Wire Ties, secure the Remote Start Harness to the vehicle harness as shown.
- Trim excess Wire Tie material.


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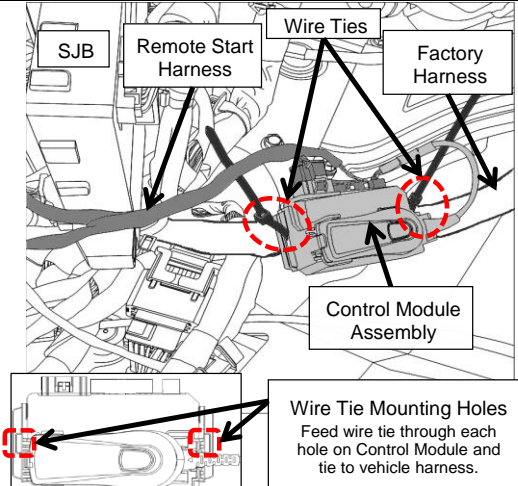


NOTE

- Connect the 20-Pin RES Connector (black) to the Control Module.
- Connect the 4-Pin RES Connector (black) to the Control Module.
- Verify the following:
 - Antenna Bracket is attached to Control Module.
 - Antenna is secured in bracket.
 - Both black 6-Pin connectors are attached to Antenna and Control Module.


 Ensure that each Connector is fully seated in the Control Module and in the Antenna.


15  Wire Cutters

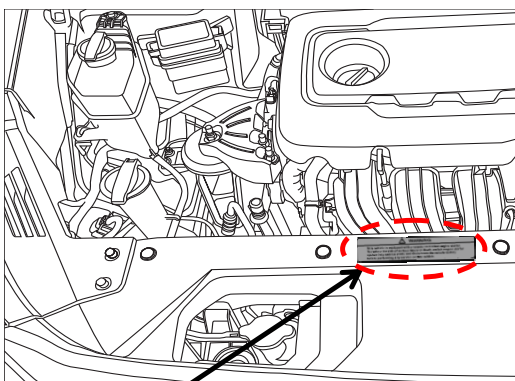


NOTE



- Position the Control Module Assembly (Control Module + Antenna + Antenna Harness + Antenna Bracket) behind the SJB, as shown.
- Using two (2) Wire Ties, secure the Control Module Assembly to left side of the Factory Harness as shown.
- Trim excess Wire Tie material.

 Ensure the Control Module Assembly is fully seated on the Factory Harness

16  Clean Cloth and 50/50 Mix of Isopropyl Alcohol (70%) and Water





Warning Label

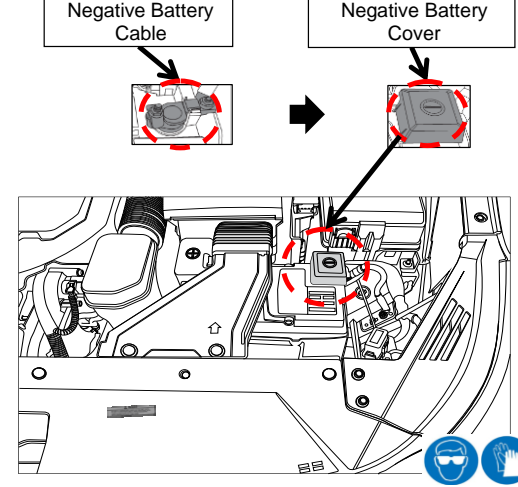
 

NOTE

- Clean the left top surface of the Radiator Cover.
 - Ensure the surface is completely dry.
- Remove the Adhesive Liner from the Warning Label, then secure the label to the Radiator Cover as shown up against the raised front edge of the cover.


 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.

17  Ratchet, 10mm Deep Socket, Extension, and Torque Wrench



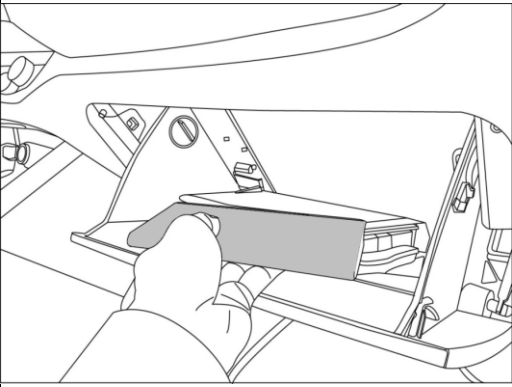
NOTE

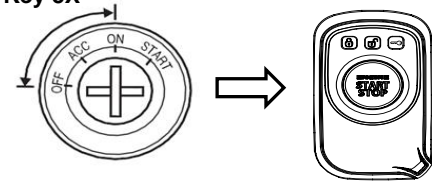


- Reconnect the Negative Battery Cable. Torque to: 5.0 – 6.0 N.m (0.5 – 0.6 kgf.m, 45 – 52 lb-in).
- Reinstall the vehicle's Negative (-) Battery Cover.
- Reinstall the weatherstrip to allow Driver's Door to close properly.
- Close the Hood, Tailgate and all Doors.
- Test the LOCK / UNLOCK function using Factory Key Fob.

 **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.

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











18	🔑	
<p>GO TO → Function Check</p>		
N O T E	<p>A. Perform the Function Check at the end of the Instructions.</p>	

19	🔑	#2 Phillips Screwdriver
		
N O T E	<p>A. Reinstall the Lower and Upper Steering Column Shroud removed in Step 7. B. Dislodge the Driver's Side Door Weatherstrip from the dash area to the Threshold Panel area. C. Reinstall the Driver's Kick Panel, Hood Lever and Threshold Panel removed in step 6. D. Reinstall all the Electrical Connectors to the Lower Dash Panel. E. Reinstall the Lower Dash Panel removed in Step 4. F. Reinstall the Side Dash End Cap Panel and Fuse Panel Cover. G. Reinstall the Driver's Side Door Weatherstrip. H. Place the Quick Reference Guide and the Owner's Guide into the Glove Box. I. Attach the Remote Start Fobs to each of the Factory Key Fob Rings.</p>	








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<p>Remote Start Transmitter Fob Pairing Procedure (not necessary for new installations - only needed if a fob is replaced)</p>		
<p>Key 5X</p>  <p>Remote Start Fob</p>		
N O T E	<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>		

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Function Check

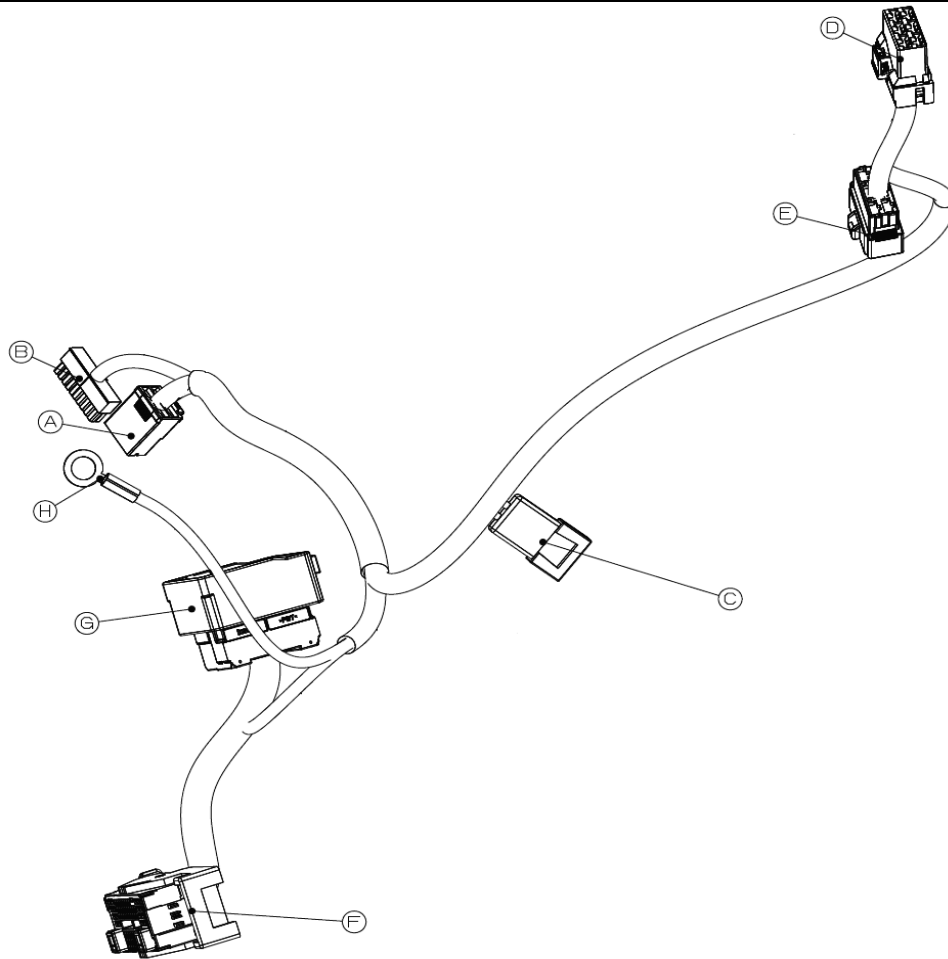
Items to be Checked		Result	
	1. Press  button one time. (All doors, hood & trunk are closed).	Transmitter Fob LOCK icon will flash, vehicle signal lights will flash, and all doors will LOCK.	
	1. Press  button 2 times. 2. Press  button 2 more times.	Transmitter Fob UNLOCK icon will flash, vehicle signal 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 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 immediately.	
	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 tailgate/trunk.	The engine will stop after approximately fifty (50) seconds.	

Troubleshooting

Issue / Concern		Items to be Checked	
	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 tailgate/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 Guide 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 Guide 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.	

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Wiring Diagram



Ⓐ FEMALE 4P Module CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	IGN-1	IG2 Output	AVSS 0.5	W
2	IGN-2	START Output	AVSS 0.5	Y
3	IGN-3	IG1 Output	AVSS 0.5	G
4	IGN-4	(+12V) BATT	AVSS 0.5	R

Ⓓ FEMALE 6P Ignition CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
2	IGN-2	IG2 Output	AVSS 0.5	W
3	IGN-3	START Output	AVSS 0.5	Y
4	IGN-4	IG1 Output	AVSS 0.5	G
5	IGN-5	(+12V) BATT	AVSS 0.5	R

Ⓔ MALE 7P CAN CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
B2	CAN-B2	B CAN-L	AVSS 0.3	W
B3	CAN-B3	B CAN-H	AVSS 0.3	BR

Ⓑ FEMALE 20PIN Input/Output CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	(-)GND	IGN	AVSS 0.5	B
2	(-)GND	IGN	AVSS 0.5	B
19	CAN-HIGH	B CAN-H	AVSS 0.22	BR
20	CAN-LOW	B CAN-L	AVSS 0.22	W

Ⓔ MALE 6P Ignition CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
2	IGN-2	IG2 Output	AVSS 0.5	W
3	IGN-3	START Output	AVSS 0.5	Y
4	IGN-4	IG1 Output	AVSS 0.5	G
5	IGN-5	(+12V) BATT	AVSS 0.5	R

Ⓗ Ground Terminal

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	GND	Ground	5mm Thick Copper	

Ⓒ 2P FUSE (7.5A)

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
1	7.5F-1	To Main	AVSS 0.5	R
2	7.5F-2	To Vehicle	AVSS 0.5	R

Ⓕ FEMALE 7P CAN CONNECTOR

NO	CIRCUIT NAME	CIRCUIT DESCRIPTION	SPEC	RMK
B2	CAN-B2	B CAN-L	AVSS 0.3	W
B3	CAN-B3	B CAN-H	AVSS 0.3	BR