

Vehicle Model Sorento (Key Start) **Model Year** 2014 ~ Part No. 1U056 ADU00

Accessory **Difficulty** 

**Remote Engine Start** (B)

Note: Difficulty stated above reflects the minimum level of expertise required to install the accessory

(A) Customer (B) Dealer Technician (C) Master Technician

Ensure vehicle is equipped with automatic transmission, power door locks and power windows. If the vehicle is not equipped with these options, do not proceed. Ensure vehicle does NOT have SMART KEY.

#### **Instruction 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.

sary to complete the step.

Denotes specific tools that are neces-



such as a mask, goggles, rubber

gloves, and hearing protection.



Denotes safety equipment required to be used







**Hearing Protection** 

Denotes cautions to be taken to avoid physical injury or electronic component damage.

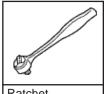
Denotes cautions to be taken to avoid

vehicle and component damage.



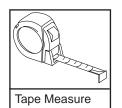
Denotes instructional steps necessary to complete the process.

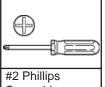
#### **Basic Required Hand Tools**



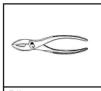
Ratchet

10 mm Socket

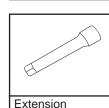




Screwdriver



Pliers





Wire Cutter



#### Notes to the Installer:

Read the entire installation manual prior to beginning the installation of the accessory.

Factory wire harness colors are subject to change, please use the specified pin # in the harness connector to identify the correct wire for T-Tap installation.

Ensure that the vehicle is properly protected in the area that the accessory is to be installed.

To prevent vehicle damage, never place tools on top of painted surfaces, seats, dash pad, console or floor carpet / mat.

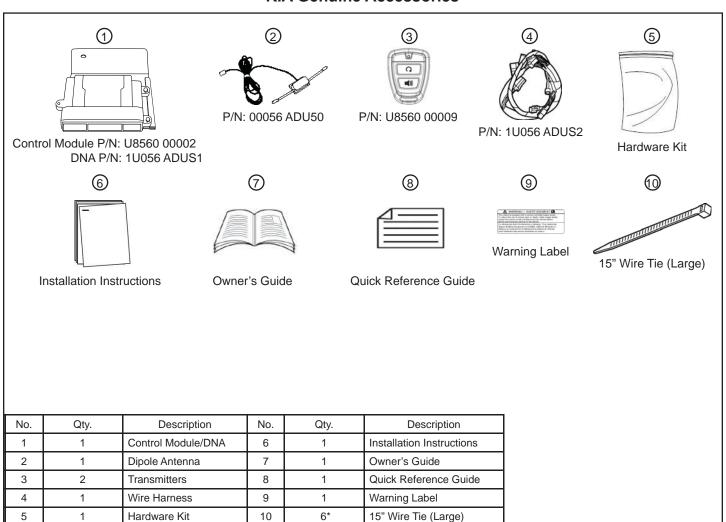
Always wear appropriate safety gear to include gloves and eye protection when required.

To prevent stress on the remote start wire harness, ensure the tilt/telescopic steering column is fully extended, if equipped.

Ensure the transportation fuse is properly installed before performing the function check on page 17.

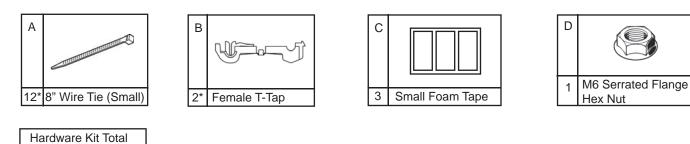


For Authorized Dealers - (800) 667-5176 Hours: 9:00 a.m. - 5:30 p.m. EST Monday - Friday



## Hardware Kit Contents

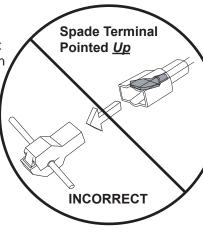
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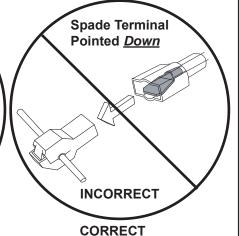


<sup>\*</sup> Extra components intentionally placed in kit as spares. Please follow directions for proper placement of each component.

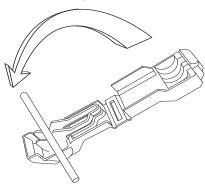


Factory wire harness colors are subject to change. Please use the specified pin # in the harness connector to identify the correct wire for T-Tap installation.

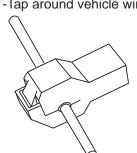




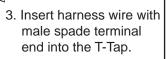
1. Place T-Tap on vehicle wire.



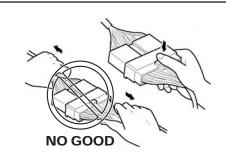
2. Using pliers, close and crimp T-Tap around vehicle wire.



Spade Terminal <u>CENTERED</u> Inside Connector

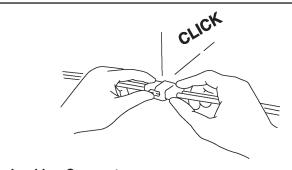


\*\* Extreme care must be taken to ensure that the male spade terminal is inserted into the T-Tap properly.



#### **Disconnecting Connectors**

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

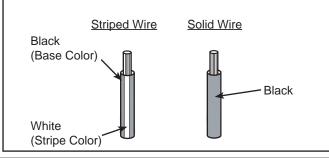


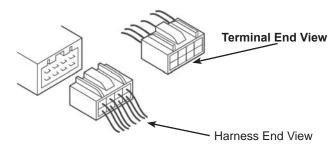
# **Locking Connectors**

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

#### **Wire Colors**

When a two-color wire is listed, the first color indicates the base color of the wire, the second color indicates the color of the stripe. For example: Black/White.





#### **Connector Diagrams**

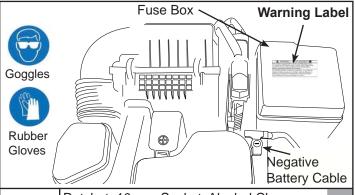
Connector diagrams may be shown on the harness side or the terminal side, extreme care must be taken to verify proper terminal location before a T-Tap connection is made.

Vehicle Preparation

- 1. Clean hands.
- 2. Set the parking brake and open driver's door window.
- 3. Vehicle should be at room temperature.
- 4. Ensure vehicle is equipped with automatic transmission, power door locks and power windows. If the vehicle is not equipped with these options, do not proceed. Ensure vehicle DOES NOT have SMART KEY.

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5. ENSURE THE TILT/TELESCOPIC STEERING WHEEL COLUMN IS FULLY EXTENDED AND LOCKED BEFORE INSTALLING THIS ACCESSORY.



Ratchet, 10 mm Socket, Alcohol Cleaner and Clean Cloth

- 1. Remove and isolate the negative battery cable from the battery.
- 2. Using alcohol and a clean cloth, clean the top surface of the underhood fuse box. Ensure the surface is completely dry.
- 3. Remove the backing on the warning label and mount in place, as shown above.

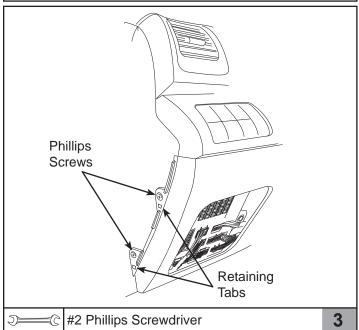


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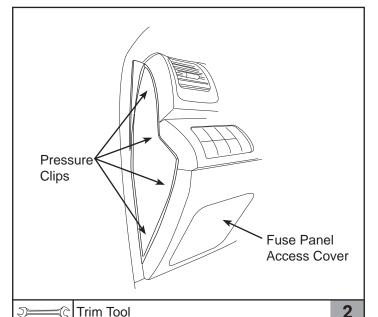
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WARNING! Shock Hazard. Do not touch vehicle's negative battery terminal to vehicle's positive battery terminal. Serious physical injury or vehicle damage may occur.

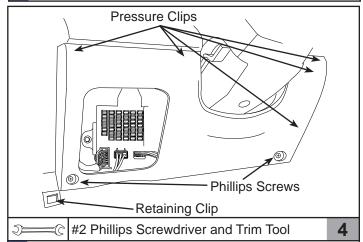


1. Remove the two (2) #2 phillips screws from the side of the lower dash finish panel.



N 1. Remove the fuse panel access cover to assist in 0 the removal of the driver's side dash end cap. Т

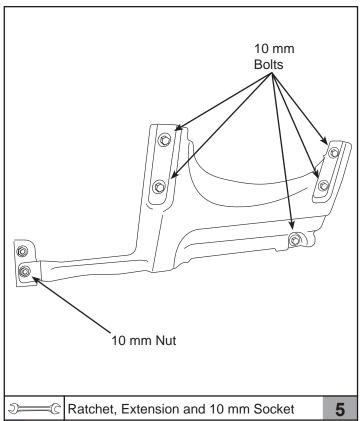
2. Remove the driver's side dash end cap panel by prying outward to disengage the four (4) pressure clips.

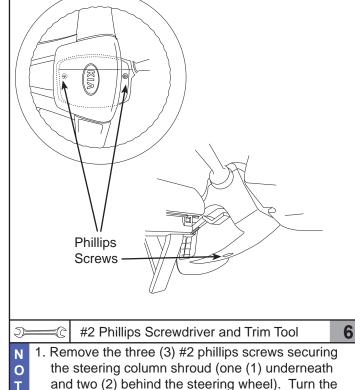


- 1. Remove the lower dash finish panel by removing 0 the two (2) #2 phillips screws from the bottom of the panel. Using a trim tool, carefully pry outward to release the two (2) retaining tabs from the side, as shown in Step 3 and the five (5) pressure clips from the front of the panel.
  - 2. Disengage the driver's side kick panel retaining clip from the lower dash finish panel.
  - 3. Remove the OBDII connector from the panel.
  - 4. Disconnect the remaining connectors, if equipped.

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2. Release the tilt steering wheel adjuster lever.

3. Pull down to separate the lower steering column

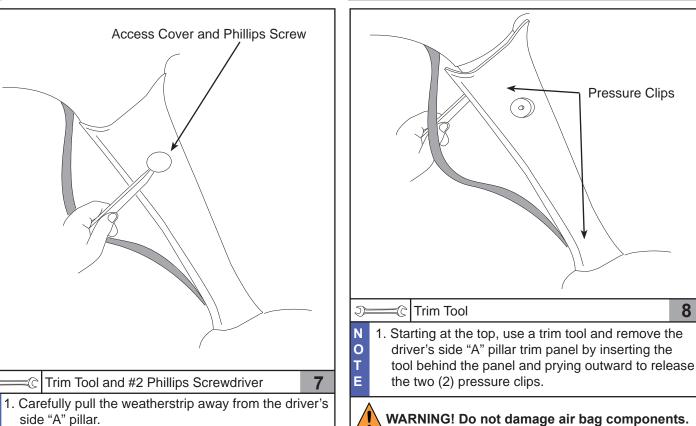
shroud (use trim tool, if necessary) and remove

steering wheel for access.

- 1. Remove the five (5) 10 mm bolts and the one (1) 10 mm nut securing the steel knee bolster panel.
- 2. Remove the steel knee bolster panel from the vehicle.

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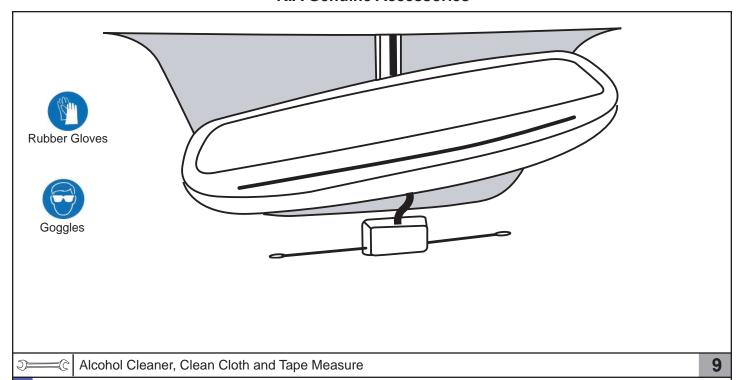


2. Remove the access cover and the one (1) #2 phillips

screw from the "A" pillar.

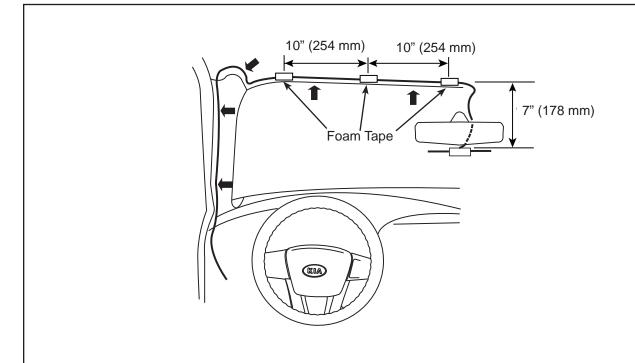
from the vehicle. Pressure Clips Trim Tool 8 1. Starting at the top, use a trim tool and remove the driver's side "A" pillar trim panel by inserting the

CAUTION! Do not lose the two (2) pressure clips.



1. Clean the area of the windshield where the antenna will be mounted with an alcohol cleaner and clean cloth. Ensure the glass surface is completely dry.

2. Remove protective backing and mount the dipole antenna to the windshield approximately 0.25" (7 mm) below the mirrors lowest attachment point and/or any windshield electronic gridwork. Press firmly to ensure a good glass to adhesive bond.



Trim Tool and Tape Measure

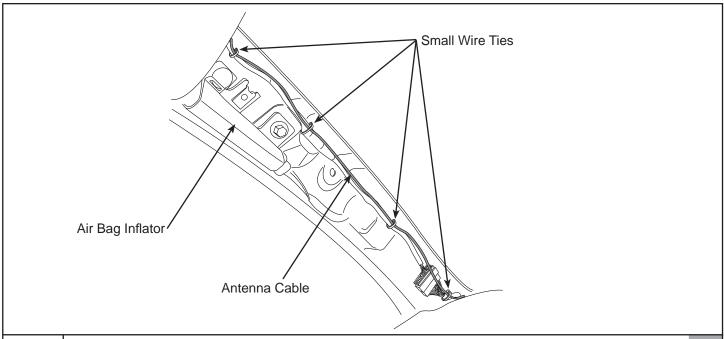
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 Wrap the antenna cable with three (3) pieces of small foam tape, at the distances shown above, to ensure that the antenna cable will stay in place after routing.

2. Route the antenna cable vertically on the <u>right hand side of the mirror mount</u> up to the headliner. Tuck the cable behind the headliner and down the "A" pillar, as shown above.



(C Wire Cutter

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1. Use four (4) small wire ties to secure the antenna cable to the factory harness located within the "A" pillar, as shown above. Trim off excess wire ties.



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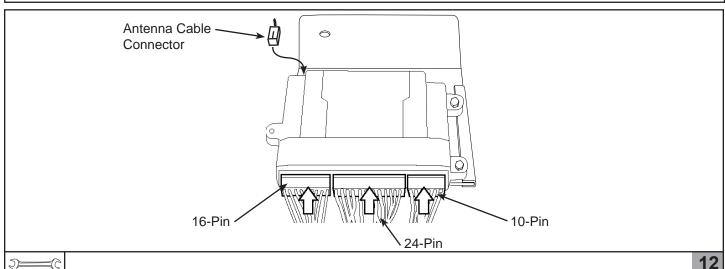
WARNING! Air Bag system interference hazard. DO NOT wrap antenna cable around or secure antenna cable to any Air Bag components. Damage to the vehicle's Air Bag system may occur which could result in serious physical injury.



CAUTION! Ensure the antenna cable is routed away from the Air Bag Inflator.



CAUTION! If the vehicle is equipped with a sunroof, be careful not to place the wire ties around the drain tube or the sunroof may not drain properly.

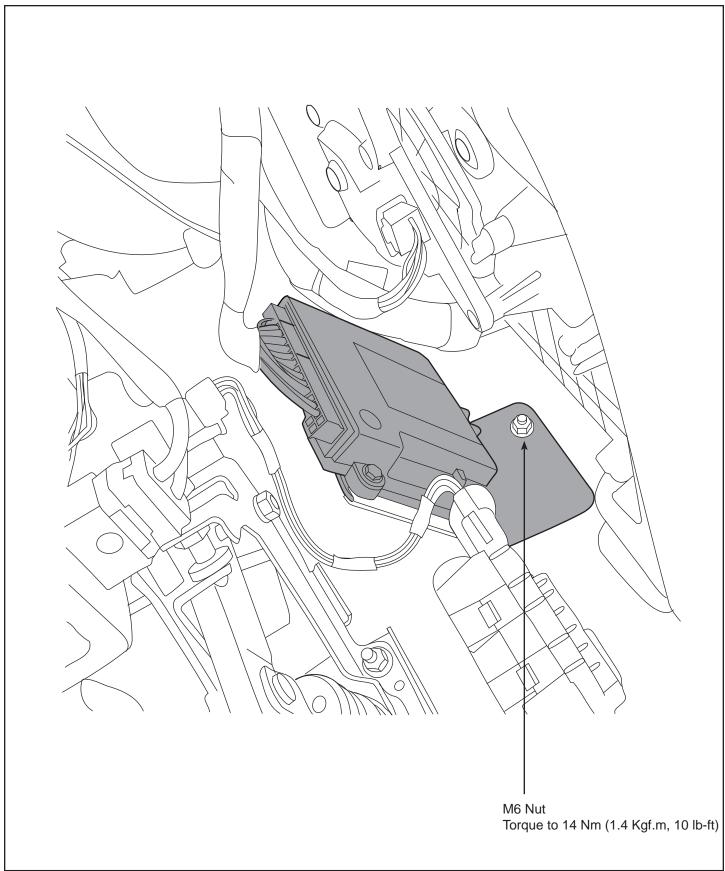


1. Remove the two (2) transmitters and attach individually to each factory key. 0

2. Route the antenna cable past the left side of the dashboard and over to the dash wall area.

- 3. Plug the remote start harness 16-pin connector, 24-pin connector, 10-pin connector and the 2-pin antenna cable connector into the remote start control module before mounting.
- 4. Ensure all connectors are properly locked into position.

CAUTION! Be careful not to bend/damage any of the terminals inside the remote start module.



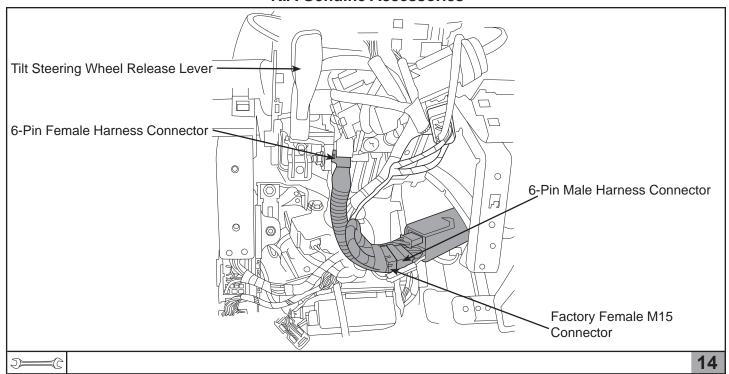
Ratchet, Extension, 10 mm Socket and Torque Wrench

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1. Secure the remote start control module to the factory stud, located on the vehicle dash wall, above the accelerator pedal assembly with one (1) supplied M6 nut, as shown above.

2. Torque the M6 nut to 14 Nm (1.4 Kgf.m, 10 lb-ft).

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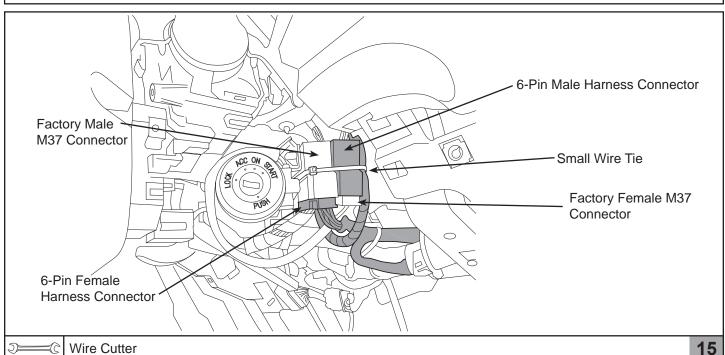
 Route the remote start harness 6-pin male and female ignition connectors along the factory harness up to the factory M15 ignition switch connector.

2. Disconnect the factory female 6-pin M15 ignition switch connector and plug in the corresponding remote start harness connectors.

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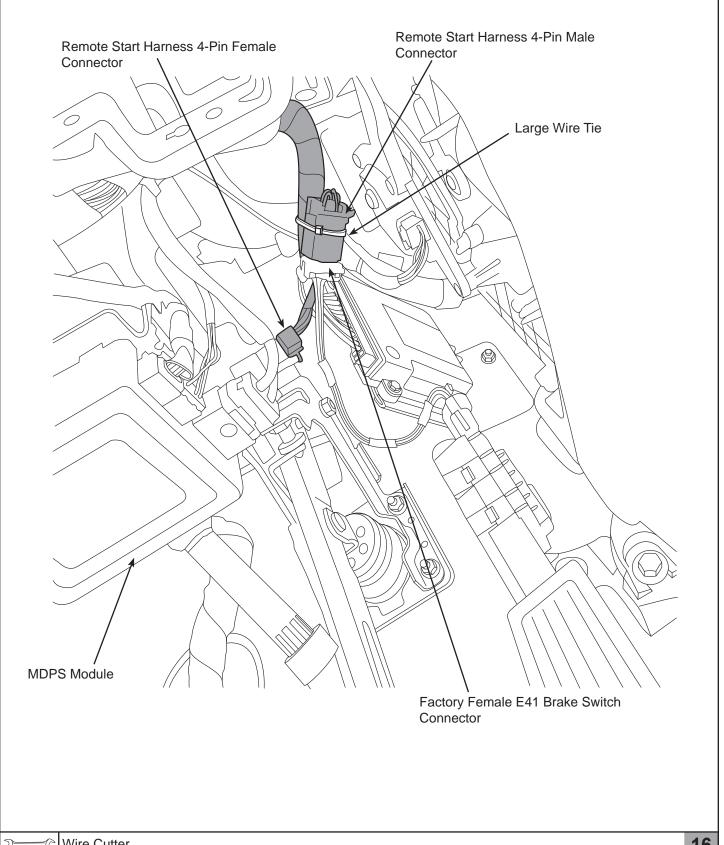
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WARNING! Engine Stall Hazard. To prevent stress on the remote start wire harness, ensure the tilt/ telescopic steering column is <u>fully extended</u>, if equipped. Ensure all connectors are fully engaged and locked in place. An engine stall could cause serious physical injury or vehicle damage.



Route the remote start harness 6-pin male and female key-in-sense connectors along the right side of the steering column to the factory M37 key-in-sense connector.

- 2. Disconnect the factory female 6-pin M37 key-in-sense connector and plug in the corresponding remote start harness connectors.
- 3. Secure the factory female M37 key-in-sense connector and the remote start harness male key-in-sense connectors to the factory male M37 key-in-sense connector with one (1) small wire tie, as shown above. Trim off excess wire tie.



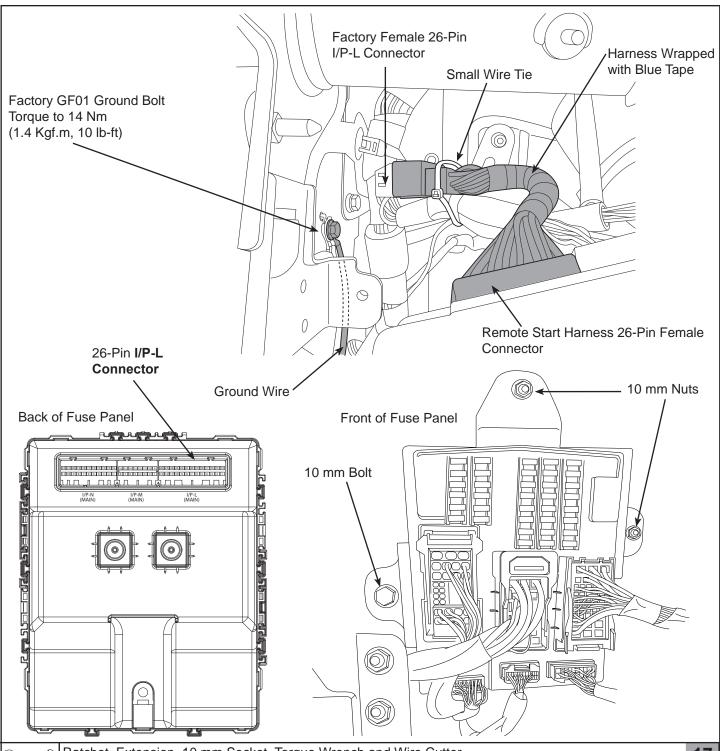
Wire Cutter

1. Route the remote start harness 4-pin male and female brake switch connectors to the brake switch at the top of the brake pedal, as shown above.

2. Disconnect the factory female 4-pin E41 connector and plug in the corresponding remote start harness connectors.

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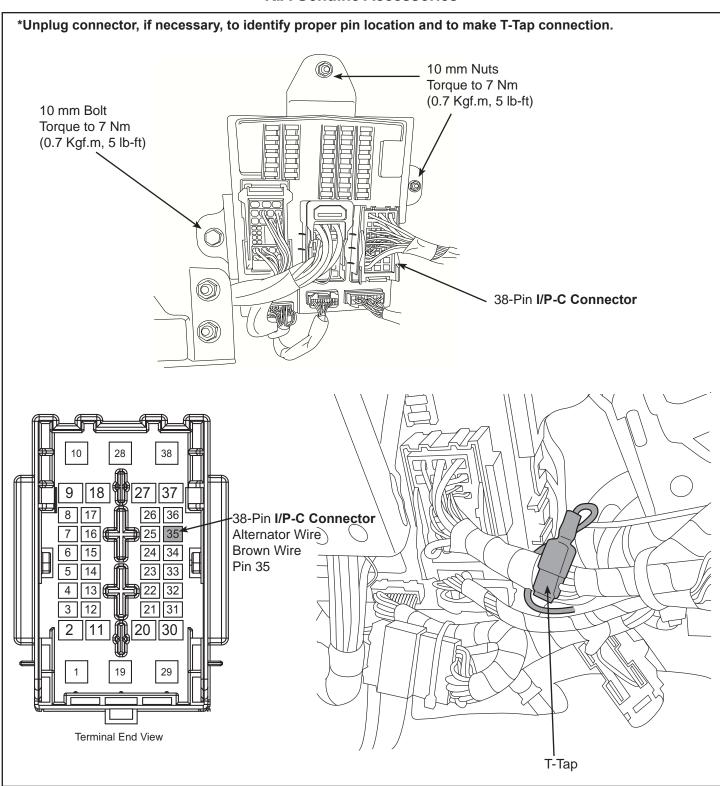
3. Secure the factory female 4-pin E41 connector and the remote start harness male connector to the remote start harness with one (1) large wire tie, as shown above. Trim off excess wire tie.



Ratchet, Extension, 10 mm Socket, Torque Wrench and Wire Cutter

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- 1. Route the Black (Ground) wire and the 26-pin male and female remote start harness connectors (**Wrapped with BLUE tape**) along the right side of the fuse panel.
- 2. Remove the two (2) 10 mm nuts and one (1) 10 mm bolt securing the fuse panel, as shown above.
- 3. Tilt the fuse panel forward and remove the factory GF01 ground bolt, located to the left of the fuse panel.
- 4. Position the Black (Ground) wire with ring terminal over the bolt and reinstall.
- 5. Torque to 14 Nm (1.4 Kgf.m, 10 lb-ft).
- 6. Route the 26-pin male and female remote start harness connectors (**Wrapped with BLUE tape**) to the back of the fuse panel.
- 7. Locate the 26-pin **I/P-L connector** on the back of the fuse panel. Disconnect the factory female 26-pin I/P-L connector and plug in the corresponding remote start harness connectors.
- 8. Secure the factory female 26-pin I/P-L connector and the remote start harness male connector to the factory harness with one (1) small wire tie, as shown above. Trim off excess wire tie.



Ratchet, Extension, 10 mm Socket, Torque Wrench and Pliers

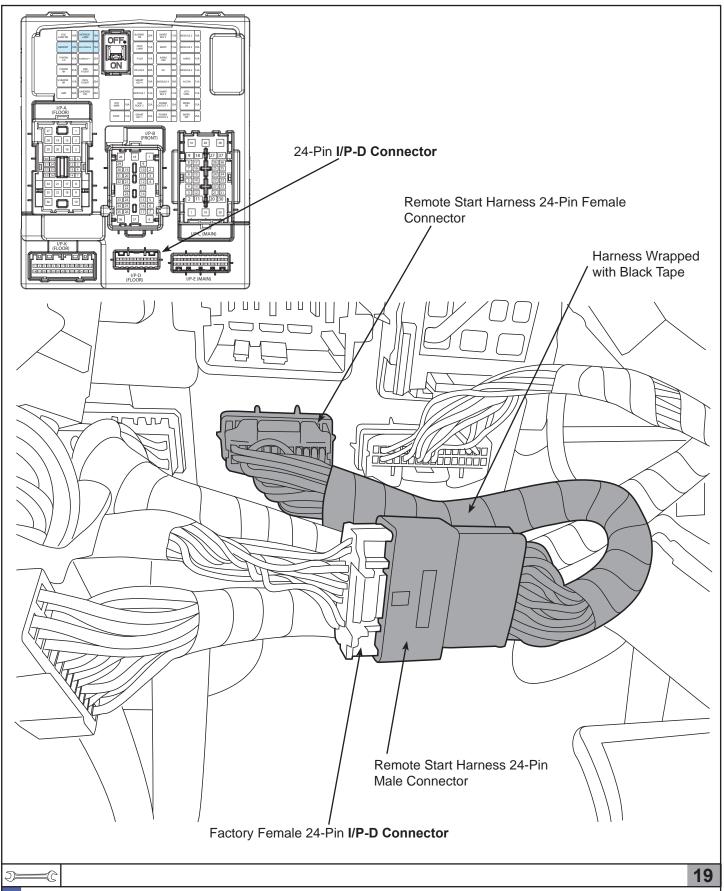
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## N \*Refer to Page 3 for T-Tap Installation Procedure.

- 1. Reinstall the fuse panel with the two (2) 10 mm nuts and one (1) 10 mm bolt, as shown above. Torque 10 mm nuts and 10 mm bolt to 7 Nm (0.7Kgf.m, 5 lb-ft).
- E 2. Locate the Brown wire in pin #35 of the 38-pin I/P-C female connector.
  - 3. Using pliers, crimp one (1) T-Tap on the Brown wire located in pin #35 of the 38-pin I/P-C female connector.
  - 4. Connect the Brown (Alternator Input) wire from the remote start harness to the Brown wire (Pin #35 of the 38-Pin I/P-C connector) by engaging the T-Tap. Ensure that the male spade is properly centered in the T-Tap.



CAUTION! Ensure the correct pin location is identified. There may be several wires of the same/similar color.

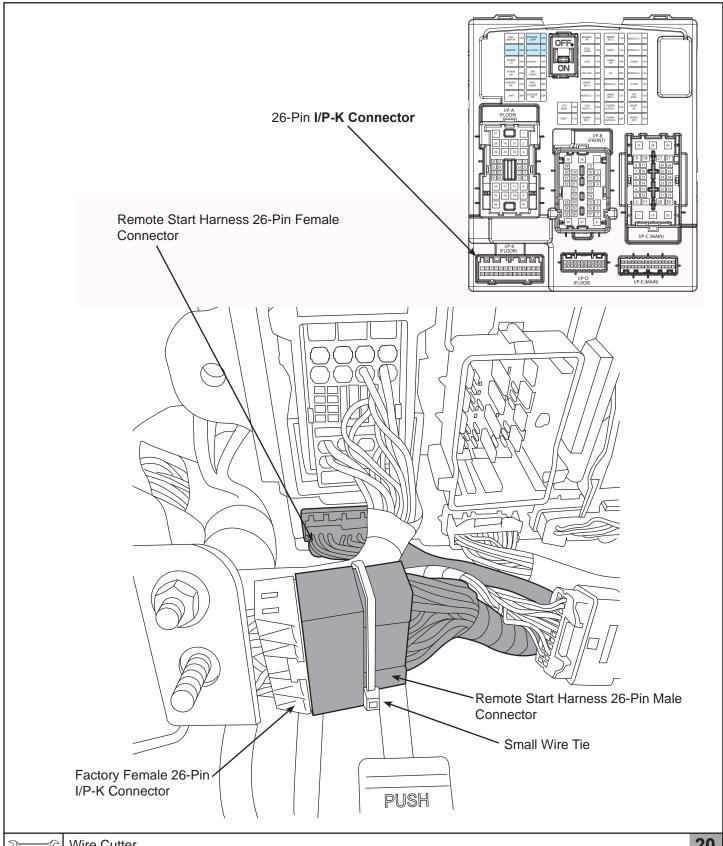


1. Route the 24-pin male and female remote start harness connectors (**Wrapped with BLACK tape**) along the front of the fuse panel.

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2. Locate the 24-pin **I/P-D connector** on the front of the fuse panel. Disconnect the factory female 24-pin I/P-D connector and plug in the corresponding remote start harness connectors, as shown above.



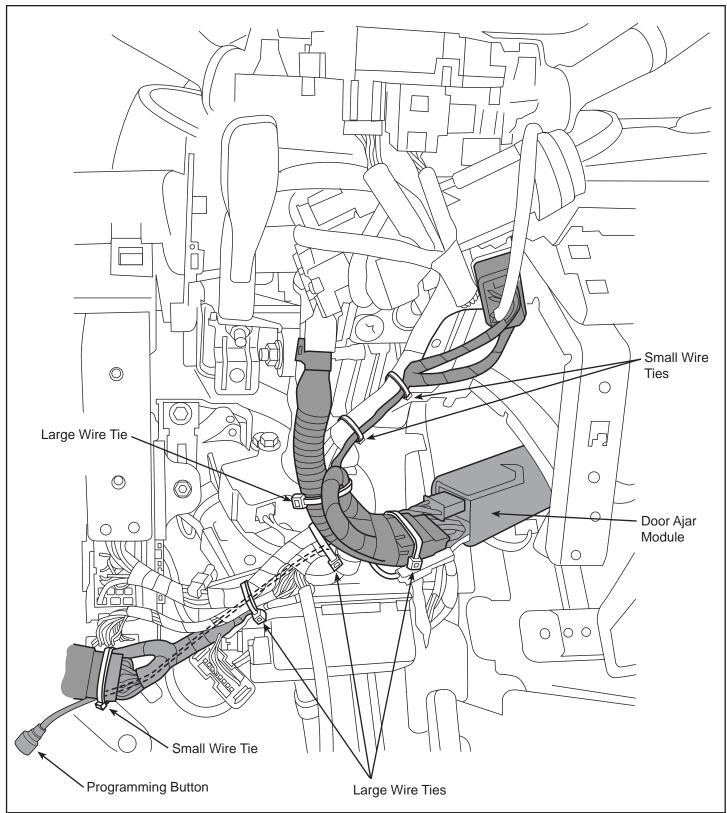
Wire Cutter 20

1. Route the 26-pin male and female remote start harness connectors (**Wrapped with BLACK tape**) along the front of the fuse panel.

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- 2. Locate the 26-pin **I/P-K connector** on the front of the fuse panel. Disconnect the factory female 26-pin I/P-K connector and plug in the corresponding remote start harness connectors.
- 3. Secure the factory female 26-pin I/P-K connector and the remote start harness male connector to the factory harness with one (1) small wire tie, as shown above. Trim off excess wire tie.



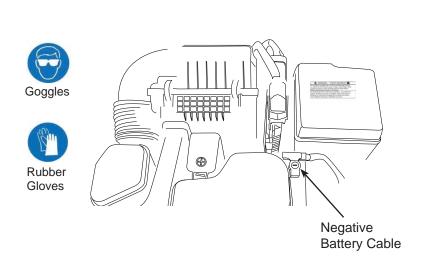
> Wire Cutter 21

- N 1. Verify all connections are secure as per the installation instructions.
  - 2. Connect the programming button to the corresponding remote start module connector (if disconnected).
  - 3. Secure the programming button and the remote start harness with three (3) small wire ties and four (4) large wire ties to the factory harness, as shown above. Trim off excess wire ties.



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WARNING! Engine Stall Hazard. To prevent stress on the remote start wire harness, ensure the tilt/ telescopic steering column is <u>fully extended</u>, if equipped. Ensure all connectors are fully engaged and locked in place. An engine stall could cause serious physical injury or vehicle damage.



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Ratchet and 10 mm Socket

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- 1. Verify all connections are secure as per the installation instructions.
- 2. Turn the ignition key to the ON position.
- 3. Reconnect the negative battery cable.
- 4. Start the vehicle and verify that no air bag or engine codes have been triggered. Any fault codes should be addressed before proceeding to the next step.
- 5. Turn the ignition key to the LOCK (OFF) position.



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

# KIA Genuine Accessories Function Check

Ensure the transportation fuse is properly installed before performing the Function Check.

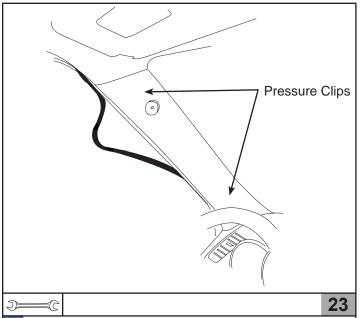
If the transmitters fail to operate, refer to Page 23 (Transmitter Programming and Battery Test Procedure).

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Items To Be Checked	Results Of The Check
Remote Engine Start - Make sure the key is removed from the ignition switch and the doors, tailgate and engine hood are closed. Activate the remote start by pressing the start button on the transmitter two (2) times within three (3) seconds.	The parking lights will flash one (1) time, the burglar horn will beep one (1) time, the doors will lock, then the engine will crank and start. Once started, the burglar horn will beep one (1) time and the parking lights will come on and stay on signifying the engine is running.
Driver's Door Unlock / Interior Lamp - Press the start button on the transmitter one (1) time to unlock the driver's door.	The parking lights will flash two (2) times, unlock the driver's door only and illuminate the interior light for thirty (30) seconds.  NOTES: Interior lamp switch must be set to door position to illuminate.
	If no door or tailgate is opened within thirty (30) seconds, the interior lights will turn off and the doors will auto lock.
Brake Pedal Safety - Enter the vehicle and press and release the brake pedal.	The engine/remote start will turn off.
Key-In-Sense - Insert the ignition key into the ignition switch but keep it in the OFF position. Activate the remote engine start using the transmitter.	The parking lights will flash one (1) time and the ignition will turn on as if it is going to start. The burglar horn will beep two (2) times and the remote engine start will not attempt to start the vehicle since it detects the key in the ignition. In addition, the driver's door will unlock and the vehicle's interior light will illuminate.
	NOTE: Interior lamp switch must be set to door position to illuminate.
Hood Safety Switch - Remove the key from the ignition and activate the remote engine start. After the vehicle has started, pull the hood release lever to release the hood.	The engine/remote start will turn off immediately.  The hood should not have to be lifted to activate the hood safety switch.
Door Unlock - Close the engine hood and all doors and activate the remote engine start.  Press the start button on the transmitter two (2) times within five (5) seconds.	The parking lights will flash two (2) times and unlock all doors.  NOTE: If no door or tailgate is opened within thirty (30) seconds, the interior lights will turn off and the doors will auto lock.
Tailgate Safety Switch - Open the tailgate using the release inside the vehicle.	The engine/remote start will turn off immediately.
Car Find Feature - Close the tailgate and press the red car find / panic button on the transmitter. Repeat this process two (2) times.	The parking lights will flash and the burglar horn will beep five (5) times. Subsequent presses within five (5) seconds of the first press will beep the burglar horn slightly louder.
Panic Feature - Press and hold the red car find / panic button on the transmitter for three (3) seconds to activate. Press the red car find / panic button a second time to deactivate.	The parking lights will flash and the burglar horn will beep for up to thirty (30) seconds.
Quick Stop Feature - Enter the vehicle, and close all doors. Start the vehicle with the ignition key.  With the vehicle in park and foot off the brake pedal, press the start button on the transmitter one	Verify that the parking lights turn on and that the vehicle remains running. The <b>driver's door only</b> will unlock (if previously locked).
(1) time. Remove the key from the ignition and turn on the head lights using the switch.	The head lights will remain on for the entire fifteen (15) minute run time.
Remote Engine Stop - Press and hold the start button on the transmitter for three (3) seconds.	The engine/remote start will turn off and the head lights will remain on for approximately fifteen (15) seconds. Ensure the head lights turn off after fifteen (15) seconds.

Revision Date 4/22/2013

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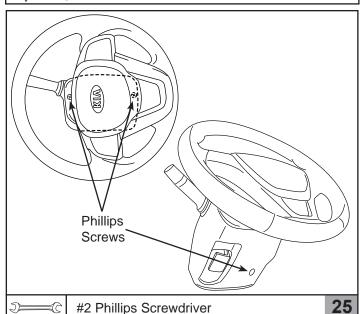
1. Reinstall the driver's side "A" pillar trim by engaging the two (2) pressure clips.

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CAUTION! Do not lose the two (2) pressure clips.

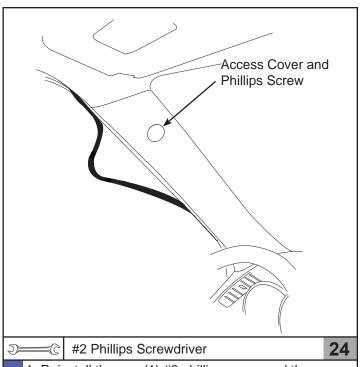


N 1. Reinstall the lower steering column shroud around the steering column.

- 2. Reinstall the three (3) #2 phillips screws securing the steering column shroud (one (1) underneath and two (2) behind the steering wheel), as shown above. Turn the steering wheel for access.\*\*
- \*\*NOTE: To access screw mounting locations, insert key and turn to the ACC position, in order to prevent the steering wheel from locking.

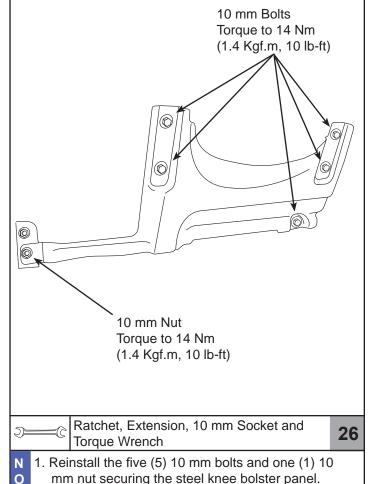
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Use care when securing the steering column shroud to avoid misalignment, which could cause unwanted noises when turning the steering wheel.



1. Reinstall the one (1) #2 phillips screw and the access cover.

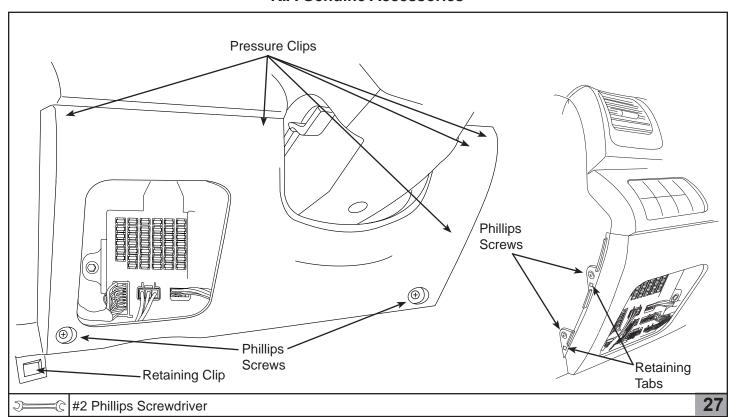
Reinstall the weatherstrip near the driver's side "A" pillar.



Torque bolts to 14 Nm (1.4 Kgf.m, 10 lb-ft).

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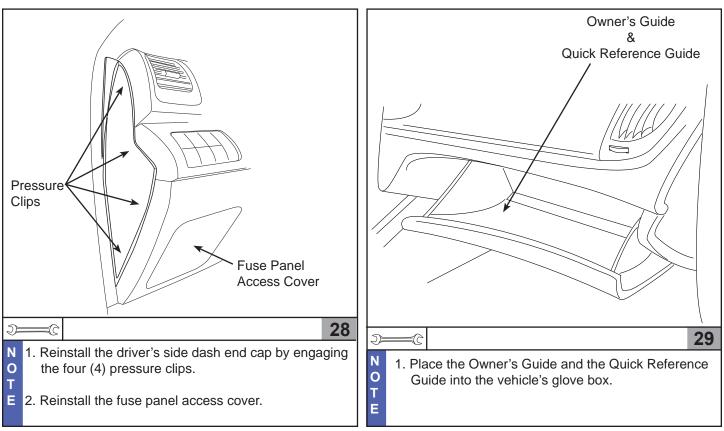
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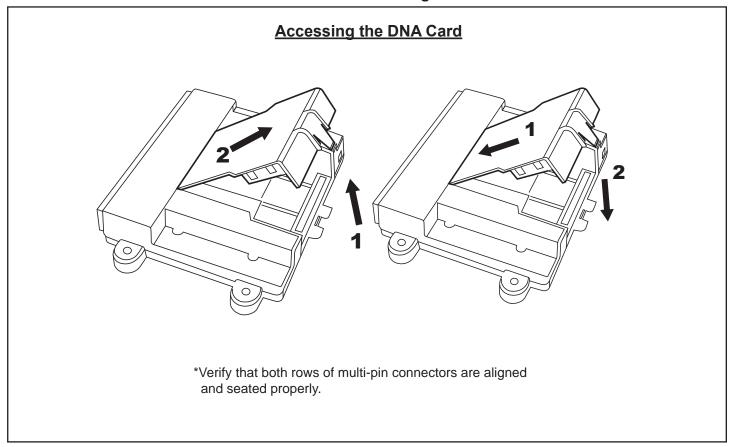
- Reinstall any connectors, including the OBDII connector that may have been removed from the lower dash finish panel.
- 2. Reinstall the lower dash finish panel by engaging the five (5) pressure clips, two (2) retaining tabs, four (4) #2 phillips screws and the driver's side kick panel retaining clip.

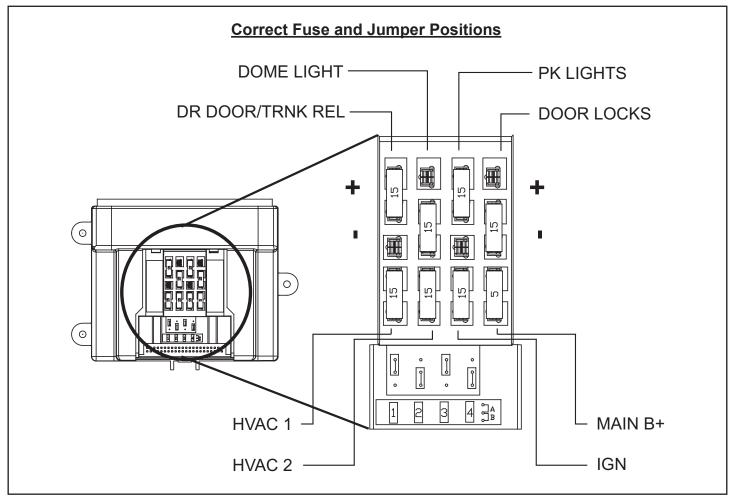


WARNING! Engine Stall Hazard. To prevent stress on the remote start wire harness, ensure the tilt/ telescopic steering column is fully extended, if equipped. Ensure all connectors are fully engaged and locked in place. An engine stall could cause serious physical injury or vehicle damage.



# KIA Genuine Accessories Troubleshooting





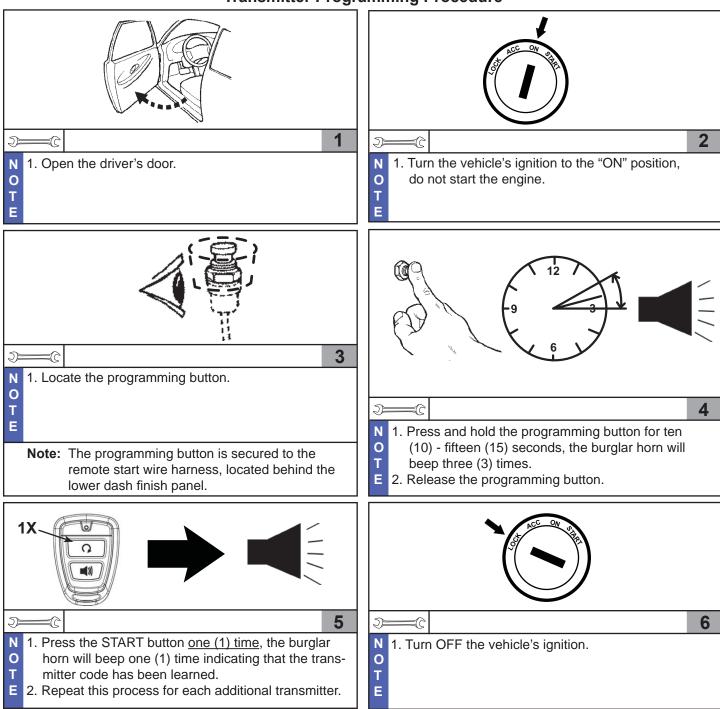
# KIA Genuine Accessories Troubleshooting

Issue / Concern		Items To Be Checked
Vehicle will not automatically lock all doors after remote start activation.	Instruction Ref. Steps 15 & 20	*Verify that the 6-pin male and female Key-In-Sense connectors are connected properly (Step 15).  *Verify that the 26-pin male and female I/P-K connectors are connected properly (Step 20).  *Verify that the fuse located under the DNA case top labeled "DOOR LOCKS" is good and installed properly per the Fuse and Jumper diagram in Troubleshooting.  *Verify proper DNA installation into module.
Vehicle will not unlock the driver's door using the transmitter during the remote start mode.	Instruction Ref. Step 17	*Verify that the 26-pin male and female I/P-L connectors are connected properly (Step 17).
Vehicle's dome lights do not turn on during the remote start mode.	Instruction Ref. Step 17	*Verify that the 26-pin male and female I/P-L connectors are connected properly (Step 17).  *Verify interior lamp switch is set to <b>door</b> position.  *Verify that the fuse located under the DNA case top labeled "DOME LIGHT" is good and installed properly per the Fuse and Jumper diagram in Troubleshooting.  *Verify proper DNA installation into module.
Vehicle will not unlock all doors using the transmitter during the remote start mode.	Instruction Ref. Step 20	*Verify that the 26-pin male and female I/P-K connectors are connected properly (Step 20).  *Verify that the fuse located under the DNA case top labeled "DOOR LOCKS" is good and installed properly per the Fuse and Jumper diagram in Troubleshooting.  *Verify proper DNA installation into module.
Vehicle's parking lights do not flash.	Instruction Ref. Step 19	*Verify that the 24-pin male and female I/P-D connectors are connected properly (Step 19).  *Verify that the fuses located under the DNA case top labeled "PK LIGHTS" and "DR DOOR/TRNK REL" are good and installed properly per the Fuse and Jumper diagram in Troubleshooting.  *Verify proper DNA installation into module.
Vehicle's burglar horn does not honk when activating the car find or the panic feature.	Instruction Ref. Step 17	*Verify that the 26-pin male and female I/P-L connectors are connected properly (Step 17).  *Verify proper DNA installation into module.
Poor operating range.	Instruction Ref. Steps 9, 10, 12 & 17	*Verify that the antenna is mounted in the correct location (Steps 9 & 10).  *Verify that the antenna cable connector is plugged into the back of the remote start module (Step 12) and that the antenna cable is NOT shorted along it's entire path.  *Verify that the remote start harness ground wire was connected properly (Step 17).  *Refer to Page 23 for Transmitter Programming an Battery Test Procedure.

# KIA Genuine Accessories Troubleshooting

Issue / Concern		Items To Be Checked
Ignition turns on, burglar horn beeps two (2) times and vehicle does not start. Key-In-Sense activated.	Instruction Ref.	*Remove ignition key from ignition cylinder.
	Step 15	*Verify that the 6-pin male and female Key-In-Sense connectors are connected properly (Step 15).
Burglar horn beeps two (2) times and vehicle does not start. Safety input activated.	Instruction Ref.	*Release the brake pedal and close the hood.
	Steps 16 & 20	*Verify that the 4-pin male and female brake switch connectors at the brake switch are connected properly (Step 16).
		*Verify that the 26-pin male and female I/P-K connectors are connected properly (Step 20).
Burglar horn beeps three (3) times and vehicle does not start. Valet mode engaged.	Instruction Ref.	*Verify that the Valet Mode is not engaged - Refer to the Remote Start System Owner's Guide.
	Page 6 of Owner's Guide	
Burglar horn beeps five (5) times and	Instruction Ref.	*Close the vehicle's tailgate.
vehicle does not start. Safety Input activated.	Step 20	*Verify that the 26-pin male and female I/P-K connectors are connected properly (Step 20).
Headlights do not turn off thirty (30) seconds after deactivating the remote start using the transmitter (Headlight switch must be in the on position).	Instruction Ref.	*Verify that the 26-pin male and female I/P-K connectors are connected properly (Step 20).
	Step 20	
Engine starts, but does not remain	Instruction Ref.	*Verify that the remote start harness wire (Alternator) was connected properly to the correct vehicle wire (Step 18).  Note: Ensure that the Alternator T-Tap and spade terminal are properly connected. Refer to Page 3 for T-Tap Installation Procedure.
running during remote start operation.	Step 18	
Vehicle's air conditioning / heater blower fan does not operate during the remote start mode.	Instruction Ref.	*Verify that the 6-pin male and female ignition switch connectors at the ignition switch are connected properly (Step 14).
	Step 14	
		*Verify the 5-pin relay is engaged properly to the relay socket on the remote start harness (Wrapped with large foam tape).
		*Verify that the fuses located under the DNA case top labeled "HVAC1" & "HVAC2" are good and installed properly per the Fuse and Jumper diagram in Troubleshooting.
		*Verify proper DNA installation into module.
		*Verify that the vehicle's HVAC blower fan is set to the ON position.

# KIA Genuine Accessories Transmitter Programming Procedure



# **Transmitter Battery Test Procedure**

