



GENUINE ACCESSORIES

# INSTALLATION INSTRUCTIONS

PART NUMBER (s):  
**0000-8F-M40**

**REMOTE START SYSTEM**

APPLICABLE MODELS  
**2007-UP > MAZDA CX-7  
ALL MODELS**

**NOTE: BOTH VEHICLE IGNITION KEYS ARE REQUIRED AT TIME OF INSTALLATION. DO NOT BEGIN INSTALLATION WITHOUT BOTH KEYS.**

### HOOD SAFETY SWITCH KIT CONTENTS

P/N: 0000-8F-H03



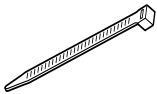
Hood Safety Switch (QTY 1)



1/4" Self Drilling Screws (QTY 2)



Locking Washer (QTY 2)



Wire Tie (QTY 2)



IDC Wire Tap (QTY 2)

### KIT CONTENTS



Remote Start Control Module (QTY-1)  
P/N: 0000-8F-Z01



DNA Card (QTY-1)  
P/N: 0000-8F-M21



Remote Start Transmitters (QTY-2)  
P/N: 0000-8F-Z02



Dipole Antenna (QTY-1)  
P/N: 0000-8F-Z10



Remote Start Wire Harness (QTY-1)  
P/N: 0000-8F-M41



Wallet Card (QTY 1)



Underhood Sticker (QTY 1)  
P/N: 0000-8F-Z12



Mini Fuses (QTY - (1) 5 AMP)  
(QTY - (7) 15 AMP)



Owners Manual (QTY 1)



Programming Button (QTY 1)  
P/N: 0000-8F-Z03



Long Wire Tie (QTY 4)

### IMMOBILIZER INTERFACE KIT CONTENTS

P/N: 0000-8F-H05A



Immobilizer Interface Module and Harness (QTY-1)



Adhesive Primer (QTY-1)

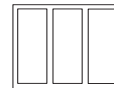


2-Sided Tape (QTY-1)

### PARTS BAG CONTENTS



Wire Tie (QTY-10)



PVC Foam Tape (QTY 1)  
P/N: 0000-8F-Z13



IDC Wire Tap (QTY-8)

### TOOLS REQUIRED

SAFETY GLASSES  
ELECTRICAL TAPE  
WIRE CUTTERS  
PLIERS  
ALCOHOL or GLASS CLEANER  
#2 PHILLIPS SCREWDRIVER  
POWER DRILL  
9/32" DRILL BIT  
FIBER STICK  
10 mm SOCKET AND RATCHET  
1/4" SOCKET AND DRIVE  
3/8" DRIVE TORQUE WRENCH  
3/8" DRIVE 10mm SOCKET  
HI-TEMPERATURE SILICONE

### 0

### VEHICLE PREPARATION

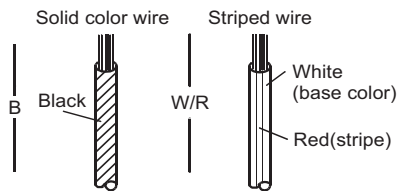
1. CLEAN HANDS
2. OPEN DRIVER'S DOOR WINDOW
3. RECORD RADIO STATION PRESETS
4. SET PARKING BRAKE
5. ENSURE VEHICLE WILL START UTILIZING THE IGNITION KNOB & VALET KEY (SMART-KEY EQUIPPED VEHICLES ONLY)
6. DISCONNECT AND ISOLATE NEGATIVE BATTERY TERMINAL
7. VEHICLE MUST BE AT ROOM TEMPERATURE

**Wire color code**

Two-color wires are indicated by a two-letter symbol. The first indicates the base color of the wire, the second the color of the stripe. For example:

W/R is a white wire with a red stripe  
 BR/Y is a brown wire with a yellow stripe

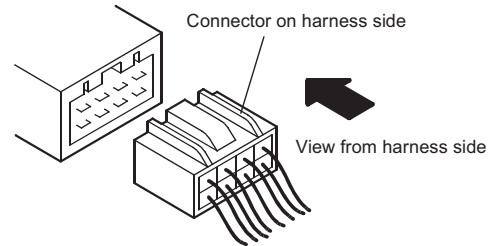
Symbol  
 (Example)



**Connector diagrams**

Connector diagrams show connectors on the harness side. The terminal indicates the view from the harness side.

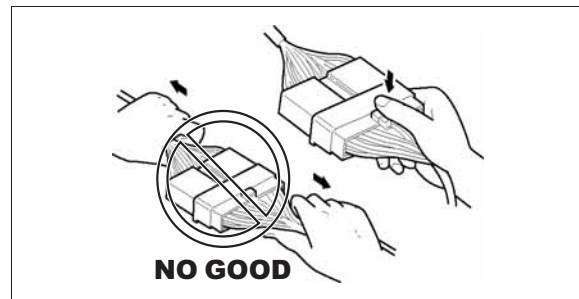
(Example)



Unused terminals are indicated by \*.

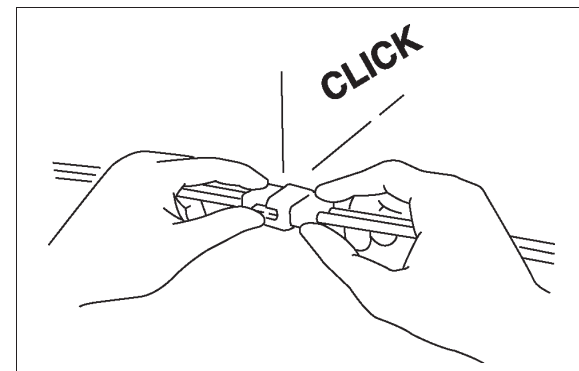
**Disconnecting Connectors**

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

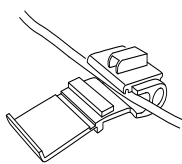


**Locking Connector**

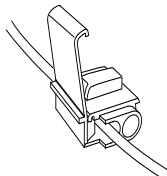
When locking connectors, listen for a click indicating they are securely locked.



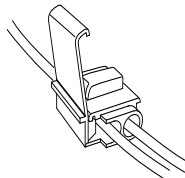
**IDC Wire Tap Procedure**



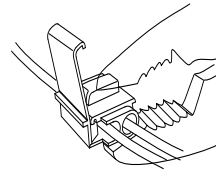
Place IDC on vehicle wire.



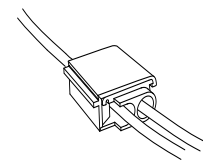
Close side of IDC.



Insert remote start wire into IDC.



Crimp IDC metal tab over both wires until flush with top of IDC.

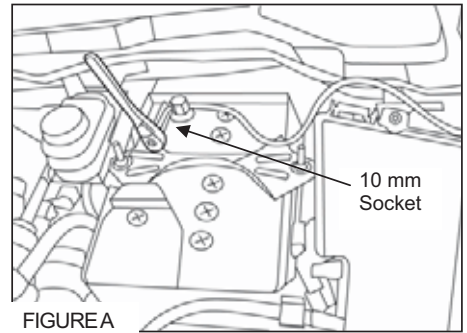


Close top of IDC.

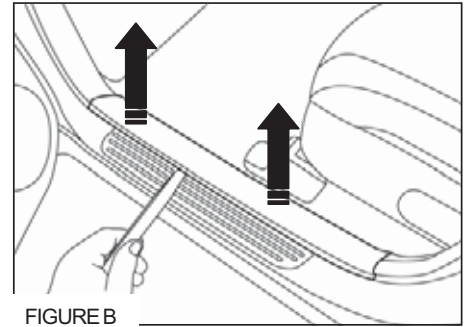
# 1

## VEHICLE PREPARATION

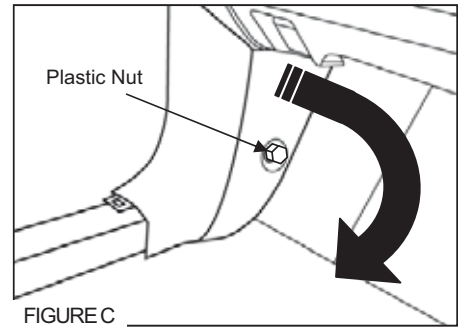
1. Disconnect and Remove Battery
  - a. Disconnect and isolate the negative and positive battery terminals. (FIGURE A)
  - b. Remove battery hold-down bracket assembly by loosening both 10 mm nuts and pivoting lower retainers toward vehicle dashwall. (FIGURE A)
  - c. Carefully remove the battery from vehicle.



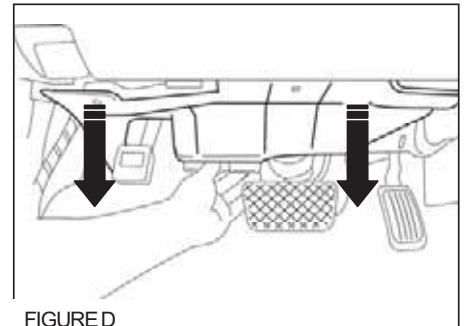
2. Remove the following components:
  - a. Using a fiber stick, remove the driver's side scuff plate. Panel is held by 3 clips. (FIGURE B)



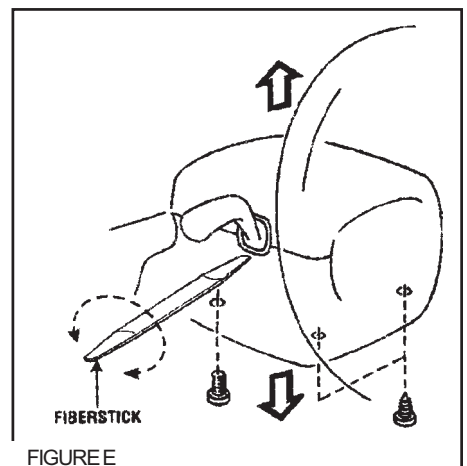
- b. Remove the driver's side kick panel by removing the plastic nut. (FIGURE C) Partially peel back the rubber weatherstrip away from the kick panel. Insert a fiber stick between the body and kick panel to disengage the retaining clip. Gently pull the kick panel toward the rear of the vehicle to remove.



- c. Remove the black, lower dash panel by using a fiber stick to pull the plastic center button of the plastic fastener out to disengage. Use a fiber stick to disengage the two clips located at the front of the panel and remove. (FIGURE D)



- d. Remove the ignition knob by depressing both buttons on either side of knob and pulling away from ignition switch. (Smart-Key equipped vehicles only)
  - e. Remove the three (3) phillips head screws from the lower steering column cover. (FIGURE E)
  - f. Insert a fiber stick between the combination switch and the lower cover. Gently rotate the fiber stick until top and bottom covers separate. (FIGURE E)
  - g. Gently unclip the ignition key light (Retractable Key equipped vehicles only) and remove the lower cover.



## 2 REMOTE START CONTROL MODULE PREPARATION

1. Insert the supplied fuses into the remote start control module as shown below. (FIGURE F) The fuses fit tightly, so use the flat tip of a fiber stick to push them in place, if necessary.
2. Install DNA card into the remote start control module as shown below. (FIGURE G)  
**⚠ CAUTION:** Use care to assure that both rows of the multi-pin connector are aligned and seated properly.
3. Plug the supplied wire harness 10-way and 24-way connectors into the remote start control module. (FIGURE H) Make sure the connectors are seated completely. NOTE: The connectors will only plug into the remote start control module one way.
4. Plug the supplied immobilizer interface 4-way connector into the remote start control module. (FIGURE H)

**NOTE: TAPE OFF THE WHITE WIRE (IF EQUIPPED) COMING FROM THE 4-WAY CONNECTOR (THIS WIRE IS NOT USED ON THIS SYSTEM).**

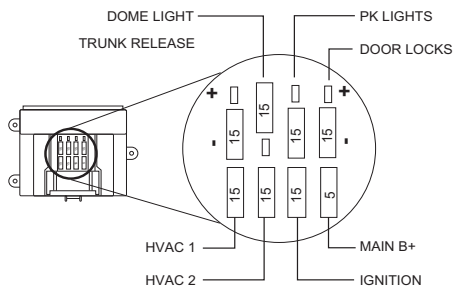


FIGURE F

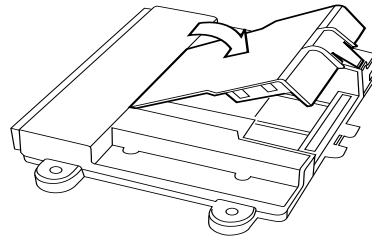


FIGURE G

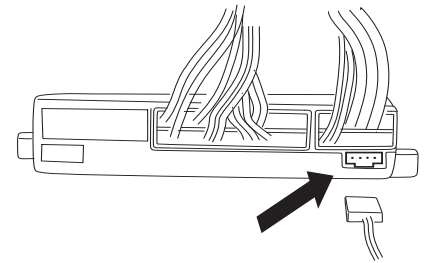


FIGURE H

## 3 REMOTE ENGINE START MODULE AND IMMOBILIZER INTERFACE MOUNTING

### REMOTE ENGINE START MODULE MOUNTING

1. Locate the two large wire harnesses high up under the dashboard running near the vehicle dashwall.
2. Using (3) supplied long wire ties, secure the remote start control module to the wire harnesses. (FIGURE I)

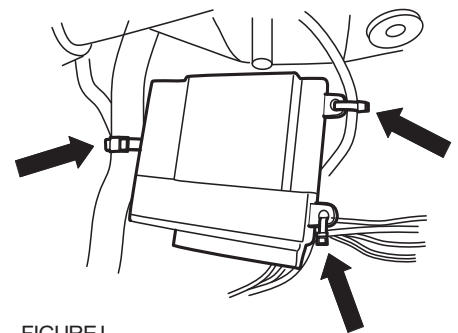


FIGURE I

### IMMOBILIZER INTERFACE MODULE MOUNTING

1. Locate the large wire harness routed toward the diagnostic connector. (FIGURE J)
2. Using (1) supplied long wire tie, secure the immobilizer interface to the wire harness. (FIGURE J)

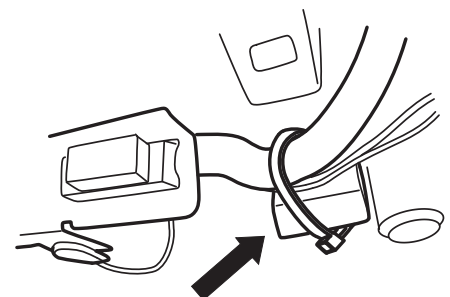


FIGURE J

## 4 DIPOLE ANTENNA MOUNTING

### 1. Driver's A-Pillar Trim Removal/Installation

- Partially peel back the rubber weatherstrip away from the A-pillar trim.
- Pull the A-pillar trim, then disengage clips A. (FIGURE K)
- Pull the A-pillar trim, then disengage clip B (1).
- Pull the A-pillar trim upward, then disengage clip B from the A-pillar trim (2).
- Disengage the tabs from the dashboard, then remove the A-pillar trim.
- Pull clip B out, then rotate 45 degrees. (FIGURE L)
- Remove clip B from the grommet by pulling it outward.

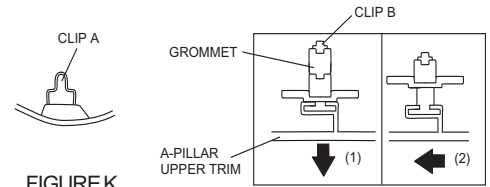
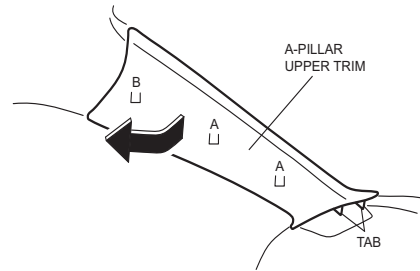


FIGURE K

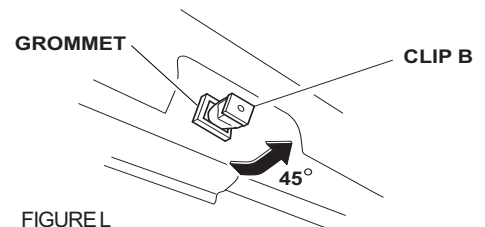


FIGURE L

- Clean mounting spot with an alcohol pad prior to mounting. Mount the dipole antenna to the windshield 229 mm to the right of the mirror base on the windshield, directly below the black windshield frit. (FIGURE M)

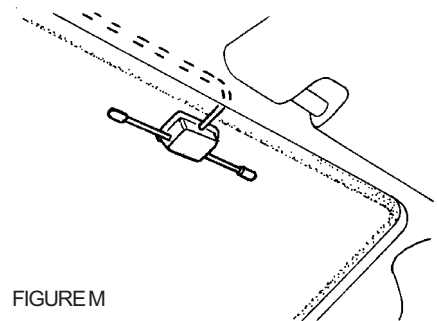


FIGURE M

- Run the antenna wire above the headliner to the driver's A-pillar, using a fiber stick to secure under the headliner.

- Route the antenna wire down the A-pillar securing it to the existing metal pillar with (3) supplied pieces of foam tape. (FIGURE N)

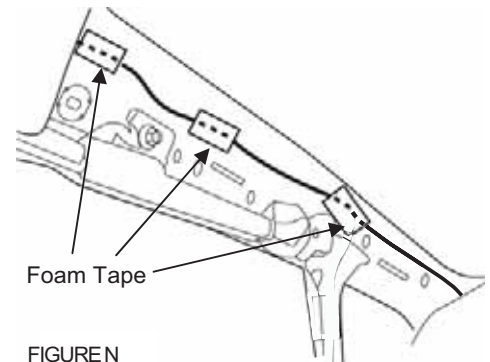


FIGURE N

- Route the antenna wire behind the left side of the dashboard and over to the remote start control module. Plug the 2-pin antenna connector into the 2-pin port on the bottom of the remote start control module. (FIGURE O)

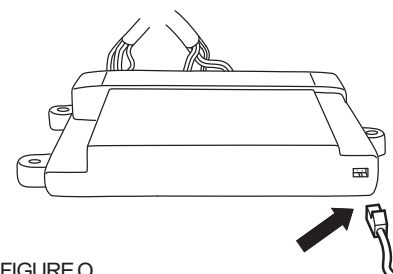


FIGURE O

- Re-install the driver's side A-pillar panel and re-install the rubber weatherstrip along the A-pillar.

## 5 HOOD SAFETY SWITCH MOUNTING

1. Using (2) supplied 1/4" self drilling screws and (2) supplied lock washers, secure the hood safety switch to the drivers side of the vehicle's hood 62 mm above the top of the hood mounting bracket and 62 mm from the side edge of the hood. (FIGURE P & Q)
2. Route the hood safety switch wiring down into the engine compartment along the inside of the hood hinge and secure using (1) supplied, short wire tie. (FIGURE Q)
3. Remove plastic phillips screw in cowl panel to route the hood safety switch wiring underneath. Gently lift the cowl panel and tuck hood safety switch wiring under the cowl panel and into the engine compartment. Continue routing toward the main wire harness grommet in the vehicle dashwall. (FIGURE P & R)

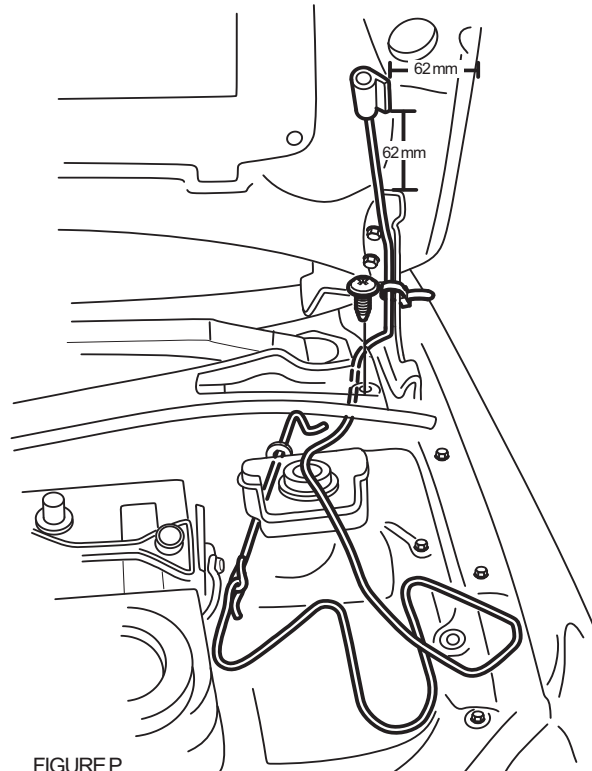


FIGURE P

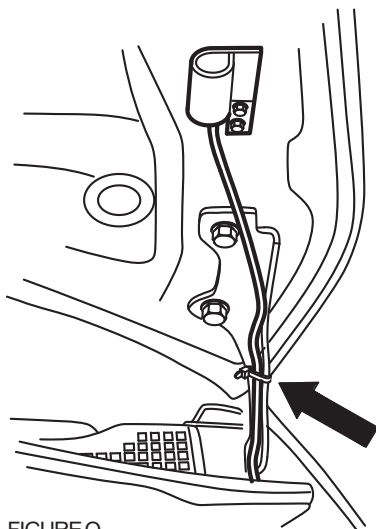


FIGURE Q

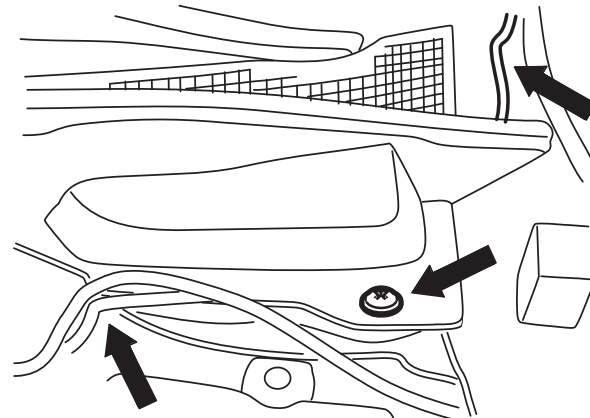


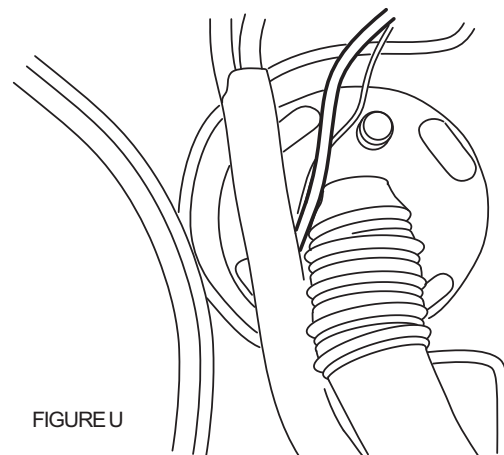
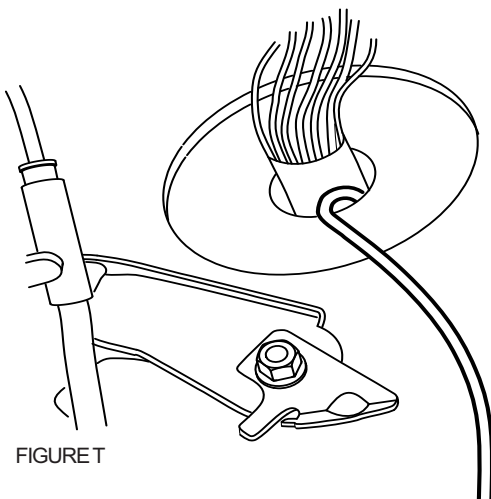
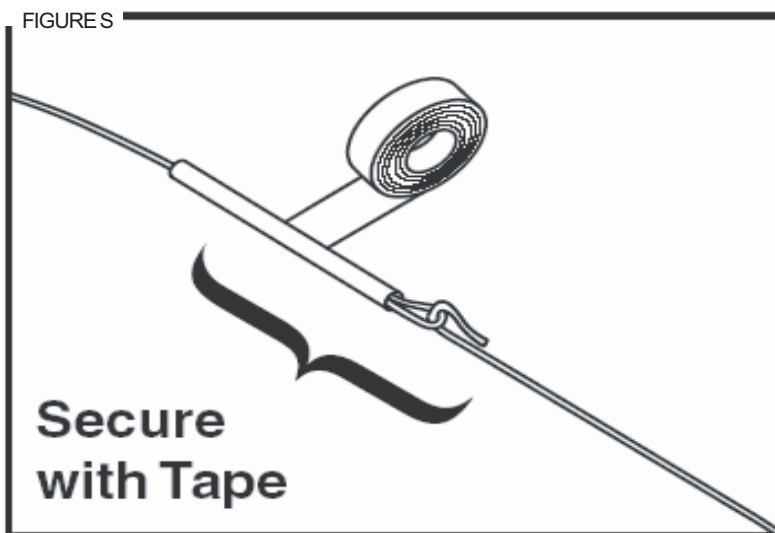
FIGURE R

## 5 HOOD SAFETY SWITCH MOUNTING, continued

4. Using fish wire, pull the hood safety switch wiring and tach wire through the main wire harness grommet:
  - a. From inside of the vehicle, bend approximately three (3) inches of tach wire at wire end.
  - b. Using electrical tape, secure fish wire to tach wire as shown. (FIGURE S)
  - c. Insert the fish wire along with tach wire through the main wire harness grommet into the engine compartment. (FIGURE T & U)

**⚠ CAUTION: Do not pierce the main wire harness with fish wire when pulling through main grommet.**

- d. Disconnect tach wire from fish wire and pull remaining slack of tach wire from the inside of the vehicle out into the engine compartment.
- e. Bend approximately three (3) inches of hood safety switch wiring at wire end.
- f. Using electrical tape, secure fish wire to hood safety switch wiring as shown. (FIGURE S)
- g. Pull fish wire and hood safety switch wiring back through main wire harness grommet into the vehicle. (FIGURE T & U)
- h. Disconnect hood safety switch wiring from fish wire and pull remaining slack of hood safety switch wiring from the engine compartment into the vehicle.



## 6 HOOD SAFETY SWITCH WIRE CONNECTIONS

1. Locate the BLACK/ORANGE and GRAY/RED wires from the remote start system harness.
2. Using the (2) supplied IDC wire taps (in hood safety switch parts bag), connect the wires listed below together and crimp the IDC wire taps in place using pliers. Ensure that a complete and secure connection is made.

### HOOD SAFETY SWITCH WIRE

Dk. GRAY  
Dk. GRAY



### REMOTE START HARNESS WIRE

GRAY/RED  
BLACK/ORANGE

**NOTE:** Switch is not polarity sensitive.

**NOTE:** Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

## 7 GROUND CONNECTION

1. Locate the 10 mm factory bolt located at the bottom left of the metal brace supporting the diagnostic connector. (FIGURE V)
2. Using a 10 mm ratchet remove the 10 mm lug bolt.
3. Re-secure the factory ground ringlet and remote start harness BLACK/ORANGE ground wire with ringlet and tighten with a 10 mm ratchet.

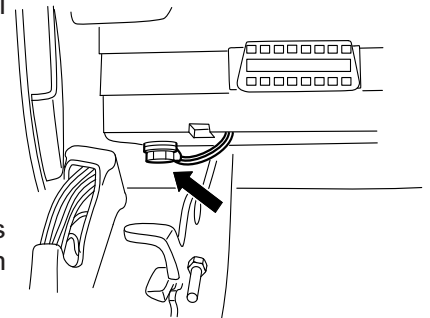


FIGURE V

**NOTE: USING A 3/8" DRIVE TORQUE WRENCH MAKE SURE THAT THE 10 mm GROUND LUG BOLT IS SECURELY TIGHTENED TO 78-121 INCH/POUNDS.**



## IMMOBILIZER INTERFACE RIBBON CABLE MOUNTING

1. Route the immobilizer interface ribbon cable to the ignition switch.
2. Following the instructions on the supplied adhesive primer stick, apply a thin coating to the entire immobilizer antenna coil (black plastic ring around ignition switch) and to the ribbon cable. (FIGURE W)
3. Remove the backing from one side of the supplied 2-way tape and apply tape around the immobilizer antenna coil (black plastic ring around ignition switch) keeping the tape off of the rounded part of the ignition switch face and trimming excess 2-way tape, if necessary. (FIGURE X & Y)

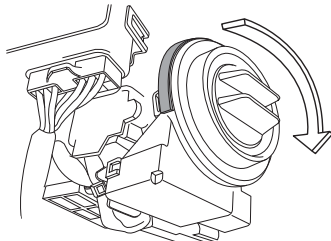


FIGURE X

Smart-Key

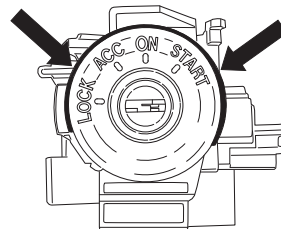


FIGURE Y

Retractable Key

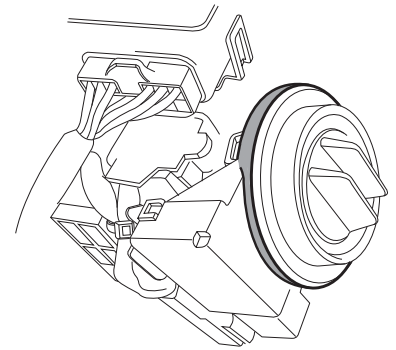


FIGURE W

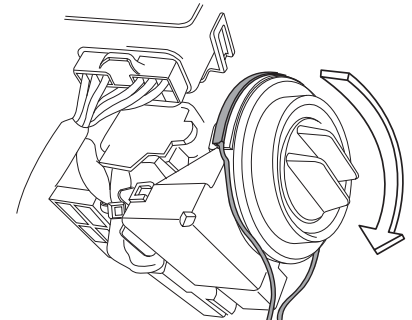


FIGURE Z

4. Remove the remaining backing on the 2-way tape and position the ribbon cable around the immobilizer antenna coil, with the red striped side facing the ignition key opening. (FIGURE Z)
5. Separate approximately 100 mm of the twisted red ribbon cable. (FIGURE AA)
6. Create a second loop around the immobilizer antenna coil directly in front of the first loop. (FIGURE BB & CC)
7. Using a supplied, short wire tie, secure the antenna coil. (FIGURE BB & CC)

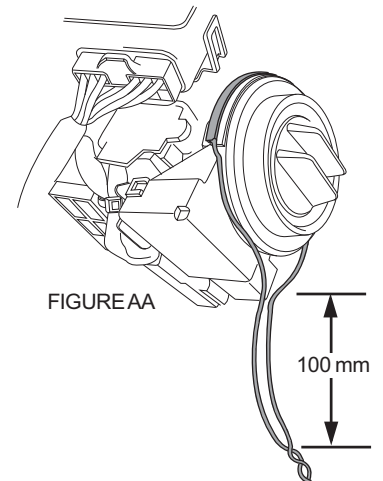


FIGURE AA

100 mm

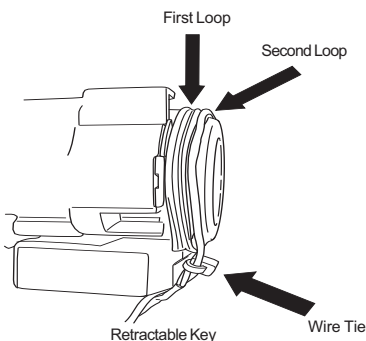


FIGURE BB

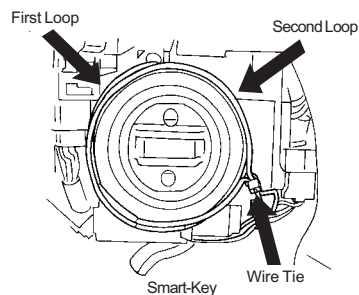


FIGURE CC

Smart-Key

**⚠ CAUTION:** This is a critical step that must be followed precisely for proper remote start operation.

# 9

## WIRE HARNESS CONNECTIONS - STEERING COLUMN

### IGNITION SWITCH CONNECTOR

1. Route the remote start ignition harness with 6-pin male and female ignition connectors over the factory harness, along the left side of the steering column. Do not secure harness at this time.
2. Locate the 6-pin WHITE ignition connector, on the left side of the steering column.
3. Release the red secondary lock and disconnect the 6-pin WHITE ignition connector by pulling outward. ( **⚠ CAUTION: DO NOT PULL ON WIRES TO DISCONNECT CONNECTOR.** )
4. Plug the 6-pin female remote start harness connector into the factory ignition switch and engage the red secondary lock. (FIGURE DD)
5. Plug the 6-pin male remote start harness connector into the 6-pin female factory ignition connector and engage the red secondary lock. (FIGURE DD)

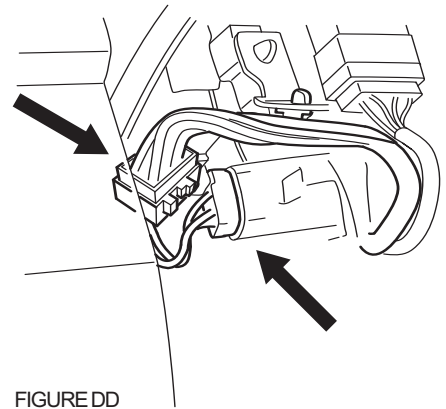


FIGURE DD

### PARKING LIGHT CONNECTION

1. Locate the 17-pin multifunction switch connector on the left side of the steering column (plugged into the turn signal assembly). (FIGURE EE)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. ( **⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.** )
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE EE & FF for proper connector and pin location.

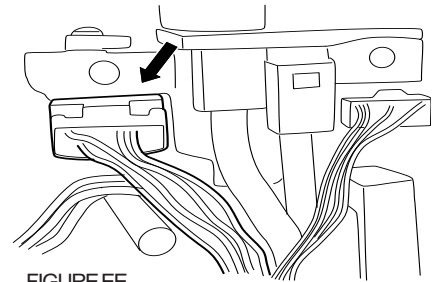


FIGURE EE

#### 2010 MODELS

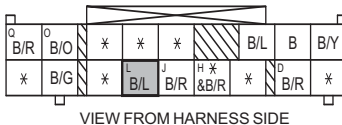


FIGURE FF

#### 2007-2009 MODELS



### VEHICLE'S PARKING LIGHT WIRE

2010 MODELS - BLACK/BLUE



BLACK/RED

2007-2009 MODELS - BLACK/RED



BLACK/RED

### REMOTE START HARNESS WIRE

**NOTE:** Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

**WIRE HARNESS CONNECTIONS - STEERING COLUMN, continued**

**KEY-IN-SENSE & PUSH WIRE ROUTING**

1. Route the remote start harness Red/Black and White/Green wires along with the immobilizer interface ribbon cable between the vehicle's yellow shielded harness and steering column harness to protect the wires from any potential damage from the steering column cover and tilt steering wheel mechanism. (FIGURE GG)
2. Using supplied, short wire ties, secure the remote start harness wires to the vehicle's harness. (FIGURE GG)

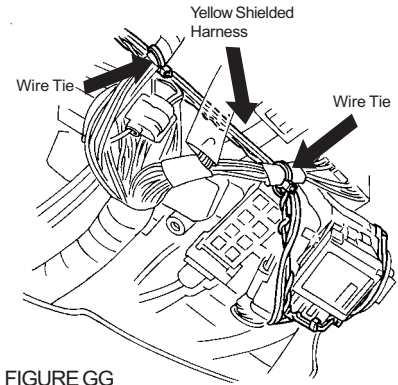


FIGURE GG

**⚠ CAUTION: FAILURE TO ROUTE THE REMOTE START HARNESS WIRES PROPERLY COULD RESULT IN DAMAGE TO THE WIRES DURING RE-ASSEMBLY. IF THE RED/BLACK OR WHITE/GREEN WIRES ARE SHORTED TO GROUND, THE SMART-KEY SUBSET WILL GET DAMAGED AND NEED TO BE REPLACED.**

**KEY-IN-SENSE CONNECTION**

1. Locate the 12-pin (Smart-Key equipped) or 2-pin (Retractable Key equipped) WHITE key-in-sense connector under the ignition switch. (FIGURE HH)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE HH & II for proper connector and pin location.

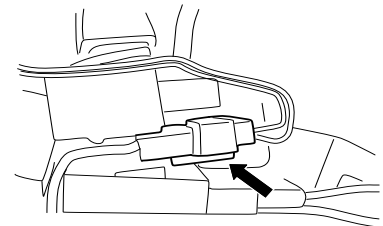
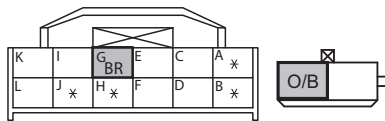


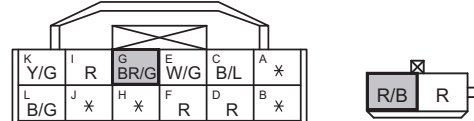
FIGURE HH

**2010 MODELS**



VIEW FROM HARNESS SIDE

**2007-2009 MODELS**



VIEW FROM HARNESS SIDE

FIGURE II

**VEHICLE'S KEY-IN SENSE WIRE**

**REMOTE START HARNESS WIRE**

**2010 MODELS**  
**BROWN (SMART-KEY)**  
**ORANGE/BLACK (RETRACTABLE KEY)**



**RED/BLACK**

**2007-2009 MODELS**  
**BROWN/GREEN (SMART-KEY)**  
**RED/BLACK (RETRACTABLE KEY)**



**RED/BLACK**

**NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.**

PUSH-WIRE CONNECTION (Smart-Key equipped vehicles only)

**NOTE: If performing the installation on a Retractable Key equipped vehicle, tape off the Remote Start Harness White/Green wire (This wire is not used on this vehicle).**

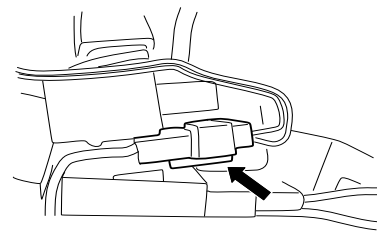
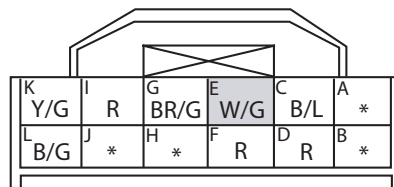


FIGURE JJ

1. Locate the 12-pin WHITE key-in-sense connector under the ignition switch. (FIGURE JJ)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE JJ & KK for proper connector and pin location.



VIEW FROM HARNESS SIDE

FIGURE KK

VEHICLE'S PUSH WIRE

WHITE/GREEN



REMOTE START HARNESS WIRE

WHITE/GREEN

**NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.**

4. Using (1) supplied, short wire tie secure the remote start wiring and immobilizer interface wiring to the vehicle's factory ignition wiring. (FIGURE LL)

**NOTE: IT IS EXTREMELY IMPORTANT THAT THE WIRING IS SECURED IN A MANNER THAT WILL ALLOW THE TILT STEERING WHEEL TO MOVE FREELY AND STILL ALLOW FOR REASSEMBLY OF THE STEERING COLUMN SHROUD. CHECK FUNCTIONALITY OF THE TILT STEERING WHEEL PRIOR TO REASSEMBLY.**

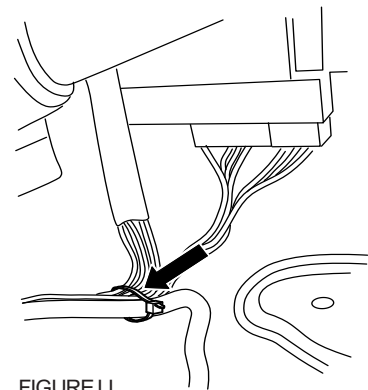


FIGURE LL

## 10 WIRE HARNESS CONNECTIONS - BRAKE SWITCH

### BRAKE SWITCH CONNECTION

1. Locate the 4-pin WHITE brake switch connector at the top of the brake pedal. (FIGURE MM)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Route the red/white remote start harness brake wire between the dashwall and steering column to the brake switch connector.
4. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE MM & NN for proper connector and pin location.

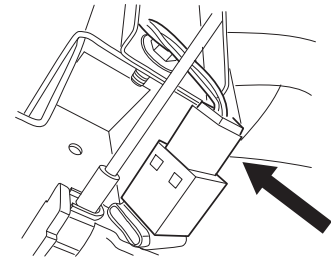
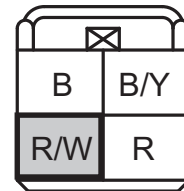


FIGURE MM



VIEW FROM HARNESS SIDE

FIGURE NN

### VEHICLE'S BRAKE WIRE

RED/WHITE



### REMOTE START HARNESS WIRE

RED/WHITE

NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

## 11 WIRE HARNESS CONNECTIONS - DRIVER'S KICK PANEL

### DOME LIGHT CONNECTION

1. Locate the 6-pin WHITE connector at the Body Control Module mounted in the left kick panel area. (FIGURE OO)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE OO & PP for proper connector and pin location.

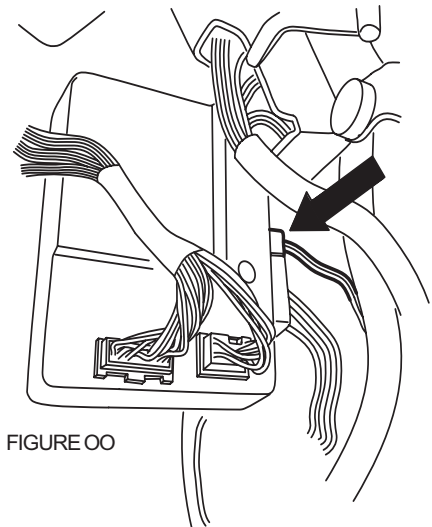
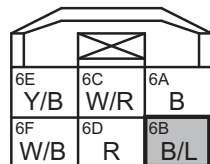


FIGURE OO



VIEW FROM HARNESS SIDE

FIGURE PP

### VEHICLE'S DOME LIGHT WIRE

BLACK/BLUE



### REMOTE START HARNESS WIRE

BLACK/BLUE

NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

# 11 WIRE HARNESS CONNECTIONS - DRIVER'S KICK PANEL, continued

## DOOR UNLOCK CONNECTION

1. Locate the 30-pin WHITE connector at the Body Control Module mounted in the left kick panel area. (FIGURE QQ)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE QQ & RR for proper connector and pin location.

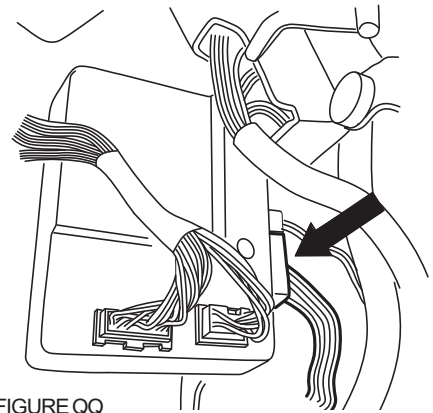


FIGURE QQ

### 2010 MODELS

5AB	5V	5V	5S	5P	5M	5J	5G	5D	5A
✕	B/Y	B/L	B/O	B/R	B/L	B/G	B/O	B/O	✕
5AC	5Z	5W	5T	5Q	5N	5K	5H	5E	5B
✕	✕	✕	B/G	✕	G/R	✕	B/L	B/G	B/W
5AD	5AA	5X	5U	5R	5O	5L	5I	5F	5C
✕	✕	✕	✕	L	L/R	GY/R	L/R	GY/R	L/R
▲G/O	▲G/B	✕	✕	✕	✕	✕	✕	✕	✕

VIEW FROM HARNESS SIDE

FIGURE RR

### 2007-2009 MODELS

5AB	5V	5V	5S	5P	5M	5J	5G	5D	5A
✕	B/Y	B/L	B/O	B/R	B/L	B/G	B/O	B/O	B/W
5AC	5Z	5W	5T	5Q	5N	5K	5H	5E	5B
✕	✕	✕	B/G	✕	G/R	✕	B/L	B/G	W/L
5AD	5AA	5X	5U	5R	5O	5L	5I	5F	5C
✕	✕	✕	✕	L	L/R	GY/R	L/R	GY/R	L/R
▲G/O	▲G/B	✕	✕	✕	✕	✕	✕	✕	✕

VIEW FROM HARNESS SIDE

## VEHICLE'S DOOR UNLOCK WIRE

BLACK/WHITE



## REMOTE START HARNESS WIRE

BLACK/WHITE

NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

## HORN CONNECTION

1. Locate the 24-pin connector at the Body Control Module mounted in the left kick panel area. (FIGURE SS)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Refer to FIGURE SS & TT for proper connector and pin location.

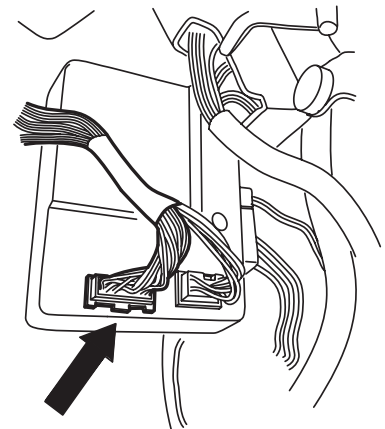


FIGURE SS

### 2010 MODELS

3W	3U	3S	3O	3O	3M	3K	3I	3G	3E	3C	3A
L/R	B/R	R	W/L	W/G	W/B	W	BR/L	W/R	B/L	R/B	BR/L
3X	3V	3T	3R	3P	3N	3L	3J	3H	3F	3D	3B
GY/R	B/O	B/L	B/W	✕	B/L	B/Y	B/O	{R}	B	✕	✕

VIEW FROM HARNESS SIDE

FIGURE TT

### 2007-2009 MODELS

3W	3U	3S	3O	3O	3M	3K	3I	3G	3E	3C	3A
L/R	B/R	R	W/L	W/G	W/B	W	BR/L	W/R	B/L	R/B	BR/L
3X	3V	3T	3R	3P	3N	3L	3J	3H	3F	3D	3B
GY/R	B/O	B/L	B/W	✕	B/L	B/Y	B/O	B	{R}	B	✕

VIEW FROM HARNESS SIDE

## VEHICLE'S HORN WIRE

BLACK



## REMOTE START HARNESS WIRE

BLACK

NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

## 12 WIRE HARNESS CONNECTIONS - ENGINE COMPARTMENT

### TACHOMETER CONNECTION

1. Locate the lower 60-pin WHITE connector at the Powertrain Control Module mounted to the backside of the driver's side strut tower in the engine compartment. (FIGURE UU)
2. Using a razor knife carefully cut back 1"-2" of the electrical tape to expose the wiring. (⚠ CAUTION: BE EXTREMELY CAREFUL NOT TO DAMAGE ANY OF THE WIRES.)
3. Using (1) supplied IDC wire tap, connect the wires listed below and crimp the IDC wire tap in place using pliers. Ensure that a complete and secure connection is made. Apply silicone to both ends of IDC wire tap to seal the connections from potential moisture. Refer to FIGURE UU & VV for proper connector and pin location.

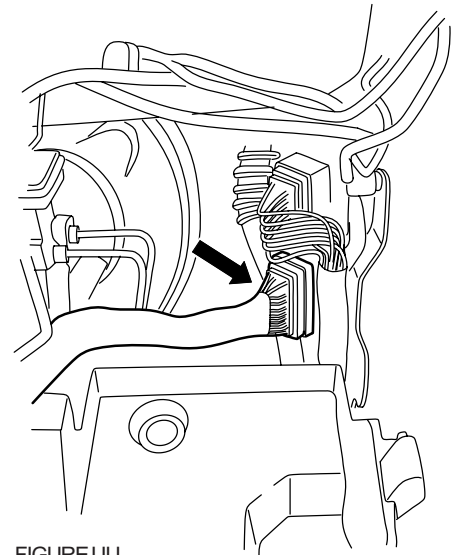


FIGURE UU

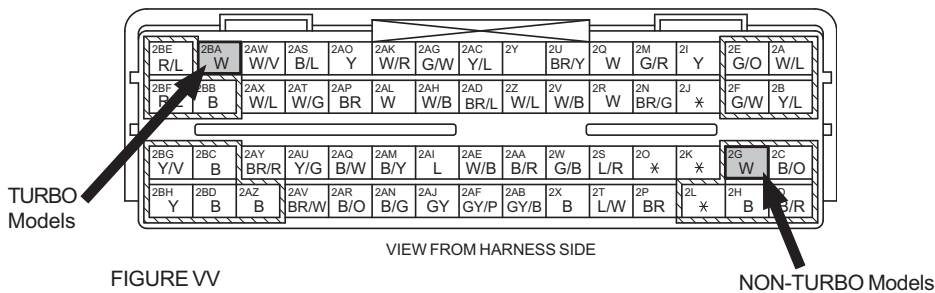


FIGURE VV

NON-TURBO Models

### VEHICLE'S TACHOMETER WIRE

WHITE



### REMOTE START HARNESS WIRE

WHITE

NOTE: Refer to Page 2 for IDC Wire Tap Procedure and Wire color code information.

## 13 EMERGENCY OVERRIDE/PROGRAMMING BUTTON MOUNTING

1. Locate the previously removed driver's side kick panel cover.
2. Drill a 9/32" hole at the top of the panel, exactly 20 mm down and 40 mm from the far edge.
3. Route the emergency override/programming button from the remote start harness down to the kick panel.
4. Mount the emergency override/programming button in the drilled hole from behind and screw the mounting cap in place. (FIGURE WW)

NOTE: DISCARD THE LOCK WASHER FROM THE EMERGENCY OVERRIDE/PROGRAMMING BUTTON, IT IS NOT USED ON THIS MODEL.

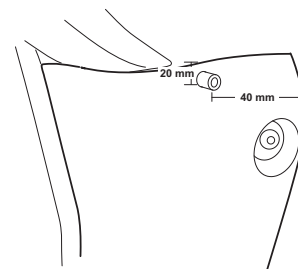


FIGURE WW

## RE-ASSEMBLY

1. Re-install the following components:
  - a. Plug the ignition key light back into the lower steering column cover (Retractable Key equipped vehicles only) and carefully snap the steering column cover halves back together. (FIGURE XX)
  - b. Re-install the (3) phillips head screws. Verify operation of the tilt steering wheel.

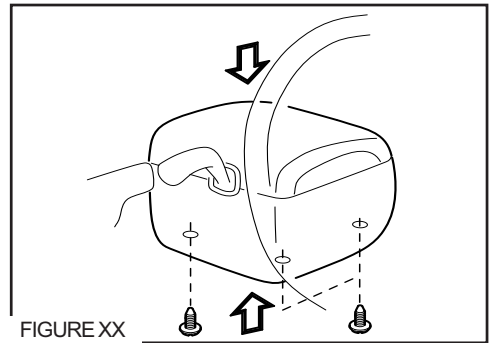


FIGURE XX

**⚠ CAUTION: Do not pierce the remote start wiring with the steering column cover halves or phillips head screws during reassembly.**

- c. Replace the ignition knob by pushing toward the ignition switch until it snaps in place. (Smart-Key equipped vehicles only)
  - d. Re-install the black, lower dash panel by engaging the two clips located at the front of the panel. Re-install the plastic fastener and push the plastic center button down until flush with fastener to engage. (FIGURE YY)
  - e. Re-install the driver's side kick panel by engaging the retaining clip on the panel. Re-install the plastic nut and rubber weatherstrip on the kick panel. (FIGURE ZZ)

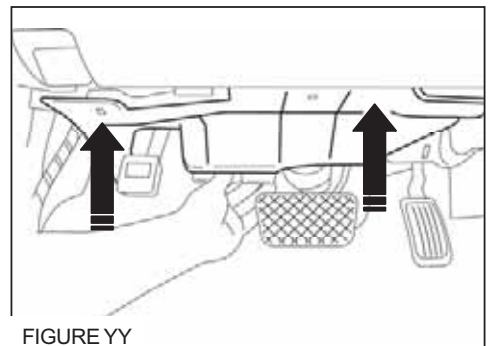


FIGURE YY

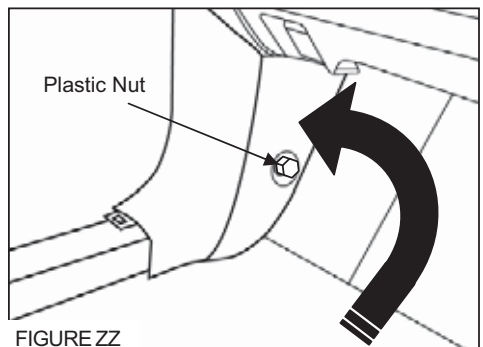


FIGURE ZZ

- f. Re-install the driver's side scuff plate by engaging all three clips. (FIGURE AAA)

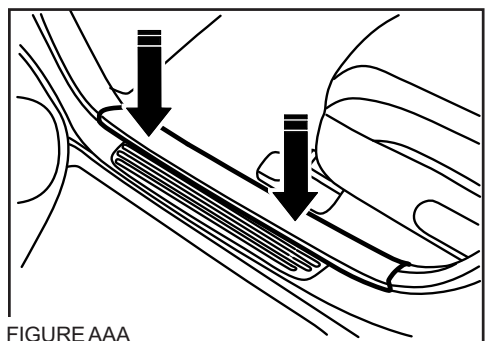


FIGURE AAA

2. Re-install and Reconnect Battery:
  - a. Carefully re-install battery into vehicle's battery tray.
  - b. Re-install battery hold-down bracket by engaging lower retainers into battery tray, away from vehicle dashwall and tightening both 10 mm nuts. (FIGURE BBB)
  - c. Reconnect the positive and negative battery terminals. (FIGURE BBB)

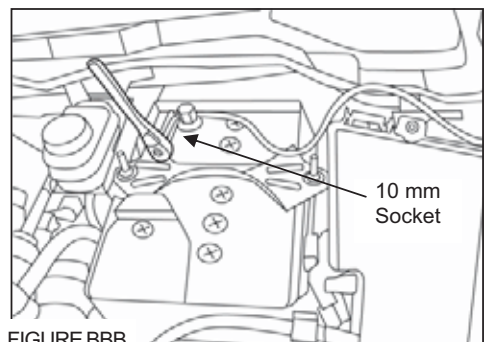


FIGURE BBB



## 15 SYSTEM POWER-UP

1. Verify that all connections are secure as per installation instructions.
2. Ensure 15 amp Room fuse is properly installed in dash fuse panel.
3. Turn the ignition key to the RUN position.
4. Reconnect the negative battery terminal.
5. Turn the ignition key to the OFF position.

## 16 UNDERHOOD WARNING LABEL MOUNTING

1. Open the engine hood and find a suitable mounting location in the engine compartment that will be in plain sight when the hood is open (on the radiator cowl).
2. Using an alcohol pad, clean the mounting surface thoroughly.
3. Remove the backing on the underhood sticker and mount in place.
4. Close engine hood.

## 17 TACHOMETER PROGRAMMING

1. Tachometer Programming - Make sure engine hood is closed!
  - a. Turn the ignition key to the ON or RUN position.
  - b. Press and hold the programming button. *After 10 seconds the horn will beep 3 times.*
  - c. Release the programming button.
  - d. Press and release the programming button a second time.  
*The horn will beep 4 times, indicating that the system has entered option learn mode.*
  - e. Press and release the brake pedal. *The horn will beep 1 time indicating that the system has entered tachometer learn mode.*
  - f. Start the vehicle with the ignition key and let engine warm up to a normal idle rate. (Less than 1000 RPMs)  
*The horn will beep 1 time every 3 seconds indicating the system is monitoring the idle rate.*
  - g. Once the vehicle's engine has warmed up, press and release the programming button.  
*The horn will beep 4 times, indicating that the system has learned the current idle rate.*
  - h. Turn the ignition key to the OFF position.

## 18 IMMOBILIZER INTERFACE PROGRAMMING

**NOTE: IF YOU DID NOT PROGRAM THE TACHOMETER SIGNAL AS INSTRUCTED IN SECTION 17, THEN THE VEHICLE WILL NOT ATTEMPT TO START. INSTEAD, YOU WILL GET FOUR ADDITIONAL BEEPS FROM THE HORN. THE TACHOMETER SIGNAL MUST BE PROGRAMMED TO THE DNA CARD FOR THE REMOTE ENGINE START FUNCTION TO OPERATE. (READ ENTIRE PROGRAMMING PROCEDURE PRIOR TO PROGRAMMING.)**

### 1. Transponder interface programming:

**NOTE: Two programmed ignition keys are required for this step and hood must be closed. For Smart-Key equipped vehicles, remove keys from Smart-Key transmitters and place transmitters at least 10 feet away from vehicle during programming.**

- a. Sitting in the driver seat, be prepared to press the brake pedal to shut down the remote starter system.
- b. Using the first key, turn the ignition on, wait for the THEFT light to turn off, then turn the ignition off and remove key from the ignition switch.
- c. Using the second key within 5 seconds, turn the ignition on, wait for the THEFT light to turn off, then turn the ignition off and remove key from the ignition switch.
- d. Activate the remote start function by pressing the START button (2) times within 5 seconds.  
*The system should flash the parking lights and chirp the horn one time, pause for four seconds then start the engine.*
- e. After the engine is started. Press the brake pedal to shut down the engine. The Immobilizer interface is now programmed.
- f. Attach new Remote Engine Start transmitters to the retractable keys.

## 19 TRANSMITTER PROGRAMMING

**NOTE: THE FOLLOWING STEPS ARE ONLY NECESSARY IF YOU NEED TO PROGRAM ADDITIONAL TRANSMITTERS.**

### 1. Transmitter Programming

**NOTE: The transmitters shipped with the remote start system are pre-programmed to the DNA card, and do not need to be reprogrammed.**

- a. Turn the ignition key to the ON or RUN position.
- b. Press and hold the programming button.

*After 10 seconds the horn will beep 3 times, indicating that the system is now in transmitter learn mode.*

- c. Release the programming button.
- d. If programming transmitters at this time, press the START button once on each transmitter to be programmed.

*The horn will beep 1 time to indicate that the transmitter has been learned.*

**NOTE: Up to a total of 8 transmitters can be programmed to the DNA card.**

Car Find

1. Press and hold START button - Horn should beep six times and parking lights should flash six times.


 Remote Engine Start Functions

1. REMOTE ENGINE START - Make sure the key is removed from the ignition switch and the engine hood is closed. Press the START button twice within 3 seconds. The parking lights should flash one time, the horn should beep once, then the vehicle should crank and start. Once started, the parking lights will turn on and stay on signifying the vehicle is running.
2. UNLOCK DOORS - While the vehicle is running on the remote engine start, press the START button once to unlock the driver's door. Press the START button a second time within 3 seconds of first button press to unlock all doors. The Factory transmitters will not unlock all doors during remote engine start.
3. BRAKE PEDAL SAFETY - Enter the vehicle and press the brake pedal. The vehicle should shut off.
4. KEY-IN-SENSE - Insert the ignition key into the ignition switch but keep in the off position. Activate the remote engine start. The vehicle should flash the lights once as if it is going to start, but then the horn should beep twice and the remote engine start does not attempt to start the vehicle since it senses the key in the ignition.
5. HOOD SAFETY SWITCH - Open the engine hood and activate the remote engine start. The horn should beep two additional times signifying that hood safety switch is engaged and the vehicle will not start. (Reference section 23 if adjustment is needed.)


**NOTE: IF ANY OF THE ABOVE FUNCTIONS DO NOT PERFORM AS DIRECTED, SEE TROUBLESHOOTING GUIDE (SECTION 21).**

FUNCTIONAL TESTING IS NOW COMPLETE.

1. Horn honks 4 times & vehicle does not remote start - No tachometer signal learned to DNA card.
  - a. Ensure good connection and correct vehicle wire at PCM in engine compartment (See Section 12).
  - b. Re-program tachometer signal (See Section 17).
  
2. Starter cranks too long during remote start operation.
  - a. Re-program tachometer signal (See Section 17) and allow engine to warm up to a normal idle rate (Less than 1000 RPMs).
  
3. Ignition turns on, then horn honks 2 times & vehicle does not remote start - Key-in-sense circuit activated.
  - a. Remove ignition key from ignition cylinder.
  - b. Ensure good connection and correct vehicle wire at Key-in-sense connector (See Section 9).
  
4. Horn honks 2 times & vehicle does not remote start - Safety input activated.
  - a. Ensure hood is closed and hood switch is adjusted properly (See Section 23).
  - b. Ensure brake pedal is not depressed.
  - c. Ensure good connection and correct vehicle wire at Brake switch (See Section 10).
  
5. Horn honks 3 times & vehicle does not remote start - Service/Valet Mode engaged.
  - a. Disengage Service/Valet Mode (Refer to page 5 in Owner's Manual).
  
6. Ignition turns on, Theft indicator is flashing & vehicle does not remote start - Immobilizer Interface issue.
  - a. Ensure 4-pin connector is engaged into the remote start control module properly (See Section 2).
  - b. Ensure Immobilizer Interface Ribbon Cable is installed properly (See Section 8).
  - c. Double-wrap the Immobilizer Interface Ribbon Cable to create two loops around the immobilizer antenna coil (See Section 8).
  - d. Re-program immobilizer interface (See Section 18).
  
7. Vehicle does not remote start unless Smart-Key transmitters are in or near the vehicle.
  - a. Re-program immobilizer interface using valet keys and place Smart-Key transmitters at least 10 feet away from vehicle (See Section 18).
  
8. Unlock feature does not operate properly during remote start operation.
  - a. Ensure good connection and correct vehicle wire at Body Control Module (See Section 11).

1. NOTE: After reassembling the vehicle parts, check for any dirt. Clean any dirty parts.
2. NOTE: After completing the installation, refer to the vehicle Owner's Manual for instructions on how to reset the clock and preset radio stations.
3.  CAUTION: Disconnecting the battery causes the DSC indicator light to become inoperable. (The DSC OFF indicator light flashes and the TCS/DSC indicator light is illuminated.)

Perform the following procedure to restore the DSC to an operable condition:

- a. Start the vehicle with the key.
  - b. Turn the steering wheel completely to the right and then completely to the left.
  - c. Verify that the DSC OFF indicator light turns off.
  - d. Turn the ignition switch to the OFF position and then turn it to the ON position again.
  - e. Verify that the TCS/DSC indicator light turns off.
4.  CAUTION: When the battery is disconnected, the windows will not fully open and close automatically.

Perform the following procedure to the driver and passenger front windows to resume operation:

- a. Turn the ignition switch to the ON position.
- b. Press down the window switch on the front passenger's side door panel and fully open the window.
- c. Pull up the window switch on the front passenger's side door panel and continue holding for approximately 3 seconds to fully close the window.
- d. Press down both front window switches on the driver's door panel and fully open the windows.
- e. Pull up both front window switches on the driver's door panel and continue holding for approximately 3 seconds to fully close the windows.
- f. Turn the ignition switch to the OFF position.

## 23 HOOD SAFETY SWITCH ADJUSTMENT

The hood safety will need to be adjusted to shutdown the vehicle when the hood is raised to the full upright position

1. Raise and prop the vehicle's hood.
2. The hood switch cylinder should be bent away from the hood to approximately 15 degrees above parallel with the ground. (FIGURE CCC)
3. After the adjustment has been made verify that remote start system does not engage when the vehicle's hood is open.
4. If the remote start system engages with the hood in the full upright position, the switch will need to be bent closer to the hood.

**NOTE: IT IS VERY IMPORTANT TO VERIFY THAT THE HOOD SAFETY SWITCH PREVENTS THE REMOTE ENGINE START SYSTEM FROM ENGAGING WHEN THE VEHICLE'S HOOD IS IN THE FULL UPRIGHT POSITION**

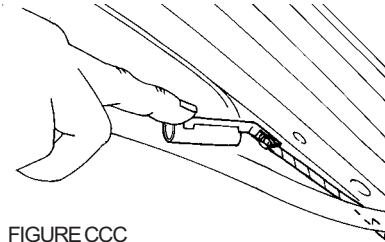
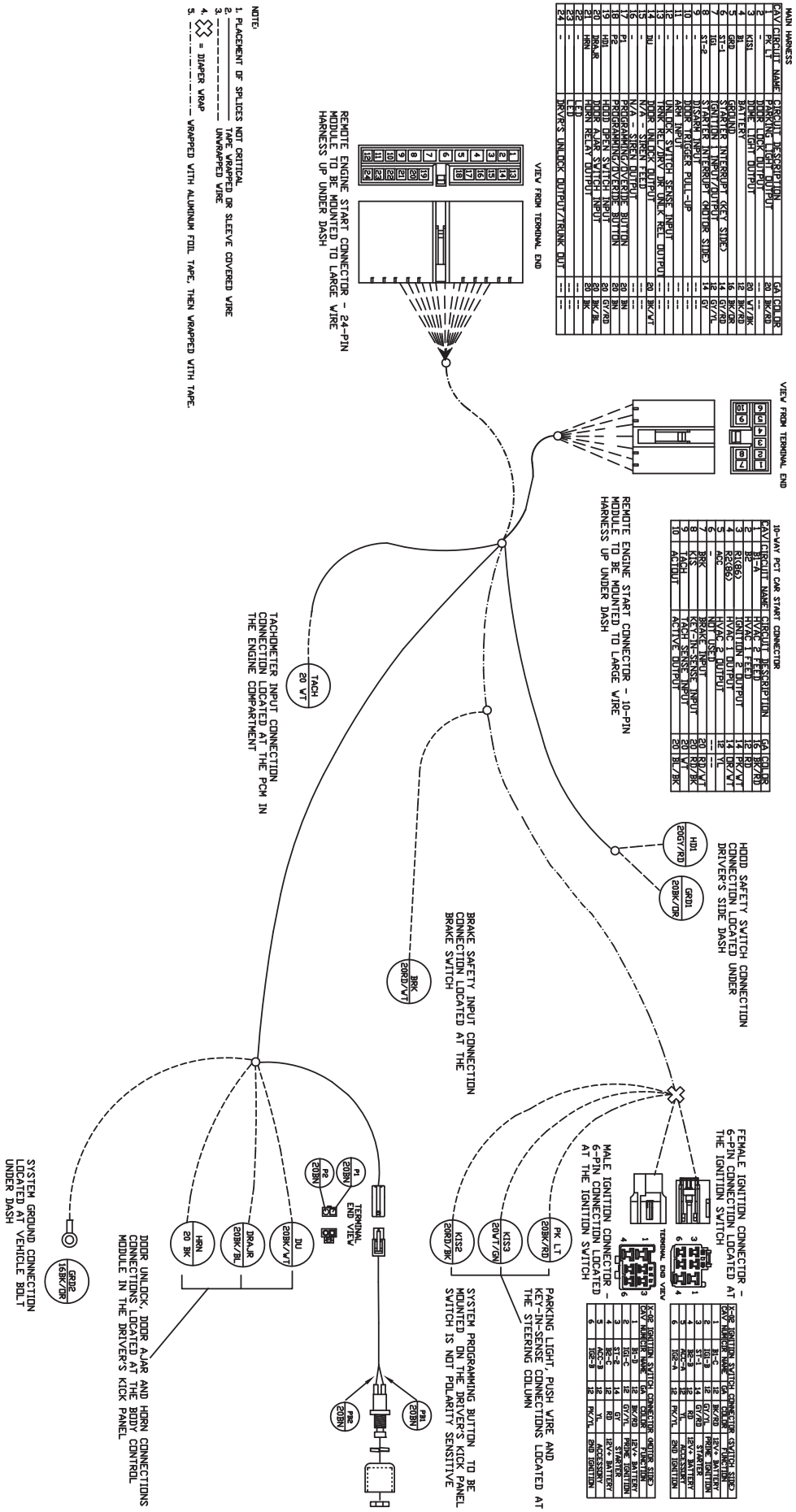


FIGURE CCC

## 24 SERVICE PART NUMBER LIST

<b><u>Part Number</u></b>	<b><u>Description</u></b>
<b>0000-8F-H03</b>	<b>Hood Safety Switch Kit Service Part</b>
<b>0000-8F-H05A</b>	<b>Mazda Immobilizer Interface Service Part</b>
<b>0000-8F-M21</b>	<b>Mazda CX-7 DNA Card Software Service Part</b>
<b>0000-8F-M41</b>	<b>Mazda CX-7 Remote Start Wire Harness Service Part</b>
<b>0000-8F-Z01</b>	<b>Remote Start Control Module Service Part</b>
<b>0000-8F-Z02</b>	<b>Mazda 1-Button Remote Start Transmitter Service Part</b>
<b>0000-8F-Z03</b>	<b>Emergency Override/Programming Button Service Part</b>
<b>0000-8F-Z10</b>	<b>Dipole Antenna Service Part</b>
<b>0000-8F-Z12</b>	<b>Underhood Warning Label Service Part</b>
<b>0000-8F-Z13</b>	<b>PVC Foam Tape Service Part</b>

# SYSTEM LAYOUT



- NOTE:
1. PLACEMENT OF SPLICES NOT CRITICAL.
  2. TAPE WRAPPED OR SLEEVE COVERED WIRE
  3. UNWRAPPED WIRE
  4. DIAPER WRAP
  5. WRAPPED WITH ALUMINUM FOL. TAPE, THEN WRAPPED WITH TAPE.