TECHNICAL INSTRUCTIONS

FOR

SAFETY RECALL J0A/J0B/J0C

DRIVER'S AIRBAG INFLATOR MODULE

CERTAIN 2004 – 2005 MODEL YEAR RAV4

All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to have successfully completed E-Learning course SC18A (if you had previously completed E-Learning Course SC13B, you do not have to take SC18A), in addition to "Safety Recall and Service Campaign Essentials", and currently hold <u>at least one</u> of the following certifications levels:

- Toyota Certified (Electrical)
- Toyota Expert (Any Specialty)
- Master
- Master Diagnostic Technicians

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

I. OPERATION FLOW CHART

The flow chart is for reference only. *DO NOT* use it in place of the full technical instructions. Follow *ALL* steps as outlined in the full technical instructions to confirm the campaign is completed correctly.



II. BACKGROUND

The subject vehicles are equipped with a Driver's front dual-stage airbag inflator. Toyota believes these inflators may have an increased potential for moisture intrusion over time. Moisture intrusion could potentially make the inflator assembly more susceptible to rupture during a crash. An inflator rupture may result in metal fragments striking and potentially seriously injuring the vehicle occupants.



III. IDENTIFICATION OF AFFECTED VEHICLES

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

IV. PREPARATION

A. PARTS



Only one inflator kit is required per vehicle, ensure you pick the correct part number for your location and model year so that the correct return shipping information is included.

| Model | Part Number | Part Description | | | Quantity |
|-------|--------------------|---------------------|----------------------------|--|----------|
| RAV 4 | 04005-08442 | Driver's S | Driver's Side Inflator Kit | | 1 |
| | *The kit above inc | ludes the following | g parts. | | |
| | Inflato | r | 1 | | |
| | Self Lockin | ig Nut | 4 | | |

Non-Desiccated Part Recovery

Dealers should <u>discontinue the installation</u> of the non-desiccated parts listed below for recall, customer pay repairs AND over-the-counter sales (if applicable).

| Model | Model Year | Part Number | Part Description |
|-------|------------|----------------|--------------------|
| | 2004 2005 | 45130-42120-C0 | PAD ASSY, STEERING |
| KAV4 | 2004-2005 | 45130-42140-C0 | WHEEL |

Toyota requires all dealers to return any parts listed above that still remain in dealer inventory by utilizing the Hazmat Part Return Program available. Dealers will be issued a refund for all part returns. This part return program is outlined in *PANT Bulletin 2014-042*.

Important Note:

In order to return the inflator, packages must **NOT** be opened/tampered with.

B. TOOLS & EQUIPMENT

• Standard hand tools • Torque wrench

• Techstream

OPTIONAL SST – This is an essential special service tool that the dealership should have. This tool is not mandatory when performing this repair.

| Part Number | Part Name | Quantity |
|----------------|---------------------|----------|
| 09890-47010-01 | Anti-Static Mat Set | 1 |

E04 CAMPAIGN TOOLS – These tools where previously provided to the dealership for campaign D0F and F0J. These tools are required when performing this repair.

| Image | Name | Quantity |
|--|--|----------|
| Mounting Bracket O O O O O O O O O O O O O O O O O O O | (D0F) Airbag Mounting Bracket & hardware | 1 |
| | F0L Mounting Bracket & hardware | 2 |
| | Barcode Scanner (D0F & F0J) | 1 |

NOTE: These tools were provided at the start of recall D0F and F0J.

V. SAFETY PRECAUTIONS



VI. COMPONENTS



VII. SRS SYSTEM HEALTH CHECK



1. PERFORM A HEALTH CHECK

- a) Confirm the Techstream is connected to the dealership's internet.
- b) When launching the Techstream software the VIN **MUST** be entered manually.
- NOTE: All letters of the VIN *MUST* be entered in ALL CAPS, or the VIN will need to be reentered when running the diagnostic report.
- c) Perform a health check.
 - Note: The VIN may auto populate on the later model year vehicles, if this happens DO NOT change the VIN.

2. RUN A DIAGNOSTIC REPORT



This campaign only covers the replacement of the driver's airbag inflator. No other components in the SRS system are covered by this campaign.

a) After the health check has completed, run a diagnostic report by clicking on the link on the health check screen.

| Monitor Status | DTC <u>Cu</u> | rr Pend H | list Perm | SB Calibration | Update | NOTE: If the Techstream and there wi | e VIN was not entered in ALL CAPS when was launched, an error will be displayed ill be a prompt to reenter the VIN |
|---------------------------|--|--|--|---|---|--|---|
| | | | | | | Error | The input VIN is not correct. Please re-enter VIN. |
| |) Diagn | ostic | c Re | eport | b) Er cli | Inter the vehicle the 'report' b | e mileage and repair order information, then putton. |
| | Vehic | le Info | rmatio | on | | | |
| Mileage: Repair Order: | | \leq | | 22 | | | |
| Report | | | | | | | |
| STOP - | The VIN VIN WIL A health recorded TMS. The seri | MUS L NO chec d by 1 al nu | T be T auto k an TMS. mber | entered ma o-populate o d diagnostic If the diagn recording a | nually in A due to veh c report w lostic repo application | LL CAPS whe cle age. th VIN <i>MUST</i> k rt is not run, t will be disable | In launching the Techstream software, the be performed within the last 36 hours and the healthcheck will not be recognized by ed and the repair cannot be completed if a |

serial number recording application will be disabled and the repair cann health check and diagnostic report is not performed and recorded by TMS.

VIII. WORK AREA PREPARATION



IX. DRIVERS AIRBAG REMOVAL

1. DISCONNECT THE NEGATIVE BATTERY CABLE



Wait at least 90 seconds after disconnecting the cable from the negative battery terminal to prevent airbag and seat belt pre-tensioner deployment.
Follow all precautions as outlined on TIS before servicing the SRS system.

2. REMOVE THE DRIVERS AIRBAG

a) Refer to TIS for instructions on airbag removal:

RAV4 <u>2004</u> <u>2005</u>

b) Use low pressure shop air to clean any debris around the inflator.



c) Place tape over the airbag connectors.

NOTE: DO NOT cover the inflator bar code.

X. RECORD AIRBAG AND INFLATOR SERIAL NUMBERS

- 1. LAUNCH THE SERIAL NUMBER RECORDING APPLICATION Video Supplement: Serial Number Recording
 - The AIRBAG ASSEMBLY, ORIGINAL INFLATOR, and NEW INFLATOR serial numbers MUST be recorded using the barcode scanner (provided at the launch of SSC D0F & F0J).



- The barcode scanner application MUST be completed on every vehicle. These numbers MUST be included on every warranty claim that is submitted for inflator module replacement or the claim may be subject to debit.
- The technician performing the work MUST have valid TIS login credentials and an internet connection to perform the inspection and scanning process.
- a) Log in to TIS and input the VIN of the vehicle in the Vehicle Inquiry tab.
- b) Confirm the VIN is applicable and that the campaign has not been completed.
- c) Click on the link to launch the serial number recording application.

| Vehicle Identification Number | Search | | |
|------------------------------------|---|--|--|
| VICE INX BR32E 000000000 | Clear Lookup | | |
| a) Vehicle Information | | | |
| Division: TOYOTA | Model: Corolla | Grade: CE | Model Year: 2003 |
| Drive Type: 2WD | Body Type: 4Dr. Sedan | Engine Family: 4-cylinder - 1ZZ | Transmission: |
| Date of First Use: | Production Date: 01/18/2002 | Plant Code: Z - FREMONT PLANT - NUMMI | |
| VIN: 1NX -BR32E-000000000 | Standard Equipment: Click her | e to display | |
| Exterior Color: 03M5, SANDRIFT | METALLIC | Interior Color: FA41, FA41 | |
| | | Interior Trim Color: FA, * | Interior Fabric: F, * |
| Vehicle accessories are not curren | itly available. Try your query again later. | | |
| Campaign Service History | Warranty DTC History Di | agnostic Report | |
| Service Campaign | | | |
| Connector Descriptions Colum | | del Mars Courses Courses Matche Courses | d Turder Mehiden, 2002 2002 Medel Mare |
| Campaign Description: Safety | Recall DUP Remedy Notice - 2003-2004 M | odel Year Corolla, Corolla Matrix, Sequola, an | id Tundra Venicies, 2002-2003 Model Year |

d) Reenter TIS password in the serial number recorder application.

NOTE: The person logged-in to TIS <u>MUST</u> be the person performing the repair.

| | Airt | bag Inflator | Module - S | afety Recall | \cap |
|--|----------------------------|---------------------------------|------------------|--|--------|
| | | SSC F0 | L | 12345 | |
| Jser ID: Northr) | | | Technician Name | : Jeff Northrup | |
| Dealer Code: | | | Dealer Name: | | |
| fime: 08/08/2015 07:53 AM PI | т | | Airbag Serial #: | | |
| 111C1 00/00/2015 07.55 XM11 | | | Arbug Schur #. | | |
| Singinal Amator Serial W. | | | Replacement Int | | |
| | VIN: JTE | HD 20V 946005940 [200- | 4 RAV4 BLACK] | | |
| | VIN: JTE | HD 20V 946005940 [200- | 4 RAV4 BLACK] | | |
| Task | VIN: JTE | HD 20V 946005940 (200- age * | 4 RAV4 BLACK] | Status | |
| Task Airbag # Record | VIN: JTE Mile Dealer | HD 20V 946005940 [200- | 4 RAV4 BLACK] | Status Not Started | |
| Task Airbag ≢ Record Inflator ≢ Record Scondians | VIN: JTE | HD 20V 946005940 [200- | 4 RAV4 BLACK] | Status Not Started Not Started Not Started | |
| Task Airbag ≢ Record Inflator ≢ Record Terms & Conditions New Airbag ≢ | VIN: JTE | HD 20V 946005940 (200- | 4 RAV4 BLACK] | Status Not Started Not Started Not Started Not Started | |
| Task Arbag ≢ Record Inflator ≢ Record Terms & Conditions New Airbag ≠ | VIN: JTE Mile Dealer | HD20V 946005940 [200- | 4 RAV4 BLACK] | Status Not Started Not Started Not Started Not Started | |
| TERA Airbag # Record Inflator # Record Terms & Conditions New Airbag # | VIN: JTE Mile | HD20V 946005940 [200- eage * | 4 RAV4 BLACK] | Status Not Started Not Started Not Started Not Started | |
| Task Airbag # Record Inflatur # Record Terms & Conditions New Airbag # | VIN: JTE | HD20V 946005940 (200- | Time | Status Not Sarted Not Sarted Not Sarted Not Sarted | |
| Airbag # Becord Inflator # Record Terms & Conditions New Airbag # | VIN: JTE | HD20V 946005940 (200 cage * | Inne | STATUS Not Started Not Started Not Started Not Started | |

e) Record the vehicle mileage into the serial number recording application.

NOTE:

- A task status screen will populate next and at other intervals during the repair. This screen will indicate if the inflator was replaced or in some limited cases that the entire airbag assembly was replaced. Click 'next' to proceed to the next step. This information will be used for record keeping by TMS.
- If this screen indicates that the inflator has already been replaced on this VIN, there is no need to perform the campaign again.

2. CONNECT THE BARCODE SCANNER

- a) Connect the barcode scanner to the USB port on the Techstream.
- b) The scanner will automatically connect and a beep will be heard when the scanner is ready.

NOTE:

- The scanner works best in low light conditions.
- Always hold the scanner directly in front of and parallel to the barcode label.



The scanner will need to be updated the first time it is used to scan the RAV 4 airbag barcodes. Refer to Section XIII Appendix for more information.

NOTE: Best practice is to scan all 3 components at the same time.



1. Airbag

2. Old Inflator

NOTE: A wire harness is not needed for this application.

ATTENTION: This information is CRITICAL

- Scan the **AIRBAG ASSEMBLY** serial number 2 a) times.
 - 1) Confirm the cursor is in the first serial number box then scan the serial.
 - 2) Position the cursor in the second serial number box then scan the serial.
- b) Click next.
- c) Proceed to Step 4.

NOTE:

- If both serial numbers that are entered do not match, confirm and reenter.
- If the airbag serial number is missing or • unreadable proceed to AIRBAG SERIAL NUMBER IS MISSING OR UNREADABLE.



The AIRBAG ASSEMBLY serial number and the INFLATOR serial number are DIFFERENT. The AIRBAG ASSEMBLY serial number MUST be recorded prior to replacement.

- **AIRBAG SERIAL NUMBER IDENTIFICATION**
- The airbag serial number is ALWAYS the 12 DIGITS located between the asterisks.



| Dealer Code: Time: 08/08/2015 07:53 AM PDT | Dealer Name: | |
|---|--|-------|
| | VIN: JTE HD 20V 946005940 [2004 RAV4 BLACK] | |
| | Rav4 or Hilux Airbag Assembly Starts with W, G or a Number | |
| | Original Airbag Module | |
| | Record Airbag Serial Number | |
| | *Airbag Assembly Serial Number: *Reconfirm Airbag Assembly Serial Number: | |
| | If original Airbag Assembly serial number is not visible or missing, check this box $\hfill \square$ | Class |



AIRBAG SERIAL NUMBER IS MISSING OR IS UNREADABLE

STOP

If the airbag serial number and barcode are not legible or are not present, check the box in the application indicating the serial number is not legible and contact your regional representative.

If the airbag serial number cannot be scanned or is not present check the box as shown below and repalce a) the airbag assembly. USER ID: NORTH Iecnnician Name: Jerr Northrup Dealer Code: Dealer Name: Time: 08/08/2015 07:53 AM PDT VIN: JTE HD 20V 946005940 [2004 RAV4 BLACK] Rav4 or Hilux Airbag Assembly Starts with W, G or a Number waaaaaaa Original Airbag Module **Record Airbag Serial Number** Use of a barcode scanner is strongly recommended when entering Airbag Assembly Serial Number. *Airbag Assembly Serial Number: *Reconfirm Airbag Assembly Serial Number: If original Airbag Assembly serial number is not visible or missing, check this box Clear Next K Checking this box requires Air Bag Assembly replacement. **Note** Contact your region in the event that you are unable to read the serial number. DO NOT ATTEMPT TO INSTALL INFLATOR

The following screen will also appear when checking the box



- b) After the Region approves the Airbag Assembly replacement and the new part is received, scan the NEW airbag barcode in the Serial Number Recording Application.
- c) Select next to go to receive the Warranty Authorization # to be included in the warranty claim.

| Time: 08/08/2015 07:56 AM PDT VIN: JTE HD 20V 946005940 [2004 RAV4 BLACK] |
|---|
| Rav4 or Hilux Airbag Assembly Starts with W, G or a Number |
| *012519305A5L* |
| Replacement Airbag Module |
| Record Airbag Serial Number |
| Use of a barcode scapper is strongly recommended when entering Airbag Assembly Serial Number. New Airbag Assembly Serial Number: |
| * I agree to complete the safety recall's remaining technical instructions. |
| 1 agree to perform a vehicle Health Check with Techstream upon completion of the safety recall's technical instructions. |
| V - Indicates Required Field(s) |
| |
| STOP The new AIRBAG ASSEMBLY serial number MUST be recorded prior to reinstallation to track the airbag assembly to the vehicle. |



ENSURE YOU ENTER BOTH THE OLD AND NEW INFLATOR SERIAL NUMBERS IN THE APPROPRIATE SPOT OF THE APPLICATION -DO NOT ENTER THE AIRBAG SERIAL NUMBER FOR THIS STEP-

4. SCAN THE OLD AND NEW INFLATOR SERIAL NUMBER

STOP

a) Scan the OLD inflator serial number and mark the old inflator so that it will not be reused.

b) Scan the *NEW* inflator serial number and go to step d.
 NOTE: If the airbag serial number is missing or unreadable proceed to Step c.

ATTENTION: This information is **CRITICAL**

- It is used to confirm the correct inflator is removed from the vehicle.
- It is recorded by TMS to trace the return parts shipment.
- It is used to track the new inflator that is being installed in the vehicle.





c) If the inflator serial number cannot be scanned or is not present check the box as shown below.

NOTE:

- Confirm the cursor is in the correct serial number input box before scanning.
- If there are any difficulties or concerns with this process, email quality_compliance@toyota.com with details.

| Dealer Code: | Dealer Name: |
|-------------------------------|---|
| Time: 08/08/2015 07:53 AM PDT | |
| | |
| | VIN: JTE HD 20V 946005940 [2004 RAV4 BLACK] |
| | |
| | Rav4 or Hilux Airbag Assembly |
| | |
| | |
| | |
| | #012519305A5L# |
| | |
| | Original Airbag Module |
| | Record Airbag Serial Number |
| | Use of a barcode scanner is strongly recommended when entering Airbag Assembly Serial Number. |
| | *Airbag Assembly Serial Number: |
| | •Reconfirm Airbag Assembly Serial Number: |
| | If original Airbag Assembly serial number is not visible or missing, check this box |
| | |
| Chec | king this box requires Air Bag Assembly replacement. |
| | **Note** Contact your region in the event |
| | that you are unable to read the serial number. |
| | DO NOT ATTEMPT TO INSTALL INFLATOR |
| | |
| | |
| | GASSEMBLY sorial number MUST be seanned prior to reinstal |
| | o Addember senai number moor be scanned prior to remstan |
| ick the airpad a | assembly to the vehicle (reter to dade 13). |

d) Confirm agreement by checking the two boxes.

| | <u> Airbag Inflator Module - Safety Recall</u> | - |
|--|---|-----------------|
| | SSC - F0L | |
| | | (1)(2)(3)(4)(5) |
| ser ID: NorthrJ | Technician Name: Jeff Northrup | |
| ealer Code: | Dealer Name: | |
| ime: 08/08/2015 07:58 AM PDT | New Airbag Serial #: *******5L | |
| NorthrJ has agree | d to the following terms and conditions on 08/08/2015 07:58 AM PDT | |
| I agree to complete the safety recall's remaining technical instru | ctions. | |
| I agree to perform a vehicle Health Check with Techstream upor | completion of the safety recall's technical instructions. | |
| | | |
| Jeff Northrup has suc | ccessfully confirmed completion of Airbag Inflator Module Safety Recall for | |
| IV | N - JTE HD20V 946005940 [2004 RAV4 BLACK] | |
| | Warranty Authorization #: c1fe42e2 | |
| A | irbag module WAS replaced under this safety recall. | |
| Print this pa | ge for your records and then click 'Close' to resume working. | |
| | | Clos |
| | | |
| | | |
| | | |

XI. INFLATOR REPLACEMENT



5. MOUNT THE AIRBAG ONTO THE MOUNTING BRACKET

- a) Mark the following parts so they will not be reused:The inflator
 - The 4 mounting nuts







- b) Attach the 2 mounting bars to the airbag as shown.
 - NOTE: The color of the brackets may be different.

- NOTE: Ensure that the bolts that attach the bracket to the airbag DO NOT protrude past the threaded portion of the horn mounting ring.
- c) Install the mounting bars to the support bars with the supplied hardware.
 - NOTE: The airbag will be mounted upside down in the mounting fixture.

d) Position the airbag so that all four nuts can be removed through the access holes.

NOTE: The inflator nuts may need to be accessed at a slight angle through the openings.

- e) Tighten the nuts holding the support bars to the mounting bracket and the bolt and nut.
- f) Confirm the following:
 - Mounting bracket is secure in the vise.
 - Airbag is secure in the support bars.
 - Support bars are secure on the mounting bracket using 1 bolt/nut at the top of each support bar and 2 nuts/bolts at the bottom of each support bar.





6. REMOVE THE SELF LOCKING NUTS

a) Use the access holes in the bracket to remove and discard the 4 nuts.

NOTE:

• DO NOT use power tools.



Design of the supplied part

Design of the actual vehicle

7. REMOVE THE INFLATOR

a) Pull the inflator straight back from the airbag assembly and place it on a safe work surface.

NOTE: You may need to slightly tilt the inflator to clear the horn ring.

b) Place the old inflator in the box that the new inflator came in and return it to the parts department.

The design differences from the original inflator and the replacement inflator.



8. INSTALL THE NEW INFLATOR

- a) Check that all 4 studs are straight.
- b) Straighten any studs that are bent.

c) Carefully guide the new inflator into the airbag assembly.

NOTE: Ensure that the bar code is facing the correct way.

d) Ensure that the inflator is fully seated in the airbag.





9. TORQUE THE NEW RETAINING NUTS

a) Install and tighten the **NEW** nuts evenly in two steps in an X pattern. Use a socket driver or torque wrench to tighten the nuts.

Torque: 7.0 N*M (71 kgf*cm, 62 in. lbf)



10. REMOVE THE AIRBAG ASSEMBLY FROM THE BRACKET

- a) Remove the airbag assembly from the fixture, and place the assembly on a cloth or the anti-static mat.
- b) Remove the bracket from the airbag.



11. INSPECT THE AIRBAG BEFORE INSTALLATION

- a) Confirm that the inflator is oriented correctly.
 - Bar code to the left.

- K1400870010ea
 - Check that the nuts are attached correctly.

b) The inflator is fully seated.

c) Confirm that the 4 **NEW** nuts are installed and tight.

XII. FRONT PASSENGER AIRBAG ASSEMBLY INSTALLATION

1. REINSTALL THE DRIVERS AIRBAG

a) Refer to TIS for instructions on airbag installation:

RAV4 <u>2004</u> <u>2005</u>

- 2. RECONNECT THE NEGATIVE BATTERY CABLE
- 3. PERFORM A HEALTH CHECK AND DIAGNOSTIC REPORT
- 4. CHECK HORN OPERATION

◄ VERIFY REPAIR QUALITY ►

- Confirm all precautions are follow to ensure safety during the repair
- Confirm the entire serial number checker application is completed and the warranty authorization # is recorded on *EVERY* vehicle
- Confirm the old inflator is handled safely and given to the appropriate parts professional for shipment
 If you have any questions regarding this update, please contact your regional representative.

XIII. APPENDIX

A. SCANNER SET-UP

Determine which scanner you need to update the Datalogic QD 2300 was provided at the launch of D0F and emits a red beam when the scanner is used.

The Datalogic 2430 was provided at the launch of F0J and emits a blue beam when the scanner is used.

(Datalogic QD 2300 provided at the launch of D0F)

The scanner will need to have an application added for it to read the bar code on driver's airbag. Preform the following steps to load the application on to the scanner.

NOTE: This application only needs to be loaded once.

a) Scanning the image below to enable code 93.



Enable Code 93

b) Scan the image below for enable any length for code 93.



c) The scanner is now ready to scan the airbag bar codes.

Additional information can be found in the Datalogic Product Reference Guide. The Datalogic website is: <u>http://www.datalogic.com/eng/support-services/automatic-data-capture/downloads/manuals-ma-</u> <u>3.html?search_prod=166</u>

(Datalogic 2430 provided at the launch of F0J)

The scanner will need to have an application added for it to read the bar code on driver's airbag. Preform the following steps to load the application on to the scanner.

NOTE: This application only needs to be loaded once.

a) Enter the programming mode by scanning the image below.



b) Scan the image below for Code 93.



Code 93 = Enable

c) Scan the image below to exit the programming mode.



d) The scanner is now ready to scan the airbag bar codes.

Additional information can be found in the Datalogic Product Reference Guide. The Datalogic website is: <u>http://www.datalogic.com/eng/support-services/automatic-data-capture/downloads/manuals-ma-</u> <u>3.html?search_prod=612</u>

B. CAMPAIGN DESIGNATION DECODER



C. CAMPAIGN PARTS DISPOSAL

ALL inflators that are removed from vehicles under this campaign **MUST** be packaged and shipped back to the inflator manufacturer following the manufacturer's instructions. The instructions can be found in the following locations:

- Attached to the dealer letter
- Included in the parts box
- On the laminated aid that was provided at the launch of the campaign