

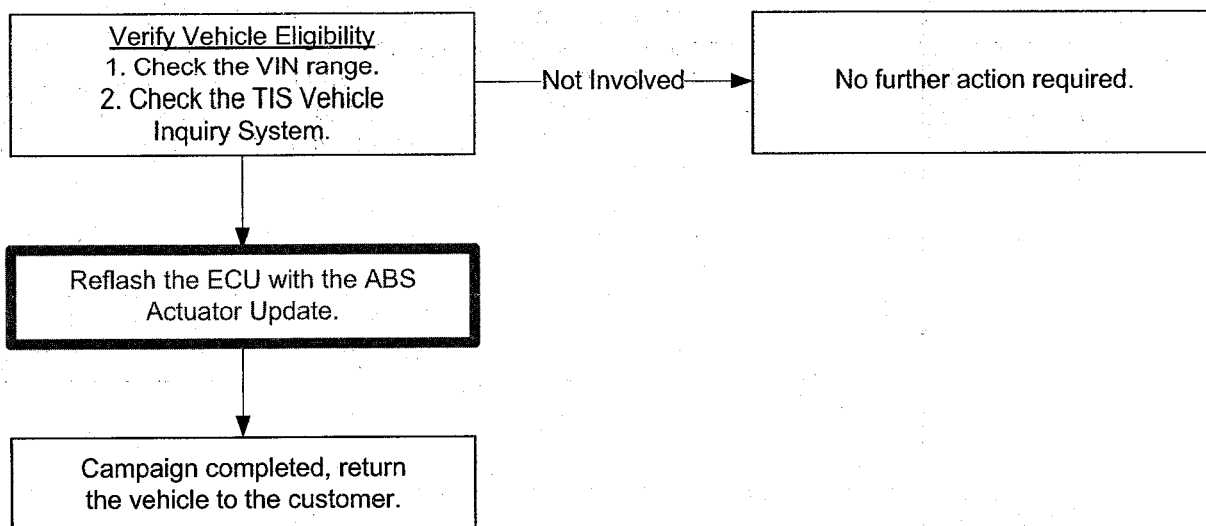
TECHNICAL INSTRUCTIONS
FOR
SAFETY RECALL ALA
ABS ACTUATOR ECU UPDATE
2010 MODEL YEAR HS 250h
REVISED FEBRUARY 18, 2010

TECHNICAL INSTRUCTION REVISION NOTICE:

- **February 18, 2010:**
 - Information was added to Preparation, section B, "TOOLS AND EQUIPMENT".
 - The order of steps was changed in Work Procedure, for steps 1a through 1c, "REFLASH THE ECU".
 - Information, images and note in Work Procedure, step 1a, "REFLASH THE ECU" was updated.
 - Step 1e was added to Work Procedure, "REFLASH THE ECU".

Previous versions of this Technical Instruction should be discarded.

I. OPERATION FLOWCHART



II. IDENTIFICATION OF AFFECTED VEHICLES

A. AFFECTED VIN RANGE

| Model | WMI | Year | VIN Range | |
|---------|-----|------|-----------|---------------|
| | | | VDS | Range |
| HS 250h | JTH | 2010 | BB1BA | 2000104 – TBD |

NOTE:

- 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.

III. PREPARATION

A. PARTS

- No parts are required.

B. TOOLS & EQUIPMENT

- Techstream or Techstream Lite with v4.21.002 software
- GR8 Battery Diagnostic Station, if unavailable, the PSC Power Supply Charger / Maintainer (MTRPSC550SKT) may be used.

IV. BACKGROUND

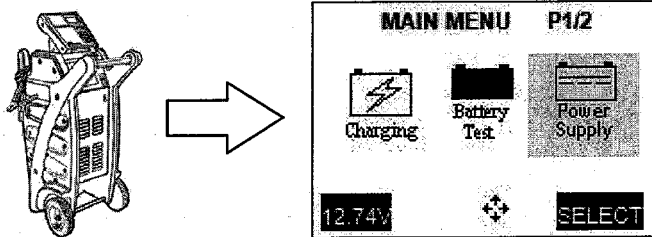
Lexus has received complaints of inconsistent brake feel during slow and steady application of brakes on rough or slick road surfaces when the anti-lock brake system (ABS) is activated in an effort to maintain tire traction. The system, in normal operation, engages and disengages rapidly (many times per second) as the control system senses and reacts to tire slippage. If the same brake pedal force is applied under these conditions, in the worst case, this may lead to an increase of vehicle stopping distance and thus raise the likelihood of a crash.

V. WORK PROCEDURE

| Model | Model Year | Current CID | New CID |
|---------|------------|-------------|------------|
| HS 250h | 2010 | F152675023 | F152675024 |

1. REFLASH THE ECU

- a) Connect the GR8 Battery Diagnostic Station to the vehicle and turn it ON, then select Power Supply Mode as shown below.



NOTE:

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the GR8 Instruction Manual located on TIS, *Diagnostics – Battery*.
- If the GR8 Battery Diagnostic Station is unavailable, the PSC Power Supply Charger / Maintainer (MTRPSC550SKT) may be used.

- b) Connect Techstream to the DLC3.
c) Place the car in the "IG-ON" mode (push the Power button **twice** when the car is OFF – DO NOT depress the brake pedal.
d) Reflash the ECU with the ABS Actuator Update, following the procedures outlined in (L-SB-0015-10), "Techstream ECU Flash Reprogramming Procedure". Please refer to the table above for the **NEW** CID.

NOTE:

Please utilize the following instructions for verifying ALA applicability with Techstream v4.21.002:

1. Perform a Health Check using the Techstream.
2. From the Health Check Results screen, confirm campaign availability status located at the bottom of the screen.

NOTE: Techstream v4.21.002 does not retrieve Calibration ID for the ABS/VSC/TRAC ECU when performing a Health Check. Calibration update applicability can be checked using the Calibration Update Wizard (CUW), see steps 3 – 7 on the next 2 pages.

NOTE CONTINUED...

3. If Campaign Available status is "NO", the ALA campaign does not apply. If status is "YES", click the "YES" link to access Calibration files from the campaign instructions and to confirm the vehicle requires a Calibration update.

Health Check Results
 Health Check does not display live data.
 Changes in vehicle condition will not update automatically.
 To update Health Check, click the Refresh button.

| System | Current | Pending | History | Permanent | Monitor Status | Calibration | Update? |
|-------------------------------|---------|---------|---------|-----------|----------------|--------------|---------|
| Engine and ECT | 0 | 0 | 0 | - | Inc | 37503000 | 2 |
| Hybrid Control | 0 | - | 0 | - | - | 898837503000 | 2 |
| | | | | | | 898847501000 | 2 |
| | | | | | | 898847502000 | 2 |
| Radar Cruise | 0 | - | - | - | - | - | - |
| Parking Assist Monitor System | 0 | - | 0 | - | - | - | - |
| ABS/VSC/TRAC | 0 | - | - | - | - | - | - |
| EMPS | 0 | - | 0 | - | - | - | - |
| Tire Pressure Monitor | 0 | - | 0 | - | - | - | - |
| Lane Keeping Assist | 0 | - | 0 | - | - | - | - |
| Transmission Control | 0 | - | - | - | - | - | - |
| Occupant Detection | 0 | - | 0 | - | - | - | - |
| Air Conditioner | 0 | - | 0 | - | - | - | - |
| Combination Meter | 0 | - | 0 | - | - | - | - |
| Main Body | 0 | - | 0 | - | - | - | - |
| D-Door Motor | 0 | - | 0 | - | - | - | - |
| Smart Access | 0 | - | 0 | - | - | - | - |
| P-Door Motor | 0 | - | 0 | - | - | - | - |
| RR-Door Motor | 0 | - | 0 | - | - | - | - |
| RL-Door Motor | 0 | - | 0 | - | - | - | - |
| Sliding Roof | 0 | - | 0 | - | - | - | - |
| Master Switch | 0 | - | - | - | - | - | - |
| Driver Seat | 0 | - | - | - | - | - | - |
| Tilt&Telescopic | 0 | - | 0 | - | - | - | - |

2/16/2010 10:50:05 AM Campaign Available: YES

4. Select the appropriate Calibration file to launch the CUW.
5. Confirm Calibration applicability from the Calibration Selection Confirmation screen.

Sample Screen Shot of Update Available

Calibration Selection Confirmation

VSC/ABS/ECB

Current Calibration:

| | |
|----------------|------------|
| Current Cal ID | F152675023 |
| Current Cal ID | |
| Current Cal ID | |

New Calibration Information:

| | |
|--------------|---------------|
| New Cal ID | F152675024 |
| New Cal ID | |
| New Cal ID | |
| Issue Date | Feb. 12, 2010 |
| Model Name | HS250h |
| Model Year | 10 |
| System | ECB |
| Vehicle Type | - |

Current Calibration ID and New Calibration ID does not match.

Confirm CUW application states file is authorized to update the vehicle.

Selected Calibration file is authorized to update this vehicle. Press NEXT to continue.

NOTE: Refer the applicable TSB for calibration file information.

Select New Cal Next Cancel

6. If Current Calibration ID from the vehicle does not match the New Calibration ID and the CUW application states "Selected Calibration file is authorized to update this vehicle", then proceed with the update.

NOTE CONTINUED...

7. If the Current Calibration ID and the New Calibration ID match the update has already been performed. Proceed with filing an Inspection Claim.

Sample Screen Shot of Update Not Available

Calibration Update Wizard - Screen 5701-09

Calibration Selection Confirmation

VSC/ABS/ECB

Current Calibration:

| | |
|----------------|------------|
| Current Cal ID | F152675023 |
| Current Cal ID | |
| Current Cal ID | |

New Calibration Information:

| | | |
|--------------|---------------|---------|
| New Cal ID | F152675024 | Updated |
| New Cal ID | | |
| New Cal ID | | |
| Issue Date | Feb. 12, 2010 | |
| Model Name | HS250h | |
| Model Year | 10 | |
| System | ECB | |
| Vehicle Type | - | |

X Selected Calibration file is NOT authorized to update this vehicle.
Use Select New Cal button to choose another Cal file or press Cancel to exit this function.

NOTE: Refer the applicable TSB for calibration file information.

Select New Cal Next Cancel

- e) After completing the ABS Actuator ECU reflash, disconnect the GR8 Battery Diagnostic Station or PSC Power Supply Charger / Maintainer (MTRPSC550SKT).

NOTE:

DO NOT start the vehicle ("IG-ON" mode with "READY" light ON) with the GR8 Battery Diagnostic Station or PSC Power Supply Charger / Maintainer (MTRPSC550SKT) connected to the vehicle.

2. CHECK FOR DTC CODES

- a) Connect the Techstream to the DLC3
- b) Check for DTC codes.

NOTE:

If any Pending, Current, and/or History DTCs are set, troubleshoot according to the repair manual.

3. TEST DRIVE THE VEHICLE AND INSPECT FOR ANY PROBLEMS

- CAMPAIGN COMPLETE -

REMOTE REPAIR

TECHNICAL INSTRUCTIONS

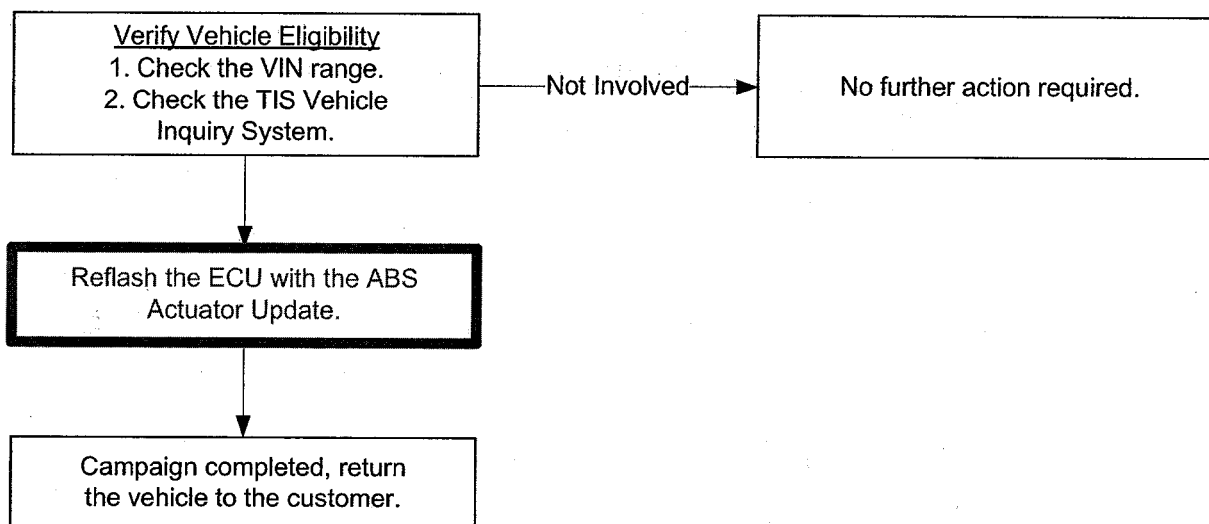
FOR

SAFETY RECALL ALA

ABS ACTUATOR ECU UPDATE

2010 MODEL YEAR HS 250h

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| | | | VDS | Range |
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NOTE:

- 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.

III. PREPARATION

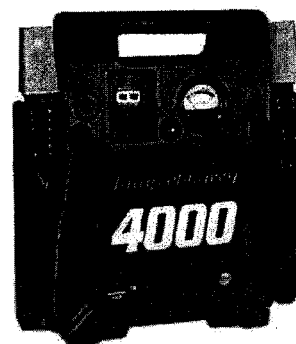
A. PARTS

- No parts are required.

B. TOOLS & EQUIPMENT

- Techstream or Techstream Lite with v4.21.002 software
- Remote Reprogramming – a supplemental power source must be used to ensure adequate voltage is maintained during reprogramming. The following products are available from the Approved Dealer Equipment program.
 - LSLJNC4000 - 1100 Peak Amp 12 Volt Jump Starter
 - LSLJNC660 - 1700 Peak Amp 12 Volt Jump Starter
 - LSLJNC950 - 2000 Peak Amp 12 Volt Jump Starter

To place an order, contact **Snap-on Equipment Solutions** directly at **1-800-368-6787**.



IV. BACKGROUND

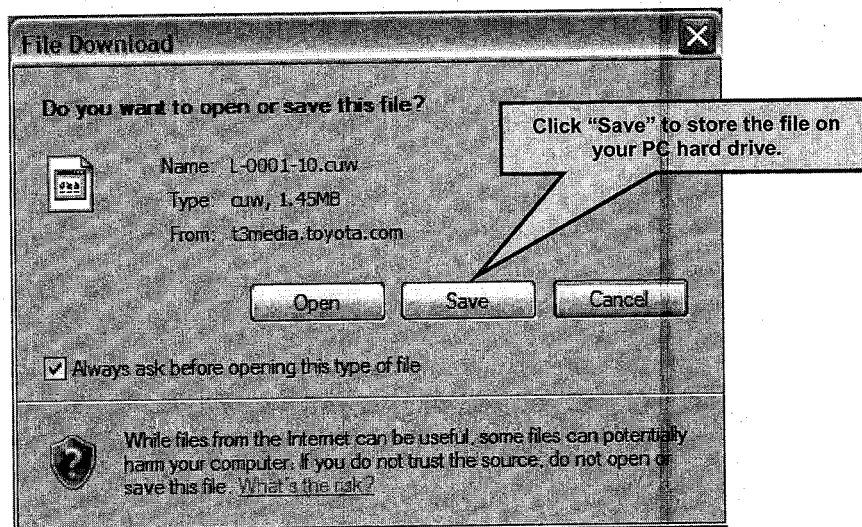
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V. WORK PROCEDURE

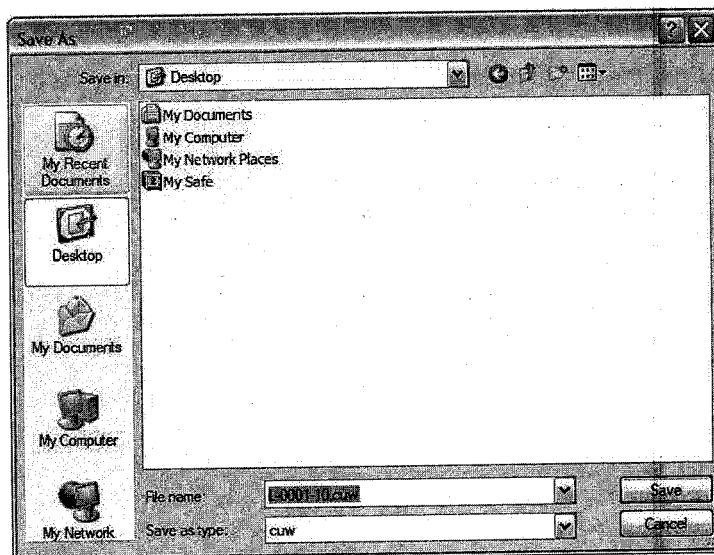
| Model | Model Year | Current CID | New CID |
|---------|------------|-------------|------------|
| HS 250h | 2010 | F152675023 | F152675024 |

1. SAVE THE CALIBRATION FILE TO THE PC HARD DRIVE (before you leave the dealership)

- Click on the New CID shown in the above table.
- When prompted, select Save.



- Save the *L-0001-10.cuw* file to your desktop for easy access.



2. REFLASH THE ECU

- Connect Techstream to the DLC3.
- Place the car in the "IG-ON" mode (push the Power button **twice** when the car is OFF – DO NOT depress the brake pedal.
- Connect a secondary vehicle power supply to the vehicle battery.

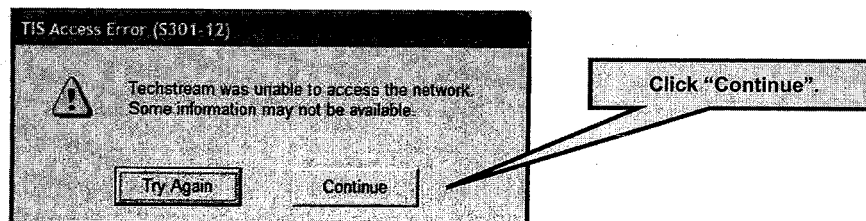
NOTE:

- It is critical to maintain consistent battery voltage during reprogramming. A target of 13.5 volts is recommended. ECU damage may occur if voltage drops below 11.5 volts or exceed 16.0 volts.
- The secondary battery state-of-charge must be confirmed before every reprogramming attempt.

- Locate the *L-0001-10.cuw* on your desktop and double click to open it.
- Reflash the ECU with the ABS Actuator Update, following the procedures outlined in (*L-SB-0015-10*), "Techstream ECU Flash Reprogramming Procedure".

NOTE:

- The Health Check function can not be used to confirm ALA applicability when the Techstream is operated outside of dealership network range.
- When outside of dealership network range, you may see the following error screen.



- Calibration update applicability can be checked using the Calibration Update Wizard (CUW) as shown in steps 1-3 below and on the next page.

- Confirm Calibration applicability from the Calibration Selection Confirmation screen.

Sample Screen Shot of Update Available

Calibration Update Wizard - Screen 3/01-02

Calibration Selection Confirmation

VSC/ABS/ECB

Current Calibration:

| | |
|----------------|------------|
| Current Cal ID | F152675023 |
| Current Cal ID | |
| Current Cal ID | |

New Calibration Information:

| | |
|--------------|---------------|
| New Cal ID | F152675024 |
| New Cal ID | |
| New Cal ID | |
| Issue Date | Feb. 12, 2010 |
| Model Name | HS250h |
| Model Year | 10 |
| System | ECB |
| Vehicle Type | - |

Current Calibration ID and New Calibration ID does not match.

Confirm CUW application states file is authorized to update the vehicle.

✓ Selected Calibration file is authorized to update this vehicle.
Press NEXT to continue.

NOTE: Refer the applicable TSB for calibration file information.

Select New Cal Next Cancel

- If Current Calibration ID from the vehicle does not match the New Calibration ID and the CUW application states "Selected Calibration file is authorized to update this vehicle", then proceed with the update.

NOTE CONTINUED...

3. If the Current Calibration ID and the New Calibration ID match the update has already been performed. Proceed with filing an Inspection Claim.

Sample Screen Shot of Update Not Available

Calibration Update Wizard - Screen S701-09

Calibration Selection Confirmation

VSC/ABS/ECB

Current Calibration:

| | |
|----------------|------------|
| Current Cal ID | F152675023 |
| Current Cal ID | |
| Current Cal ID | |

New Calibration Information:

| | | |
|--------------|---------------|---------|
| New Cal ID | F152675024 | Updated |
| New Cal ID | | |
| New Cal ID | | |
| Issue Date | Feb. 12, 2010 | |
| Model Name | HS250h | |
| Model Year | 10 | |
| System | ECB | |
| Vehicle Type | - | |

X Selected Calibration file is NOT authorized to update this vehicle.
Use Select New Cal button to choose another Cal file or press Cancel to exit this function

NOTE: Refer the applicable TSB for calibration file information.

Select New Cal Next Cancel

3. CHECK FOR DTC CODES

- a) Connect the Techstream to the DLC3
- b) Check for DTC codes.

NOTE:

If any Pending, Current, and/or History DTCs are set, troubleshoot according to the repair manual.

4. TEST DRIVE THE VEHICLE AND INSPECT FOR ANY PROBLEMS

– CAMPAIGN COMPLETE –