March 09, 2018 08472 Version 3

2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch (Snapshot Upload Required)

Supersedes 16-062, 2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch, dated February 11, 2017, to revise the information highlighted in yellow

AFFECTED VEHICLES

Year	Model	Trim	VIN Range
2012	MDX	ALL	2HNYD2H…CH513517 thru 2HNYD2H…CH550713
2013	MDX	ALL	ALL
2014–15	MDX	ALL	ALL

REVISION SUMMARY

Added additional information under CORRECTIVE ACTION.

BACKGROUND

A judder from the torque converter lock-up clutch may be felt while driving between 20 and 60 mph. The problem is typically diagnosed as a bad torque converter. American Honda investigated the judder and found that the torque converter was not causing the judder and the transmission is not damaged by this judder.

The judder was caused by deteriorated transmission fluid. The transmission fluid deteriorates quicker than expected when it is exposed to intermittent high heat loads under specific driving conditions. A software update is available to maintain the transmission fluid temperature within the desirable range under all driving conditions and eliminate the potential for this judder.

There are two bulletins referring to this subject:

- 16-062 - *2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch*. **Do this bulletin first to apply the software and flush the transmission as indicated in the REPAIR PROCEDURE**.
- 16-063 - *2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch After Software Update*. Some vehicles based on how they are driven may still experience ATF deterioration after updating the PGM-FI or A/T system. In these cases, do the inspection and, if necessary, flush the transmission as indicated in the REPAIR PROCEDURE.

CLIENT INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Acura automobile dealer.

CORRECTIVE ACTION

There are 2 corrective actions based on the year model.

2012–13 MDX

There are 2 types of PCM's in the 2012 and 2013 MDX. (Keihin and Continental)

The corrective action will be based on which PCM is in the vehicle.

Check the program ID in the Transmission Data List.

If the program ID starts with 37805 it is a Continental PCM.

Software is not available for the Continental PCM at this time. Go to the Verification Procedure.

If the program ID starts with 37806 it is a Keihin PCM.

Check if the software has been updated. If the software has not been updated, take an automatic transmission snapshot and review the data, and confirm the judder is coming from the torque converter. **Send the snapshot to Tech Line.** If the snapshot does not indicate the judder is coming from the torque converter, this service bulletin does not apply. If the snapshot indicates the judder is coming from the torque converter, update the A/T system, then go to REPAIR PROCEDURE.

2014–15 MDX

Check if the software has been updated. If the software has not been updated, take an automatic transmission snapshot and review the data and confirm that the judder is coming from the torque converter. **Send the snapshot to Tech Line.** If the snapshot does not indicate the judder is coming from the torque converter, this service bulletin does not apply. If the snapshot indicates the judder is coming from the torque converter, update the PGM-FI system, then flush the transmission as indicated in the REPAIR PROCEDURE.

PARTS INFORMATION

Part Name	Part Number	Quantity
Drain Plug Washer (18 mm)	90471-PX4-000	1
ATF Fill Sealing Washer (24 mm)	90441-PK4-000	1

REQUIRED MATERIALS

Part Name	Part Number	Quantity
Acura ATF DW-1	08200-9008A	10

WARRANTY CLAIM INFORMATION

The warranty is 8 years or 80,000 miles, whichever comes first.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1255E4	Update the PGM-FI or A/T software.	0.2 hr	03214	03217	16-062N	37805-5J6-3050
A	Flush the ATF.	1.4 hr				

SOFTWARE INFORMATION

NOTE: Unnecessary or incorrect repairs resulting from a failure to update the i-HDS or MVCI are not covered under warranty.

i-HDS Software Version: **1.001.011 or later**

J2534 Software Information:

PC Application Version **1.0.1.15 or later**

Database update **26-OCT-2016 or later**

Before beginning the repair, make sure that both the i-HDS and J2534 software are updated as listed above.

Do only the update listed in this service bulletin.

You cannot apply the updates with the MVCI as a standalone tool. To update the vehicle you must use the MVCI or the DST-i interface in conjunction with the J2534 Rewrite PC application on the i-HDS.

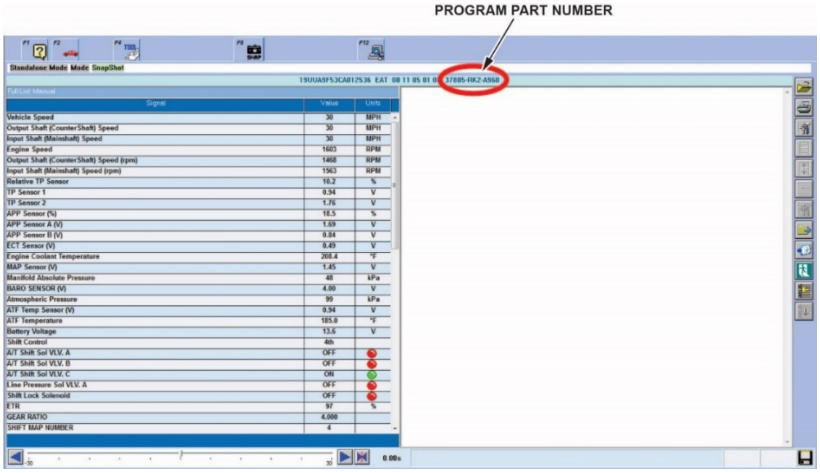
For more information about updating the i-HDS, the MVCI, and vehicle systems, refer to Service Bulletin 01-026, *Updating Control Units/Modules*.

Trim	Software System	Program ID (or later)	Program P/N (or later)
12–13 MDX Base and Technology	A/T	YE3080	37806-RYE-3080
12–13 MDX ADVANCED	A/T	YE3090	37806-RYE-3090
2014–15 MDX Base and Technology	PGM-FI	J63050	37805-5J6-3050
2014–15 MDX Advance	PGM-FI	J63060	37805-5J6-3060
2014–15 MDX Base and Technology AWD	PGM-FI	J63070	37805-5J6-3070
2014–15 MDX Advance AWD	PGM-FI	J63080	37805-5J6-3080

INSPECTION PROCEDURE

2012–13 MDX

1. Connect the i-HDS and go to the A/T Data List. Check to see which PCM is in the vehicle.
   - If the software program P/N starts with **37805**, it is a **Continental** PCM. There is no software available at this time, go to Verification Procedure.
   - If the software program P/N starts with **37806**, it is a **Keihin** PCM. Check if the PCM has been updated by comparing the program P/N against the table below.

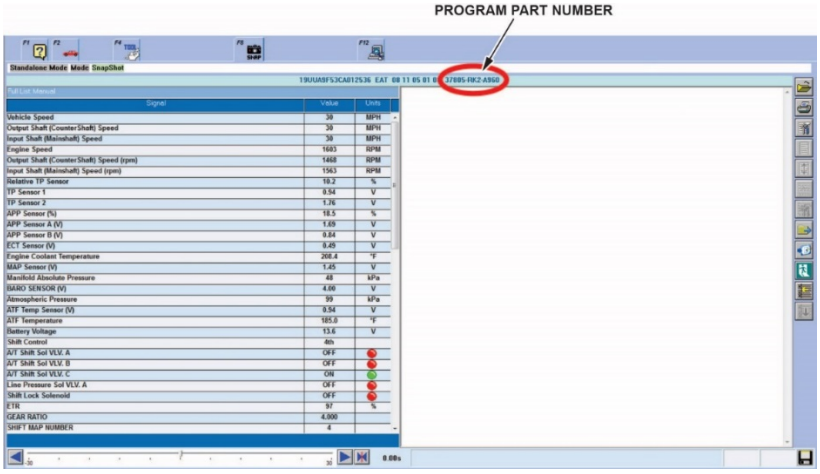


- **If the program P/N is not listed below,** the vehicle has not been updated, continue with verification.
- **If the program P/N is listed below** (or later), the vehicle has been updated. Go to service bulletin 16-063 *2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch After Software Update.*

Program P/N (or later)
37806-RYE-3080 Keihin
37806-RYE-3090 Keihin

2014–15 MDX

Connect the i-HDS and go to the A/T Data List. Check to see if the software has been updated by comparing the program P/N against the table below.



- **If the program P/N is not listed,** the vehicle has not been updated, continue to verification.
- **If the program P/N is listed below** (or later), the vehicle has been updated. Go to service bulletin 16-063, *2012–15 MDX: Judder from the Torque Converter Lock-Up Clutch After Software Update.*

Program P/N (or later)
37805-5J6-3060
37805-5J6-3070
37805-5J6-3080

VERIFICATION PROCEDURE

1. Take an automatic transmission snapshot and forward it to Tech Line using the RO number. For more information about capturing and interpreting the data, refer to the job aid *Torque Converter Clutch Shudder and Vibration* and the Tech2Tech® video *Interpreting Torque Converter Judder Snapshot Data.*

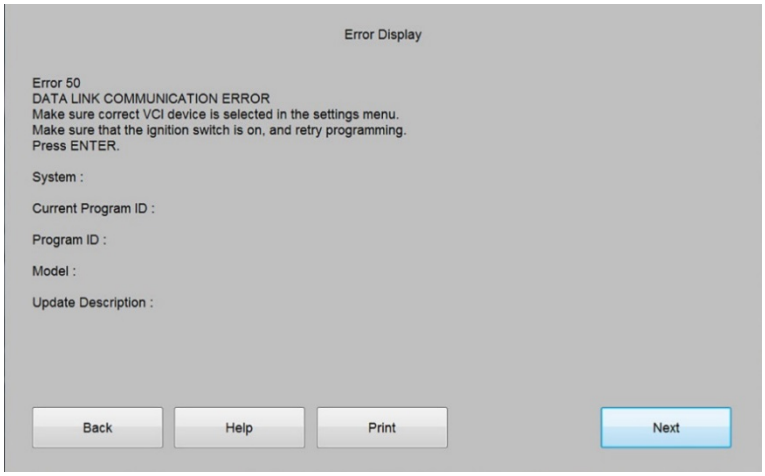
   - If the vehicle has a **Continental PCM** go to the ATF Flush Procedure.
   - If the vehicle has a **Keihin PCM** go to REPAIR PROCEDURE.
   - If the snapshot does not indicate a judder, this bulletin does not apply, continue with normal troubleshooting.

     NOTE: You do not need to contact Tech Line after sending the snapshot. However, if you do not send a snapshot, your claim may be subject to debit.

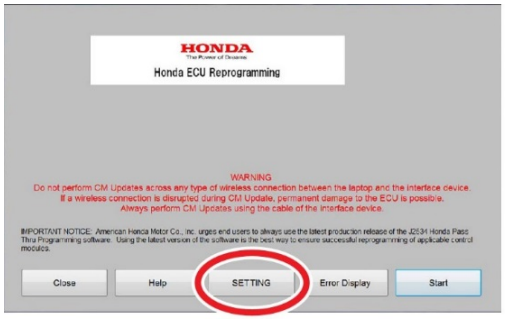
REPAIR PROCEDURE

NOTE:

- You can't update the vehicle using the MVCI as a standalone tool.
- **Do not** use the MongoosePro VCI tool.
- Make sure the 12 volt battery is fully charged before starting an update.
- Connect a fully charged jumper battery to the vehicle and leave it connected during the entire procedure to maintain steady voltage.
- Never turn the ignition to OFF or ACCESSORY during the update. If there is a problem with the update, leave the ignition turned to ON.
- To prevent PCM damage, do not operate anything electrical (headlights, audio system, brakes, A/C, power windows, door locks, etc.) during the update.
- If you see the following Error Display, check that you are using the correct tool (MVCI or DST-i) with the i-HDS.



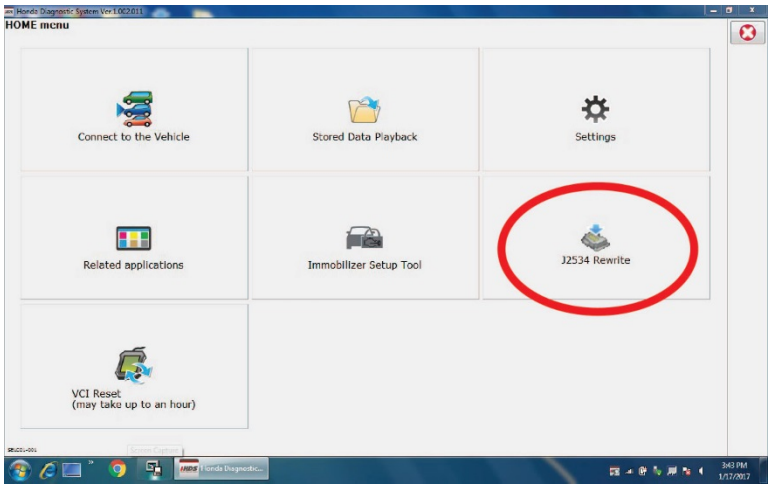
To change this, click on either of the SETTING selection buttons at the bottom of the J2534 initial screens as shown.



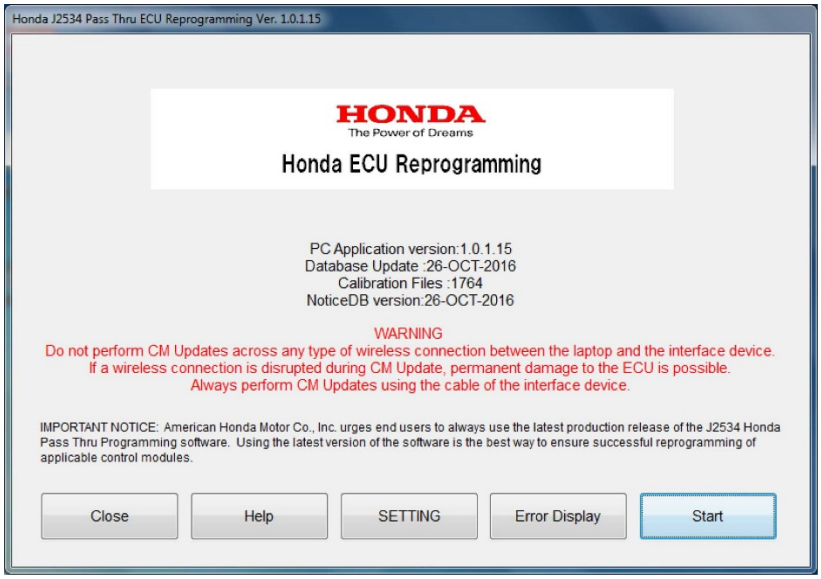
1. Update the PGM-FI or A/T software by selecting the i-HDS Diagnostic System icon. Refer to Service Bulletin 01-026, *Updating Control Units/ Modules*.

   NOTE: Do not use the **Rewrite icon** on your desktop.

2. Select **J2534 Rewrite**.



3. Confirm the software is the same **or later** as listed in SOFTWARE INFORMATION.



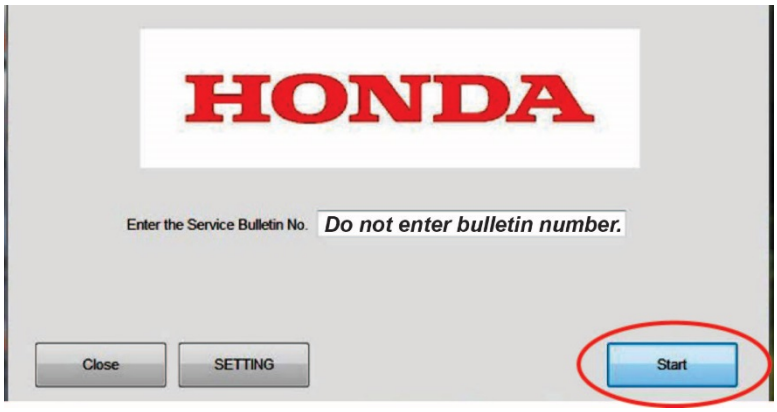
4. Select **Start**, then follow the screen prompts.

   NOTE:

   - **Don't enter a bulletin number.**
   - If you receive a message that the vehicle has been already updated or that no update is available, check the transmission data list. The header should indicate one of the following numbers (or later).

37806-RYE-3080	37806-RYE-3090	37805-5J6-3050	37805-5J6-3060
37805-5J6-3070	37805-5J6-3080		

   - If the program part numbers do not match those listed above, the i-HDS software needs to be reinstalled. Contact the Special Tools Hotline at **800-346-6327** for assistance.



5. Go to the ATF Flush Procedure.

ATF Flush Procedure

NOTE: The term “flushing” refers to repeatedly draining and filling the transmission with Acura Genuine ATF-DW1. **Other aftermarket flush systems are available, but American Honda strongly recommends that you avoid using them on any Acura vehicles.**

1. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or Neutral) until the radiator fan comes on, then let it idle.
2. Position the vehicle on a lift and turn off the engine.
3. Remove the ATF filler bolt and sealing washer.
4. Raise the vehicle and make sure it is securely supported.
5. Remove the drain plug and drain the ATF.
6. Install the drain plug and original washer and torque it to **49 N·m (36 lb-ft).**
7. Lower the vehicle and fill the transmission with **3.3 US qts (3.1 L)** of ATF-DW1 through the filler hole.

   NOTE: Do not use non-Acura ATF because it can affect shift quality.
8. Install the ATF filler bolt and original sealing washer and torque it to **44 N·m (32 lb-ft).**
9. Check that the fluid is filled to the proper level.
10. Raise the vehicle and make sure it is securely supported.
11. Start the engine.
12. Press the VSA Off button.
13. Press the brake pedal and shift to Drive.
14. Release the brake pedal. Press the accelerator pedal and bring the speedometer up to 50 mph. Make sure the transmission shifts through the first three lower gears and into fourth gear and the torque converter is locking up.
15. Apply the brakes to stop the front wheels.
16. Shift to Reverse, then Neutral.
17. Repeat the shifting procedure (steps 12 through 16) four more times.
18. Turn off the engine.
19. Repeat the above drain, fill, and shifting procedure (steps 2 through 18) one more time.
20. After the second refill and drive cycle, drain the transmission.
21. Install the drain bolt with a new washer and torque to **49 N·m (36 lb-ft)**.
22. Fill the transmission with **3.3 US qts (3.1 L)** of ATF-DW1.

    Automatic Transmission Fluid Capacity

    AWD: 3.3 US qts (3.1 L) at change

    2WD: 3.3 US qts (3.1 L) at change

    NOTE: Do not use non-Acura ATF because it can affect shift quality.
23. Install the ATF filler bolt with a new sealing washer and torque the bolt to **44 N·m (32 lb-ft)**.
24. Confirm the judder is gone and clear any DTCs that were set while driving on the lift.
25. If the Maintenance Minder did not indicate the ATF needed replacement, reset the Maintenance Minder with the HDS. For more information about resetting individual maintenance items, refer to the service information. If the Maintenance Minder indicated the ATF needed replacement and a full service was done, reset the maintenance minder with the multi-information display.

END