

**P-AWS RTC Actuators Moan When Making Small Turns**

(Supersedes 13-041, dated November 27, 2013, to revise the information marked by the black bars)

REVISION SUMMARY

- Under PARTS INFORMATION, the RTC actuator part numbers were changed.
- Under WARRANTY CLAIM INFORMATION, the Failed Part number was changed.

SYMPTOM

A moaning or rubbing noise is heard from the rear when driving straight and making small side-to-side turning movements with the steering wheel.

POSSIBLE CAUSE

There is a lack of lubrication in the P-AWS (precision all wheel steering) RTC (rear toe control) actuators.

CORRECTIVE ACTION

Replace both RTC actuators.

PARTS INFORMATION

Bracket-Mounting Bolt (Bolt-washer) (8 mm x 16 mm) (two required):

P/N 93403-08016-08

Inner Self-Locking Nut (12 mm) (two required):

P/N 90213-SJ6-004

RTC Actuator (left):

P/N 52345-TY2-306

RTC Actuator (right):

P/N 52340-TY2-306

Outer Self-Locking Nut (12 mm) (two required):

P/N 90370-SJA-000

Rear Control Arm Adjusting Bolt (two required):

P/N 90178-TY2-A01

WARRANTY CLAIM INFORMATION

The normal warranty applies.

OP#	Description	FRT
4191H6	Replace both RTC actuators.	1.0 hr
4165A0	Four wheel alignment.	0.4 hr

Failed Part: P/N 52340-TY2-A13

Defect Code: 07409

Symptom Code: 04201

Skill Level: Repair Technician

DIAGNOSIS

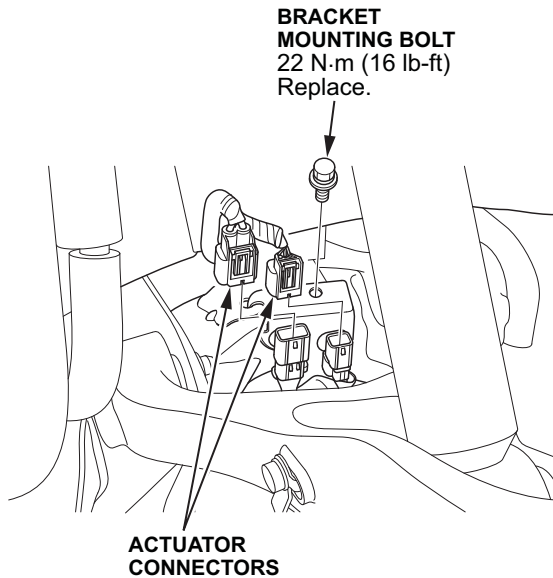
Drive the vehicle forward and move the steering wheel slowly side to side to confirm the noise. Then drive the vehicle slowly in reverse and move the steering wheel in the same way that caused the vehicle to make noise when moving forward (the actuators are not operated in reverse).

- If the noise stops, go to REPAIR PROCEDURE.
- If the noise does not stop, this bulletin does not apply. Continue with normal troubleshooting procedures.

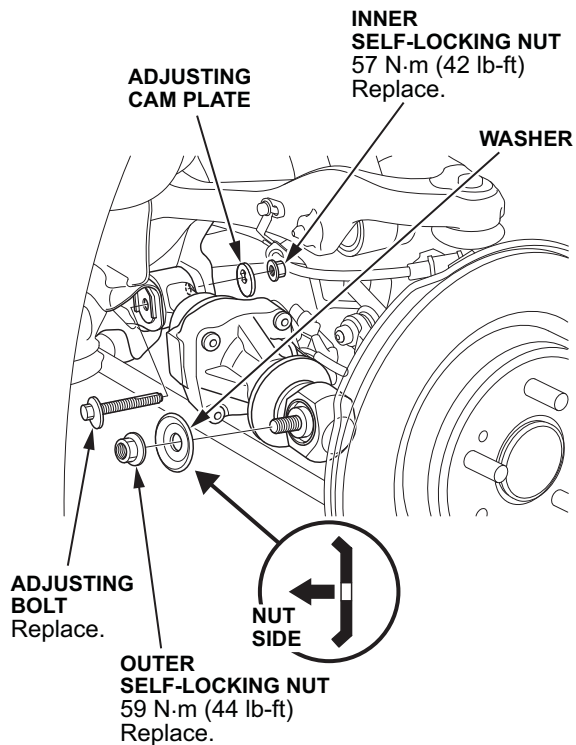
REPAIR PROCEDURE

RTC Actuator Removal

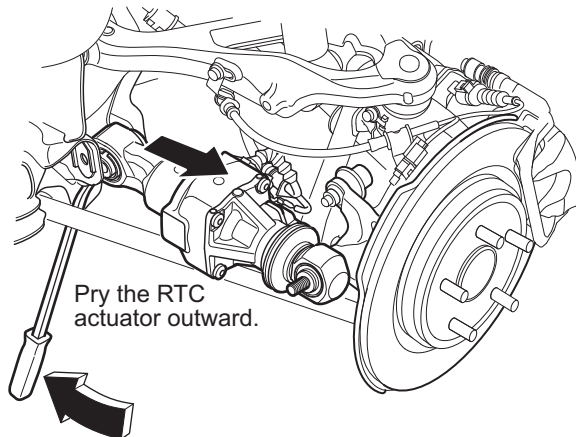
1. Raise the vehicle on a lift, and make sure it is securely supported.
2. Remove both rear wheels.
3. Disconnect the RTC actuator connectors.
4. Remove the RTC actuator harness bracket bolt.



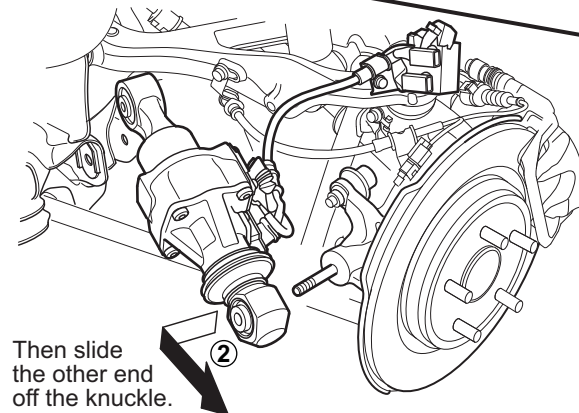
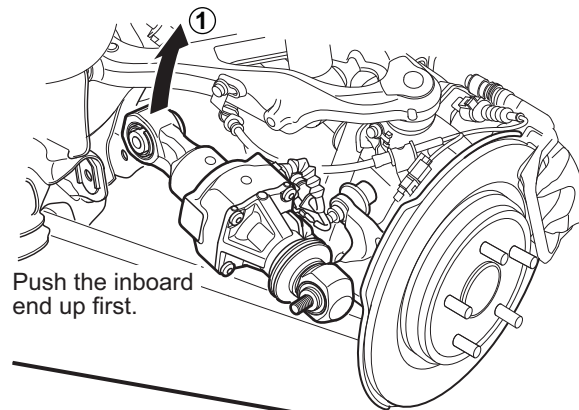
5. Note and mark the position of the adjusting cam plate and adjusting bolt in reference to the frame.
6. Remove the RTC actuator outer self-locking nut and washer.



7. Remove the inner self-locking nut, the adjusting cam plate, and the adjusting bolt.
8. Pry on the RTC actuator to remove it from the inner mount.



9. Remove the RTC actuator from the vehicle.

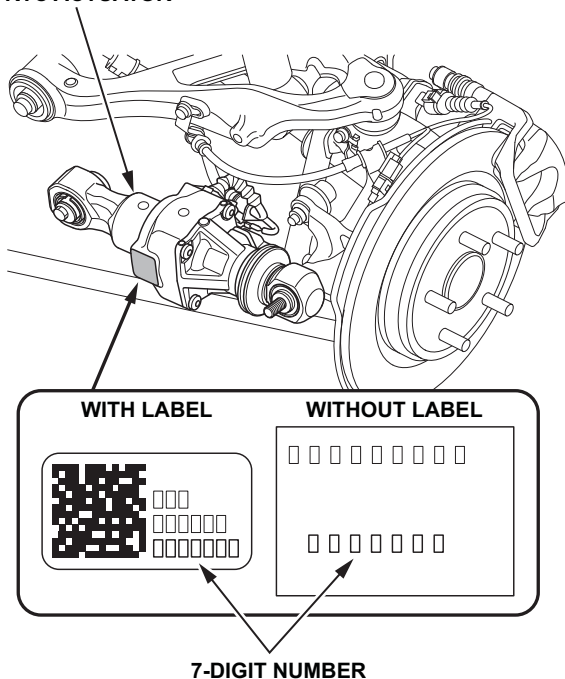


10. Repeat steps 3–9 on the opposite side.

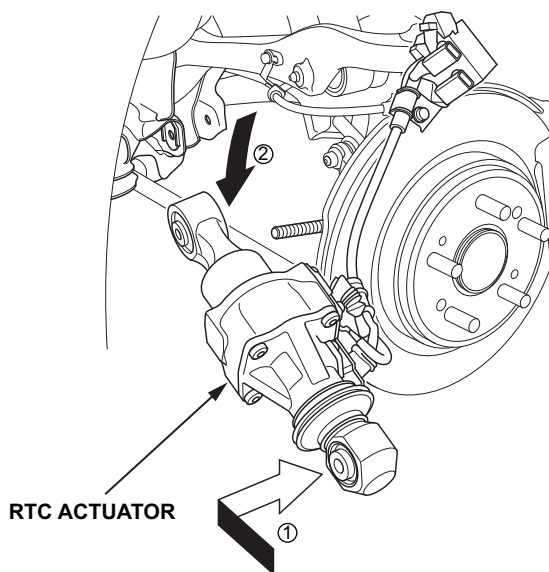
RTC Actuator Installation

1. Write down the seven digit number ID of each new RTC actuator for the neutral position wheel memorization.

RTC ACTUATOR

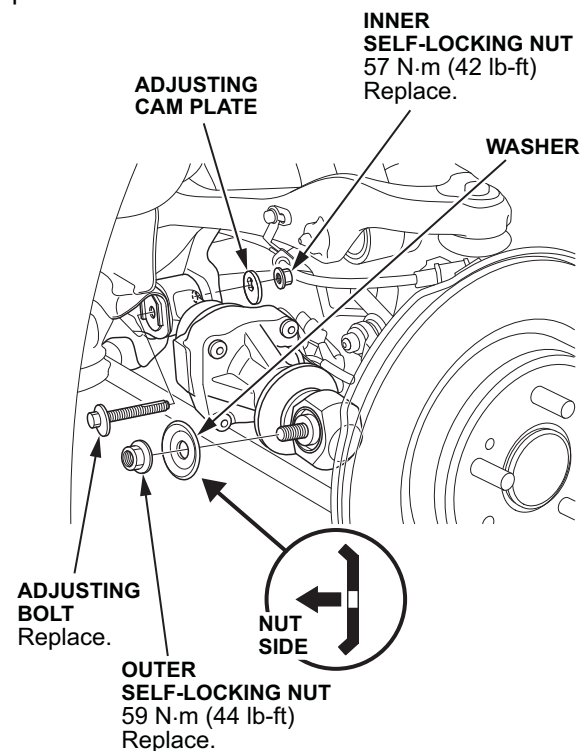


2. Install the new RTC actuator.

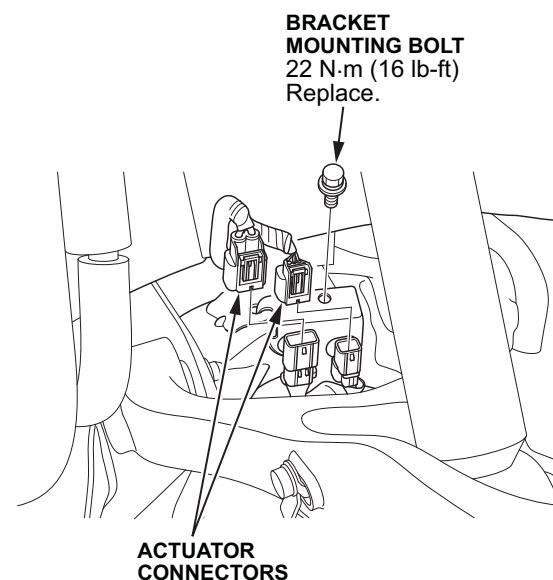


3. Loosely reinstall the original adjusting cam plate using a new inner self-locking nut, and a new adjusting bolt.

NOTE: Align the cam positions of the new adjusting bolt and the adjusting cam plate with the marked positions on the frame.



4. Loosely install the new outer self-locking nut and the original washer.
5. Install the new actuator harness bracket mounting bolt and torque it to **22 N·m (16 lb-ft)**, then connect the connectors.



6. Tighten the actuator nuts and bolts until they are snug.
7. Repeat steps 2–6 on the opposite side.
8. Install both rear wheels.
9. Under vehicle load, torque both RTC actuator inner nuts to **57 N•m (42 lb-ft)**.
10. Under vehicle load, torque both RTC actuator outer nuts to **59 N•m (44 lb-ft)**.
11. Connect the HDS to the vehicle and do the neutral position wheel memorization.
12. Do a wheel alignment.

END