



November 2012

Dealer Service Instructions for:

Customer Satisfaction Notification M37 Transaxle Clutch Slave Cylinder

Models

2013 (PF) Dodge Dart

NOTE: This recall applies only to the above vehicles equipped with a Dual Dry Clutch Transaxle (sales code DA1) built from August 23, 2012 through October 18, 2012 (MDH 082312 through 101800).

IMPORTANT: Many of the vehicles within the above build period have already been inspected or repaired and, therefore, have been excluded from this recall.

IMPORTANT: Some of the involved vehicles may be in dealer vehicle inventory. Dealers should complete this repair on these vehicles before retail delivery. Dealers should also perform this repair on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The transaxle clutch slave cylinder on about 680 of the above vehicles may have been improperly manufactured. This could cause a hydraulic fluid leak at the transaxle clutch slave cylinder.

Repair

The transaxle clutch slave cylinder date code must be inspected. Slave cylinders built within a certain date range must be replaced.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that the slave cylinder must be replaced and the vehicle must be held overnight.

Parts Information

Part Number	<u>Description</u>	
CEA0M371AA	Clutch Slave Cylinder Package	

Each package contains the following components:

Quantity	<u>Description</u>
1	Cylinder, Clutch Slave
2	Nut, Halfshaft Retaining
1	Clip & Cap Assembly, Retainer Nut
2	Nuts, 7mm x 1.0
2	Bolt, Ball Joint Pinch
2	Nut, Hex Flange Lock

No parts will be distributed initially. Clutch Slave Cylinder packages should be ordered only after inspection determines that repair is required.

Part Number	Description
04318031	Adhesive, Mopar Lock & Seal
68092630AA	Mopar C Series Manual & Dual Dry Clutch Transmission Fluid SAE 75W
68092638AA	C Series DDCT - Hydraulic Fluid

Special Tools

The following special tools are required to perform this repair:

NPN	wiTECH VCI Pod Kit

^{➤ 10287} Front Hub Nut Staking Tool

Service Procedure

A. Inspect Transaxle Clutch Slave Cylinder Date Code

- 1. Raise the vehicle on an appropriate hoist.
- 2. Remove and save the fasteners along the bottom of left front plastic fender shield.
- 3. Pull the plastic fender shield back to locate the transaxle clutch slave cylinder on the far left end of the transaxle case (Figure 1). Inspect the six digit build date code on the transaxle clutch slave cylinder housing (Figure 1).
 - ➤ If the date code is **090712** (ddmmyy) or below, the transaxle clutch slave cylinder **does not** require replacement. Install the left front plastic fender shield fasteners, lower the vehicle from the hoist and return the vehicle to the customer.
 - ➤ If the date code is 100712 (ddmmyy) or above, or the date code numbers are not legible, the transaxle clutch slave cylinder <u>must be</u> replaced. Continue with Section B. Replace Transaxle Clutch Slave Cylinder.

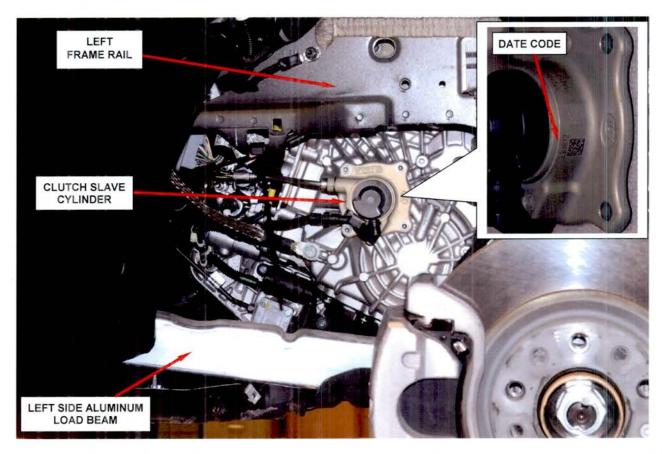


Figure 1 – Slave Cylinder Date Code Location
(Left Front Wheel and Plastic Fender Shield Removed for Photographic Purposes Only)

B. Replace Transaxle Clutch Slave Cylinder

NOTE: The following procedure is only required if the transaxle clutch slave cylinder date code indicates that replacement is required per the inspection in Section "A."

CAUTION: The transaxle <u>must be removed</u> from the vehicle to do this repair procedure. Do not attempt to remove the clutch slave cylinder from the transaxle case with the transaxle installed in the vehicle.

- 1. Lower the vehicle from the hoist and using the following procedure, depressurize the transaxle hydraulic circuits:
 - a. Connect the wiTECH scan tool to the vehicle.
 - b. Select the "TCM" icon.
 - c. Select the "Misc. Functions" tab.
 - d. Select "Hydraulic Circuit Depressurization" from the list.
 - e. Follow the screen prompts to complete the depressurization procedure.
- 2. Disconnect and remove the battery from the vehicle.
- 3. Remove and save the engine cover.
- 4. Disconnect the brown electrical connect to the transaxle Smart Drive Unit (SDU) (Figure 2).

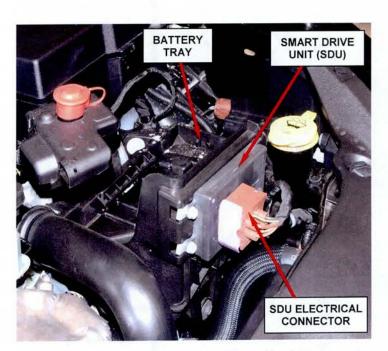


Figure 2 – Smart Drive Unit Electrical Connector

- Remove and save the Power Distribution Center (PDC) fasteners and relocate the PDC out of the way (Figure 3).
- 6. Remove and save the battery tray upper retaining bolts.
- 7. Raise the vehicle on an appropriate hoist.
- 8. Remove and save both front wheels.
- 9. Remove and save the underbody splash shield (Figure 4).

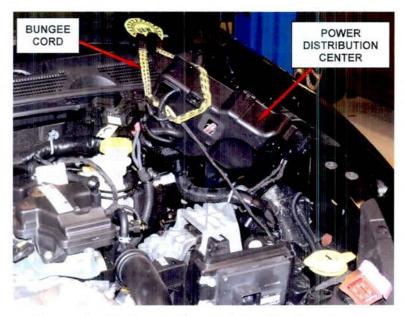


Figure 3 - Relocate Power Distribution Center

10. Remove and save the front air dam plastic panel (Figure 4).

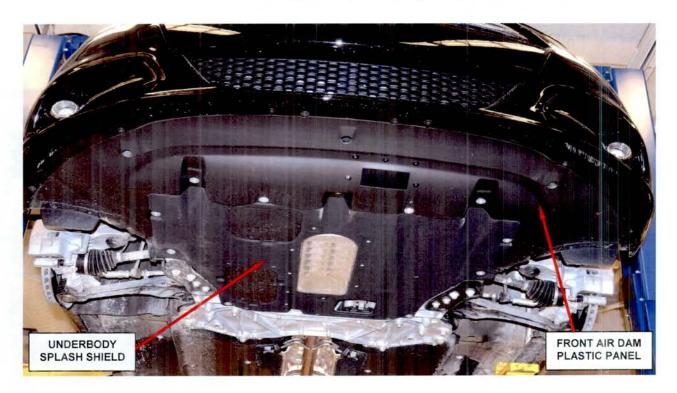


Figure 4 - Underbody Splash Shield and Front Air Dam Plastic Panel

- 11. Remove and save the left plastic fender shield.
- 12. Remove the transaxle drain plug and drain the gear oil from the transaxle (Figure 5).
- 13. Install the transaxle drain plug and tighten to 25 ft. lbs.(35 N·m) (Figure 5).
- 14. Disconnect the transaxle braided ground strap at the transaxle case.

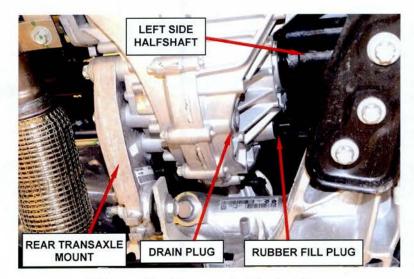


Figure 5 - Transaxle Drain Plug

- 15. Remove and save the battery tray lower retaining bolts and battery tray.
- 16. Using a small punch, open the crimps on the right and left halfshaft retaining nuts (Figure 6). There are two crimps per nut.

CAUTION: Attempting to remove the halfshaft nuts without opening up the nut crimps will result in halfshaft thread damage during nut removal.

- 17. Remove and discard the halfshaft retaining nuts.
- 18. Remove and discard the right and left side lower ball joint pinch bolts and nuts.
- 19. Remove and save the right and left halfshafts from the vehicle.
- Remove the Charge Air Cooler (CAC) hose from the charge air cooler.

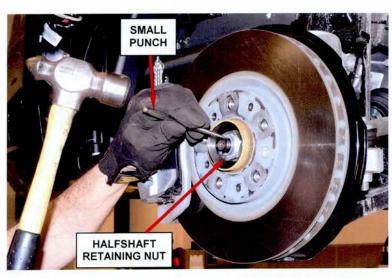


Figure 6 - Open Crimps on Halfshaft Retaining Nut

- 21. Remove the shift cable bracket at the transaxle case.
- Remove and save the catalytic converter lower bracket (Figure 7).
- 23. Lower the vehicle from the hoist.
- Disconnect all wiring harness connectors for the transaxle and oxygen sensors.
- 25. Remove the CAC hose from the vehicle.

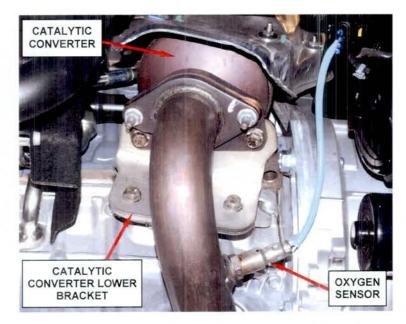


Figure 7 – Catalytic Converter Lower Bracket

- 26. Place a floor jack under the transaxle and lift transaxle to remove weight from the transaxle mount.
- 27. Remove and save the transaxle mount (Figure 8).
- 28. Disconnect the transaxle shift cable from the transaxle shift arm.
- Remove and save the two upper bellhousing bolts.
- 30. With the transaxle raised with the floor jack, place a small block of wood between the left side load beam and the transaxle case. Then lower the transaxle onto the block of wood.
- 31. Lift the vehicle on the hoist.

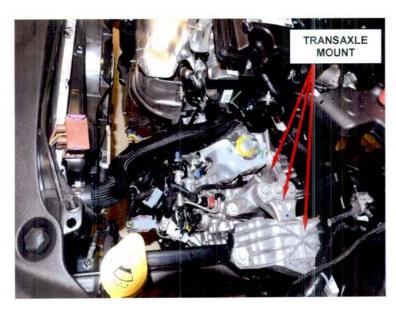


Figure 8 – Transaxle Mount

TRANSMISSION

REAR TRANSAXLE MOUNT

- 32. Remove and save the rear transaxle mount (Figure 9).
- 33. Remove and save the one lower starter bolt.
- 34. Place a transmission jack under the transaxle and strap the transaxle to the transmission jack to ensure the transaxle does not fall during removal (Figure 10).
- 35. Using a transmission jack, raise the transaxle and remove the wood block that was placed between the transaxle case and left side load beam in Step 30.
- 36. Remove and save the left side aluminum load beam (Figure 10).
- 37. Place a screw jack under the engine oil pan to support the engine.

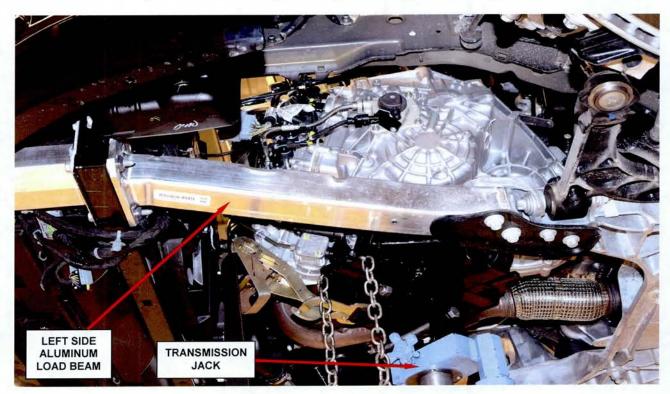


Figure 10 - Left Side Aluminum Load Beam

- 38. Remove and save the four engine adapter-to-transaxle bellhousing bolts.
- 39. Carefully separate the transaxle from the engine and lower the transaxle from the vehicle.

NOTE: Do not remove the transaxle from the transmission jack. Replacement of the clutch slave cylinder can be performed with the transaxle on the transmission jack.

40. Measure and record the clutch slave cylinder rod depth from the straight edge to the tip of the clutch slave cylinder rod (Figure 11).

NOTE: If a depth micrometer is not available, an alternate method to measure the clutch slave cylinder rod depth is to stack feeler gauges between the face of the straight edge and the tip of the clutch slave cylinder rod. Whatever method is used to measure the depth must be repeatable.

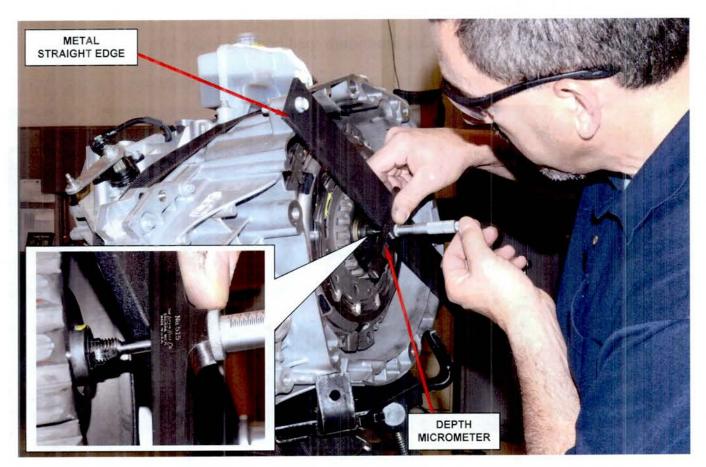


Figure 11 - Measure and Record the Slave Cylinder Rod Depth

41. Using a small pick, remove and save the slave cylinder rod nut retaining clip and housing (Figure 12).

NOTE: Save the slave cylinder rod nut retaining clip housing. It will be used later in this procedure as an alignment tool.

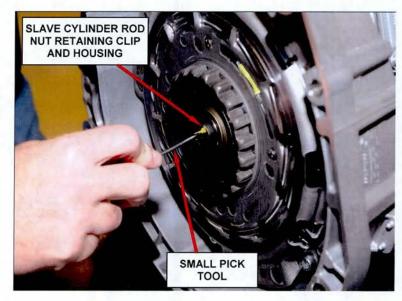


Figure 12 – Remove the Slave Cylinder Rod Nut Retaining Clip and Housing

42. Remove and save the slave cylinder rod nut and support bearing assembly (Figure 13).

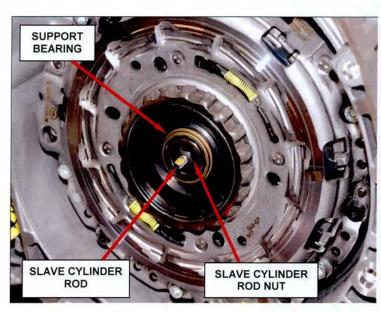


Figure 13 – Slave Cylinder Rod Nut and Support Bearing

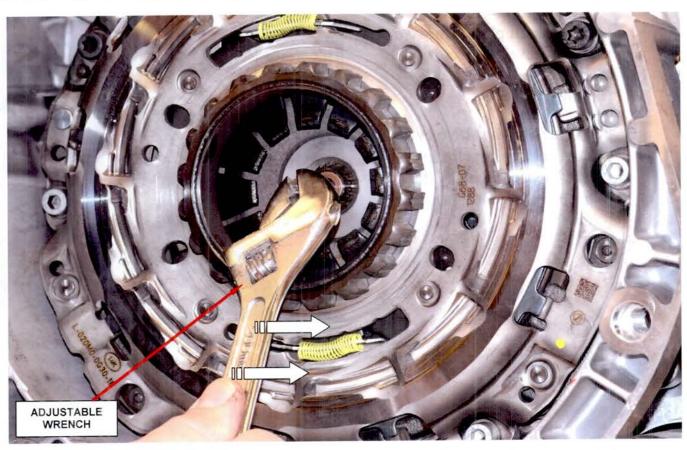


Figure 14 - Loosen the Slave Cylinder Rod

43. Using an adjustable wrench, turn the slave cylinder rod approximately ½ turn counterclockwise to break the slave cylinder rod loose from the slave cylinder piston (Figure 14).

CAUTION: Use care not to damage threads on the slave cylinder rod.

44. Disconnect the slave cylinder electrical connector (Figure 15).

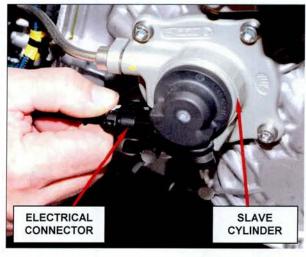


Figure 15 – Slave Cylinder Electrical Connector

45. Remove and discard the hydraulic tube retaining clip (Figure 16).

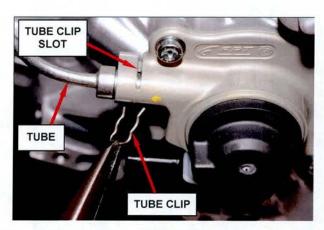


Figure 16 - Hydraulic Tube Retaining Clip

46. Carefully disconnect the hydraulic tube from the slave cylinder (Figure 17).

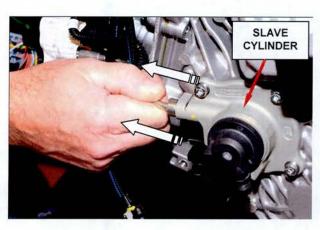


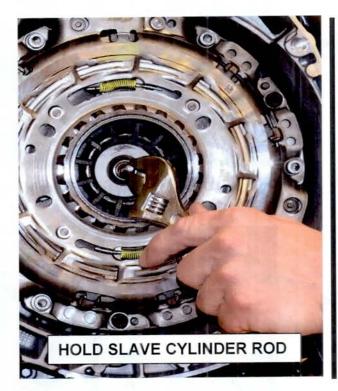
Figure 17 - Hydraulic Tube

- 47. Remove and save the four slave cylinder retaining bolts (Figure 18).
- 48. While holding the slave cylinder rod with one hand, carefully unscrew the slave cylinder from the transaxle (Figure 19).

CAUTION: Do not remove the slave cylinder rod from the transaxle, slave cylinder rod oil seal damage may occur.



Figure 18 - Slave Cylinder Retaining Bolts



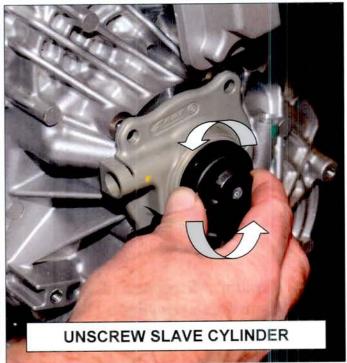


Figure 19 – Hold the Slave Cylinder Rod while Unscrewing the Clutch Slave Cylinder Assembly from the Slave Cylinder Rod

49. Using a small wire brush, carefully clean the old thread locking compound from the slave cylinder rod threads (Figure 20).

CAUTION: Do not remove the slave cylinder rod from the transaxle.

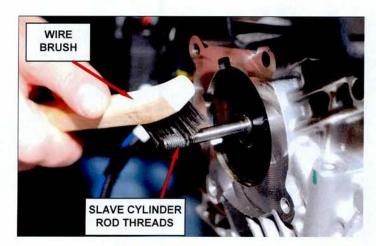


Figure 20 - Remove Thread Locking Compound

50. Using a lint free towel, carefully clean the transaxle case flange and black diaphragm for the slave cylinder (Figure 21).

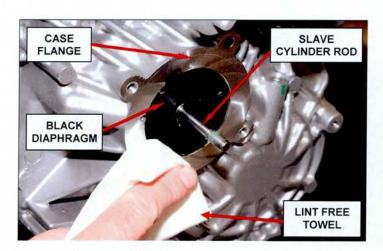


Figure 21 – Clean Case Flange



Figure 22 - Apply Thread Locking Compound

51. Apply Mopar Lock & Seal Adhesive to the slave cylinder rod threads (Figure 22).

- 52. While holding the new slave cylinder rod with one hand, carefully screw the new slave cylinder onto the slave cylinder rod until the rod bottoms out in the slave cylinder.
- 53. Install the four slave cylinder retaining bolts. Tighten the mounting bolts to 90 in. lbs. (10 N·m).

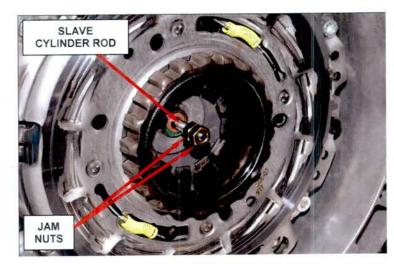


Figure 23 - Install Jam Nuts

- 54. Connect the hydraulic hose to the slave cylinder and insert the hydraulic tube retaining clip.
- 55. Connect the electrical connector to the slave cylinder.
- 56. Install the two provided nuts onto the slave cylinder rod (Figure 23). Tighten the nuts against themselves. This will provide a method to tighten the slave cylinder rod.
- 57. Using a torque wrench, tighten the slave cylinder rod to 80 in. lbs. (9 N·m) (Figure 24).
- 58. Carefully remove the two nuts from the slave cylinder rod without loosening the slave cylinder rod.



Figure 24 - Tighten Slave Cylinder Rod

- 59. Install the support bearing assembly. Tighten the slave cylinder rod nut until approximately ¼ inch (4 mm) of slave cylinder rod protrudes past the slave cylinder rod nut (Figure 25). This will be an approximate starting point.
- 60. Measure the clutch slave cylinder rod depth. Adjust the slave cylinder rod depth (by tightening, to move the shaft towards the

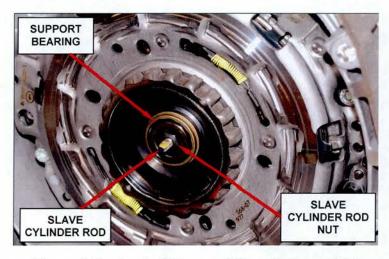


Figure 25 – Install Support Bearing and Nut

bellhousing face, or loosening, to move the shaft away from the bellhousing face, the bearing support nut) to the original depth measured in Step 40 of this procedure (Figure 26).

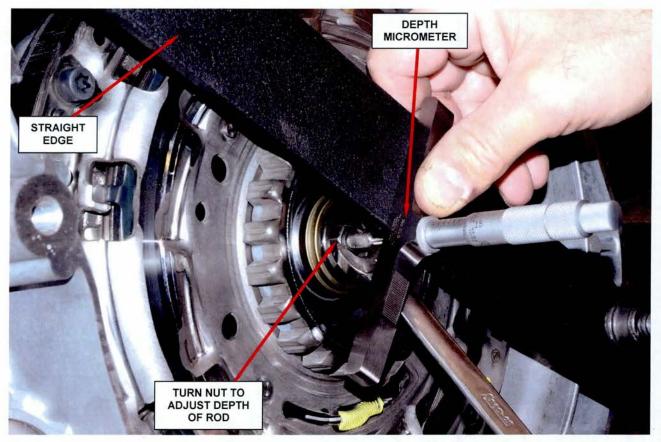


Figure 26 - Adjust the Slave Cylinder Rod Depth to the Original Depth Measured in Step 40

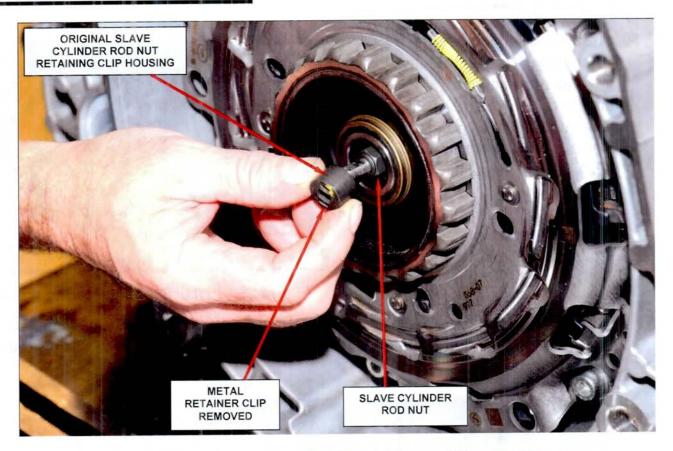


Figure 27 - Use Original Clip Housing as an Alignment Tool

61. Use the original slave cylinder rod nut retaining clip housing (with the metal retainer clip removed) as an alignment tool (Figure 18). Slide the original clip housing onto the slave cylinder rod and verify that it slides all the way over the support bearing retaining nut. If required, turn the slave cylinder rod nut slightly to allow the clip housing to slide over the nut. After aligning the nut and clip housing, remove and discard the original slave cylinder rod nut retaining clip housing.

CAUTION: Failure to align the slave cylinder rod nut to the clip housing will cause issues with installing the new slave cylinder rod nut retaining clip.



Figure 28 – Push the New Slave Cylinder Rod Nut Retaining Clip and Housing with an 8mm Socket

62. Using an 8 mm deep well socket, carefully push the new slave cylinder rod nut retaining clip onto the slave cylinder rod (Figure 19).

63. Use the following procedure to reset the Dual Mass Flywheel:

CAUTION: Do not attempt to install the transaxle without resetting the dual mass flywheel. Damage to the dual mass flywheel and/or transaxle clutch will occur.

 a. Install Special tool 10310 onto the dual mass flywheel as shown in Figure 29 and 30.

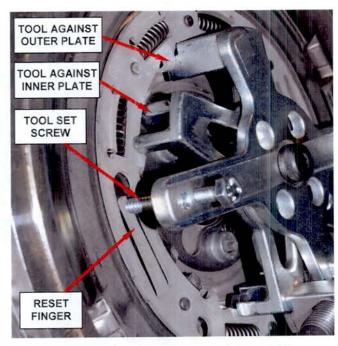


Figure 29 - Set Screw over Reset Finger

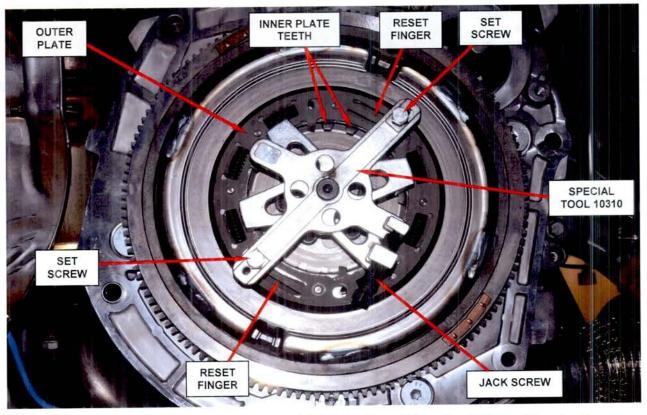


Figure 30 - Install Special Tool 10310 to Reset the Dual Mass Flywheel

- b. Tighten the jack screw until the reset fingers are over the slot in the inner plate (Figure 31).
- c. Tighten both set screws on the tool until each of the reset fingers are depressed to the level of the inner plate (Figure 31).

CAUTION: Do not over tighten the tool set screws. It requires very little torque to push the reset fingers into position. Over tightening the set screws will bend the reset fingers.

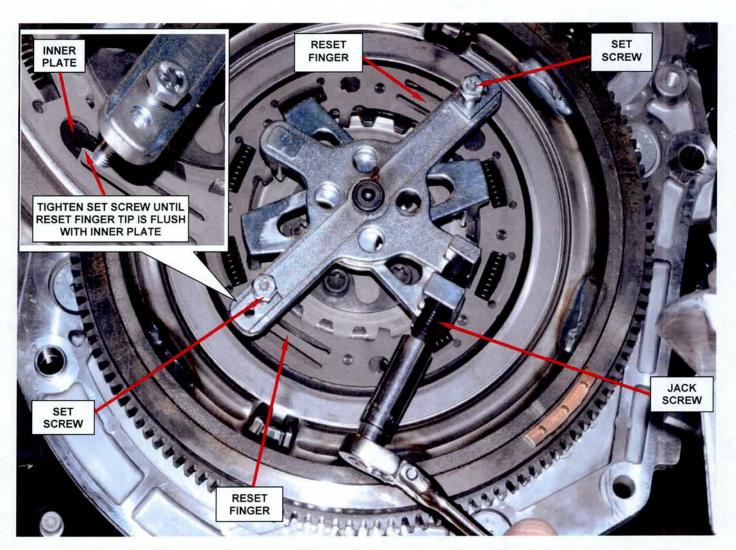


Figure 31 - Tighten Jack Screw until Reset Fingers are Over the Slot on the Inner Plate

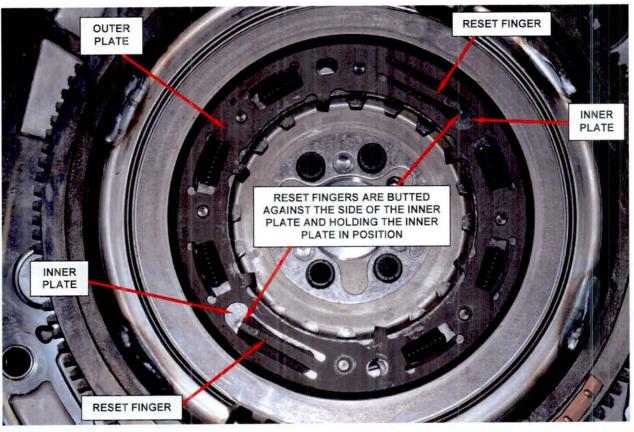


Figure 32 - Correctly Reset Dual Mass Flywheel

d. Carefully loosen the jack screw and then remove the special tool. A properly reset dual mass flywheel will look like the flywheel shown in Figure 32.

NOTE: When the engine is started for the first time the reset fingers will automatically disengage, allowing the spring loaded inner plate to engage against the clutch drive hub.

- 64. Use the following procedure to install the transaxle into the vehicle:
 - a. Using a transmission jack raise the transaxle into position.
 - b. Install the four engine adapter-to-transaxle bellhousing bolts. Tighten the two bolts at the 3 and 9 o'clock position to 59 ft. lbs. (80 N·m). Tighten the two bolts at the 5 and 7 o'clock position to 30 ft. lbs. (40 N·m).
 - c. Using the transmission jack, raise the transaxle up and install the left side aluminum load beam (Figure 10).
 - d. Remove the engine jack.
 - e. Install the one lower starter bolt. Tighten the bolt to 18 ft. lbs. (23 N·m).
 - f. Install the rear transaxle mount (Figure 9).
 - g. With the transaxle raised, place a small piece of wood between the left side load beam and the transaxle case. Then lower the transaxle onto the block of wood and remove the transmission jack from under the vehicle.
 - h. Lower the vehicle from the hoist.
 - i. Install the two upper bellhousing bolts. Tighten the bolts to 59 ft. lbs. (80 N·m).
 - j. Connect the transaxle shift cable to the transaxle shift arm.
 - k. Place a floor jack under the transaxle, raise the transaxle into position and remove the block of wood.
 - 1. Install the transaxle mount (Figure 8).
- 65. Connect all wiring harness connectors for the transaxle and oxygen sensors.
- 66. Raise the vehicle on the hoist.
- 67. Install the lower catalytic converter bracket (Figure 7).
- 68. Install the shift cable bracket to the transaxle case.



Figure 33 - Crimp Halfshaft Nut with Special Tool 10287

- 69. Install the right and left halfshafts. Tighten the right halfshaft intermediate bracket to 18 ft. lbs. (24 N·m). Tighten the new halfshaft retaining nuts to 148 ft. lbs. (200 N·m). Tighten the ball joint pinch bolt to 52 ft. lbs. (70 N·m).
- 70. Using special tool 10287, crimp both halfshaft retaining nuts. The tool must be positioned so that the crimp is on the left side of the slot in the halfshaft (Figure 34). The nut will split when a loud pop is heard while tightening the tool. Continue tightening until the tool jaw bottoms on the halfshaft.

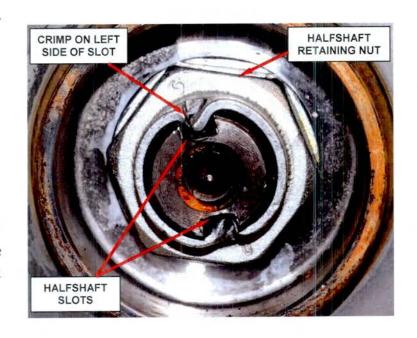


Figure 34 - Correctly Crimped Nut

Service Procedure (Continued)

- 71. Lower the vehicle from the hoist
- 72. Install the charge air cooler hose.
- 73. Install the battery tray.
- 74. Raise the vehicle on the hoist.
- 75. Install the transaxle braided ground strap to the transaxle case.
- 76. Use the following procedure to fill the transaxle with fluid:
 - a. Remove and save the black rubber fill plug from the left side of the transaxle case (near the left halfshaft) (Figure 35).
 - b. Using a suction gun, fill the transaxle with Mopar C Series Manual & Dual Dry Clutch Transmission Fluid SAE 75W. **Do Not Substitute with any other type of fluid**.

CAUTION: Be sure that the suction gun is clean and has no other residual fluid(s) in it.

- c. Fill the transaxle until fluid runs out of the fill hole. The bottom of the fill hole is the full level of the transaxle.
- d. Install the black rubber fill plug into the transaxle case opening.
- 77. Install the left plastic fender shield.
- 78. Install the front air dam plastic panel (Figure 4).
- 79. Install the underbody splash shield (Figure 4).

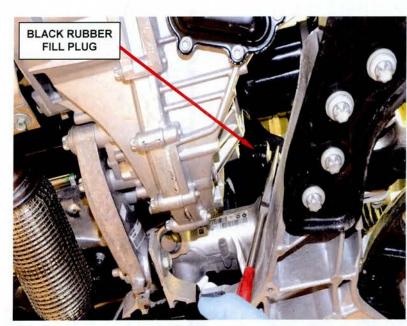


Figure 35 - Rubber Fill Plug Location

- 80. Partially lower the vehicle from the hoist and install the front wheels. Tighten the lugs to:
 - Aluminum Wheels 92 ft. lbs. (125 N·m).
 - > Steel Wheels 89 ft. lbs. (120 N·m).
- 81. Lower the vehicle from the hoist and install the Power Distribution Center (PDC) (Figure 3).
- 82. Connect the brown electrical connector to the transaxle Smart Drive Unit (SDU) (Figure 2).
- 83. Install the battery. Tighten the battery post nuts to 45 in. lbs. (5 N·m).
- 84. Install the engine cover.
- 85. Connect the wiTECH scan tool to the vehicle.
- 86. Clear all Diagnostic Trouble Codes (DTC's).
- 87. Select the "TCM" icon from the main view screen.
- 88. Select the "Misc. Functions" tab.
- 89. Select "Bleed Hydraulic Circuit" from the list.
- 90. Select "Continue" and then follow the screen prompts to complete the bleed procedure.
- 91. Select "Hydraulic Circuit Depressurization" from the list and follow the screen prompts to complete the depressurization procedure.
- 92. With the transaxle depressurized, check the hydraulic fluid level at the reservoir and add fluid if required.
- 93. Select "Reset of Data Group" from the list.
- 94. Select "All Data" from the list.
- 95. Follow the screen prompts to complete the data reset.
- 96. Select "Learn Clutches Contact Point" from the list.
- 97. Follow the screen prompts to complete the learn procedure.

Service Procedure (Continued)

- 98. Select "Quick Learn" from the list.
- 99. Follow the screen prompts to complete the quick learn.
- 100. Using the wiTECH, calibrate the steering angle sensor.
- 101. Again, clear all Diagnostic Trouble Codes (DTC's).
- 102. Remove the wiTECH from the vehicle.
- 103. Road test the vehicle to verify the repair.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by Chrysler to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	Labor Operation <u>Number</u>	Time Allowance
Inspect slave cylinder date code	21-M3-71-81	0.2 hours
Inspect slave cylinder date code and replace slave cylinder	21-M3-71-82	4.7 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to Chrysler are being notified of the service requirement by mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an <u>updated VIN list of their incomplete</u> vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the "Service" tab and then click on "Global Recall System." Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers should perform this repair on all unsold vehicles <u>before</u> retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this notification only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Service / Field Operations Chrysler Group LLC



CUSTOMER SATISFACTION NOTIFICATION M37 TRANSAXLE CLUTCH SLAVE CYLINDER

Dear: (Name)

At Chrysler Group LLC, you can be assured that we are changing the way we look at quality. To prove our commitment to quality, the company is investing in and prioritizing improvements for every vehicle that we build. As part of that commitment, we are also targeting existing vehicles on the road today and contacting our customers to provide these quality improvements, at no charge, that will help to improve your ownership satisfaction.

We are recommending the following improvements be performed on some 2013 model year Dodge Dart vehicles equipped with a 1.4 liter turbocharged engine and a dual dry clutch automatic transaxle.

Recommended Service:

What your dealer will do:

Chrysler will service your vehicle free of charge (parts and labor). To do this, your dealer will inspect the date code on the clutch slave cylinder. Slave cylinders built within a certain date range will be replaced. The inspection will take about ½ hour to complete. If the clutch slave cylinder requires replacement, an additional 5 hours will be required to perform the repair. We recommend that you make an appointment with your dealer to minimize your inconvenience.

What you should do:

Simply contact your Chrysler, Jeep, or Dodge dealer, at your convenience, to schedule a service appointment. Your dealer will collect the necessary information to ensure that the appropriate parts are available so your service can be completed in a timely manner. Although not required, we recommend bringing this letter with you to your dealer, when you bring your vehicle in for this service.

If you need help:

Please contact the Chrysler Customer Assistance Center at 1-800-853-1403.

If you have already experienced this condition and have paid to have it repaired, please send your original receipts and/or other adequate proof of payment to the following address for reimbursement: Chrysler Customer Assistance, P.O. Box 21-8007, Auburn Hills, MI 48321-8007, Attention: Reimbursement. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days.

We apologize for any inconvenience this service may cause to your schedule. Moving forward we are committed to providing our customers with world class quality products, ensuring that you have a positive dealership experience and following up on any issues and concerns that you may have in a timely manner through our Customer Assistance Center.

Sincerely, Customer Service / Field Operations Chrysler Group LLC Notification Code M37