



November 2016

Dealer Service Instructions for:

# Safety Recall S34 / NHTSA 16V-302 Manual Transaxle Clutch Pedal

#### Models

#### 2012 - 2016 (FF) FIAT 500 vehicles

*NOTE:* This recall applies only to the above vehicles equipped with a Manual Transaxle (sales code DDF) built from June 22, 2010 through January 29, 2016 (*MDH 062200 through 012908*).

**IMPORTANT:** Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

#### Subject

The clutch cover diaphragm spring on about 39,000 of the above vehicles may fatigue and/or fracture. A failed clutch cover diaphragm spring may result in the inability to disengage the clutch, shift gears and the potential for a loss of motive power. The inability to disengage the clutch, shift gears and/or loss of motive power could cause a crash without warning.

#### Repair

All involved vehicles must be inspected for a clutch pedal travel limiter. Vehicles found without a clutch pedal travel limiter must have a new clutch pedal assembly and a new clutch pedal start switch installed.

## **Parts Information**

#### Part Number

#### **Description**

CBJDS341AA Pedal Assembly and Clutch Switch

Each package contains the following components:

<u>Quantity</u>	Description
1	Pedal Assembly, Clutch/Brake
1	Switch, Clutch Pedal Start

Part Number	<b>Description</b>
68073610AA	Switch, Brake Lamp
06106123AA	Nut, Locking (MSQ 6) Pedal Assembly
06509708AA	Bolt, I-Shaft, Lower M10X1.25X35.00
06504926AA	Bolt, I-Shaft, Lower M10x1.50x40.00

(Order only one of the below clamp part numbers, either is acceptable) 06106139AA or Clamp, Hose, Master Cylinder Fluid 06106346AA

**Each dealer** to whom vehicles in the recall were assigned will receive enough parts to service about 20% of those vehicles.

# Parts Return

No parts return required for this campaign.

#### Special Tools

#### The following special tools are required to perform this repair:

- ➢ 10288 Hose Clamp Pliers
- ➢ NPN wiTECH micro pod II
- NPN Laptop Computer
- ➢ NPN wiTECH Software

#### **Service Procedure**

# A. Inspect For Clutch Pedal Travel Limiter



Figure 1 – Inspect For Clutch Pedal Travel Limiter

Inspect the clutch/brake pedal assembly bracket for a travel limiter (Figure 1).

- Yes, a clutch pedal travel limiter is visible on the pedal bracket. This recall is complete. Return the vehicle to the customer.
- No, the clutch pedal does NOT have a travel limiter on the pedal bracket. Continue with Section B. Replace Clutch/Brake Pedal Assembly.

# **B.** Replace Clutch/Brake Pedal Assembly

- 1. Open the vehicle hood.
- 2. Remove and save the cover from the battery positive terminal (Figure 2).



Figure 2 – Battery Terminal Cover

- 3. Disconnect and isolate the battery negative cable terminal from the battery negative post (Figure 3). If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the battery negative cable.
- 4. Remove the Powertrain Control Module (PCM) ground wire from the battery negative cable terminal (Figure 3).
- 5. Disconnect the battery positive cable terminal from the battery positive post (Figure 3).
- 6. Disconnect the PCM electrical connectors from the PCM (Figure 4).
- 7. Remove and save the battery thermal cover (Figure 4).
- 8. Remove and save the battery hold-down retainer (Figure 5).
- 9. Remove and save the vehicle battery (Figure 5).



BATTERY POSITIVE

CABLE TERMINAL

Figure 3 – Battery Terminals



Figure 4 – PCM Connectors



Figure 5 – Battery Hold-Down Retainer

PCM GROUND WIRE

- 10. Release the wire harness retainers from the battery tray (Figure 6).
- 11. Release the engine wire harness connector retainer from the battery tray and reposition the wire harness (Figure 6).
- 12. Remove and save the battery tray retaining nut and two bolts (Figure 6).
- 13. Remove and save the battery tray (Figure 6).



Figure 6 – Wire Harness Retainers and Battery Tray

- 14. Raise and support the vehicle.
- 15. Place an oil drain pan under the clutch master cylinder.
- 16. Use a long pick tool to release the retaining clip then disconnect the clutch fluid tube from the clutch master cylinder outlet fitting and plug both openings (Figure 7).



Figure 7 – Clutch Fluid Tube at Clutch Master Cylinder Outlet Fitting

- 17. Lower the vehicle.
- 18. Use special tool 10288 Hose Clamp Pliers to release the hose clamp then disconnect the clutch master cylinder fluid supply hose from the brake fluid reservoir and plug both openings (Figure 8).

CAUTION: Discard the hose clamp; it is not to be reused.



Figure 8 – Clutch Master Cylinder Fluid Supply Hose

19. Remove and save the steering column opening cover / Knee Air Bag (KAB) per the following steps:

WARNING: To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting KAB removal. Wait two minutes after disconnecting the vehicle battery for the system capacitor to discharge before performing further service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

WARNING: To avoid serious or fatal injury, use extreme care to prevent any foreign material from entering the KAB, or becoming entrapped between the KAB cushion and the KAB trim cover. Failure to observe this warning could result in occupant injuries upon airbag deployment.

- a. From below the instrument panel, remove and save the two screws that secure the steering column opening cover/KAB unit to the instrument panel lower reinforcement (Figure 9).
- b. Pull the cover/KAB down and back from the instrument panel far enough to access the KAB electrical connection on the outboard end of the KAB housing (Figure 10).
- c. Depress the KAB inflator electrical connector integral latches on each side of the connector insulator and pull the connector insulator straight out from the KAB to disconnect it (Figure 10).
- d. Remove and save the steering column opening cover/KAB.



Figure 9 – Cover/KAB Fasteners



Figure 10 – KAB Electrical Connector

- 20. Position the steering wheel so that the steering column intermediate shaft lower pinch bolt is accessible then using a steering wheel holder, lock the steering wheel in place to keep it from rotating. This keeps the clockspring in the proper orientation (Figure 11).
- 21. Remove the steering column intermediate shaft pinch bolt. Discard the pinch bolt; it is not to be reused (Figure 11).
- 22. Separate the intermediate shaft at the base of the column from the steering gear pinion shaft (Figure 11).
- 23. Position the intermediate shaft so that the pedal assembly can be accessed (Figure 11).
- 24. Remove and save the two nuts from the fuse panel cover (Figure 12).
- 25. Remove and save the fuse panel cover (Figure 12).
- 26. Remove and save the two screws from the instrument panel support bracket (Figure 13).
- 27. Remove and save the instrument panel support bracket (Figure 13).



Figure 11 – Steering Column Intermediate Shaft



Figure 12 – Fuse Panel Cover



Figure 13 – Instrument Panel Support Bracket

- 28. Disconnect the electrical harness connectors from the clutch start and brake lamp switches (Figure 14).
- 29. Disengage the clips of the brake booster push rod retainer from the brake pedal. Position the retainer forward toward the brake booster, away from the brake pedal (Figure 14).
- 30. Remove and discard the six mounting nuts from the clutch/brake pedal assembly. The nuts are not to be reused (Figure 15).

NOTE: Protect the vehicle floor mats/carpeting and interior trim from brake fluid while removing the clutch/brake pedal assembly.

- 31. Remove and discard the clutch/brake pedal assembly. The pedal assembly is not to be reused.
- 32. Remove and discard the used brake booster push rod retainer and brake booster push rod bearing cup. The retainer and cup are not to be reused.





Figure 15 – Pedal Assembly Fasteners



- 33. Install the NEW clutch pedal start switch to the NEW clutch/brake pedal assembly per the following steps:
  - a. Insert the switch locating tab into the clutch/brake pedal assembly (Figure 16).
  - b. Insert the switch retaining rivet fully into the clutch/brake pedal assembly (Figure 16).
  - c. Rotate the locking lever down to expand the retaining rivet securing the switch in place (Figure 16).
  - d. Swing the switch activation arm into place making sure to capture the stud on the clutch pedal (Figure 16).
  - e. Lock the switch activation arm in place by pushing the lock inward capturing the clutch pedal stud (Figure 16).



Figure 16 – Clutch Pedal Start Switch Installation

34. Carefully install the NEW clutch/brake pedal assembly per the following steps:

CAUTION: Do NOT install the brake lamp switch to the clutch/brake pedal assembly prior to fully installing the clutch/brake pedal assembly in the vehicle. Possible damage may occur to the brake lamp switch if the switch is installed prior to pedal assembly installation.

NOTE: Do NOT remove the brake booster push rod retainer from the brake pedal.



Figure 17 – Dash Panel Studs

NOTE: Do NOT attach the brake booster push rod to the brake pedal during pedal assembly installation. The brake booster push rod will be connected at a later time.

a. Align the NEW clutch/brake pedal assembly with the two mounting studs on the dash panel, then align the power brake booster mounting studs with

the clutch/brake pedal assembly (Figure 17).

- b. Install four NEW nuts attaching the pedal assembly to the power brake booster. Do not tighten these nuts at this time (Figure 18).
- c. Install two NEW nuts attaching the pedal assembly to the dash panel. Tighten these two nuts to 12 ft. lbs. (16 N·m) (Figure 18).
- d. Tighten the brake pedal assembly to power brake booster mounting nuts to 12 ft. lbs. (16 N $\cdot$ m).



Figure 18 – Pedal Assembly Fasteners

- 35. Align the brake booster push rod to the brake pedal then push the brake pedal down to engage the booster push rod to the brake pedal.
- 36. Install the NEW brake lamp switch to the NEW clutch/brake pedal assembly per the following steps:

CAUTION: Never remove or install the brake lamp switch while the brake pedal arm is disassembled from the brake booster push rod. Brake lamp switch damage may result.

CAUTION: Do not depress, lift or move the brake pedal during brake lamp switch installation to avoid improper switch adjustment.

- a. Align the tabs on the brake lamp switch locking collar with the keyed hole in the clutch/brake pedal assembly (Figure 19).
- b. Holding the brake lamp switch perpendicular to the pedal assembly, insert the tabs on the brake lamp switch locking collar through the keyed hole in the pedal assembly until the switch housing is firmly seated against the pedal assembly (Figure 19).

#### CAUTION: Do not depress, lift, touch or move the brake pedal during the next step. Switch damage or improper adjustment may result.

c. Rotate the switch housing about 45 degrees to engage the tabs on the locking collar with the pedal assembly (Figure 19).



Figure 19 – Brake Lamp Switch Installation

- 37. Connect the body wire harness connectors to the clutch start switch and brake lamp switch (Figure 14).
- 38. Install the instrument panel support bracket, then install the two bolts. Tighten the bolts to 62 in. lbs.  $(7 \text{ N} \cdot \text{m})$  (Figure 13).
- 39. Install the fuse box cover, then install the two nuts and tighten the nuts securely (Figure 12).
- 40. Connect the steering column intermediate shaft to the steering gear pinion shaft. Do NOT reuse the intermediate shaft pinch bolt (Figure 11).

NOTE: Two different intermediate shaft pinch bolts are listed in the parts section of this recall, M10X1.25X35.00 and M10x1.50x40.00. Use the NEW bolt which looks like the bolt previously removed from the intermediate shaft and discard the non-matching bolt (Figure 20).

41. Install the NEW intermediate shaft pinch bolt. Tighten the bolt to 40 ft. lbs.  $(55 \text{ N} \cdot \text{m})$  (Figure 11).



Figure 20 – Intermediate Shaft Pinch Bolts

42. Install the steering column opening cover / Knee Air Bag (KAB) per the following steps.

WARNING: To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting knee blocker installation. Wait two minutes after disconnecting the vehicle battery for the system capacitor to discharge before performing further service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

WARNING: To avoid serious or fatal injury, use extreme care to prevent any foreign material from entering the KAB, or becoming entrapped between the KAB cushion and the KAB trim cover. Failure to observe this warning could result in occupant injuries upon airbag deployment.

- a. Position the cover/KAB below the instrument panel in a vertical orientation with the KAB inflator electrical connector receptacle facing upward (Figure 10).
- b. Connect the instrument panel wire harness connector to the KAB inflator electrical connector receptacle by pressing straight in on the connector. The connection will make an audible click noise as the connector insulator integral latches snap into place, indicating the electrical connector is fully engaged in its receptacle (Figure 10).
- c. Carefully position the steering column opening cover/KAB unit into the instrument panel opening (Figure 9).
- d. Install the two screws that secure the column opening cover/KAB unit to the instrument panel lower reinforcement. Tighten the screws to 53 in. lbs.  $(6 \text{ N} \cdot \text{m})$  (Figure 9).
- e. Do not connect the negative battery cable at this time. The Supplemental Restraint System (SRS) Verification Test detailed later in this procedure should be performed following installation of the KAB.

- 43. Raise and support the vehicle.
- 44. Connect the clutch fluid tube to the clutch master cylinder (Figure 7).
- 45. Lower the vehicle.
- 46. Install the clutch master cylinder fluid supply hose with NEW clamp to the brake fluid reservoir (Figure 8).
- 47. Use special tool 10288 Hose Clamp Pliers to engage the NEW clamp securing the clutch master cylinder fluid supply hose to the brake fluid reservoir (Figure 8).
- 48. Bleed the clutch hydraulic system.

NOTE: Use Mopar brake fluid, or an equivalent quality fluid meeting DOT 3 standards only. Use fresh, clean fluid from a sealed container at all times.

- 49. Install the battery tray with one nut and two bolts. Tighten all three fasteners to 18 ft. lbs. (25 N·m) (Figure 6).
- 50. Engage the engine wire harness connector retainer to the battery tray (Figure 6).
- 51. Engage the engine wire harness retainers to the battery tray (Figure 6).
- 52. Install the vehicle battery into the battery tray (Figure 5).
- 53. Install the battery hold down retainer and tighten securely (Figure 5).
- 54. Install the battery thermal cover (Figure 4).
- 55. Connect the powertrain control module (PCM) electrical connectors (Figure 4).
- 56. Connect the battery positive cable terminal to the battery positive post and tighten the terminal securely (Figure 3).

#### NOTE: Do NOT connect the battery negative cable at this time.

- 57. Knee Air Bag (KAB) equipped vehicles only: Proceed to Section C. Supplemental Restraint System (SRS) Verification Test. For vehicles without a KAB, continue with Step 58.
- 58. Install the PCM ground wire to the battery negative cable terminal then connect the negative cable terminal to the battery negative post and tighten the terminal securely (Figure 3). If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector after connecting the battery negative cable terminal to the battery.
- 59. Install the battery positive terminal cover (Figure 2).
- 60. Close the vehicle hood.
- 61. Check for proper operation of the hydraulic clutch system.
- 62. Check that the clutch switch will not allow the starter to crank without the clutch pedal depressed.
- 63. Check the brake lamps for proper operation.
- 64. Return the vehicle to the customer.

#### C. Supplemental Restraint System (SRS) Verification Test

NOTE: During the following test, the battery negative cable must remain disconnected and isolated during steps 1 and 2 of the Supplemental Restraint System (SRS) Verification Test.

NOTE: The wiTECH scan tool must be used to perform the SRS Verification Test. The wiTECH software is required to be at the latest release before performing the SRS Verification Test.

1. Connect the micro pod II to the vehicle data link connector located under the instrument panel to the left of the steering column.

- 2. Turn the ignition switch to the "ON" position then exit the vehicle and close the doors.
- 3. Check to be certain that nobody is in the vehicle. Install the PCM ground wire to the battery negative cable terminal then connect the negative cable terminal to the vehicle battery negative post and tighten the terminal securely (Figure 3). If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector after connecting the battery negative cable terminal to the battery.
- 4. Open the wiTECH Diagnostic application.
- 5. Starting at the "Select Tool" screen, select the row/tool for the micro pod II device you are using, then select "Next".
- 6. Enter your "User id" and "Password", then select "Finish".
- 7. Using wiTECH, clear all DTC's in all modules.

NOTE: Any active Diagnostic Trouble Codes (DTCs) may require an additional key cycle from "ON" to "OFF" to change DTC status from "active" to "stored".

- 8. Turn the ignition switch to the "OFF" position for about 15 seconds, and then back to the "ON" position. Observe the airbag indicator in the instrument cluster.
  - The airbag indicator in the instrument cluster should illuminate for six to eight seconds, and then turn off. This indicates that the SRS is functioning normally and that the repairs are complete. Turn the ignition to the "OFF" position then remove the micro pod II.
  - If the airbag indicator fails to illuminate or the indicator lamp stays ON, there is still an active SRS fault or malfunction. Refer to the appropriate diagnostic information to diagnose the problem.
- 9. Return to Step 59 of Section B. Replace Clutch/Brake Pedal Assembly.

#### **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 FCA to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

	<b>Labor Operation</b>	Time
	<u>Number</u>	<u>Allowance</u>
Inspect for Clutch Pedal Travel Limiter	05-S3-41-81	0.2 hours
Inspect/Replace Clutch/Brake Pedal Assembly	05-S3-41-82	1.4 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 FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their FIAT studios. 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</u> VIN list of <u>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** <u>must</u> 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.

Recall 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 recall 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 Services / Field Operations FCA US LLC



# **IMPORTANT SAFETY RECALL**

#### S34 / NHTSA 16V-302

This notice applies to your vehicle (VIN: xxxxxxxxxxxxxx).

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Dear: (Name)

FCA has decided that a defect, which relates to motor vehicle safety, exists in certain 2012 through 2016 model year FIAT 500 vehicles equipped with a manual transaxle.

The problem is	The clutch cover diaphragm spring on your vehicle may fatigue and/or fracture. A failed clutch cover diaphragm spring may result in the inability to disengage the clutch, shift gears and the potential for a loss of motive power. The inability to disengage the clutch, shift gears and/or loss of motive power could cause a crash without warning.
What your studio will do	<b>FCA will repair your vehicle free of charge.</b> To do this, your FIAT studio will install a clutch pedal assembly with pedal travel limiter and a clutch pedal switch. The work will take about 2 hours to complete. However, additional time may be necessary depending on service schedules.
What you must do to ensure your safety	Simply <b>contact your FIAT studio</b> , at your convenience, to schedule a service appointment. Your FIAT studio 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 FIAT studio, when you bring your vehicle in for this service.
If you need help	Please contact the FCA US Recall Information Center at either <b>recalls.mopar.com</b> or phone 1-800-853-1403.

Please help us update our records by filling out the attached prepaid postcard if any of the conditions listed on the card apply to you or your vehicle. If you have further questions go to **recalls.mopar.com**.

If you have already experienced this specific condition and have paid to have it repaired, you may visit **www.fcarecallreimbursement.com** to submit your reimbursement request online or you can mail your original receipts and proof of payment to the following address for reimbursement consideration: **FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement**. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you've had previous repairs and/or reimbursement you may still need to have the recall repair performed on your vehicle.

If your studio fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to **safercar.gov**.

We're sorry for any inconvenience, but we are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Services / Field Operations FCA US LLC

Note to lessors receiving this recall: Federal regulation requires that you forward this recall notice to the lessee within 10 days.