

**Haynes**
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BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual

5 Automatic transmission - removal and installation

Caution:

On 8-speed transmissions, to prevent severe damage to the engine block, the section of bolt threads that protrude out of the transmission must be checked for damage or corrosion before trying to remove them. If there is corrosion, the corrosion must be removed and the threads completely cleaned before trying to remove them. If there was corrosion, replace the bolts once they have been removed.

Note:

This is an involved operation. Read through the procedure thoroughly before starting work, and ensure that adequate lifting tackle and/or jacking/support equipment is available. A suitable tool will be required to align the torque converter when installing the transmission, and new fluid pipe O-rings may be required.

Removal

- 1 Disconnect the negative battery cable (see [Chapter 5](#)).
- 2 Raise the vehicle and support it securely on jackstands. Note that the vehicle must be raised sufficiently to allow clearance for the transmission to be removed from under the vehicle. Remove the bolts and remove the engine/transmission splash shield from the vehicle (see [illustration 2.2](#)).
- 3 Remove the bolts and the front reinforcement brace/plate from under the transmission.
- 4 Remove the starter motor (see [Chapter 5](#)).
- 5 Remove the exhaust system and heat shield (see [Chapter 4](#)), then unbolt the exhaust mounting crossmember from under the vehicle.
- 6 Remove the driveshaft (see [Chapter 8](#)).
- 7 On 6-speed models, disconnect the shift cable from the transmission (see [Section 3](#)).
- 8 Disconnect the wiring plugs under the front of the transmission bellhousing and unclip the wiring harness. Remove the cover plate mounting bolts and the plate (see [illustrations](#)).

5.8a Unclip the wiring harness and plugs .

. .

**5.8b . . . then remove the cover plate mounting bolts and plate**

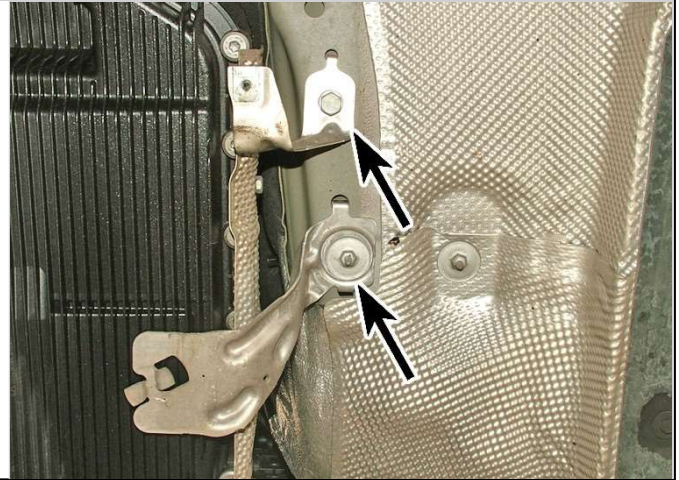
9 Mark the position of the torque converter to the driveplate, then unscrew the three torque converter bolts, turning the crankshaft with a wrench or socket on the pulley hub bolt to access each bolt in turn (see illustration) .

5.9 Remove the torque converter bolts**Note:**

On 8-speed models, special tool No. 2 222 741 (or equivalent) must be installed once all the torque converter bolts have been removed to prevent the converter from rotating.

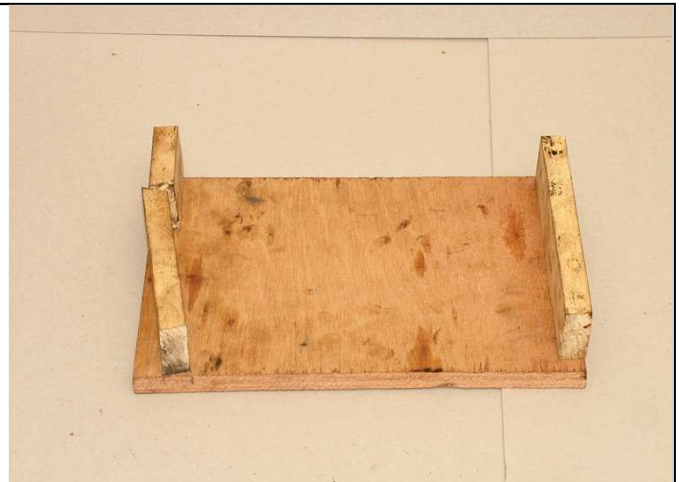
10 Remove the nuts and brackets from the right-hand side of the transmission oil pan, then remove the heat shield mounting bolts and heat shield (where applicable) (see illustration) .

5.10 Remove the brackets adjacent to the transmission



11 Support the transmission using a transmission jack and blocks of wood (see illustrations) . The transmission pan is plastic - ensure the transmission is supported around the edge of the pan. **Caution:** *The transmission is heavy, so ensure that it is adequately supported.*

5.11a Fashion a wooden platform . . .



5.11b . . . to support the transmission at the fluid pan flange on each side



12 Remove the crossmember mounting bolts/nuts and the crossmember from the rear of the transmission (see illustration) .

5.12 Remove the crossmember from the rear of the transmission



13 Place a suitable block of wood between the engine oil pan and the steering gear; once the transmission is removed, the engine will be front-heavy.

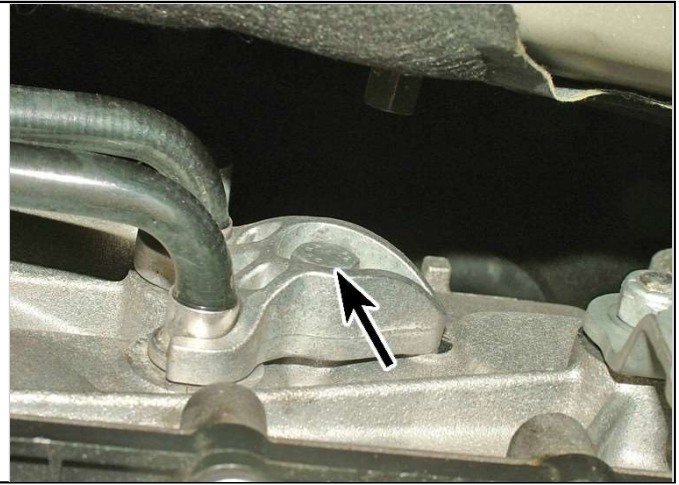
14 Lower the transmission slightly, then rotate the electrical connector collar counterclockwise and pull the wiring plug from the transmission case (see illustration) ; be sure to cover the opening with a plastic plug or tape. Release the wiring harness clips on the transmission case. **Caution: *On 8-speed models, the transmission Mechatronics system can be destroyed by electrical static discharges. The contacts inside the connector or transmission opening must not be touched. Once the Mechatronics electrical connector is removed the opening and electrical connector should be covered.***

5.14 Rotate the collar counterclockwise and pull the wiring plug from the case



15 Unbolt the fluid cooler pipe brackets and clamps. Remove the fluid line clamp bolt and disconnect the fluid lines - be prepared for fluid to spill (see illustration) . Plug and seal the openings to prevent contamination.

5.15 Fluid cooler pipe clamp bolt

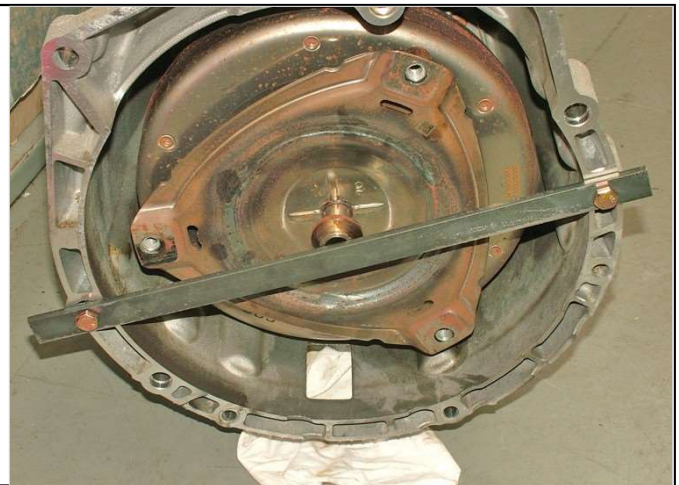


16 Remove the engine-to-transmission bolts and washers, then slide the transmission rearwards. Ensure the torque converter comes away from the driveplate, and stays in place in the transmission.

17 Insert a suitable wooden or metal bar through the slot in the bottom of the bellhousing to hold the torque converter back. As the transmission is released from the engine, check to make sure that the engine is adequately supported, and no hoses remain connected.

18 Lower the transmission and carefully withdraw it from under the vehicle, making sure that the torque converter is held in position. If the transmission is to be removed for some time, ensure that the engine is adequately supported in the engine compartment. Take measures to ensure the torque converter is prevented from sliding forwards (see illustration) .

5.18 Bolt a metal bar over the bellhousing opening to prevent the torque converter sliding forward



Installation

19 Ensure that the transmission locating dowels are in position on the engine.

20 Before mating the transmission with the engine, it is essential that the torque converter is perfectly aligned with the driveplate.

21 Turn the driveplate to align one of the torque converter-to-driveplate bolt holes.

22 Ensure that the transmission is adequately supported, and maneuver it into position under the vehicle.

23 Install and tighten the engine-to-transmission bolts.

24 Install the torque converter-to-driveplate bolt. Tighten the bolt to the specified torque.

25 Turn the crankshaft for access to the remaining two torque converter-to-driveplate bolt locations (see Step 9). Install and tighten the bolts.

26 The remainder of installation is the reverse of removal, noting the following points.

- A. Tighten all fasteners to the specified torques, where applicable.
- B. Check the condition of the transmission fluid pipe O-rings and replace them if necessary.
- C. Install the driveshaft (see [Chapter 8](#)).
- D. Install the starter motor (see [Chapter 5](#)).
- E. Reconnect and adjust the shift cable (see [Section 3](#)).
- F. Check the transmission fluid (see [Chapter 1](#)).

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