



X-TYPE

DATE 08/01  
Amended 04/03

XT307-01

SERVICE

# TECHNICAL BULLETIN

Difficulty Selecting Transmission Ranges –  
GEARBOX FAULT Message –  
Reset J-Gate

MODEL 2002-03 MY  
X-TYPE  
VIN C00001-D15360

Remove and destroy Bulletin XT307-01, dated 08/01.  
Replace with this Bulletin.  
The VIN range has been revised.

**Issue:**

Some 2002 MY X-TYPE vehicles with automatic transmissions may experience customer complaints of being unable to select a transmission range, or the message 'GEARBOX FAULT' flashing on the message center (or the powertrain malfunction lamp [MIL] illuminating) causing the vehicle to run in limp-home mode.

**Action:**

Using WDS, check for any diagnostic trouble codes (DTCs) stored. If any DTC is stored (see table below), the J-gate assembly is functioning incorrectly and needs resetting. In order to do this, follow the Workshop Procedure outlined below.

**Possible DTCs:**

Condition	DTCs
Can cause the vehicle to run in limp-home mode	P1780 and/or P0706
Difficulty selecting a range or Drive	P0731      P0732      P0733
	P0734      P0735      P0740

**Note:** Before starting the J-gate setting procedure, ensure the vehicle is cold, or has been left to cool for at least 2 hours.



## TRANSMISSION EXTERNAL CONTROLS

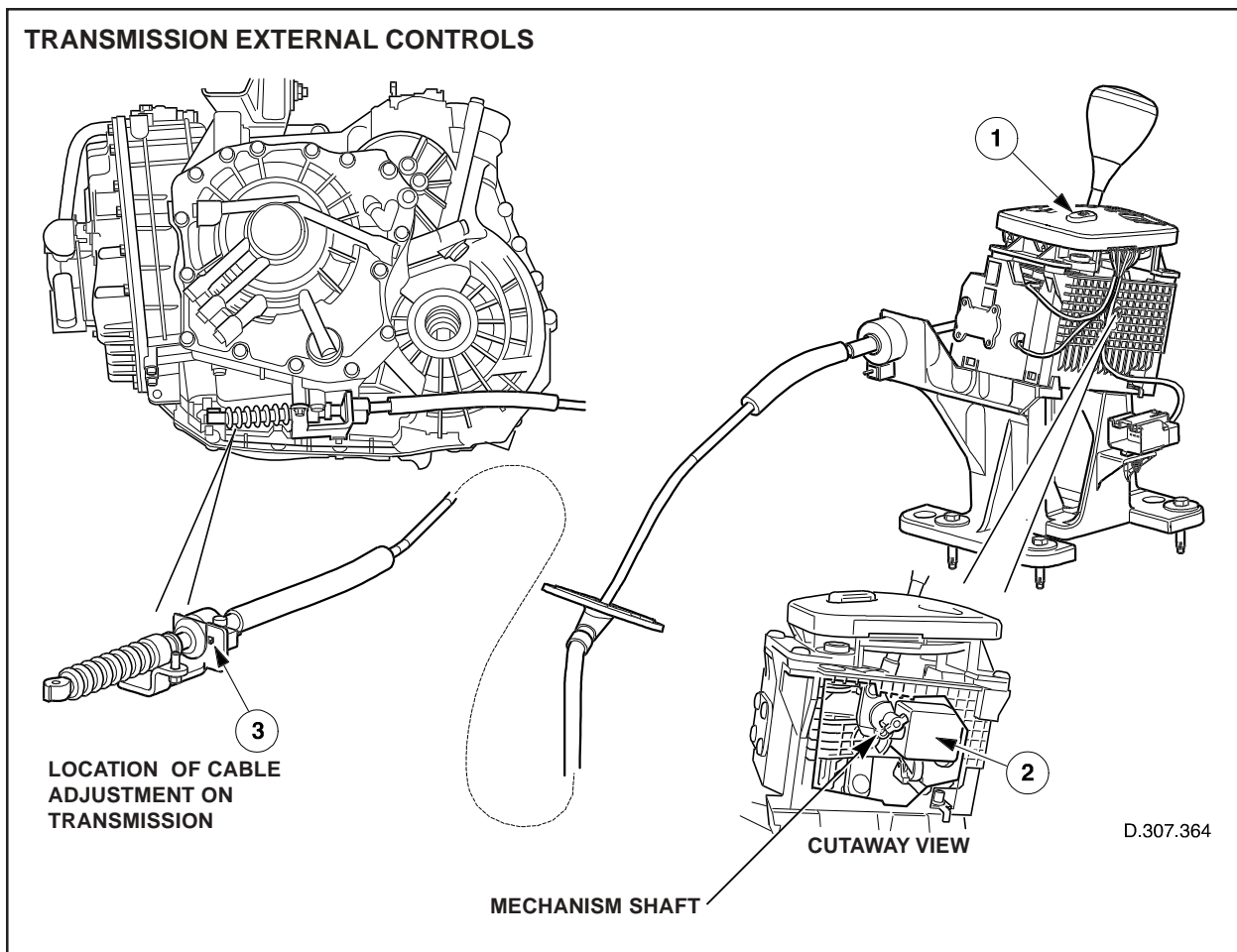


ILLUSTRATION 1

**Note:** If the selector lever cannot be moved from the Park position, remove the trim on the left side of the console. Release the lever by turning the end of the mechanism shaft to a vertical position (Illustration 1).

### FUNCTION CHECK

1. Apply handbrake.
2. Apply foot brake.
3. Start vehicle engine.
4. Starting in P, slowly, move the selector lever around the J-gate and stop in each range position to check that all ranges can be selected. From 2, stop in each range position on the way back to P.
5. Move selector lever from P to R.
6. Holding selector lever tight to outside edge of J-gate, slowly move selector lever from R to N two or three times to ensure N illuminates.
7. Applying minimal force, slowly move the selector lever from N to D two or three times to ensure D does engage and illuminate.

**Note:** If illumination is not apparent, proceed to setting procedure A.

**Note:** To verify that D is engaged, check the tachometer for a drop in RPM.

8. Move selector lever to 3.
9. Holding selector lever to inside edge of J-gate, slowly move selector lever from 3 to D two or three times.

**Note:** When moving selector from 3 to D, ensure selector lever passes around the corner of D.

**Note:** If after moving the selector lever to D at step 9, illumination is lost in all gear positions and cannot be recovered (even by shifting to N), then proceed to setting procedure A outlined below. If at step 9 illumination is still apparent or can be recovered, no further action is required.

#### SETTING PROCEDURE A

1. Switch ignition OFF.
2. Move selector lever to N.
3. Raise vehicle on a drive-on lift.
4. Remove transmission selector cover plate and place aside.
5. Loosen, but do not fully remove transmission selector cable adjusting bolt (3, Illustration 1).
6. Inside the vehicle, hold selector lever tight to position N.
7. Using corner of the gray feature line (that follows the J-gate) as a reference mark, use a ruler and move selector lever back 2 mm and hold.
8. Using an assistant under the vehicle, wiggle selector cable at transmission end.
9. Fully tighten transmission selector cable adjusting bolt (3, Illustration 1).
10. Start vehicle engine and repeat fault identification procedure to check if fault has been rectified. Check that ignition key can be removed easily.

#### SETTING PROCEDURE A (WITH J-GATE TOOL)

1. Switch ignition OFF.
2. Move selector lever to N.
3. Raise vehicle on lift.
4. Remove transmission selector cover plate and place aside.
5. Loosen, but do not fully remove transmission selector cable adjusting bolt (3, Illustration 1).
6. Inside the vehicle, insert the red J-Gate setting tool into the cover plate to lock the lever in the N position.
7. Using an assistant under the vehicle, wiggle selector cable at transmission end.

8. Fully tighten transmission selector cable adjusting bolt (3, Illustration 1). Remove red tool.
9. Start vehicle engine and repeat fault identification procedure to check if fault has been rectified. Check that ignition key can be removed easily.

**Note:** If illumination is not apparent at any point, proceed to setting procedure B.

### SETTING PROCEDURE B

1. Move selector lever to N.
2. Loosen, but do not fully remove transmission selector cable adjusting bolt (3, Illustration 1).
3. Using a steel ruler, adjust selector lever (see adjustment table) either towards or away from N position and hold.

### ADJUSTMENT TABLE

<b>Failure Position</b>	<b>Action</b>
-------------------------	---------------

- |        |  |
|--------|--|
| N or D | Set selector lever closer to N position in 1 mm increments to a maximum of 1 mm in front of N. |
| 4      | Set selector lever away from N position in 1 mm increments to a maximum of 4 mm behind N.      |
4. Using an assistant, wiggle selector cable at transmission end.
  5. Fully tighten transmission selector cable adjusting bolt (3, Illustration 1).
  6. Repeat fault identification procedure to check if fault has been rectified.

**Note:** If illumination is still not apparent, further setting procedures may be necessary. (See table for adjustment limit).

7. Reinstall transmission selector cover plate.
8. Fit and fully tighten cover plate fixing bolts (10 Nm).
9. Lower vehicle. Check that ignition key can be removed easily.

### J-GATE REPLACEMENT

If problems with key removal persist, replace the J-gate as follows:

1. Open door.
2. Switch ON ignition.
3. Depress brake pedal.
4. Reposition selector lever to N position.
5. Release brake pedal.

6. Switch OFF ignition.
7. Open hood and install fender protector covers.
8. Disconnect vehicle battery.
9. Remove J-gate surround.
10. Remove console assembly.
11. Disconnect J-gate electrical connector.
12. Undo and remove center console bracket securing screws.

**Note:** Center console bracket is removed with J-gate.

13. Release and remove selector cable locking pin.
14. Release selector cable retaining clip from J-gate.
15. Remove ashtray securing screws.
16. Displace and reposition ashtray.
17. Disconnect cigar lighter connector.
18. Remove ashtray.
19. Remove J-gate securing screws.
20. Displace and remove J-gate.
21. Remove center console bracket from J-gate.
22. Position new J-gate in the vehicle.
23. Position J-gate selector lever to N position.
24. Install center console bracket.
25. Install and fully seat new J-gate.
26. Install and tighten J-gate securing screws.
27. Connect ashtray cigar lighter connector.
28. Install and fully seat ashtray.
29. Install and tighten ashtray securing screws.
30. Connect selector cable to J-gate.
31. Secure selector cable locking pin.
32. Install and tighten center console mounting bracket securing screws.
33. Connect J-gate electrical connector.
34. Install center console.
35. Install J-gate surround.
36. Connect vehicle battery.
37. Switch ignition ON.
38. Depress brake pedal.
39. Position selector lever to P position.
40. Release brake pedal.
41. Switch ignition OFF.

42. Remove fender protector covers and close hood. Check that ignition key can be removed easily.

**Parts Information:**

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>QTY</u>
J-Gate assembly	C2S 20251	1

**Warranty Information:**

Warranty claims should be submitted quoting the information found in the table below. This will result in payment of the stated time and, where applicable parts/miscellaneous expense codes as listed.

Description	SRO	Time	Causal Part Number	Causal Part Description
J-Gate check/adjustment	44.91.25	0.3 hrs.	C2S 20251	J-Gate
J-Gate renew	44.15.03	0.9 hrs.	C2S 20251	J-Gate
Drive in/drive out	10.10.10	0.1 hrs.		