

Technical Bulletin

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Toyota MMT Clutch Replacement Guide for Clutch Kits - ADT330265 / ADT330266 / ADT330274

Applications: Toyota Aygo / Auris / Corolla / Yaris

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MMT or Multi Mode Transmission is a type of sequential manual gearbox offered by Toyota. Instead of a conventional automatic, which uses a torque converter, the MMT has a regular clutch which is controlled electronically. The most obvious way to identify that the car is fitted with MMT is the fact that the car will not have a clutch pedal and has a gear selector as in Fig.1

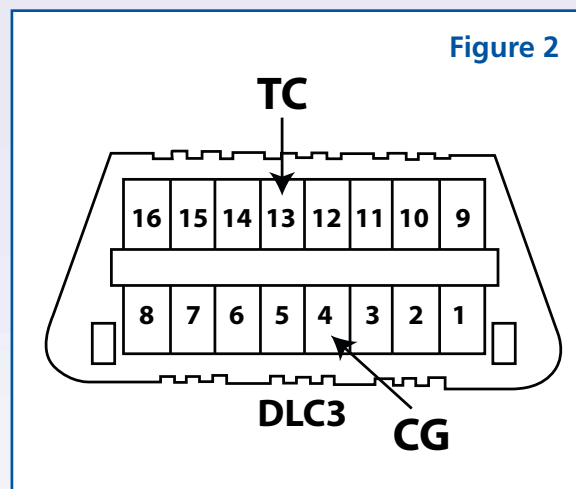
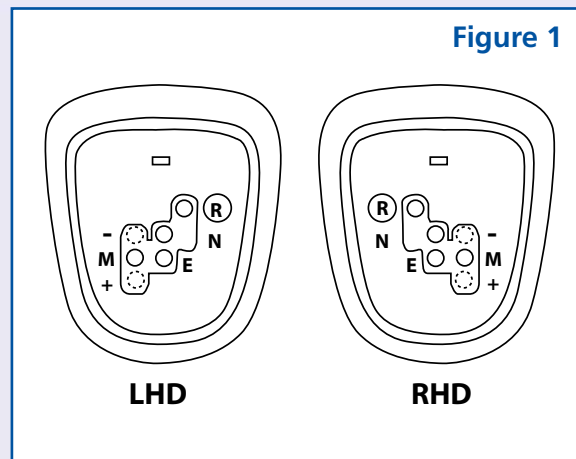
To fit a MMT clutch kit you will need to reset the parameters of the servos and the actuator. A scan tool such as a Toyota IT2 can facilitate this procedure. If you do not have access to either of these tools you can override the procedure by following the process outlined in this bulletin.

When removing or fitting the clutch, you will need to move the actuator to clutch clamp position. This ensures that the clutch is fully released. Failure to do this could cause damage to the automatic adjustment mechanism. This is the process that you **must** follow.

1. Ensure the ignition is switched off and the gear selector is in the 'N' position.
2. Use a jumper wire to connect terminals 4 and 13 of the DLC3 (or OBD Socket) as shown in **figure 2**.
3. Turn on the ignition switch with brake pedal released.
4. Pump the brake pedal 7 or more times within a 3 second period.
5. Release the brake pedal. A buzzer should sound twice with an interval of 0.25 seconds.
6. Depress and hold the brake pedal down.
7. keeping your foot on the brake pedal, shift the gear lever in the following sequence.

1	2	3	4	5	6	7	8	9	10	11	12	13
N	E	M	+	M	+	M	+	M	+	M	E	N

8. Release the brake pedal.
9. Depress and release the brake pedal again. A buzzer will sound once to confirm the clutch has moved to its clamped position.



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If the buzzer does not sound, turn off the ignition and wait at least 15 seconds before starting the process from the beginning.

10. Pump the brake pedal 3 times or more within 2 seconds. Release the brake pedal. The buzzer will sound twice with an interval of 0.25 seconds.
11. Depress the brake pedal and hold whilst shifting the gear lever into the ' – ' position.
12. Release the brake pedal.
13. Turn off the ignition and wait for a minimum of 10 seconds.
14. Disconnect the jumper wire.
15. Replace the clutch.

After you have replaced the clutch you will have to initialise the ECU, clutch and transmission

16. Ensure the ignition is switched off and the gear selector is in the 'N' position.
17. Re-connect the jumper wire as shown previously in point 2.
18. Wait at least 10 seconds before turning the ignition to the ON position.
19. Pump the brake pedal at least 7 times within a 3 second period and then release it. The buzzer will sound twice with an interval of 0.25 seconds.

20. Now you are ready to initialise the ECU...

Depress and hold the brake pedal down and shift the gear selector in the following sequence:

1	2	3	4	5	6	7	8	9	10	11	12
N	E	M	-	M	-	M	-	M	-	E	N

Release the brake pedal, then press and release it once more. A buzzer will sound twice to confirm initialisation of the ECU.

21. Now initialise the clutch...

Depress and hold the brake pedal down and shift the gear selector in the following sequence:

1	2	3	4	5	6	7	8	9	10	11	12
N	E	M	+	M	-	M	+	M	-	E	N

Release the brake pedal, then press and release it once more. A buzzer will sound three times to confirm initialisation of the clutch.

22. Now initialise the transmission...

Depress and hold the brake pedal down and shift the gear selector in the following sequence:

1	2	3	4	5	6	7	8	9	10	11	12
N	E	M	-	M	-	M	+	M	+	E	N

Release the brake pedal, then press and release it once more. A buzzer will sound four times to confirm initialisation of the transmission.

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If the buzzer does not sound, turn off the ignition and wait at least 15 seconds before starting the process from point 16.

23. Pump the brake pedal 3 times or more within 2 seconds. Release the brake pedal. The buzzer will sound twice with an interval of 0.25 seconds.
24. Turn the ignition switch to OFF and wait at least 10 seconds. The initialisation will now be complete.
25. Disconnect the jumper wire.
26. Ensuring the gear selector is in the 'N' position, turn the ignition to the ON position and wait at least 40 seconds.
27. With the brake pedal depressed, start the engine, The shift N position indicator on the dashboard should blink when the engine starts.
28. Wait at least 10 seconds. The initialising should now be complete.

When the vehicle is started and drive is engaged, with your foot off the brake pedal the vehicle should creep forward, this confirms the initialisation has been successful.

29. The vehicle **must** now be road tested to allow the transmission to learn gear position and synchronisation.

Drive the vehicle in the (M) manual mode and move through the gears leaving at least 2 seconds between changes.

Gear Change	Gear Position	Vehicle Speed
Up-shift	1st > 2nd	Between 25-45 km/h (15-28 mph)
	2nd > 3rd	Between 46-85 km/h (28-53 mph)
	3rd > 4th	Between 67-125 km/h (42-78 mph)
	4th > 5th	Between 85-150 km/h (53-93 mph)
Down-shift	2nd > 1st	Between 25-40 km/h (15-25 mph)

Always abide by local speed limits.