

TT8834EN
March 19, 2021
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SUBJECT: Daimler Trucks Stalk Switch Control and Driver Information Center

MODELS AFFECTED: Freightliner Cascadia, Western Star 49X with 3000/4000 Series Transmissions

Introduction:

Daimler Trucks North America (DTNA) uses an OEM-supplied steering column-mounted stalk switch control on all Freightliner Cascadias and the newly released Western Star 49X vocational model. The Allison pushbutton shift selectors are also an option in most models. These trucks also feature a dash-mounted Driver Information Center to display alerts and important vehicle information.

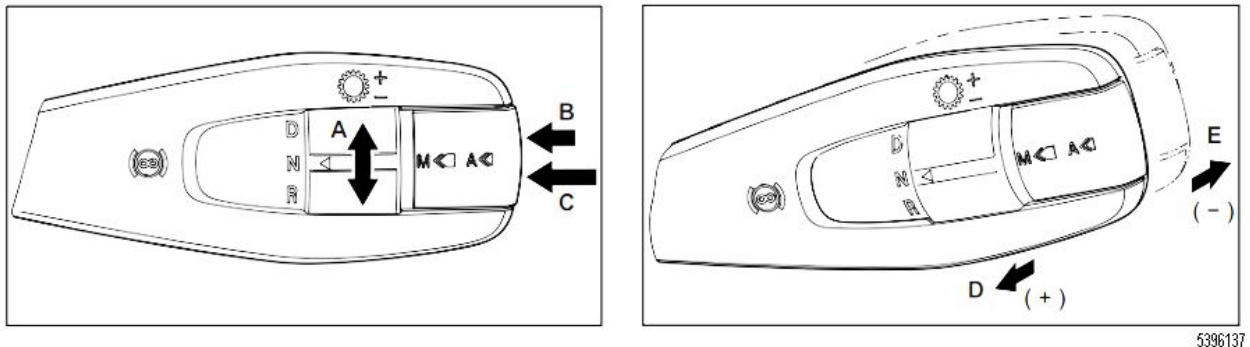


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Figure 1. DTNA Stalk Switch Control



Figure 2. Key-on Splash Screen



- (A) – Rotate for Drive (D), Neutral (N), or Reverse (R)
- (B) – Short press for automatic mode or switch between available modes
- (C) – Long press for manual mode
- (D) – Pull for upshift (+) request
- (E) – Push for downshift (-) request

Figure 3. Stalk Switch Control

Stalk Switch Control Operation:

Vehicles with Allison transmissions use the multi-function stalk switch control shown in [Figure 3](#). This control can be used to change driving mode and set engine brake levels.

Gear Selection:

The automatic gear selection is controlled by rotating the direction switch ([Figure 3](#), Item A). To engage each automatic gear selection, rotate the knob at the end of the stalk forward or backward until the triangle indicator lines up with the desired direction of travel.

Shift Mode:

The shift mode is controlled by the Mode button at the end of the stalk switch control. A brief press (Figure 3, Item B) will toggle between Primary and Secondary shift modes (default) or as defined by the Transmission Control Module (TCM) calibration. When Secondary mode is active, "MODE" will appear below the gear display in the Driver Display as shown in Figure 4.



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Figure 4. Secondary Mode Label

Driving Mode:

The manual/automatic driving mode is also controlled by the Mode button end of the stalk switch control. To put the vehicle into Manual Mode, push the Mode button for a minimum of 3 seconds while in Drive (D) (Figure 3, Item C). Once in Manual Mode, the pre-selected gear will match the current gear, Figure 5. Push the stalk switch control forward towards the instrument panel in order to downshift and pull the stalk switch control back towards the operator to upshift gears.



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(1) – Pre-selected gear

(2) – Current gear

Figure 5. Current Gear Display in Manual Mode



NOTE: The transmission will not upshift above the pre-selected gear unless the hold override upshift speed is exceeded.

If the vehicle is in Manual Mode, push in for a minimum of 3 seconds to return it to automatic mode.



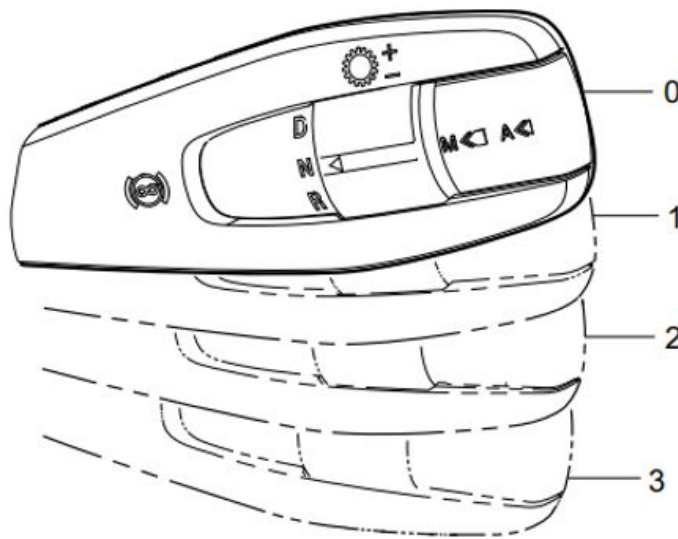
NOTE: If attempting to select a non-Neutral mode without applying the service brakes, the transmission will not shift into gear. To shift into gear, select Neutral (N), apply the service brakes, and select the desired mode again.

Engine Brake:

The engine brake is controlled by the lever position, [Figure 6](#). At the top position, the engine brake is off. At the three lower positions, the engine brake is on, and the intensity (low, medium, high) increases with each step down.



NOTE: The engine brake with cruise control can be used to activate Descent Control Mode or Deceleration Mode.



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(0) – Off
(1) – Low

(2) – Medium
(3) – High

Figure 6. Engine Brake Positions

Transmission Prognostics:

Allison Transmission Prognostics display can be found by navigating to the maintenance menu in the Driver Display using Menu Right and Menu Left buttons on the steering wheel ([Figure 7](#)) to move between the top-level categories and using the Menu Up and Menu Down buttons to move within the selected category ([Figure 8](#)). The transmission prognostics screen displays information on the transmission health status (oil filter status, oil level, and oil life). If transmission health falls below acceptable limits, a message will be shown on the Driver Display.



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| (1) – Cruise Accelerate/Resume | (6) – Phone Pick-Up | (12) – Menu Down |
| (2) – Quick Access System Settings | (7) – Headlamp Interrupt | (13) – Back Button |
| (3) – Cruise Decelerate/Set | (8) – Cruise Cancel | (14) – Menu Left |
| (4) – Phone Hang-Up/Reject | (9) – Volume Increment Up | (15) – Menu Accept (OK) |
| (5) – Marker Interrupt | (10) – Menu Right | (16) – Menu Up |
| | (11) – Volume Increment Down | |

Figure 7. Steering Wheel Mounted Controls



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| (1) – Menu Left or Right Button to access the Maintenance menu | (2) – Menu Down Button to access the Transmission Prognostics screen within the Maintenance menu |
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Figure 8. Allison Transmission Prognostics



NOTE: For a valid oil level measurement, the vehicle must be stopped on a level surface with the transmission in Neutral (N).
