DRIVERS OPERATING TIP

D.O.T. 121

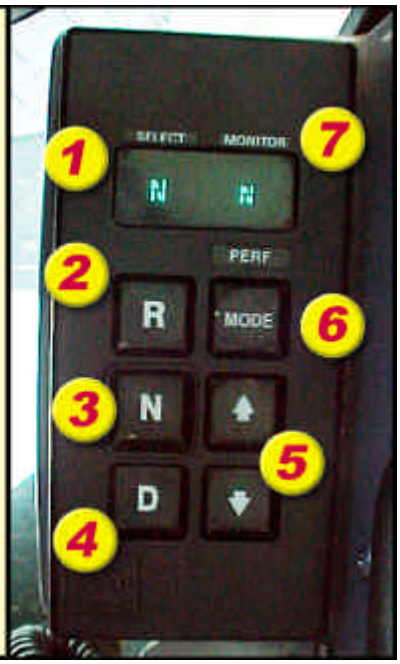
Proper Shifting Procedures for the B-500 Electronic Transmission

As many of you know by now, the later model MC-12 coaches and all 102D Series coaches are equipped with an electronic "pushbutton" B-500 transmission. The B-500 transmission, unlike its older cousin the HT-740D, is equipped with sensors as well as a communication link with the electronically controlled engine, to provide better shifting, increased performance, and protection modes for itself and the engine.

One of the protection modes is not to allow shifting between Drive and Reverse above 900 RPM. However, below 900 RPM, the transmission can be shifted from Drive to Reverse without going to Neutral first, which is the purpose of this operating tip.

1) Gear Selection Indicator (R, N, or D)
2) Reverse Gear
3) Neutral Selection
4) Drive (forward) Gear
5) Foward Range Selection arrows (Up or Down)
6) Performance Mode Selection Button (City or Highway Conditions)
7) Current Range Indicator (1-5 or N)

Early Style Transmission Shift Pad

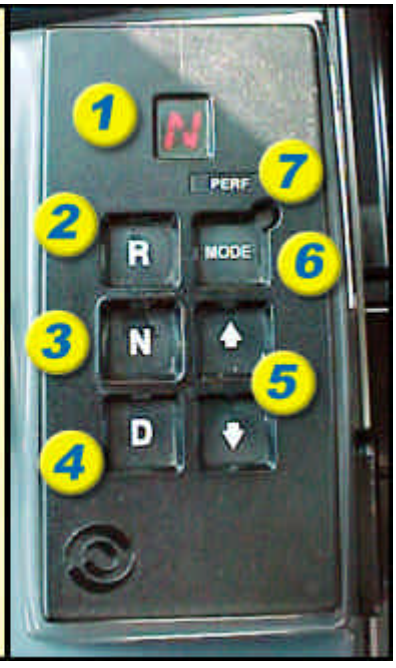


Although it's possible to shift directly from Drive to Reverse or vice versa below 900 RPM without selecting Neutral first, it does cause problems including road failure delays in some cases.

For example, a driver is backing up a coach. The driver then reaches the point where the bus can be driven forward to leave the Terminal. However, the driver then pushes 'D' on the push button shift pad, shifting directly into Drive. This causes the transmission to 'slam' into gear which is felt throughout the coach and secondly can and has caused transmissions to 'lock in gear'. Meaning, the dash 'Do Not Shift' tell-tale light comes ON and the transmission will remain locked in gear until it is reset. This usually results in the coach not going anywhere.

1) Gear Selection Indicator (R, N, or D)
2) Reverse Gear (R)
3) Neutral Selection (N)
4) Drive (forward) Gear
5) Forward Range Selection arrows (up or down)
6) Performance Mode Selection Button (for City or Highway conditions)
7) Performance Mode LED Indicator Light

New Version of Transmission Shift Pad (B-500)



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Proper Shifting Procedures for the B-500 Electronic Transmission - Cont'd:

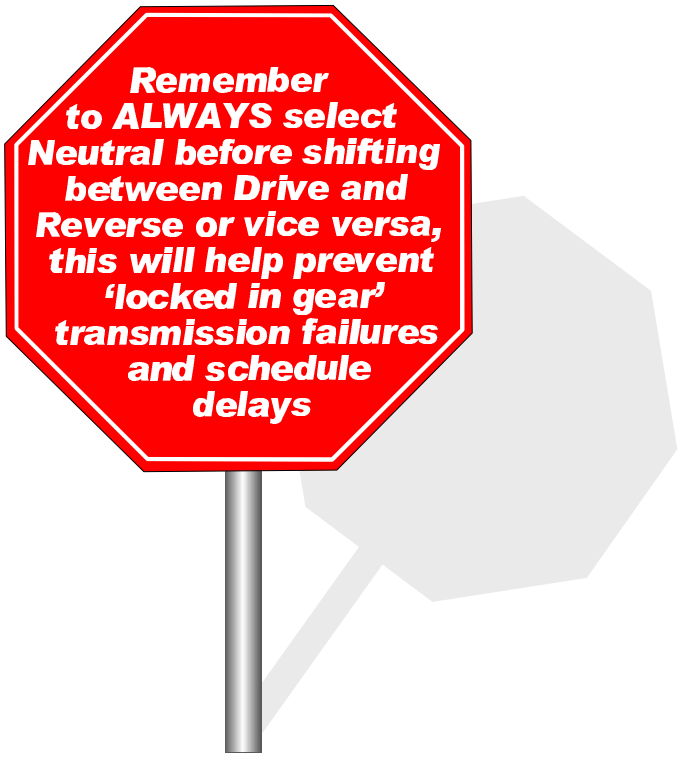
To avoid these types of problems and delays, Drivers must always select Neutral before selecting (shifting to) Drive or Reverse. This allows the transmission's electronics to activate the correct solenoids, apply the proper clutches and in the proper sequence to shift into the gear selected by the driver.

Should you accidentally lock the transmission in gear, then it must be reset to clear the fault code and allow the transmission to operate properly.

To 'reset' the electronic transmission, follow these steps:

1) **Apply the Parking Brakes**
2) **Turn the Master Switch OFF**
3) **Turn the Main Battery Disconnect Switch OFF**
4) **Turn the Main Battery Disconnect Switch back ON**
5) **Turn the Master Switch back ON**
6) **Start the engine *(Transmission should have defaulted to Neutral and the 'Do Not Shift' light should be OFF)***
7) **Select either Drive or Reverse on the touch pad**
8) **The transmission should have engaged**
9) **If the 'Do Not Shift' light remained ON, then there is a more serious problem with the transmission and MRD should be notified**

Note - A transmission that is locked in gear may also be caused by an internal malfunction of the transmission and when reset, may still remain 'locked in gear' — if this occurs, contact MRD or Maintenance Personnel for assistance



GREYHOUND

Driver Operating Tip
DOT-121 (2/22/01)