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**SAE J915 DEC88**

**Automatic  
Transmissions —  
Manual Control  
Sequence**

SAE Recommended Practice  
Revised December 1988

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Ø AUTOMATIC TRANSMISSIONS—MANUAL CONTROL SEQUENCE

1. PURPOSE AND SCOPE:

The purpose and scope of this SAE Recommended Practice is to provide a standard pattern or sequence for the manual control of automatic transmissions in passenger cars and light duty trucks.

2. CONTROL SEQUENCE:

The general pattern or sequence shall be:

P R N D . . . . . L

where the P represents Park, R Reverse, N Neutral, D the highest forward gear range attainable and L the lowest forward gear range attainable. The graphics describing the forward gears may vary.

3. STEERING COLUMN MOUNTED CONTROL:

The sequence will start from the most counter-clockwise position. The park position shall be located as shown when provided; however, inclusion of such a position is optional.

- 3.1 For detecting the positions by feel and for safety, a stepped gate shall be provided, such that the control lever must be raised in a direction parallel to the axis of the steering column in order to engage certain of the manual positions. While a definite gating pattern is not specified, a preferred one is as follows: neutral and drive on one plane; raise the lever to obtain either reverse or lower forward ranges; and if a park position is included in shifting reverse to park, a further rise with park being a latched position.

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#### 4. FLOOR OR PANEL MOUNTED CONTROL:

For a floor-mounted system, the sequence will start with park being the forward most position. In a panel mounted system, the sequence will begin with park being the up, or left most position.

- 4.1 Adequate gating as mentioned under "Steering Column Mounted Control" is to be provided. A lever with a button release for entering reverse, park and/or lower forward ranges is a desirable feature. If included, park should be a latched position.

#### 5. ADDITIONAL OVERDRIVE CONTROL ARRANGEMENT:

For automatic transmissions utilizing overdrive control in addition to the manual control lever, the switch shall be located on the manual lever or at an easily visible, ergonomically-designed dash or console-mounted location.

#### 6. INHIBITORS:

For multiple speed automatic transmissions, the inhibiting of lower ranges is recommended above vehicle speeds which would cause engine overspeed. An inhibitor for reverse is recommended, although it is considered optional.

- 6.1 If park position is engaged with the vehicle moving, the mechanism must ratchet or not engage until a low (non zero) vehicle speed is attained.

#### 7. NEUTRAL START SWITCH:

A switch in series with the starter circuit is to be provided which will allow the engine to be started only in the Park (if included) and neutral positions.

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