

Shift by wire

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Shift by wire is the system by which the transmission modes are engaged/changed in an automobile through electronic controls without any mechanical linkage between the gear shifting lever and the transmission. The transmission shifting was traditionally accomplished by mechanical links to put the vehicle in Park, Reverse, Neutral and Drive positions through a lever mounted on the steering column or a gear shifter near the center console.

This eliminates routing space required for housing the mechanical linkages between the shifter and the transmission and provides effortless shifting through the press of a button or through knobs. Elimination of this linkage removes any shift effort from the driver's gear selection.

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Production vehicles using shift by wire

- Audi A2 and Audi A8^[1]
- BMW^[2]
 - 1 Series
 - 2 Series
 - 3 Series
 - 5 Series
 - 6 Series
 - 7 Series
 - X3
 - X6
- Citroën
 - C4 Picasso I and C4 Picasso II (B78)^[3]
- Mercedes^[4]
 - A-Class
 - C-Class
 - CLA-Class
 - S-Class sedan
 - E-Class sedan
 - CL-Class coupe
 - GL-Class
 - GLK-Class
 - M-Class
 - R-Class
- Nissan Leaf^[5]
- Hyundai Equus^[6]

- Chrysler 300 ^[7]
- Dodge Charger ^[7]
- Renault Espace V (JFC) ^[8]
- Rolls Royce
 - Phantom
 - Ghost
 - Wraith
- Kia
 - K 900
- Volkswagen Phaeton
- Toyota
 - Prius
 - Highlander Hybrid
- Lincoln
 - MKZ

Maruti Suzuki alto 800

Safety recalls related to shift-by-wire systems

There have been safety issues identified with production vehicles implementing the shift by wire systems which have led to recalls.^[9] The major hazards associated with this type of systems are vehicle not achieving park state and vehicle moving in the wrong direction (Drive vs Reverse)

See also

- Drive by wire
- Park by wire
- Life-critical system
- Manual transmission#Finger shift

References

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