

---

## Communications Network - Overview

### Overview

Multiplexing is a method of sending 2 or more signals simultaneously over a single circuit. Multiplexing allows 2 or more electronic modules (nodes) to communicate over a twisted wire pair [data (+) and data (-)] network. The information or messages that can be communicated on these wires consists of commands, status or data. Multiplexing reduces the weight of the vehicle by reducing the number of redundant components and electrical wiring.

The vehicle has 2 module communication networks connected to the DLC, located under the instrument panel. The communication networks are:

- HS-CAN1 (DIAG 1)
- HS-CAN2 (DIAG 2)

The vehicle has 4 or 5 (optional) communication networks that do not communicate directly with the diagnostic scan tool. The GWM translates the messages on these 4 or 5 (optional) networks, and transfers the signals to the circuits at the DLC to communicate with the diagnostic scan tool. Messages communicated on the HS-CAN1 are communicated to the HS-CAN1 (DIAG 1) connection, all other networks are translated to the HS-CAN2 (DIAG 2) connection at the DLC. The communication networks are:

- HS-CAN1
- HS-CAN2
- HS-CAN3
- MS-CAN
- HS-CAN4 (optional)

Copyright © 2019 Ford Motor Company

---

