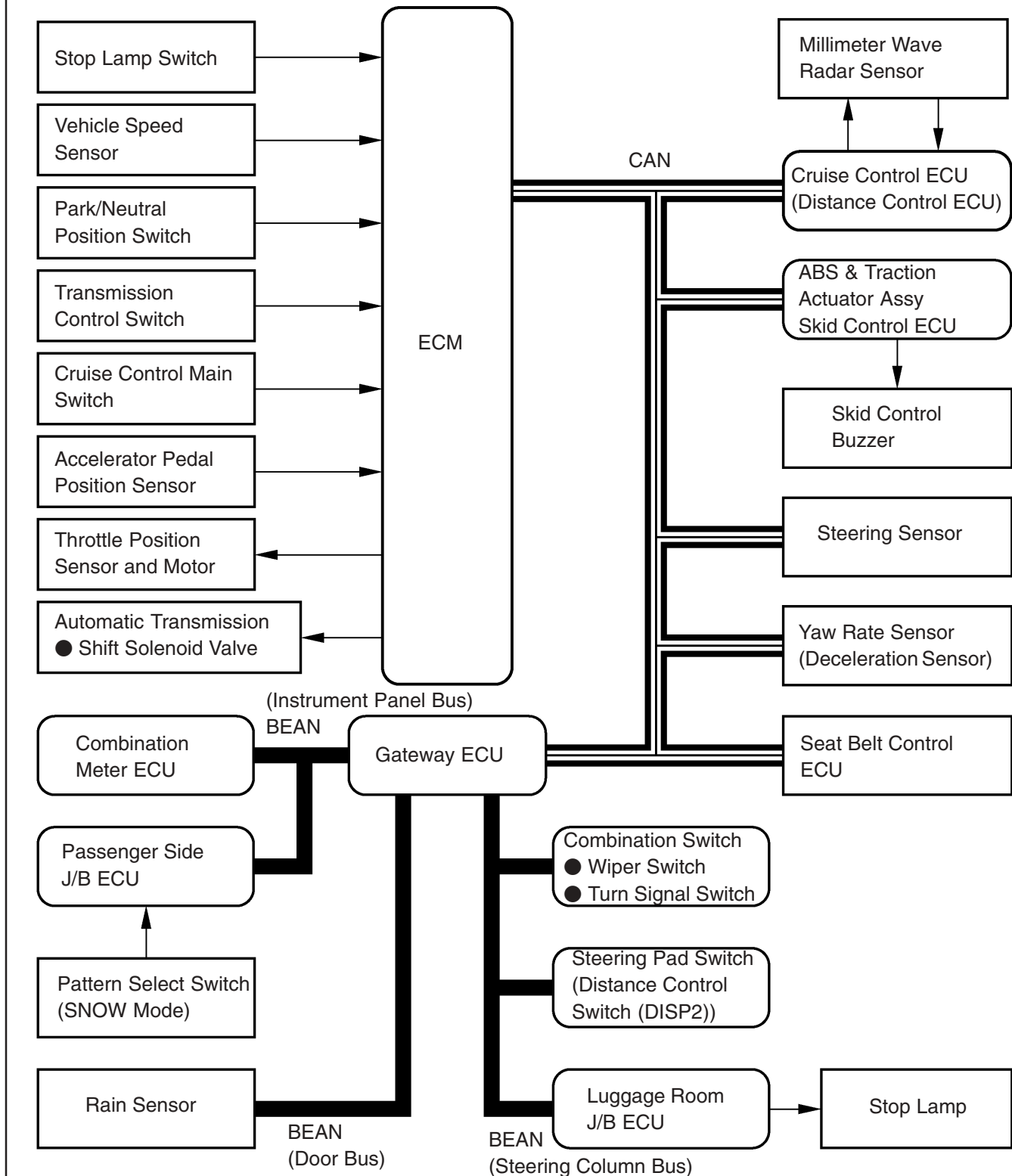


# SYSTEM DIAGRAM

Refer to the next page for input and output signals of each ECU.

5



## Input and output signals of each ECU

| Transmitting ECU<br>(Transmitter)            | Receiving ECU                                | Signals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Communication Method |
|----------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| ECM                                          | Cruise Control ECU<br>(Distance Control ECU) | <ul style="list-style-type: none"> <li>• A/T transmission signal</li> <li>• Cruise control operation signal</li> <li>• Cruise control low speed operation signal</li> <li>• Accelerator pedal idle signal</li> <li>• Set vehicle time signal</li> <li>• Cruise control cancel signal</li> <li>• Brake demand response signal</li> <li>• Stored vehicle speed signal</li> <li>• Current vehicle speed signal</li> <li>• Cruise control switch signal</li> <li>• Brake control operation signal</li> <li>• Cruise control demand throttle opening angle signal</li> <li>• Radar light emission prohibiting signal</li> <li>• Dynamic radar cruise designation signal</li> <li>• Brake control interrupting signal</li> <li>• Steering wheel signal</li> <li>• Cruise control demand opening angle signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAN                  |
| Cruise Control ECU<br>(Distance Control ECU) | ECM                                          | <ul style="list-style-type: none"> <li>• Millimeter wave radar sensor beam optical axis deviation signal</li> <li>• Millimeter wave radar sensor malfunction signal</li> <li>• Millimeter wave radar sensor grime signal</li> <li>• Bad weather detection signal</li> <li>• Communication error signal (from cruise control ECU (distance control ECU) to millimeter wave radar sensor)</li> <li>• Communication error signal (from ECM to cruise control ECU (distance control ECU))</li> <li>• Communication error signal (from skid control ECU to cruise control ECU (distance control ECU))</li> <li>• Yaw rate communication error signal</li> <li>• Steering sensor communication error signal</li> <li>• Distance control ECU voltage signal</li> <li>• Dynamic radar cruise designation response signal</li> <li>• Estimated vehicle speed signal</li> <li>• Vehicle-to-vehicle distance signal</li> <li>• Vehicle-to-vehicle distance control signal</li> <li>• Relative vehicle speed signal</li> <li>• Brake control demand signal</li> <li>• Throttle fully closed demand signal</li> <li>• Approach warning signal (VSC buzzer demand signal)</li> <li>• Cruise target deceleration gradient signal</li> <li>• Vehicle-to-vehicle distance control acceleration signal</li> </ul> | CAN                  |
| ECM                                          | Skid Control ECU                             | <ul style="list-style-type: none"> <li>• Cruise target deceleration gradient signal</li> <li>• Cruise target deceleration signal</li> <li>• Throttle fully close demand signal</li> <li>• Brake control demand signal</li> <li>• Dynamic radar cruise control designation signal</li> <li>• Cruise control operation signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CAN                  |
| Skid Control ECU                             | Cruise Control ECU<br>(Distance Control ECU) | <ul style="list-style-type: none"> <li>• Wheel speed signal</li> <li>• Speed sensor power drop signal</li> <li>• Speed sensor condition signal</li> <li>• Yaw rate sensor signal</li> <li>• Yaw rate sensor zero point error signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CAN                  |

| Transmitting ECU<br>(Transmitter)            | Receiving ECU                                                                                                    | Signals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Communication Method                                                                               |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Skid Control ECU                             | ECM                                                                                                              | <ul style="list-style-type: none"> <li>• Brake component malfunction signal</li> <li>• Brake control malfunction signal</li> <li>• Drive wheel slip signal</li> <li>• Cruise control cancel signal</li> <li>• Skid control buzzer malfunction signal</li> <li>• Communication logic error signal (from ECM to skid control ECU)</li> <li>• Brake demand response signal</li> <li>• Brake control interrupting signal</li> <li>• Brake control operation signal</li> </ul>                                                                                                                                                                                                                                                                        | CAN                                                                                                |
| Steering Angle Sensor                        | Cruise Control ECU<br>(Distance Control ECU)                                                                     | <ul style="list-style-type: none"> <li>• +B open circuit malfunction signal</li> <li>• Sensor malfunction signal</li> <li>• Steering angle signal</li> <li>• Sensor zero point signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAN                                                                                                |
| Yaw Rate & Deceleration<br>Sensor            | Cruise Control ECU<br>(Distance Control ECU)                                                                     | <ul style="list-style-type: none"> <li>• Yaw rate sensor signal</li> <li>• Yaw rate sensor zero point error signal</li> <li>• Yaw rate sensor voltage signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CAN                                                                                                |
| ECM                                          | Combination Meter ECU                                                                                            | <ul style="list-style-type: none"> <li>• Cruise control diagnosis signal (DTC)</li> <li>• Preceding vehicle detection signal</li> <li>• Approach warning signal</li> <li>• Vehicle-to-vehicle distance signal</li> <li>• Millimeter wave radar sensor grime signal</li> <li>• Bad weather detection signal</li> <li>• Vehicle-to-vehicle distance control signal</li> <li>• Vehicle-to-vehicle distance control check mode signal</li> <li>• Vehicle-to-vehicle distance control standby condition signal</li> <li>• Constant speed cruise signal</li> <li>• CRUISE indicator operation signal</li> <li>• Cruise control warning signal</li> <li>• Dynamic radar cruise warning signal</li> <li>• Cruise control vehicle speed signal</li> </ul> | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Instrument Panel Bus)</li> </ul> |
| Cruise Control ECU<br>(Distance Control ECU) | Combination Meter ECU                                                                                            | <ul style="list-style-type: none"> <li>• Millimeter wave radar sensor optical axis deviation signal</li> <li>• Vehicle-to-vehicle distance signal</li> <li>• Preceding vehicle detection signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Instrument Panel Bus)</li> </ul> |
| Passenger Side J/B ECU                       | ECM                                                                                                              | ECT SNOW mode switch signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Instrument Panel Bus)</li> </ul> |
| Rain Sensor                                  | Cruise Control ECU<br>(Distance Control ECU)                                                                     | <ul style="list-style-type: none"> <li>• LO operation signal</li> <li>• HI operation signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN (Door Bus)</li> </ul>                 |
| Combination Switch                           | Cruise Control ECU<br>(Distance Control ECU)                                                                     | <ul style="list-style-type: none"> <li>• Turn switch signal</li> <li>• Wiper switch position signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Steering Column Bus)</li> </ul>  |
| Steering Pad Switch<br>(DISP 2)              | ECM                                                                                                              | Steering pad switch (DISP 2) signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Steering Column Bus)</li> </ul>  |
| Luggage Room J/B ECU                         | <ul style="list-style-type: none"> <li>• ECM</li> <li>• Cruise Control ECU<br/>(Distance Control ECU)</li> </ul> | Stop lamp operating condition signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Steering Column Bus)</li> </ul>  |
| Seat Belt Control ECU                        | Combination Meter ECU                                                                                            | Pre-crash system error signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• CAN</li> <li>• BEAN<br/>(Instrument Panel Bus)</li> </ul> |
| Cruise Control ECU<br>(Distance Control ECU) | Seat Belt Control ECU                                                                                            | <ul style="list-style-type: none"> <li>• Vehicle-to-vehicle distance signal</li> <li>• Estimated vehicle speed signal</li> <li>• Pre-crash system monitor signal</li> <li>• Millimeter wave radar sensor grime signal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAN                                                                                                |