## 4. Function of Main Component

| Item | | Outline |
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| Combination Meter | | Transmits the vehicle speed signal (SPD) to the engine ECU. |
| | Cruise MAIN Indicator Light | ● Illuminates when the MAIN switch is ON.<br>● If the distance control ECU detects a malfunction, this light flashes to warn the driver. |
| | Master Warning Light | If the engine ECU or the distance control ECU detects an automatic cancel signal while the vehicle is operating under cruise control, this light illuminates to inform the driver. |
| | Buzzer | If the engine ECU or the distance control ECU detects an automatic cancel signal while the vehicle is operating under cruise control, this buzzer sounds only once to inform the driver. |
| | Multi-information Display | ● While the system is in the vehicle-to-vehicle distance control mode, the multi-information display receives signals from the distance control ECU, in order to display the system conditions in the graphic area.<br>● If the engine ECU or the distance control ECU detects a malfunction signal while the vehicle is operating under cruise control, a warning message will be displayed in the warning area to inform the driver.<br>● While the system is in the millimeter wave radar sensor adjustment mode, the adjustment angle detected by the distance control ECU will be displayed in the warning area to inform the driver. |
| Cruise Control Switch | Main Switch | Turns ON/OFF the power to the cruise control system. |
| | Control Switch | ● The vehicle speed setting, deceleration setting, resuming a preset speed, acceleration setting, and canceling signals are output to the engine ECU through the operation of this switch.<br>● Switching the control mode, the constant speed control mode and vehicle-to-vehicle distance mode. |
| Steering Pad Switch (DISP2) | | While the system is in the vehicle-to-vehicle distance control mode, the driver can operate the steering pad switch (DISP2) to select the vehicle-to-vehicle distance in three stages: long, middle, and short. |
| Stop Light Switch | | Detects the pressing of the brake pedal and transmits its signal to the engine ECU. |
| Wiper Control Switch | | Transmits the wiper control switch information to the distance control ECU. |
| Taillight Control Switch | | Switches to the axis adjustment mode for the millimeter wave radar sensor. |
| Millimeter Wave Radar Sensor | | Radiates millimeter radio wave forward, uses the reflected radar for detecting the presence of a vehicle being driven ahead, the vehicle-to-vehicle distance, and the relative speed, and transmits these pieces of information to the distance control ECU. |
| Steering Angle Sensor | | Detects the angle and direction of steering and transmits its signal to the skid control ECU and the distance control ECU. |
| Vehicle Speed Sensor (4) | | Detects the rotation speed of four wheel and transmits its signal to the skid control ECU. |
| Yaw Rate & Deceleration Sensor | | Detects the yaw rate of the vehicle and transmits its signal to the skid control ECU and the distance control ECU. |
| Rain Sensor | | This sensor detects raindrops, and when the wiper operates at HI, it requests the engine ECU to provide a cruise control cancel signal. |

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| Brake Actuator | | Actuates the brakes in accordance with the signals from the skid control ECU. |
| | Skid Control ECU | ● Receives four vehicle speed sensor signals and outputs a vehicle speed signal to the combination meter.<br>● While the system is in the vehicle-to-vehicle distance control mode, the skid control ECU actuates the brake actuator in accordance with the brake request signal received from the distance control ECU.<br>● Upon receiving a signal from the distance control ECU, the skid control ECU sounds a VSC warning buzzer. |
| VSC Warning Buzzer | | This buzzer sounds upon receiving a signal from the skid control ECU. |
| Engine ECU | | ● Controls the cruise control system in accordance with the signals from the switches, sensors, skid control ECU and distance control ECU.<br>● If the engine ECU detects a malfunction in the cruise control system, it will output DTC (Diagnostic Trouble Codes). |
| Throttle Control Motor | | Upon receiving a signal from the engine ECU, the throttle control motor actuates the throttle valve. |
| Distance Control ECU | | While the system is in the vehicle-to-vehicle distance control mode, the distance control ECU detects the follow-up vehicle based on a signal from the millimeter wave radar sensor. Then, the distance control ECU calculates the acceleration or deceleration rate in order to attain the target vehicle-to-vehicle distance, and outputs a request signal to the engine ECU and the skid control ECU. |