180L pre-production final overall quality inspection

Detail from Electrical Engineering (Part 1)

An **Overall Inspection of Communication Fail-Safes** procedure is now mandated for the 180L in order to prevent the reoccurrence of the problem that occurred in the 250L, in which the cruise control activates by itself at full throttle when the accelerator pedal position sensor is abnormal**.***1

   *Do the point-by-point inspection only on the CAN communication ECU.

   Inspect the signal receiving side as follows:

[Step 1]   On the receiving side, find data possibly indicating error operation or misdiagnosis.

[Step 2]   Check the extracted data against the the data master.

[Step 3]   When you are unsure of data for either of the following reasons, check the receiving side.

   - Unclear listing

   - No listing of fail-safe values (consider transition periods when anything abnormal is being detected or has been tentatively detected)

> *1 The cruise control activates by itself at full throttle when the accelerator pedal position sensor is abnormal
>
> The specification says that the transmitting side of the engine ECU is to enter idle OFF state when the accelerator pedal position sensor is abnormal (and when the pedal is fully released) (I), but the receiving side of the cruise control ECU erroneously recognizes idle ON (when the pedal is fully released) (II).
>
> Therefore, when the accelerator pedal position sensor is abnormal, the cruise control ECU erroneously determines that the pedal was pressed, so it releases the brake and starts forward motion.

The actual data differs from what the receiving side expects

Idle flag

(Flag operates based on accelerator pedal position sensor value)

Expected

OFF

Actual

Normal   Transition (during detection)   Abnormal

Inspection Results Form

Fill out the following inspection form for the receiving side.

1. ECU name (   )

2. Step1   Is there communication data to which this applies?   Yes   /   No   End   inspection·············▶

3. Step 2   Step 3

No	Data name	Transmitting ECU	Inspection results (If problem exists, list the countermeasure method, and countermeasure period)	Decision