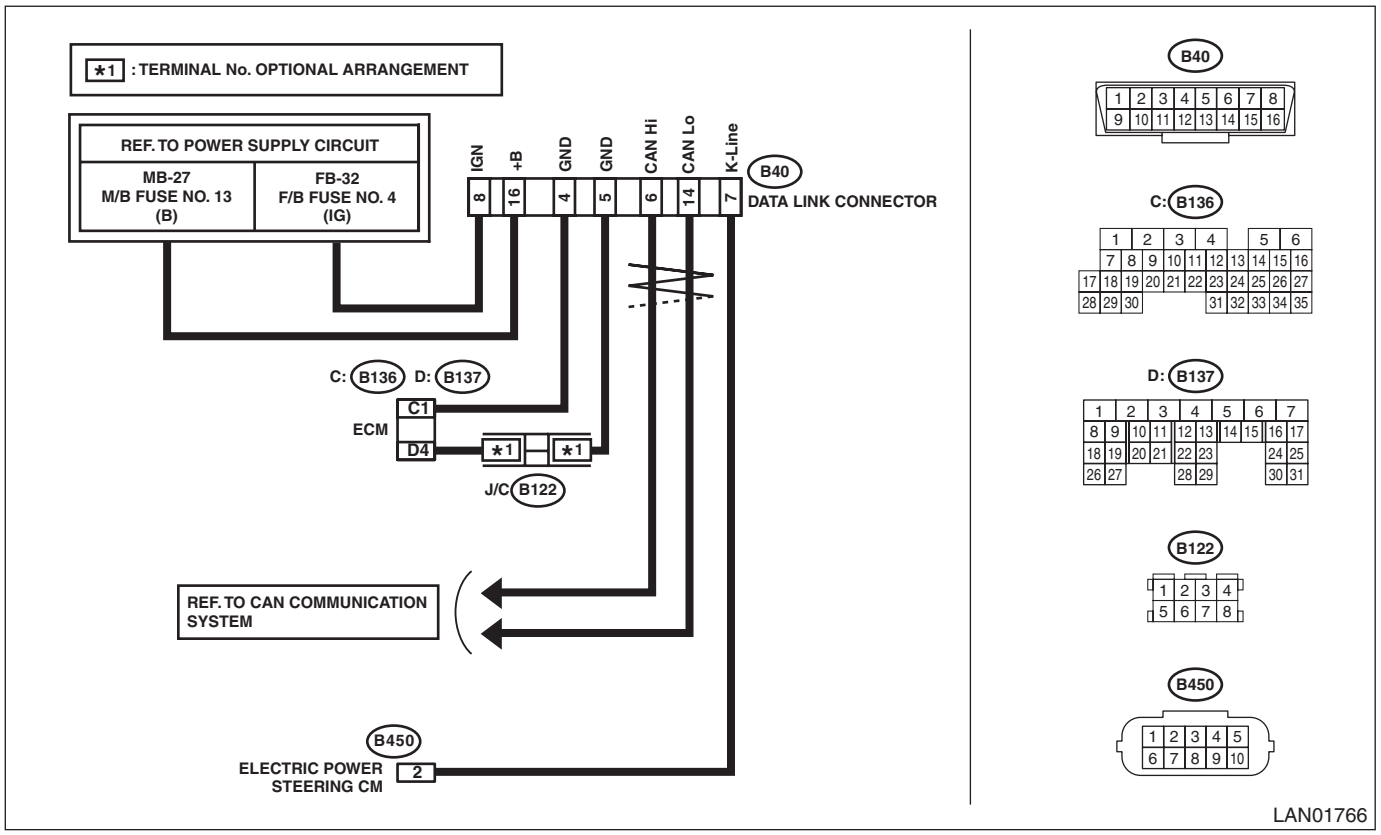
# 6. Subaru Select Monitor

## A: OPERATION

For details of basic operations, refer to “PC application help for Subaru Select Monitor”.

## B: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

**DIAGNOSIS:**
Subaru Select Monitor communication line is open or shorted.
**TROUBLE SYMPTOM:**
Not communicable with Subaru Select Monitor.
**WIRING DIAGRAM:**
CAN communication system <Ref. to WI(w/o HEV)-65, WIRING DIAGRAM, CAN Communication System.>

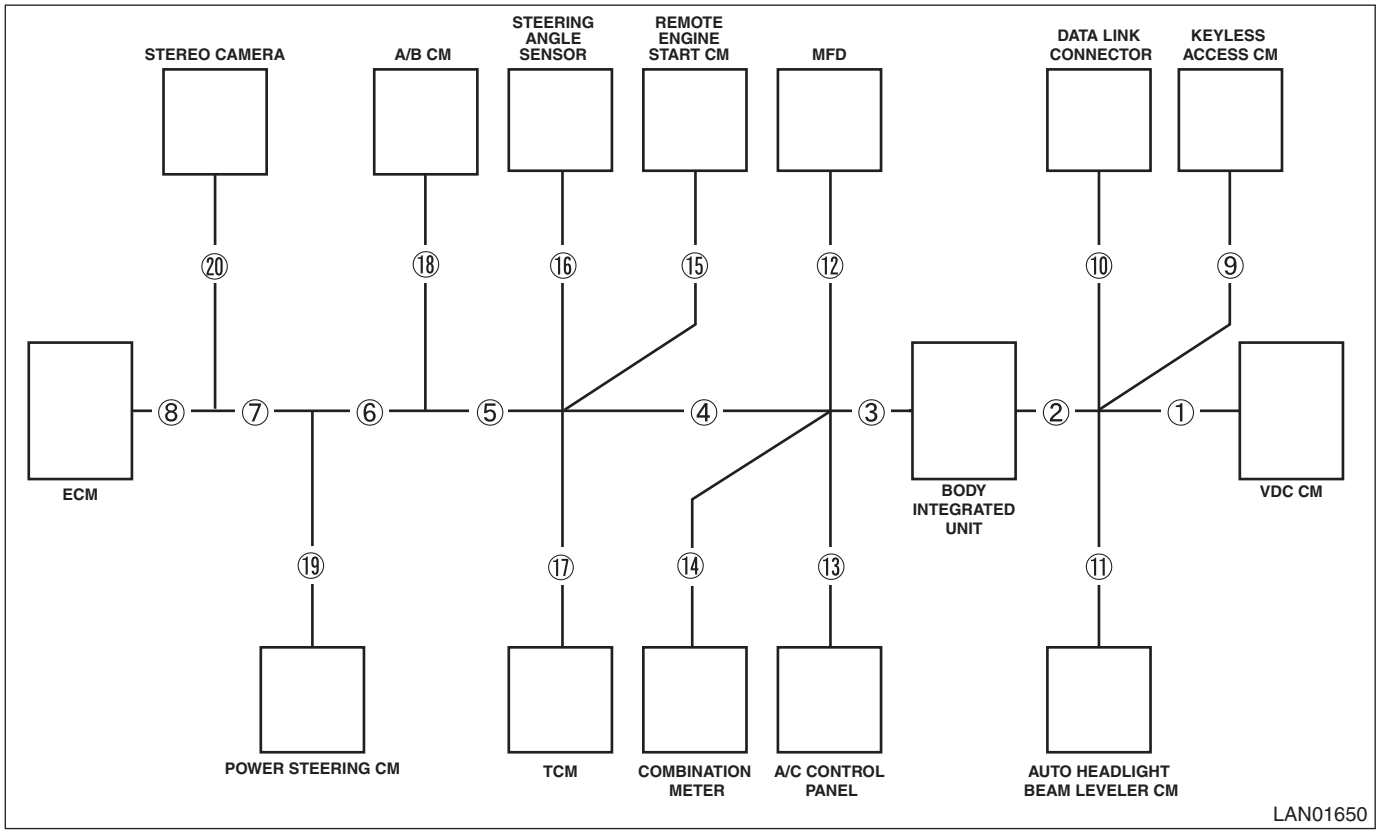



| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK SUBARU SELECT MONITOR.**<br>1) Connect the Subaru Select Monitor to another vehicle.<br>2) Check communication condition between Subaru Select Monitor and vehicle. | Is communication performed normally? | Go to step **2**. | Subaru Select Monitor unit or diagnosis cable is faulty. Or check the fuse on the vehicle side. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 2 | **CHECK COMMUNICATION FOR INITIALIZING ERROR.**<br>Perform the communication for initializing with each module by connecting the Subaru Select Monitor. (For systems whose module can communicate with diagnostic devices) | Is the communication possible with all modules? | Go to step **3**. | Perform the inspection using the check sheet of communication for initializing. <Ref. to LAN(w/o HEV)(diag)-12, CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.> |
| 3 | **CHECK K-LINE.**<br>1) Establish the communication between Select Monitor and K-Line communication module.<br>2) Using a tester, check continuity between the modules that did not communicate with Select Monitor.<br>***Connector & terminal***<br>***(B40) No. 7 — (B450) No. 2 (electric power steering):*** | Is there continuity? | Go to step **4**. | Repair or replace the open circuit. |
| 4 | **CHECK K-LINE.**<br>Using a tester, check continuity between K-line and chassis ground.<br>***Connector & terminal***<br>***(B40) No. 7 — Chassis ground:*** | Is there continuity? | Repair or replace the short circuit portion. | Go to step **5**. |
| 5 | **CHECK K-LINE.**<br>Using a tester, check voltage between K-line and chassis ground.<br>***Connector & terminal***<br>***(B40) No. 7 (+) — Chassis ground (–):*** | Is the voltage 5 V or more with IG ON? | Repair or replace the short circuit portion. | Go to step **6**. |
| 6 | **CHECK K-LINE.**<br>Use a tester to check for continuity in the ground circuit.<br>***Connector & terminal***<br>***(B40) No. 4 — Chassis ground:***<br>***(B40) No. 5 — Chassis ground:*** | Is there continuity? | Go to step **8**. | Go to step **7**. |
| 7 | **CHECK K-LINE.**<br>1) Disconnect the ECM connector.<br>2) Use a tester to check for continuity in the ground circuit.<br>***Connector & terminal***<br>***(B40) No. 4 — (B136) No. 1:***<br>***(B40) No. 5 — (B137) No. 4:*** | Is there continuity? | Check ECM ground. | Repair or replace the open circuit. |
| 8 | **CHECK K-LINE.**<br>1) Turn the ignition switch to ON.<br>2) Using a tester, check the power supply of data link connector.<br>***Connector & terminal***<br>***(B40) No. 8 (+) — Chassis ground (–):***<br>***(B40) No. 16 (+) — Chassis ground (–):*** | Is the voltage 10 V or more? | K-Line is normal. Check the power supply circuit of each module. | Check the power supply circuits to the data link connector. |

## 1. CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING

- **Network diagram**




- **Check sheet of communication for initializing**

| | (A) | (B) | | (E) | | | | | | | | | | | | | | | | | | | |
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| | | (C) | (D) | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| VDC | | — | | | — | — | — | — | — | — | — | — | | — | — | — | — | — | — | — | — | — | — |
| KPS | | — | | — | — | — | — | — | — | — | — | | | — | — | — | — | — | — | — | — | — | — |
| HL | | — | | — | — | — | — | — | — | — | — | — | | | — | — | — | — | — | — | — | — | — |
| BIU | | — | | — | | — | — | — | — | — | — | — | | — | — | — | — | — | — | — | — | — | — |
| MFD | | — | | — | | | — | — | — | — | — | — | | — | | — | — | — | — | — | — | — | — |
| A/C | | — | | — | | | — | — | — | — | — | — | | — | — | | — | — | — | — | — | — | — |
| MET | | — | | — | | | — | — | — | — | — | — | | — | — | — | | — | — | — | — | — | — |
| RST | | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | | — | | — | | | | — | — | — | — | — | | — | — | — | — | — | — | | — | — | — |
| A/B | | — | | — | | | | | — | — | — | — | | — | — | — | — | — | — | — | | — | — |
| EPS | | | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | | — | | — | | | | | | — | — | — | | — | — | — | — | — | — | — | — | — | |
| ECM | | — | | — | | | | | | | | — | | — | — | — | — | — | — | — | — | — | — |

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| (A) | Installation check | VDC: VDC CM | RST: Remote engine starter CM |
| (B) | Communication initialization | KPS: Keyless access CM | STR: Steering angle sensor |
| (C) | K-Line | HL: Auto headlight beam leveler CM | TCM: TCM |
| (D) | CAN | BIU: Body integrated unit | A/B: AB CM |
| (E) | Wiring location | MFD: High grade MFD | EPS: Power steering CM |
| | | A/C: A/C control panel | ES: Stereo camera |
| | | MET: Combination meter | ECM: ECM |

1) Module installation check
   (1) Write "-" marks in the field for installation check if the vehicle to be inspected does not have relevant module.
   (2) Write "-" marks in all blank fields on the same row that the "-" mark has filled in.

NOTE:
Example of writing <Ref. to LAN(w/o HEV)(diag)-14, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

2) SSM communication initialization check
   (1) Write "○" marks in the field for communication initialization if the module succeeded in the communication for initializing with Select Monitor.
   If the communication with all modules is not possible, go to 3).
   (2) Write "○" marks in all blank fields on the same row that the "○" mark has filled in.
   (3) When at least one field in a column of wiring location is filled with the "○" mark, then the wiring for that location is normal. Write "○" marks in all blank fields on the same column that the "○" mark has filled in under the circled number.
   (4) Check the open circuit of the modules which have no "○" mark in their columns of the wiring location in ascending order. (only for installed modules)
   (5) If the communication is not possible after checking all harnesses, check the module power supply line.
   (6) Replace the module if the power supply line is normal.

NOTE:
• Example of writing <Ref. to LAN(w/o HEV)(diag)-14, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
• Inspection using the communication for initializing of Subaru Select Monitor cannot be used to diagnose the wiring location marked with "-". Example of DTC data not received <Ref. to LAN(w/o HEV)(diag)-67, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).> and DTC matrix <Ref. to LAN(w/o HEV)(diag)-70, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).> should be used to identify the faulty portion.

3) SSM communication initialization check (impossible to communicate with all modules)

NOTE:
If at least one module becomes possible to communicate, return to 2).
   (1) Check for the short circuit to ground. <Ref. to LAN(w/o HEV)(diag)-31, GROUND SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
   (2) Check for the short circuit to battery. <Ref. to LAN(w/o HEV)(diag)-33, BATTERY SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
   (3) Perform the inspection for the resistance of 52 Ω or less (short between wires). <Ref. to LAN(w/o HEV)(diag)-37, 52 Ω OR LESS, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
   (4) Check for the open circuit of network diagram No. 10 (data link connector).

## 2. EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING

When ① is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | × | | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
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| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
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| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | ○ | — | — | — | — | — | — | — | — | — | — |

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When ② is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | | | | | | | | ○ | ○ | ○ | | | | — | — | | | — | |
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| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
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| MET | ○ | — | × | — | | | — | — | — | — | — | — | ○ | — | — | — | | — | — | — | — | — | — |
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| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | | | | | | — | — | — | ○ | — | — | — | — | — | — | — | — | — | |
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When ③ is open

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| | | (C) | (D) | ○ | ○ | | | | | | | ○ | ○ | ○ | | | | — | — | | | — | |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | × | — | ○ | | — | — | — | — | — | — | ○ | — | | — | — | — | — | — | — | — | — |
| A/C | ○ | — | × | — | ○ | | — | — | — | — | — | — | ○ | — | — | | — | — | — | — | — | — | — |
| MET | ○ | — | × | — | ○ | | — | — | — | — | — | — | ○ | — | — | — | | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | × | — | ○ | | | — | — | — | — | — | ○ | — | — | — | — | — | — | | — | — | — |
| A/B | ○ | — | × | — | ○ | | | | — | — | — | — | ○ | — | — | — | — | — | — | — | | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | ○ | | | | | — | — | — | ○ | — | — | — | — | — | — | — | — | — | |
| ECM | ○ | — | × | — | ○ | | | | | | | — | ○ | — | — | — | — | — | — | — | — | — | — |

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When ④ is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | — | — | | | — | |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
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| A/B | ○ | — | × | — | ○ | ○ | | | — | — | — | — | ○ | — | — | — | — | — | — | — | | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | ○ | ○ | | | | — | — | — | ○ | — | — | — | — | — | — | — | — | — | |
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When ⑤ is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | ○ | | | | | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | | — | |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | × | — | ○ | ○ | ○ | | — | — | — | — | ○ | — | — | — | — | — | — | — | | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | ○ | ○ | ○ | | | — | — | — | ○ | — | — | — | — | — | — | — | — | — | |
| ECM | ○ | — | × | — | ○ | ○ | ○ | | | | | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01657

When ⑥ is open

| | (A) | (B) | | (E) | | | | | | | | | | | | | | | | | | |
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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | | | | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | ○ | ○ | ○ | ○ | | — | — | — | ○ | — | — | — | — | — | — | — | — | — | |
| ECM | ○ | — | × | — | ○ | ○ | ○ | ○ | | | | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01658

When ⑦ is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | × | — | ○ | ○ | ○ | ○ | ○ | | | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01659

When ⑧ is open

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| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | × | — | ○ | ○ | ○ | ○ | ○ | ○ | | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01660

When ⑨ is open

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| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | × | — | — | — | — | — | — | — | — | | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01661

When ⑩ is open

NOTE:
3) Perform inspection by referring to the communication initialization check (impossible to communicate with all modules). (⑩There may be a malfunction other than open circuit)

| | (A) | (B) | | (E) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | | | | | | | | | | | | | | | — | — | | | — | |
| VDC | ○ | — | × | | — | — | — | — | — | — | — | — | | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | × | — | — | — | — | — | — | — | — | | | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | × | — | — | — | — | — | — | — | — | — | | | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | × | — | | — | — | — | — | — | — | — | | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | × | — | | | — | — | — | — | — | — | | — | | — | — | — | — | — | — | — | — |
| A/C | ○ | — | × | — | | | — | — | — | — | — | — | | — | — | | — | — | — | — | — | — | — |
| MET | ○ | — | × | — | | | — | — | — | — | — | — | | — | — | — | | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | × | — | | | | — | — | — | — | — | | — | — | — | — | — | — | | — | — | — |
| A/B | ○ | — | × | — | | | | | — | — | — | — | | — | — | — | — | — | — | — | | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | × | — | | | | | | — | — | — | | — | — | — | — | — | — | — | — | — | |
| ECM | ○ | — | × | — | | | | | | | | — | | — | — | — | — | — | — | — | — | — | — |

LAN01662

When ⑪ is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | × | — | — | — | — | — | — | — | — | — | ○ | | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01663

When ⑫ is open

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| | | | | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | ⑭ | ⑮ | ⑯ | ⑰ | ⑱ | ⑲ | ⑳ |
| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | × | — | ○ | ○ | — | — | — | — | — | — | ○ | — | | — | — | — | — | — | — | — | — |
| A/C | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | ○ | — | — | — | — | — | — | — |
| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
| RST | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| STR | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| TCM | ○ | — | ○ | — | ○ | ○ | ○ | — | — | — | — | — | ○ | — | — | — | — | — | — | ○ | — | — | — |
| A/B | ○ | — | ○ | — | ○ | ○ | ○ | ○ | — | — | — | — | ○ | — | — | — | — | — | — | — | ○ | — | — |
| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
| ECM | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | ○ | — | — | — | — | — | — | — | — | — | — |

LAN01664

When ⑬ is open

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| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | — | — | ○ | ○ | — | ○ |
| VDC | ○ | — | ○ | ○ | — | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| KPS | ○ | — | ○ | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — | — |
| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
| BIU | ○ | — | ○ | — | ○ | — | — | — | — | — | — | — | ○ | — | — | — | — | — | — | — | — | — | — |
| MFD | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | ○ | — | — | — | — | — | — | — | — |
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| ES | ○ | — | ○ | — | ○ | ○ | ○ | ○ | ○ | — | — | — | ○ | — | — | — | — | — | — | — | — | — | ○ |
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When ⑭ is open

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| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | — | — | ○ | ○ | — | ○ |
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When ⑮ ⑯ ⑲ is open

NOTE:
Locations can be identified by the difference of data no-receive conditions between modules. <Ref. to LAN(w/o HEV)(diag)-67, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).> <Ref. to LAN(w/o HEV)(diag)-70, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).>

| | (A) | (B) | | (E) | | | | | | | | | | | | | | | | | | |
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| | | (C) | (D) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | ○ |
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| HL | ○ | — | ○ | — | — | — | — | — | — | — | — | — | ○ | ○ | — | — | — | — | — | — | — | — | — |
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| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
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| EPS | ○ | ○ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
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| MET | ○ | — | ○ | — | ○ | ○ | — | — | — | — | — | — | ○ | — | — | — | ○ | — | — | — | — | — | — |
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