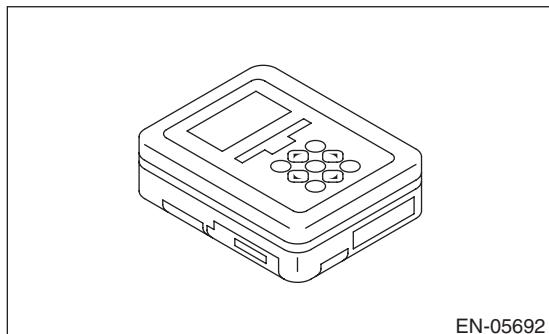


6. Subaru Select Monitor

A: OPERATION

1. READ DIAGNOSTIC TROUBLE CODE (DTC)

1) Prepare the Subaru Select Monitor kit. <Ref. to LAN(diag)-7, PREPARATION TOOL, General Description.>



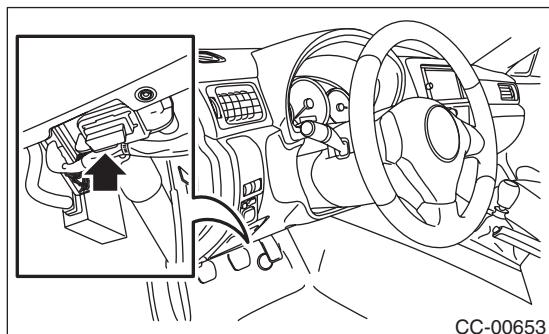
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- 2) Prepare PC with Subaru Select Monitor installed.
- 3) Connect the USB cable between SDI (Subaru Diagnosis Interface) and USB port on the personal computer (dedicated port for the Subaru Select Monitor).

NOTE:

The dedicated port for the Subaru Select Monitor means the USB port which was used to install the Subaru Select Monitor.

- 4) Connect the diagnosis cable to SDI.
- 5) Connect SDI to data link connector located in the lower portion of the instrument panel (on the driver's side).



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- 6) Start the PC.
- 7) Turn the ignition switch to ON and run the “PC application for Subaru Select Monitor”.
- 8) Read the diagnostic trouble code and record it.

NOTE:

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

2. READ CURRENT DATA

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «System Selection Menu» display, select {Integ. unit mode}.
- 3) Select «Current Data Display & Save» screen.
- 4) Using the scroll key, scroll the display screen up or down until the desired data is shown.

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

3. DISPLAY OF DATA

| Items to be displayed | Unit of measure | Remarks | Note |
|--------------------------|---------------------------|-----------------------------------|---|
| BATT voltage (control) | 9 — 16 V | Body integrated unit input value | Always |
| BATT voltage (BACKUP) | 9 — 16 V | Body integrated unit input value | Always |
| ABS_CM Power Voltage | 9 — 16 V | Body integrated unit input value | Ignition switch ON |
| ACC voltage | 9 — 16 V | Body integrated unit input value | Ignition switch ACC |
| Illumination VR Voltage | 0 — 5 V | Body integrated unit input value | Input value from illumination volume |
| Illumi. output d-ratio | 0 — 100% | Body integrated unit output value | Small light ON Illumination volume is other than bright. |
| Ambient Temperature | -40 — 87.5°C | CAN data input value | Ignition switch ON |
| Fuel level voltage | 0 — 10 V | Body integrated unit input value | Ignition switch ON |
| Fuel level resistance | 0 — 102.3 Ω | Body integrated unit input value | Ignition switch ON |
| key-lock solenoid V | 6 — 15 V | Body integrated unit output value | Not applicable |
| number of regist. | 0 — 4 | Number of keyless key registered | Number of transmitter registered is displayed |
| Front Wheel Speed | km/h | CAN data input value | Reception from VDC module |
| VDC/ABS latest f-code | DTC display (Temporarily) | CAN data input value | It is normal when DTC is not been input even if this code is displayed. Received from VDC (Use after hexadecimal conversion) |
| Blower fan steps | 0 — 2 levels | CAN data input value | 0: OFF, 1: 1 level, 2: 2 levels or more Reception from air conditioner ECM |
| Fuel level resistance 2 | 0 — 102.3 Ω | CAN data output value | Reception from body integrated unit |
| Fuel consumption | cc/s | CAN data input value | Reception from ECM and transmission to center monitor |
| Coolant Temp. | -40 — 130°C | CAN data input value | Reception from ECM |
| Vehicle longitudinal G | m/s ² | CAN data input value | Reception from VDC module |
| SPORT Shift Stages | 0 — 7 levels | CAN data input value | Not applicable |
| Shift Position | 0 — 7 levels | CAN data input value | Not applicable |
| VDC/ABS condition | 0 — 4 | CAN data input value | Reception from VDC module |
| Destination Code | 0 — 16 | CAN data input value | Reception from combination meter |
| Touch SW | 0 — 64 | CAN data input value | Reception from navigation module |
| key-lock warning SW | ON/OFF | Body integrated unit input value | ON when ignition key inserted |
| Stop light SW | ON/OFF | Body integrated unit input value | ON when brake pedal is depressed |
| Front fog lamp SW input | ON/OFF | Body integrated unit input value | When front fog light switch is ON |
| Driver's door SW input | ON/OFF | Body integrated unit input value | ON when driver's door is open |
| P-door SW input | ON/OFF | Body integrated unit input value | ON when passenger's door is open |
| Rear right door SW input | ON/OFF | Body integrated unit input value | ON when rear right door is open |
| Rear left door SW input | ON/OFF | Body integrated unit input value | ON when rear left door is open |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Note |
|-----------------------------|-----------------|---|---|
| R Gate SW input | ON/OFF | Body integrated unit input value | ON when rear gate/trunk open |
| Manual lock SW input | ON/OFF | Body integrated unit input value | Manual lock switch ON |
| Manual unlock SW input | ON/OFF | Body integrated unit input value | Manual unlock switch ON |
| Bright SW input | ON/OFF | Body integrated unit input value | ON when bright switch is ON |
| P SW | ON/OFF | Body integrated unit input value | Not applicable |
| MT Reverse Switch | ON/OFF | Body integrated unit input value | ON when shift lever is at reverse position |
| R wiper ON SW input | ON/OFF | Body integrated unit input value | Rear wiper switch ON |
| R wiper INT SW input | ON/OFF | Body integrated unit input value | Rear wiper switch (INT ON) |
| R washer SW input | ON/OFF | Body integrated unit input value | Rear washer switch ON |
| wiper deicer SW input | ON/OFF | Body integrated unit input value | Rear defogger switch ON |
| Rear Defogger SW Input | ON/OFF | Body integrated unit input value | |
| Driver's Seat SW input | ON/OFF | Body integrated unit input value | Driver's seat buckle switch ON |
| P seatbelt SW input | ON/OFF | Body integrated unit input value | Passenger's seat occupied and buckle switch ON |
| Fr wiper input | ON/OFF | Body integrated unit input value | ON when front wiper is operating |
| Parking Brake Switch Input | ON/OFF | Body integrated unit input value | ON when parking brake locked |
| R gate lock status SW input | ON/OFF | Body integrated unit inner memory value | Displays door lock/unlock state, ON when locked |
| R Gate Release SW input | ON/OFF | Body integrated unit input value | When rear gate opener button is ON |
| Rr Defogger output | ON/OFF | Body integrated unit output value | ON when rear defogger relay is operating |
| lock actuat. LOCK output | ON/OFF | Body integrated unit output value | ON when LOCK signal is output |
| All seat UNLOCK output | ON/OFF | Body integrated unit output value | ON when unlock signal is output |
| D-seat UNLOCK output | ON/OFF | Body integrated unit output value | ON when unlock signal is output |
| R gate/trunk UNLK output | ON/OFF | Body integrated unit output value | ON when rear gate/trunk unlock signal is output |
| R wiper output | ON/OFF | Body integrated unit output value | ON when rear wiper motor is operating |
| Shift Lock Solenoid | ON/OFF | Body integrated unit output value | Not applicable |
| Key locking output | ON/OFF | Body integrated unit output value | Not applicable |
| wiper deicer output | ON/OFF | Body integrated unit output value | ON when wiper deicer relay is operating |
| Hazard Output | ON/OFF | Body integrated unit output value | ON when answer-back signal is received or when emergency light (answer-back) is operating |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Note |
|--------------------------|-----------------------|-----------------------------------|---|
| Keyless Buzzer Output | ON/OFF | Body integrated unit output value | ON when lock/unlock signal is received |
| Horn Output | ON/OFF | Body integrated unit output value | ON when security warning is operating |
| D-belt warning light O/P | ON/OFF | CAN data output value | ON when ignition switch is turned to ON, and buckle switch is turned off |
| P-belt warning light O/P | ON/OFF | Body integrated unit output value | ON when ignition switch is turned to ON, occupant is seated, and buckle switch is turned off |
| Illumination lamp O/P | ON/OFF | Body integrated unit output value | ON when illumination is illuminated |
| Room lamp output | ON/OFF | Body integrated unit output value | ON when one of the doors is open |
| key illumin. lamp o/p | ON/OFF | Body integrated unit output value | ON when driver's door is open |
| Immobilizer lamp output | ON/OFF | Body integrated unit output value | ON when immobilizer pilot light blinks |
| Keyless operation 1 | Regist./Normal | Body integrated unit input value | When keyless is registered |
| Keyless operation 2 | Deletion/Normal | Body integrated unit input value | When keyless registration is deleted |
| CC Main Lamp | ON/OFF | CAN data input value | Cruise control switch ON Reception from ECM and transmission to combination meter |
| CC Set Lamp | ON/OFF | CAN data input value | ON when cruise control vehicle speed is set Reception from ECM and transmission to combination meter |
| SPORT Lamp | ON/OFF | CAN data input value | Not applicable |
| SPORT Blink | Blink/OFF | CAN data input value | Not applicable |
| ATF Temperature Lamp | ON/OFF | CAN data input value | Not applicable |
| ATF Blink | Blink/OFF | CAN data input value | Not applicable |
| ECO Lamp (AT) | ON/OFF | CAN data input value | Not applicable |
| ECO Lamp (MT) | ON/OFF | CAN data input value | Not applicable |
| Tire diameter abnormal 1 | ON/OFF | CAN data input value | Not applicable |
| Tire diameter abnormal 2 | Blink/OFF | CAN data input value | Not applicable |
| Shift Up Indication | UP/OFF | CAN data input value | Not applicable |
| Shift Down Indication | DOWN/OFF | CAN data input value | Not applicable |
| SPORT Shift (buzzer 1) | ON/OFF | CAN data input value | Not applicable |
| SPORT Shift (buzzer 2) | ON/OFF | CAN data input value | Not applicable |
| ABS/VDC Judging | ABS/VDC | CAN data input value | Transmission from vehicle dynamic control (VDC) to high speed control module |
| Small Light SW | ON/OFF | CAN data output value | ON when small light is illuminated |
| Headlamp | ON/OFF | CAN data output value | When headlight LO is ON |
| High Beam | ON/OFF | CAN data output value | When headlight HI is ON |
| km/mile display | mile/km | CAN data input value | Unit of distance received from meter |
| Large diameter tire | large Tire/Others | CAN data output value | Large tire when the standard tire is 18 in Reception from combination meter |
| Number of cylinders | 4 Cylinder/6 Cylinder | CAN data input value | Display engine equipped |
| Cam shaft specification | SOHC/DOHC | CAN data input value | Display engine equipped |
| Turbo | TURBO/Without turbo | CAN data input value | Display engine equipped |
| E/G displacement (2.5L) | 2.5 L/OFF | CAN data input value | Display engine equipped |
| E/G displacement (3.0L) | 3.0 L/OFF | CAN data input value | Display engine equipped |
| AT Vehicle ID Signal | ON/OFF | CAN data input value | Display transmission equipped |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Note |
|----------------------------------|--------------------------------------|------------------------------------|--|
| Blower fan information | ON/OFF | CAN data input value | ON when blower fan is operating (always OFF for auto A/C equipped models) |
| Smart judging flag | Smart System/Other than Smart System | CAN data output value | Smart when integrated unit judges as a model with Smart |
| Diesel judging flag | Diesel/Other than Diesel | CAN data output value | Display diesel/other than diesel |
| Turbo judging flag | Without turbo/TURBO | CAN data output value | Display engine equipped |
| AT type judging flag | 4AT/5AT | CAN data output value | Display transmission equipped |
| CVT judging flag | CVT/Other than CVT | CAN data output value | Display CVT judging |
| Center display failure | OK/NG | CAN data input value | NG when there is a center display failure Reception from center display (NAVI monitor) |
| NAVI Failure | OK/NG | CAN data input value | NG when there is a navigation system failure Reception from Center Display |
| IE Bus failure | Can not use | CAN data input value | Reception from Center Display |
| Auto A/C failure | OK/NG | CAN data input value | NG when there is a failure in auto air conditioning system Reception from auto A/C module |
| EBD Warning Light | ON/OFF | CAN data input value | OK when EBD warning light is illuminated Reception from VDC/ABS and transmission to combination meter |
| ABS Warning Light | ON/OFF | CAN data input value | OK when ABS warning light is illuminated Reception from VDC/ABS and transmission to combination meter |
| VDC OFF flag | ON/OFF | CAN data input value | Vehicle dynamics control OFF SW is ON Reception from VDC/ABS and transmission to combination meter |
| VDC/ABS OK B | OK/NG | CAN data input value | NG when there is an error in VDC/ABS system Reception from VDC/ABS |
| Lighting I Switch Input | ON/OFF | Body integrated unit input value | ON when lighting switch illumination is ON |
| Lighting II Switch Input | ON/OFF | Body integrated unit input value | ON when lighting switch headlight is ON |
| Dimmer Hi Switch Input | ON/OFF | Body integrated unit input value | ON when dimmer switch is Hi beam position |
| Dimmer Pass Switch Input | ON/OFF | Body integrated unit input value | ON when dimmer switch is passing position |
| Lighting I Lamp Output | ON/OFF | Body integrated unit output value | ON when small light is illuminated |
| Lighting II Lamp Output | ON/OFF | Body integrated unit output value | ON when headlight is illuminated |
| Lighting Hi Lamp Output | ON/OFF | Body integrated unit output value | ON when Hi beam is illuminated |
| Front Fog Lamp Output | ON/OFF | Body integrated unit output value | ON when front fog light is ON. |
| DRL Cancel Output | ON/OFF | Body integrated unit output value | ON when lighting switch is "Headlight ON" and dimmer switch is "Hi beam" or "Passing" position |
| Power Supply Tr | ON/OFF | Body integrated unit output value | ON when lighting switch is "Head" position without inserting key in key cylinder |
| Spot map lamp output | ON/OFF | Body integrated unit output value | ON when one of the doors is open (except for tail gate) |
| Eco switch information | ON/OFF | CAN data output value | Not applicable |
| Off delay time | OFF, Short, Normal, Long | Body integrated unit setting items | Customize setting |
| Check engine warning lamp output | ON, OFF, Blink 1, Blink 2, Blink 3 | Body integrated unit output value | Warning light is activated |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Note |
|----------------------------|--------------------|------------------------------------|--------------------------|
| Rr defogger op. mode | Continuous/Normal | Body integrated unit setting items | Customize setting |
| Security Alarm Setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Impact Sensor Setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Alarm delay setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Lockout prevention | ON/OFF | Body integrated unit setting items | Customize setting |
| Impact sensor | ON/OFF | Body integrated unit setting items | Customize setting |
| Buzzer beeping setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Hazard light setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Buzzer setting | ON/OFF | Body integrated unit setting items | Inside condition of unit |
| Auto locking | ON/OFF | Body integrated unit setting items | Customize setting |
| Passive Alarm | ON/OFF | Body integrated unit setting items | Customize setting |
| Door open warning | ON/OFF | Body integrated unit setting items | Customize setting |
| Dome Light Alarm Setting | ON/OFF | Body integrated unit setting items | Customize setting |
| Map Light Setting | ON/OFF | Body integrated unit setting items | Customize setting |
| Belt Warning Switch | ON/OFF | Body integrated unit setting items | Customize setting |
| Map lamp 30 sec off record | ON/OFF | Body integrated unit setting items | Customize setting |
| A/C ECM setting | ON/OFF | Body integrated unit setting items | Equipment setting |
| wiperdeicer | ON/OFF | Body integrated unit setting items | Equipment setting |
| Sedan/Wagon Setting | Sedan/Wagon | Body integrated unit setting items | Equipment setting |
| MT/AT Setting | MT/AT | Body integrated unit setting items | Equipment setting |
| 6MT Setting | 6MT/Other than 6MT | Body integrated unit setting items | Equipment setting |
| Destination Setting | Each destination | Body integrated unit setting items | — |
| Factory initial setting | Factory/Market | Body integrated unit setting items | Equipment setting |

NOTE:

For detailed operation procedures, refer to "PC application help for Subaru Select Monitor".

4. CONFIRM CURRENT SETTING

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «System Selection Menu» display, select {Integ. unit mode}.
- 3) On «Integ. unit mode failure diag.» display, select {Current Data Display & Save}.
- 4) Using the scroll key, scroll the display screen up or down until the desired data is shown.
- 5) Display the following item and record the settings.

Required items for new registration (Except for system not equipped)

| Item | Item to confirm | | | | Remarks |
|----------------------------|-----------------|------|----------------|-------|--|
| | 1 | 2 | 3 | 4 | |
| number of regist. | 1 | 2 | 3 | 4 | Number of registered key |
| Off delay time | OFF | Long | Normal | Short | Setting for lighting off time |
| Rr Defogger op. mode | Normal | | Continuous | | |
| Security Alarm Setup | ON | | OFF | | |
| Impact Sensor Setup | ON | | OFF | | Option setting |
| Alarm delay setup | ON | | OFF | | |
| Lockout prevention | ON | | OFF | | |
| Impact sensor | support | | no support | | Option setting |
| Buzzer beeping setup | ON | | OFF | | |
| Emergency light setup | ON | | OFF | | |
| Buzzer setting | support | | no support | | |
| Passive Alarm | ON | | OFF | | |
| Door open warning | support | | no support | | |
| Dome Light Alarm Setting | ON | | OFF | | |
| Map Light Setting | ON | | OFF | | |
| Belt Warning Switch | ON | | OFF | | Switch the belt warning lighting and the buzzer sound. |
| Map lamp 30 sec off record | support | | no support | | |
| A/C ECM setting | support | | no support | | Model with auto A/C |
| wiperdeicer | support | | no support | | Option setting |
| Sedan/Wagon Setting | Sedan | | Wagon | | |
| MT/AT Setting | AT | | MT | | |
| 6MT Setting | 6MT | | Other than 6MT | | |
| Factory initial setting | Factory | | Market | | Do not change to factory mode. |

5. REGISTRATION BODY INTEGRATED UNIT (FUNCTION SETTING)

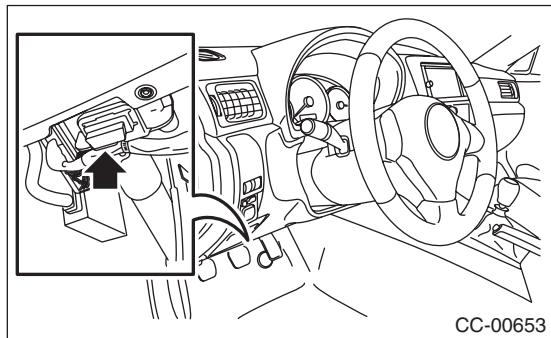
CAUTION:

Body integrated unit is core of LAN system, and also can select the function of all vehicle system control. It is possible to control the original functions of vehicle when registrations of body integrated unit, or User Customizing are corresponded to vehicle equipment.

If registrations and function setting are different from vehicle equipment, vehicle system does not operate normally and diagnosis cannot be performed correctly. Pay attention to following item.

- Be sure to correspond registrations, or User Customizing settings to vehicle equipment.
- Do not change the settings of vehicle improperly.
- Confirm that key illumination does not blink when ignition switch is turned ON, or “Factory initial setting” of body integrated unit registrations is set to “Market”. If “Factory initial setting” is set to “Factory”, key illumination blinks when the ignition switch is turned ON, to notify that the settings are not confirmed.
- Key illumination does not blink with ignition switch turned to ON and go off with door closed.
- Be sure to register immobilizer if body integrated unit is replaced with a new part or if the parts related to immobilizer have been replaced. Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.

1) Connect SDI to data link connector located in the lower portion of the instrument panel (on the driver's side).



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CAUTION:

Do not connect scan tools other than the Subaru Select Monitor.

- 2) Start the PC.
- 3) Turn the ignition switch to ON and run the “PC application for Subaru Select Monitor”.
- 4) On «Main Menu» display, select {Each System Check}.

- 5) On «System Selection Menu» display, select {Integ. unit mode}.
- 6) Click the [OK] button after the control module name (integrated unit) is displayed.
- 7) On «Integ. unit mode failure diag.» display, select {Unit customizing}.

8) Change the setting with UP/DOWN key.
 • List of body integrated unit registration item

NOTE:

Setting is different depending on the grade of vehicle.

| Data | Initial setting | Registration | Remarks |
|------------------------------|-----------------|----------------|---|
| Map lamp 30 sec off record | OFF | ON | Set to "OFF" for models with door interlock switch in map light, "ON" for models without door interlock switch. |
| | | OFF | |
| A/C ECM setting | OFF | ON | Set to "ON" in case of model with auto A/C. Set to "OFF" in case of model without auto A/C. |
| | | OFF | |
| wiperdeicer (factory option) | OFF | ON | Be sure to set exactly according to vehicle equipment. ON signal does not output with switch operation when it is set to "OFF". |
| | | OFF | |
| Sedan/Wagon Setting | Wagon | Sedan | Be sure to set exactly according to vehicle model. This relates to door lock control. |
| | | Wagon | |
| MT/AT Setting | AT | MT | Be sure to set exactly according to vehicle model. This relates to key interlock control, shift lock control. |
| | | AT | |
| 6MT Setting | Other than 6MT | 6MT | Set "6MT" for 6MT model, and set "Other than 6MT" for AT/5AT model. |
| | | Other than 6MT | |
| Factory initial setting | Factory | Factory | Be sure to set to "Market". After setting change, turn the ignition switch to OFF and settle the changed settings. |
| | | Market | |

CAUTION:

- To perform normal operation of vehicle and diagnosis, the above settings must match the actual vehicle equipment.
- When body integrated unit is a new part or "Factory" mode, key illumination blinks to show equipment settings have not been completed. Check the detailed procedures of User Customizing.
- Be sure not to change Factory initial setting except when installing a new body integrated unit.

NOTE:

"Factory" mode:

- Body integrated unit has not been set yet. It can be recognized by key illumination blinking with ignition switch turned to ON.
- All replacement body integrated units are set to "Factory" mode. When replacing a body integrated unit, be sure to perform the registration operation.

"Market" mode:

- Each settings have been set. It can be recognized by key ring illumination coming on in concocing with room light and going off with ignition switch turned to ON.

9) Perform the Factory initial setting. On the «Unit customizing» display screen of Subaru Select Monitor, select the {Factory initial setting}.

10) Change the mode from Factory to Market and then turn the ignition switch to OFF.

11) Change the Subaru Select Monitor system selection to «Immobilizer» to register the immobilizer key. (model with immobilizer)

12) Perform the registration according to the procedures of the "REGISTRATION MANUAL FOR IMMOBILIZER".

13) When key registration is completed, "Do you want to register remote engine start?" is displayed. Perform registration only for equipped models.

14) Perform the User Customizing.

<Ref. to LAN(diag)-23, USER CUSTOMIZING, OPERATION, Subaru Select Monitor.>

NOTE:

For detailed operation procedures, refer to "PC application help for Subaru Select Monitor".

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

6. CLEAR MEMORY MODE

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «System Selection Menu» display, select {Integ. unit mode}.
- 3) Press the [OK] key after the information of body integrated unit type is displayed.
- 4) On «Integ. unit mode failure diag» display, select {Clear Memory} and press the [OK] key.

| Display | Contents to be displayed |
|----------------|---|
| Clear Memory ? | Clear function of DTC and freeze frame data |

- 5) When “Done” is shown on the display screen, turn the ignition switch to OFF.

NOTE:

For details concerning the operation procedure, refer to “PC application help for Subaru Select Monitor”.

7. FREEZE FRAME DATA

NOTE:

- Data stored at the time of trouble occurrence is shown on display.
- Freeze frame data will be memorized maximum to 20.
- If freeze frame data is not stored in memory correctly (caused by low power supply of body integrated unit), DTC will be displayed with “?” on the head of it in the Subaru Select Monitor display. This shows it may be an unreliable reading.

8. USER CUSTOMIZING

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «System Selection Menu» display, select {Integ. unit mode}.
- 3) On «Integ. unit mode failure diag.» display, select {Integ. Unit customizing}.
- 4) Change the setting with UP/DOWN key and set with the [OK] key.

- List of User Customizing item

| Data | Initial setting value | Customize setting | Remarks |
|-------------------------|-----------------------|-------------------|--|
| Off delay time | Long | | Delay time below can be selected by setting. |
| | | OFF | 0 seconds |
| | | Short | 10 seconds |
| | | Normal | 20 seconds |
| | | Long | 30 seconds |
| Rr Defogger op. mode | 15 minutes | 15 minutes | Automatically stops in 15 minutes after switch is turned to ON. |
| | | Continuous | Repeats active condition for 15 minutes and inactive condition for 2 minutes until switch is turned to OFF. |
| Security Alarm Setup | ON | ON | Security alarm (hazard, horn or siren) in active condition |
| | | OFF | Security alarm in inactive condition |
| Impact Sensor Setup | OFF | ON | Workable when Impact Sensor Setup is set to "ON" Impact sensor function becomes activated. |
| | | OFF | Impact sensor in inactive condition (Set to "OFF" in models without sensors.) |
| Alarm delay setup | ON | | After the keyless lock operation, the alarm monitor starts after the following delay time has passed. |
| | | ON | Delay time is 30 seconds. |
| | | OFF | Delay time is 0 seconds. |
| Lockout prevention | ON | ON | Lockout prevention in active condition. (The function does not operate if safety knob is locked by hand.) |
| | | OFF | Lockout prevention in inactive condition |
| Impact sensor (OP) | OFF | ON | Workable when Impact Sensor Setup is set to "ON" Impact sensor function becomes activated. |
| | | OFF | Impact sensor in inactive condition (Set to "OFF" in models without sensors.) |
| Buzzer beeping setup | ON | ON | Workable when Buzzer setting is "ON". When lock/unlock is selected by keyless entry system operation, buzzer operates. |
| | | OFF | When lock/unlock is selected by keyless entry system operation, buzzer does not operate. |
| Emergency light setup | ON | ON | When lock/unlock is selected by keyless entry system operation, buzzer operates. |
| | | OFF | When lock/unlock is selected by keyless entry system operation, buzzer does not operate. |
| Buzzer setting | ON | ON | Vehicle is controlled in answer-back buzzer equipped mode. |
| | | OFF | Vehicle is controlled in answer-back buzzer non-equipped mode. (Make sure to set to "OFF" in models without answer back buzzers.) |
| Initial keyless setting | — | — | |
| | | Execution | Settings of keyless entry system are initialized. |
| Initial button setting | — | — | |
| | | Execution | Settings of each function are initialized. |
| Passive Alarm | OFF | ON | |
| | | OFF | Setting only for North American models |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Data | Initial setting value | Customize setting | Remarks |
|--------------------------|-----------------------|-------------------|--|
| Door open warning | ON | ON | If detecting door open for 20 minutes, room light, map light, and key ring illumination that are related to doors are turned off to prevent battery run-out. |
| | | OFF | Room light, map light, key illumination and door warning light are not turned off. |
| Dome Light Alarm Setting | OFF | ON | The room light lights by being interlocked with the activation of the alarm. |
| | | OFF | |
| Map Light Setting | ON | ON | Illuminates in accordance with the door interlocked room light. (model with sunroof) |
| | | OFF | |
| Belt Warning Switch | ON | ON | When using normally |
| | | OFF | Stop the belt warning buzzer beep and warning light illumination. |

5) After setting, make sure that the setting changed in the {Current Data Display & Save} is same as vehicle equipment.

CAUTION:

- The above settings must match the actual vehicle equipment.
- Do not change settings except for above setting while performing the User Customizing.
- Be sure not to change Factory initial setting except when installing a new body integrated unit.

NOTE:

For detailed operation procedures, refer to "PC application help for Subaru Select Monitor".

9. FUNCTION CHECK

In order to check the body integrated unit function, inspect the body integrated unit and actuator using Subaru Select Monitor without operating switches.

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «System Selection Menu» display, select {Integ. unit mode}.
- 3) On «Integ. unit mode failure diag.» display, select {Function check}.
- 4) Select the item to be operated on the «Function check» display screen with "UP/Down key" and press the [Next] button.
- 5) Pressing [Next] starts, [End] cancels the operation and [OK] returns to the System Operation Check Mode display screen.

NOTE:

If not equipped (based on area or condition), process will not go on.

B: INSPECTION**1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE****DETECTING CONDITION:**

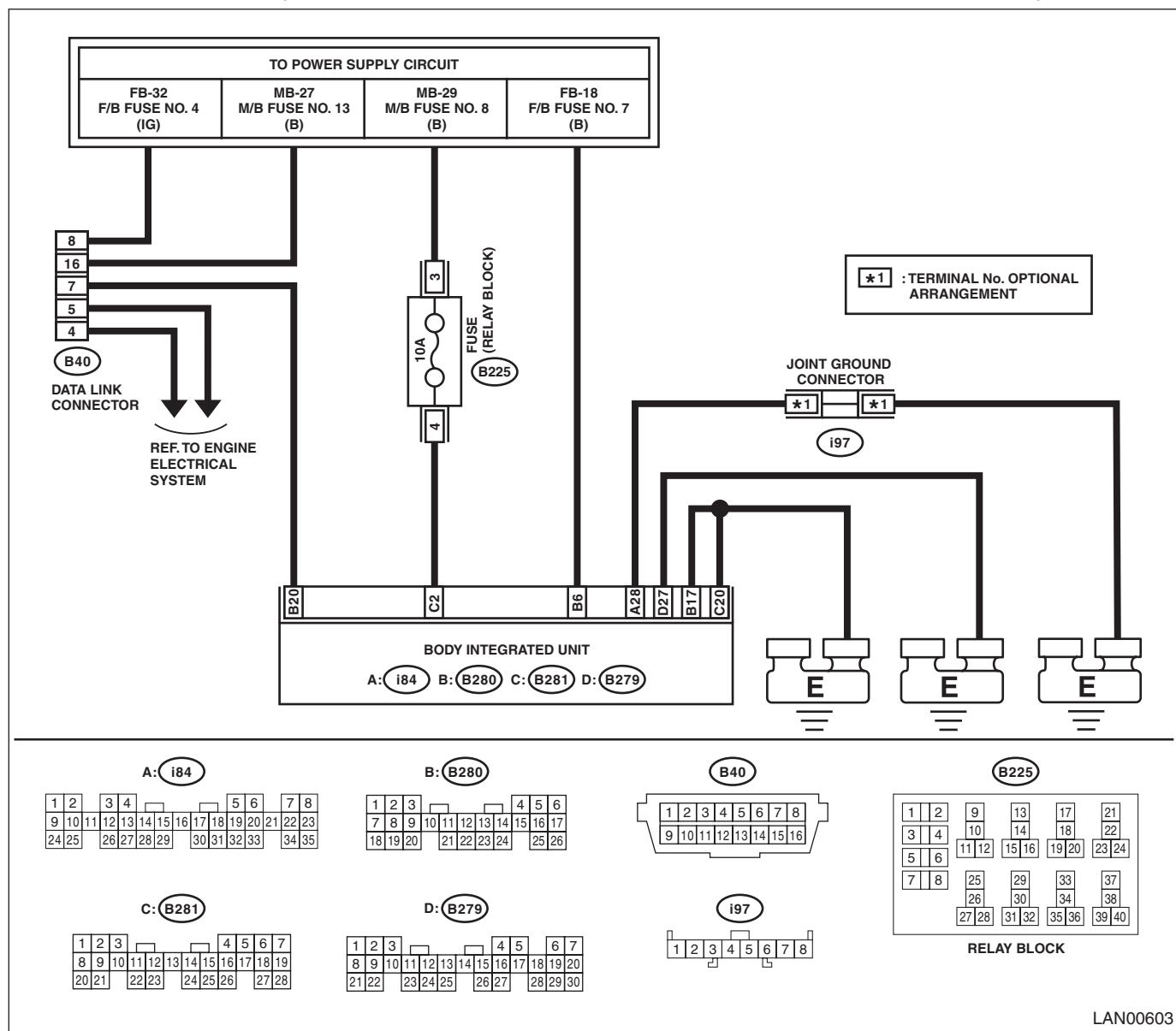
Defective harness connector

TROUBLE SYMPTOM:

Not communicable with Subaru Select Monitor.

WIRING DIAGRAM:

- SECURITY SYSTEM <Ref. to WI-154, WIRING DIAGRAM, Security System.>
- CAN communication system <Ref. to WI-171, WIRING DIAGRAM, CAN Communication System.>



| Step | Check | Yes | No |
|---------------------------------|----------------------------|---------------|--|
| 1 CHECK IGNITION SWITCH. | Is the ignition switch ON? | Go to step 2. | Turn the ignition switch to ON, and select Integ. unit mode using Subaru Select Monitor. |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Step | Check | Yes | No |
|---|--|---|--|
| 2 CHECK BATTERY. 1) Turn the ignition switch to OFF. 2) Measure the battery voltage. | Is the voltage 11 V or more? | Go to step 3. | Charge or replace the battery. |
| 3 CHECK BATTERY TERMINAL. | Is there poor contact at battery terminal? | Repair or tighten the battery terminal. | Go to step 4. |
| 4 CHECK COMMUNICATION OF SUBARU SELECT MONITOR. 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check whether communication to other systems can be executed normally. | Is the system name displayed? | Go to step 7. | Go to step 5. |
| 5 CHECK COMMUNICATION OF SUBARU SELECT MONITOR. 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector. 3) Turn the ignition switch to ON. 4) Check whether communication to other systems can be executed normally. | Is the system name displayed? | Go to step 7. | Go to step 6. |
| 6 CHECK HARNESS CONNECTOR BETWEEN EACH CONTROL MODULE AND SUBARU SELECT MONITOR. 1) Turn the ignition switch to OFF. 2) Measure the resistance between data link connector and chassis ground. <i>Connector & terminal (B40) No. 7 — Chassis ground:</i> | Is the resistance 1 MΩ or more? | Go to step 7. | Repair the harness and connector between each control module and Subaru Select Monitor. |
| 7 CHECK OUTPUT SIGNAL TO BODY INTEGRATED UNIT. 1) Turn the ignition switch to ON. 2) Measure the voltage between data link connector and chassis ground. <i>Connector & terminal (B40) No. 7 (+) — Chassis ground (-):</i> | Is the voltage less than 1 V? | Go to step 8. | Repair the harness and connector between each control module and Subaru Select Monitor. |
| 8 CHECK HARNESS CONNECTOR BETWEEN BODY INTEGRATED UNIT AND DATA LINK CONNECTOR. 1) Turn the ignition switch to OFF. 2) Measure the resistance between body integrated unit and data link connector. <i>Connector & terminal (B40) No. 7 — (B280) No. 20:</i> | Is the resistance less than 1 Ω? | Go to step 9. | Repair the harness and connector between body integrated unit and Subaru Select Monitor. |
| 9 CHECK BACK-UP FUSE. Check that back-up fuse is not blown out, or check that it is inserted. | Is back-up fuse OK? | Go to step 10. | Replace the back-up fuse, or insert it into the fuse holder. |
| 10 CHECK POWER SUPPLY CIRCUIT. 1) Connect the body integrated unit. 2) Measure the voltage between body integrated unit connector and chassis ground. <i>Connector & terminal (B280) No. 6 (+) — Chassis ground (-): (B281) No. 2 (+) — Chassis ground (-):</i> | Is the voltage 10 V or more? | Go to step 11. | Repair the open circuit of harness between body integrated unit and battery. |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Step | Check | Yes | No |
|--|---|---------------------------------------|--|
| 11 CHECK HARNESS CONNECTOR BETWEEN BODY INTEGRATED UNIT AND CHASSIS GROUND. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit. 3) Measure the resistance of harness between the body integrated unit and chassis ground. <i>Connector & terminal</i> <i>(i84) No. 28 — Chassis ground:</i> <i>(B279) No. 27 — Chassis ground:</i> <i>(B280) No. 17 — Chassis ground:</i> <i>(B281) No. 20 — Chassis ground:</i> | Is the resistance 1 MΩ or more? | Go to step 12. | Repair the poor contact of harness between body integrated unit and ground. |
| 12 CHECK POOR CONTACT OF CONNECTOR. | Is there poor contact of the control unit ground and the Subaru Select Monitor? | Repair the poor contact of connector. | Replace the body integrated unit. <Ref. to SL-48, REMOVAL, Body Integrated Unit.> |

CAUTION:

For model with immobilizer, immobilizer registration work is necessary when the body integrated unit replaced. For operation procedures, refer to “REGISTRATION MANUAL FOR IMMOBILIZER”.