

6. Subaru Select Monitor

A: OPERATION

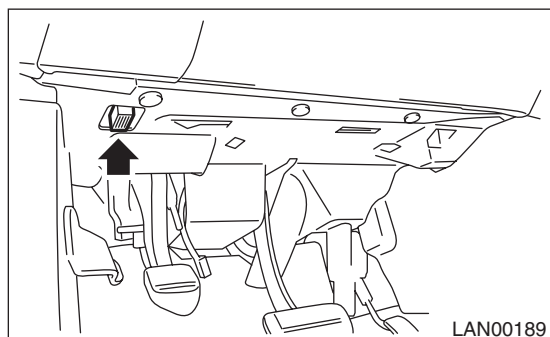
1. READ DIAGNOSTIC TROUBLE CODE (DTC)

NOTE:

- DTC is displayed in the sequence of inputting. (When entering two DTCs or more simultaneously, they are displayed in the sequence of priority.)
- When more than one DTC is displayed, perform the diagnosis of top one.

- 1) Prepare the Subaru Select Monitor kit.
- 2) Connect the diagnosis cable to Subaru Select Monitor.
- 3) Connect the Subaru Select Monitor to data link connector.

Data link connector is located in the lower portion of instrument panel (on the driver's side).



CAUTION:

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

- 4) Turn the ignition switch to ON and run the Subaru Select Monitor.
- 5) On «Main Menu» display, select {Each System Check}.
- 6) On «System Selection Menu» display, select {Integ. unit mode}.
- 7) On «Integ. unit mode» display, select {Diagnostic Code(s) Display}.

NOTE:

It is possible to read the DTC at the {Check all diagnosis codes} on the «Main Menu», and then find the contents to check from the DTC table. <Ref. to LAN(diag)-33, DTC TABLE, LIST, List of Diagnostic Trouble Code (DTC).>

NOTE:

- For details concerning the operation procedure, refer to “PC application help for Subaru Select Monitor”.
- For details concerning DTCs, refer to the List of Diagnostic Trouble Code (DTC). <Ref. to LAN(diag)-31, List of Diagnostic Trouble Code (DTC).>

2. READ CURRENT DATA

- 1) Select {Each System Check} in «Main Menu» display screen.
 - 2) On the «System Selection Menu» display screen, select the {Integ. unit mode}.
 - 3) On the «Integ. unit mode failure diag.» display screen, select the {Current Data Display & Save}.
 - 4) Using the scroll key, scroll the display screen up or down until the desired data is shown.
- A support list contains both of analog and digital data, and they are shown in the following table.

3. DISPLAY OF CURRENT DATA

| Items to be displayed | Unit of measure | Remarks | Index |
|--------------------------|---------------------------|-----------------------------------|---|
| BATT voltage (control) | 10 — 15 V | Body integrated unit input value | Always |
| BATT voltage (BACKUP) | 10 — 15 V | Body integrated unit input value | Always |
| IG power supply voltage | 10 — 15 V | Body integrated unit input value | Ignition switch ON |
| ACC voltage | 10 — 15 V | Body integrated unit input value | Ignition switch ACC |
| Illumination VR Voltage | 0 — 5 V | Body integrated unit output value | Illumination volume input value |
| Illumi. output d-ratio | 0 — 100% | Body integrated unit input value | Small light ON Illumination volume is other than bright. |
| ambient temp sensor V | 0 — 5 V | Body integrated unit input value | Ignition switch ON |
| Ambient Temperature | −40 — 87.5°C | Body integrated unit output value | Ignition switch ON |
| Fuel level voltage | 0 — 8 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 — 12 V | Body integrated unit output value | Key warning switch ON, other than parking range Ignition ON |
| number of regist. | 0 — 4 | Number of keyless key registered | |
| 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. Reception from VDC |
| Blower Fan Steps | 0 — 2 levels | CAN data input value | 0: OFF, 1: Low, 2: 2 levels or more Reception from air conditioner CM |
| 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 |
| 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 | Manual mode operation information (0: Light OFF; 1 — 5: Gear display; 6: Fail; 7: ATF temperature High/Low) Reception from TCM |
| Shift Position | 0 — 7 levels | CAN data input value | 0: 1, 1: 2, 2: 3, 3: 4, 4: D, 5: N, 6: R, 7: P shift position (8 indicates no input) 8 is displayed in manual mode Reception from TCM |
| VDC/ABS condition | 0 — 4 | CAN data input value | Reception from VDC/ABS and transmission to combination meter |
| Destination | 0 — 16 | CAN data input value | Reception from combination meter |
| Touch SW | 0 — 64 | CAN data input value | Number is displayed when navigation monitor touch switch is operated. Reception from monitor (except MFD) |
| key-lock warning SW | ON/OFF | Body integrated unit input value | ON when ignition key inserted |
| Stop Light Switch | 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 |
| TPMS input | ON/OFF | Body integrated unit input value | ON when TPMS registration completed |
| Door unlock SW input | ON/OFF | Body integrated unit input value | ON when door key cylinder turned to UNLOCK |
| 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 |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Index |
|--------------------------|-----------------|-----------------------------------|---|
| Rear left door SW input | ON/OFF | Body integrated unit input value | ON when rear left door is open |
| R Gate SW input | ON/OFF | Body integrated unit input value | ON when rear gate opened |
| 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 Auto A/C excluded |
| Shift Button SW Input | ON/OFF | Body integrated unit input value | ON when shift lever lock button operated |
| Tiptronic Mode Switch | ON/OFF | Body integrated unit input value | SPORT shift mode ON |
| TIP UPSW input | ON/OFF | Body integrated unit input value | ON when SPORT shift ON and UP operation |
| TIP DOWN SW input | ON/OFF | Body integrated unit input value | ON when SPORT shift ON and DOWN operation |
| P SW | ON/OFF | Body integrated unit input value | ON when shift range is in parking Shift lever P switch signal |
| 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 | Wiper deicer switch ON |
| Rear Defogger SW | ON/OFF | Body integrated unit input value | Rear defogger switch ON |
| 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 |
| 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 unlock signal 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 | ON when shift lock solenoid is operating |
| Key locking output | ON/OFF | Body integrated unit output value | N/A |
| wiper deicer output | ON/OFF | Body integrated unit output value | ON when wiper deicer relay is operating |
| Starter cutting output | ON/OFF | Body integrated unit output value | ON when immobilizer is operating |
| Hazard Output | ON/OFF | Body integrated unit output value | ON when keyless answer-back signal is received or when hazard is operating |
| Keyless Buzzer Output | ON/OFF | Body integrated unit output value | ON when keyless lock/unlock signal is received |
| Horn Output | ON/OFF | Body integrated unit output value | ON when security warning is operating |
| Siren Output | ON/OFF | Body integrated unit output value | ON when siren equipped, customize setting enable, and security warning in operation |
| D-belt warning light O/P | ON/OFF | Body integrated unit output value | ON when ignition switch is turned to ON, and buckle switch is turned OFF |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Index |
|--------------------------|-------------------|-----------------------------------|--|
| 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 (KA model only) |
| 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 keyless lock/unlock signal is received (when key in switch connector is removed) |
| key illumi. lamp o/p | ON/OFF | Body integrated unit output value | ON when key illumination light is illuminated |
| 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 ID registration: Registration |
| Keyless operation 2 | Deletion/Normal | Body integrated unit input value | N/A |
| 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 | SPORT mode switch ON Reception from TCM and transmission to combination meter |
| SPORT Blink | Blink/OFF | CAN data input value | TCM malfunction signal reception ON Reception from TCM and transmission to combination meter |
| ATF Temperature Lamp | ON/OFF | CAN data input value | N/A |
| ATF Blink | Blink/OFF | CAN data input value | Blinks when there is an AT failure Reception from TCM and transmission to combination meter |
| Tire diameter abnormal 1 | ON/OFF | CAN data input value | N/A |
| Tire diameter abnormal 2 | Blink/OFF | CAN data input value | Blinks when the difference in rotation between front and rear wheels is 4% or more Reception from TCM and transmission to combination meter |
| Shift Up Indication | UP/OFF | Body integrated unit input value | ON when shift lever up-operation is possible |
| Shift Down Indication | DOWN/OFF | Body integrated unit input value | ON when shift lever down-operation is possible |
| SPORT Shift (buzzer 1) | ON/OFF | CAN data input value | ON while the shift change prohibited warning buzzer is operating Reception from TCM and transmission to combination meter |
| SPORT Shift (buzzer 2) | ON/OFF | CAN data input value | ON when the ATF high temperature warning buzzer is operating Reception from TCM and transmission to combination meter |
| ABS/VDC Judging | ABS/VDC | CAN data input value | Transmission from vehicle dynamics control (VDC) to high speed control module |
| Small Light SW | ON/OFF | Body integrated unit input value | ON when small light is illuminated |
| DRL | ON/OFF | Body integrated unit input value | ON when DRL illuminates |
| Rr Defogger SW | ON/OFF | Body integrated unit output value | Rear defogger switch ON |
| Australia Judging Flag | Australia/Others | Body integrated unit output value | For U.S. models, set to Others. |
| Large diameter tire | large Tire/Others | Body integrated unit output value | Large tire when the standard tire is 18 in Reception from combination meter |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Index |
|-------------------------|---------------------------------|------------------------------------|--|
| Number of cylinders | 4 Cylinder/6 Cylinder | CAN data input value | 6 Cylinder |
| Cam shaft specification | SOHC/DOHC | CAN data input value | DOHC |
| Turbo | Turbo/Non-turbo | CAN data input value | OFF |
| E/G displacement (2.5L) | 2.5 L/ OFF | CAN data input value | OFF |
| E/G displacement (3.0L) | 3.0 L/ OFF | CAN data input value | OFF |
| AT Vehicle ID Signal | ON/OFF | CAN data input value | AT |
| Blower fan information | ON/OFF | CAN data input value | ON when blower fan is operating Reception from ECM |
| Keyless buzzer | ON/OFF | Body integrated unit output value | ON when keyless answer-back buzzer is operating (when key in switch connector is removed) |
| Bright Request | ON/OFF | CAN data input value | ON when small light is ON and illumination switch or BRIGHT switch is operating |
| Center display failure | OK/NG | CAN data input value | NG when there is a center display failure Reception from center display (NAVI monitor and MFD) |
| 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 | ON when EBD warning light is illuminated Reception from VDC/ABS and transmission to combination meter |
| ABS Warning Light | ON/OFF | CAN data input value | ON 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 |
| Off delay time | OFF, Short, Normal, Long | Body integrated unit setting items | Customize setting |
| Auto lock time | OFF, 20, 30, 40, 50, 60 seconds | Body integrated unit setting items | Customize setting |
| Outside Temp. Offset | 0 — 8 | Body integrated unit setting items | Customize setting |
| Rr defogger op. mode | Continuous/Normal | Body integrated unit setting items | Customize setting |
| Wiper deicer 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 |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Items to be displayed | Unit of measure | Remarks | Index |
|---------------------------|-----------------|------------------------------------|-------------------|
| Answer-back buzzer setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Hazard answer-back setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Automatic locking setup | ON/OFF | Body integrated unit setting items | Customize setting |
| Ans.-back Buzzer | ON/OFF | Body integrated unit setting items | Customize setting |
| Auto locking | ON/OFF | Body integrated unit setting items | Customize setting |
| Select unlock switch | Selection/ALL | Body integrated unit setting items | Customize setting |
| Door open warning | 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 |
| Monitoring History Clear | ON/OFF | Body integrated unit setting items | Customize setting |
| A/C ECM setting | ON/OFF | Body integrated unit setting items | Customize setting |
| wiperdeicer | ON/OFF | Body integrated unit setting items | Customize setting |
| Rear fog light setting | ON/OFF | Body integrated unit setting items | Customize setting |
| Factory or Market setting | Market/Factory | Body integrated unit setting items | Customize setting |

NOTE:

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

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

4. CONFIRMATION OF 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) On the «Current Data Display & Save» display screen, select the {Data Display}.
- 5) Using the scroll key, scroll the display screen up or down until the desired data is shown.
- 6) Display the following item and record the settings.

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

| Item | Item to confirm | | | | Remarks |
|--|--------------------|------|------------|-------|--|
| # of reg key | 1 | 2 | 3 | 4 | Registered ID type |
| Off delay time | OFF | Long | Normal | Short | Setting for lighting off time |
| Auto lock time | 60, 50, 40, 30, 20 | | OFF | | Not applicable for U.S. models (Unit: second) |
| Rr defogger op. mode | Normal | | Continuous | | Normal: OFF after 15-minute operation Continuous: From switch ON to OFF |
| Wiper deicer op. mode | Normal | | Continuous | | Normal: OFF after 15-minute operation Continuous: Repeat ON (for 15 minutes) and OFF (for 2 minutes) from switch ON to OFF. |
| Security Alarm Setup | ON | | OFF | | ON: Security alarm operable OFF: Security alarm not in operation |
| Impact Sensor Setup | ON | | OFF | | ON: Impact sensor operable OFF: Impact sensor not in operation For vehicles without impact sensor, set to OFF. |
| Alarm delay setup | ON | | OFF | | ON: Observation mode starts after a certain period of time from keyless lock signal reception. OFF: Observation mode starts right after keyless lock signal reception. |
| Lockout prevention | ON | | OFF | | Not applicable for U.S. models |
| Impact sensor | Support | | No support | | Support: Impact sensor equipped No support: Impact sensor not equipped For vehicles without sensor, set to No support. |
| Siren setting | Support | | No support | | Not applicable for U.S. models |
| Answer-back buzzer setup | ON | | OFF | | ON: Answer-back buzzer operable OFF: Answer-back buzzer not in operation |
| Hazard answer-back setup | ON | | OFF | | ON: Hazard answer-back buzzer operable OFF: Hazard answer-back buzzer not in operation |
| Automatic locking setup | ON | | OFF | | Not applicable for U.S. models |
| Ans.-back Buzzer | Support | | No support | | Support: Vehicles with answer-back buzzer No support: Vehicles without answer-back buzzer |
| Auto locking | Support | | No support | | Not applicable for U.S. models (set to No support) |
| Passive Alarm | ON | | OFF | | |
| Door open warning (battery run-out prevention) | Support | | No support | | Support: If detecting door open for 10 minutes, door interlocked room light is turned to off. No support: Room light continues to illuminate until the door is shut properly. |
| Dome Light Alarm Setting | Support | | No support | | Support: Room light continues to illuminate while the alarm is operated. No support: Room light illuminates then goes off regardless of alarm operation. |
| Map Light Setting | Support | | No support | | Support: Map light illuminates in accordance with the door interlocked room light. No support: Does not illuminate in accordance with the door interlocked room light. |
| Belt Warning Switch | ON | | OFF | | ON: Normal use status OFF: Stops the belt warning buzzer beep and warning light illumination. |
| A/C ECM setting | Support | | No support | | Models with auto A/C (set to Support.) |

| Item | Item to confirm | | Remarks |
|-------------------------|-----------------|------------|--|
| wiperdeicer | Support | No support | Support: Vehicles with wiper deicer No support: Vehicles without wiper deicer |
| Rear fog light setting | Support | No support | Not applicable for U.S. models (set to No support) |
| Factory initial setting | Factory | Market | Do not change to Factory mode. For normal use, set to Market. |

5. REGISTRATION BODY INTEGRATED UNIT (EQUIPMENT SETTING)

CAUTION:

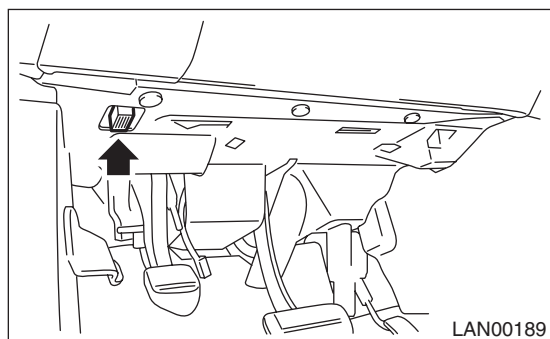
Body integrated unit is core of LAN system, and also can select the function of all vehicle system control. It is possible to control the original functions of vehicle when registrations of body integrated unit and function setting are corresponded to vehicle equipment.

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 and function settings to vehicle equipment.
- Do not change the settings of vehicle improperly.
- Confirm key illumination does not blink or “Factory or Market setting” of body integrated unit registrations is “Market”. If “Factory initial setting” is set to “Factory,” key illumination blinks when ignition key is ON, to notify that the settings are unconfirmed.
- 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. (models with immobilizer)
- Make a registration of immobilizer when the parts related to immobilizer have been replaced. Refer to the “PC application help for Subaru Select Monitor”.
- Do not install or register an immobilizer related module of other registered vehicles in order to diagnose failures or inspect functions.

1) Turn the ignition switch to OFF.

2) Connect the Subaru Select Monitor to data link connector.



3) Turn the ignition switch to ON and run the Subaru Select Monitor.

4) On «Main Menu» display, select {Each System Check}.

5) On «Each System Check» display, select {Integ. unit mode} and then select the «ECM customizing».

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

6) Change the setting with UP/DOWN key and select the [OK].

Also, it is possible to set by changing to factory mode and pressing the wiper deicer switch, rear defogger switch, rear fog light switch and door lock switch.

- List of body integrated unit registration item

NOTE:

Setting is different depending on the grade and equipment of the vehicle.

| Data | Initial setting | Registration | Remarks |
|--|-----------------|--------------------|--|
| A/C ECM setting | OFF | ON | Illumination control does not operate if A/C ECM setting is set to "OFF" in case of model with auto A/C. |
| | | OFF | If A/C ECM setting is set to "ON" in case of model without auto A/C, illumination change to night illumination and it is difficult to be recognized. |
| wiperdeicer | OFF | ON | ON signal does not output with operation of wiper deicer switch if wiper deicer is set to "OFF" in models with a wiper deicer. |
| | | OFF | |
| Rear fog light setting | OFF | ON | Set to "OFF". |
| | | OFF | |
| Factory or Market setting (Reset of body integrated unit) | Factory | Factory (Reset) | If Factory or Market setting is set to "Factory", registrations of items above is changed to "OFF". After changing settings, be sure to set to "Market". |
| | | Market (Confirmed) | |

CAUTION:

- To perform normal operation of vehicle and diagnosis, 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.
- Be sure not to change Factory or Market 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 illumination coming on in concocting with room light and going off with ignition switch turned to ON.

7) Perform the Factory or Market setting. On the «ECM customizing» display screen of Subaru Select Monitor, select the {Factory or Market setting}.

8) Change the mode from Factory to Market.

9) Register the immobilizer key.

10) Perform procedures according to the "PC application help for Subaru Select Monitor".

11) After registering the key, perform feature settings (unit customization). <Ref. to LAN(diag)-21, FUNCTION SETTING (ECM CUSTOMIZING), OPERATION, Subaru Select Monitor.>

6. CLEAR MEMORY MODE

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

| 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. FUNCTION SETTING (ECM 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 {Unit customizing}.
- 4) Change the setting.
 - List of function setting item (ECM customizing)

NOTE:

Even if items that are not equipped are changed, contents of the change will not be confirmed, and will not operate.

| Data | Initial setting value | Customize setting | Remarks | Destination Specifications |
|-----------------------|-----------------------|-------------------|---|--|
| Off delay time | Normal | | Delay time below can be selected by setting. | |
| | | | After door closed | |
| | | OFF | 0 seconds | |
| | | Short | 12 seconds | |
| | | Normal | 22 seconds | |
| | | Long | 32 seconds | |
| Auto lock time | 30s | 0 — 60s | Workable when Auto locking is set to “ON” and Automatic locking setup is “ON”. Time can be changed by 10 seconds: 0 (OFF) — 60 (maximum). | Not applicable for North American models |
| Rr Defogger op. mode | 15 mins | 15 mins | 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. | |
| Wiper deicer op. mode | 15 mins | 15 mins | 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) 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 (Make sure to set to “OFF” for models without sensor.) | |
| 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 | Key lockout prevention function is activated. (The function does not operate if safety knob is locked by hand.) | |
| | | OFF | Key lockout prevention function is deactivated. | |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Data | Initial setting value | Customize setting | Remarks | Destination Specifications |
|--|-----------------------|-------------------|--|---|
| Impact sensor | OFF | ON | Vehicle is controlled in impact sensor equipped mode. (Make sure to set to "OFF" for models without the impact sensor. When "ON", hazard, horn or siren become activated by keyless lock (alarm monitor start).) | When optional impact sensor is installed, set to "ON". |
| | | OFF | Vehicle is controlled in no impact sensor mode. | |
| Siren setting | OFF | ON | When security alarm is in operation, siren is operating. (Make sure to set to "OFF" for models without siren. If set to "ON", horn does not operate when security alarm in operation.) | Not applicable for U.S. models |
| | | OFF | When security alarm is in operation, horn is operating. | |
| Answer-back buzzer setup | ON | ON | Workable when answer-back buzzer setup is set to "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. | |
| Hazard answer-back setup | ON | ON | Workable when hazard answer-back setup is set to "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. | |
| Automatic locking setup | ON | ON | Workable when automatic locking setup is "ON". Automatic locking operates. | Not applicable for U.S. models |
| | | OFF | Automatic locking does not operate. | |
| Ans.-back Buzzer | ON | ON | Vehicle is controlled in answer-back buzzer equipped mode. | Not applicable for U.S. models |
| | | OFF | Vehicle is controlled in answer-back buzzer non-equipped mode. (Make sure to set to "OFF" for models without answer-back buzzer.) | |
| Auto locking | ON | ON | Vehicle is controlled in auto locking equipped mode. | Not applicable for U.S. models |
| | | OFF | Vehicle is controlled in auto locking non-equipped mode. (Make sure to set to "OFF" for models without auto locking.) | |
| Initial keyless setting | — | — | — | |
| | | Execution | Settings of keyless entry system are initialized. (Time of auto locking: 30 sec, answer-back buzzer setting: ON, hazard answer-back setting: ON, auto locking setting: ON, answer-back buzzer setting: ON) | |
| Initial button setting | — | — | — | (Off delay time: Normal, rear defogger operation mode: 15 mins, wiper deicer operation mode: 15 mins, lockout prevention: ON) |
| | | Execution | Settings of each function are initialized. | |
| Passive Alarm | OFF | ON | Enable when passive alarm is set to "ON". | |
| | | OFF | | |
| Door open warning (battery run-out prevention) | OFF | ON | If a door stays half shut for 10 minutes, room light, key ring illumination and door warning light related to doors are turned off to prevent battery run-out. | |
| | | OFF | Room 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 | Room light does not illuminate regardless of alarm operation. | |

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

CAUTION:

- The above settings must match the actual vehicle equipment for proper operation.
- Do not change settings except for setting above while setting the functions.
- 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".

8. 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 and select the [OK].
- 5) Pressing [OK] starts, [NO] 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.

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

DETECTING CONDITION:

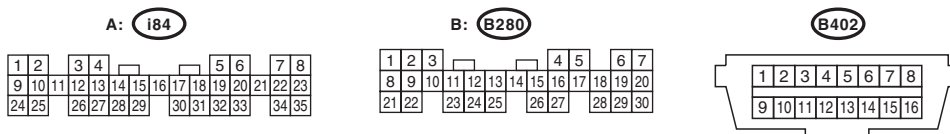
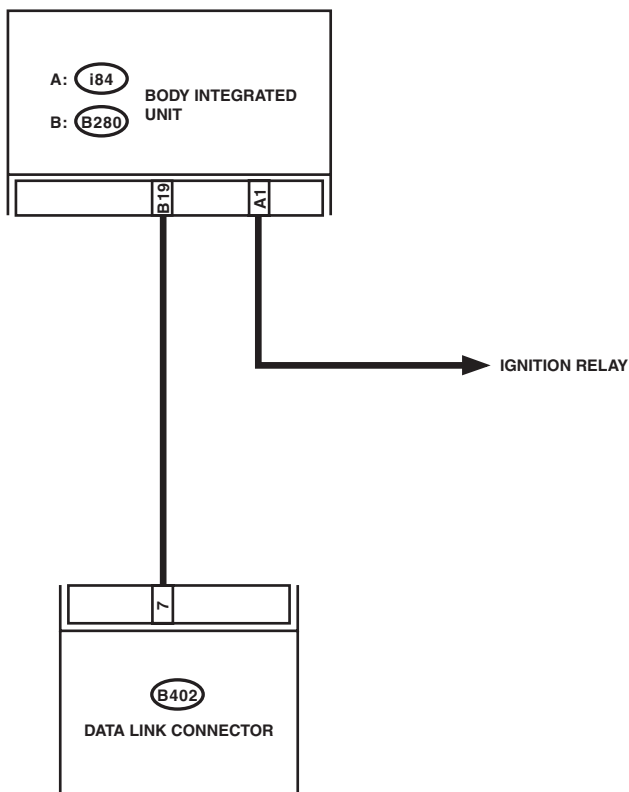
Defective harness connector

TROUBLE SYMPTOM:

Not communicable with Subaru Select Monitor.

WIRING DIAGRAM:

Security system <Ref. to WI-162, WIRING DIAGRAM, Security System.>



LAN00356

| 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. |
| 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. |

Subaru Select Monitor

LAN SYSTEM (DIAGNOSTICS)

| Step | Check | Yes | No |
|---|---|---|--|
| 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 ON. 2) Disconnect the body integrated unit connector. 3) Measure the resistance between data link connector and chassis ground. Connector & terminal (B402) No. 7 — Chassis ground: | 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 body integrated unit and chassis ground. Connector & terminal (B402) No. 7 (+) — Chassis ground (-): | 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. Measure the resistance between body integrated unit and data link connector. Connector & terminal (B402) No. 7 — (B280) No. 19: | 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 INSTALLATION OF BODY INTEGRATED UNIT CONNECTOR. Turn the ignition switch to OFF. | Is the body integrated unit connector inserted into body integrated unit until the clamp locks onto it? | Go to step 10. | Insert the body integrated unit connector into body integrated unit. |
| 10 CHECK POWER SUPPLY CIRCUIT. 1) Turn the ignition switch to ON. 2) Measure the ignition voltage between body integrated unit connector and chassis ground. Connector & terminal (i84) No. 1 (+) — Chassis ground (-): | 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>(B280) No. 19 — Chassis ground:</i> | Is the resistance 1 M Ω or more? | Go to step 12. | Repair the poor contact of harness between body integrated unit and ground. |
| 12 CHECK POOR CONTACT OF CONNECTORS. | Is there poor contact at control unit ground and Subaru Select Monitor? | Repair the poor contact of connector. | Replace the body integrated unit. <Ref. to SL-48, Body Integrated Unit.> |

CAUTION:

When replacing body integrated unit on the model with immobilizer system, refer to the “PC application help for Subaru Select Monitor”.