

## 6. Subaru Select Monitor

### A: OPERATION

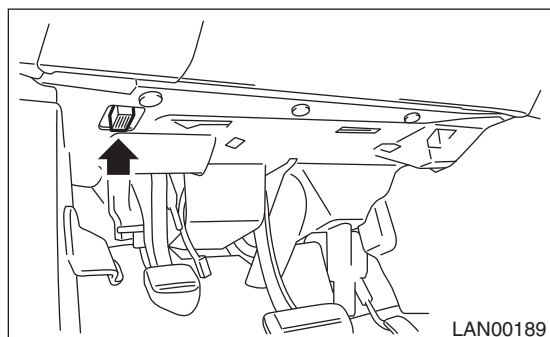
#### 1. READ DIAGNOSTIC TROUBLE CODE (DTC)

##### 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)-32, 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)-30, 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 <sup>2</sup>	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
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

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## LAN SYSTEM (DIAGNOSTICS)

Items to be displayed	Unit of measure	Remarks	Index
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
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

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## LAN SYSTEM (DIAGNOSTICS)

Items to be displayed	Unit of measure	Remarks	Index
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
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

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## LAN SYSTEM (DIAGNOSTICS)

Items to be displayed	Unit of measure	Remarks	Index
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
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”.

### 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.

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## LAN SYSTEM (DIAGNOSTICS)

Item	Item to confirm		Remarks
A/C ECM setting	Support	No support	Models with auto A/C (set to Support.)
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:

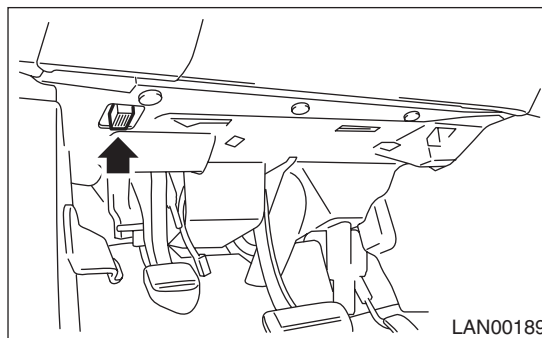
Body integrated unit is core of LAN system, and also can select the function of all vehicle system control. It is possible to control the original functions of vehicle when registrations of body integrated unit and function setting are corresponded to vehicle equipment.

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».

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)-20, FUNCTION SETTING (ECM CUSTOMIZING), OPERATION, Subaru Select Monitor.>



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## 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) 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	35 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.	

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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.	

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## LAN SYSTEM (DIAGNOSTICS)

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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.

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

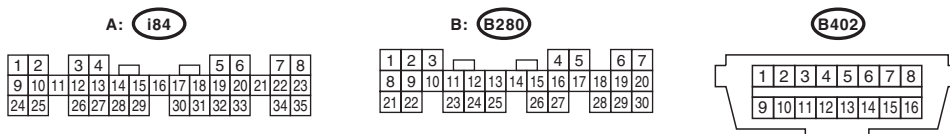
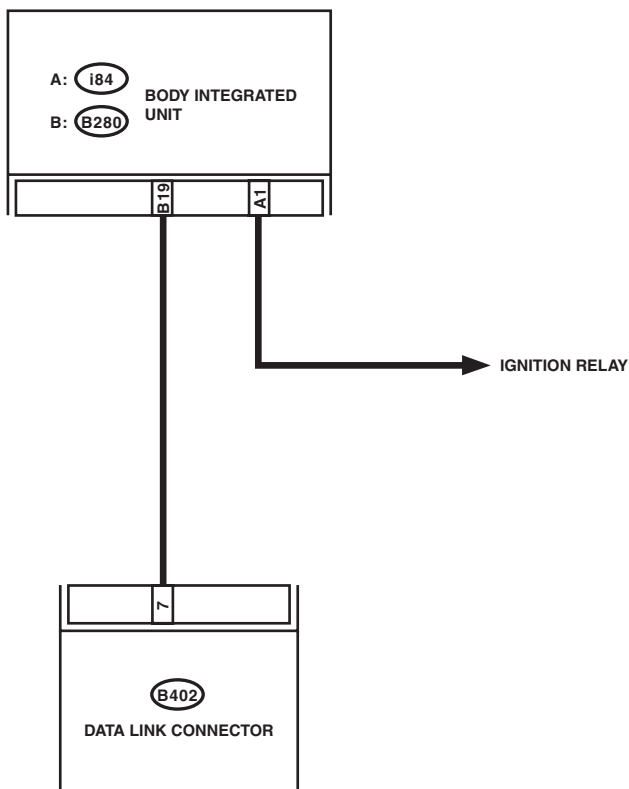
Defective harness connector

**TROUBLE SYMPTOM:**

Not communicable with Subaru Select Monitor.

**WIRING DIAGRAM:**

Security system &lt;Ref. to WI-162, WIRING DIAGRAM, Security System.&gt;



LAN00356

Step	Check	Yes	No
<b>1</b> <b>CHECK IGNITION SWITCH.</b>	Is the ignition switch ON?	Go to step 2.	Turn the ignition switch to ON, and select "Integ. unit mode" using Subaru Select Monitor.
<b>2</b> <b>CHECK BATTERY.</b> 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
<b>3</b> <b>CHECK BATTERY TERMINAL.</b>	Is there poor contact at battery terminal?	Repair or tighten the battery terminal.	Go to step 4.
<b>4</b> <b>CHECK COMMUNICATION OF SUBARU SELECT MONITOR.</b> 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.
<b>5</b> <b>CHECK COMMUNICATION OF SUBARU SELECT MONITOR.</b> 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.
<b>6</b> <b>CHECK HARNESS CONNECTOR BETWEEN EACH CONTROL MODULE AND SUBARU SELECT MONITOR.</b> 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. <b>Connector &amp; terminal</b> <b>(B402) No. 7 — Chassis ground:</b>	Is the resistance 1 MΩ or more?	Go to step 7.	Repair the harness and connector between each control module and Subaru Select Monitor.
<b>7</b> <b>CHECK OUTPUT SIGNAL TO BODY INTEGRATED UNIT.</b> 1) Turn the ignition switch to ON. 2) Measure the voltage between body integrated unit and chassis ground. <b>Connector &amp; terminal</b> <b>(B402) No. 7 (+) — Chassis ground (-):</b>	Is the voltage less than 1 V?	Go to step 8.	Repair the harness and connector between each control module and Subaru Select Monitor.
<b>8</b> <b>CHECK HARNESS CONNECTOR BETWEEN BODY INTEGRATED UNIT AND DATA LINK CONNECTOR.</b> Measure the resistance between body integrated unit and data link connector. <b>Connector &amp; terminal</b> <b>(B402) No. 7 — (B280) No. 19:</b>	Is the resistance less than 1 Ω?	Go to step 9.	Repair the harness and connector between body integrated unit and Subaru Select Monitor.
<b>9</b> <b>CHECK INSTALLATION OF BODY INTEGRATED UNIT CONNECTOR.</b> 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.
<b>10</b> <b>CHECK POWER SUPPLY CIRCUIT.</b> 1) Turn the ignition switch to ON. 2) Measure the ignition voltage between body integrated unit connector and chassis ground. <b>Connector &amp; terminal</b> <b>(i84) No. 1 (+) — Chassis ground (-):</b>	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
<b>11</b> <b>CHECK HARNESS CONNECTOR BETWEEN BODY INTEGRATED UNIT AND CHASSIS GROUND.</b> 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><b>Connector &amp; terminal</b></i> <i><b>(B280) No. 19 — Chassis ground:</b></i>	Is the resistance 1 MΩ or more?	Go to step 12.	Repair the poor contact of harness between body integrated unit and ground.
<b>12</b> <b>CHECK POOR CONTACT OF CONNECTORS.</b>	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-47, 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”.