

# REGISTRATION MANUAL FOR IMMOBILIZER

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	<b>Page</b>
1 IMPORTANT .....	3
2 Immobilizer Application Chart .....	4
3 What to Prepare .....	4
3-1 Special Tool .....	4
3-2 Others .....	4
4 A type .....	5
4-1 Registering Immobilizer Key .....	6
4-2 Immobilizer system: Correspondence table at the time of parts lost or failure .....	11
4-3 Correspondence table when registration is not possible .....	12
5 B type .....	14
5-1 Adding Keys .....	15
5-2 Registering Body Integrated Unit .....	18
5-3 Registering Engine ECM .....	21
5-4 Registering Combination Meter or Security CU .....	22
5-5 Registering Remote Control Engine Starter .....	24
5-6 Deleting Key ID .....	25
5-7 Immobilizer system: Correspondence table at the time of parts lost or failure .....	28
5-8 Correspondence table when registration is not possible .....	31
6 C type .....	37
6-1 Adding Access Keys .....	39
6-2 Registering Collation CU .....	42
6-3 Registering the Steering Lock CU or ID Code Box .....	46
6-4 Registering the Engine ECM .....	49
6-5 Readout the Number of Access Key Registration .....	51
6-6 Delete the Access Key ID .....	52
6-7 Registering Remote Control Engine Starter .....	55
6-8 Registering Body Integrated Unit or Combination Meter .....	57
6-9 Keyless access with push button start system (except for North America): Correspondence table at the time of parts failure .....	58
6-10 Correspondence table when registration is not possible .....	65
7 D type .....	74
7-1 Adding Access Keys .....	76
7-2 Registering Keyless Access CU .....	78
7-3 Registering the Steering Lock CU or ID Code Box .....	81
7-4 Registering the Engine ECM .....	83
7-5 Readout the Number of Access Key Registration .....	84
7-6 Delete the Access Key ID .....	86

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7-7	Registering Remote Control Engine Starter.....	88
7-8	Reading Registration History .....	89
7-9	Keyless access with push button start system (when ID code box (U.K./CANADA)) : Correspondence table at the time of parts failure .....	91
7-10	Keyless access with push button start system (when no ID code box (except for U.K./CANADA)): Correspondence table at the time of parts failure .....	94
7-11	Correspondence table when registration is not possible.....	96
7-12	List of registration history .....	106
7-13	ID Code Box (With ID code box) .....	109
8	E type.....	110
8-1	Registering Immobilizer CM .....	111
8-2	Adding Keys .....	114
8-3	Registering Engine ECM.....	117
8-4	Registering Remote Control Engine Starter.....	119
8-5	Deleting Key ID .....	121
8-6	Immobilizer system (when Immobilizer CU (U.K./CANADA)) : Correspondence table at the time of parts lost or failure .....	124
8-7	Correspondence table when registration is not possible.....	125
8-8	Immobilizer control module .....	128

## 1 IMPORTANT

This manual and the procedures within are provided for use by Subaru repair professionals and/or Automotive Security Professionals registered through the professional locksmiths working under local regulations for the sole purpose of lawfully providing key and immobilizer repair or replacement at the request of the lawful vehicle owner, lessee or their authorized agent. Use by unauthorized personnel is strictly prohibited.

Prior to performing repairs or services described in this manual, it is the repairer's responsibility to: (1) verify that the request is being made on behalf of the registered owner or lessee of the vehicle or his/her lawful authorized agent; (2) verify that the vehicle registration matches the subject vehicle; and (3) establish and maintain a record confirming that items (1) and (2) have been validated.

The information provided is solely intended for use in the repair of a Subaru vehicle that has been authorized by the vehicle's lawful owner, lessee or authorized agent. In addition, some states have laws that govern the use and handling of key and immobilizer code information as well as personal information. It is the responsibility of all persons performing the repair or service to comply with these laws.

These procedures may require diagnostic equipment that is compatible with Subaru systems and information contained in other Subaru Service Publications, as well as knowledge of the Subaru Immobilizer System.

Subaru assumes no liability for the unauthorized or improper use of information provided.

## 2 Immobilizer Application Chart

Refer to the following chart and select the immobilizer system that is equipped in the target vehicle before starting immobilizer registration.

A type	Vehicle that does NOT have a keyless access with push button start system and is originally provided with a security ID (security tag)
B type	Vehicle that does NOT have a keyless access with push button start system, is originally NOT provided with a security ID (security tag), and is NOT provided with immobilizer CM
C type *1	Vehicle that has a keyless access with push button start system and is originally provided with a security ID (security tag)
D type	Vehicle that has a keyless access with push button start system and is originally NOT provided with a security ID (security tag)
E type *2	Vehicle without keyless access with push button start system, without security ID (security tag) when the vehicle is new, and with immobilizer CM

\*1 : Except for North America

\*2 : U.K./CANADA

## 3 What to Prepare

### 3-1 Special Tool

Subaru Select Monitor III Kit

### 3-2 Others

- All keys to be registered or all keys or access keys that are already registered.
- Security ID (security tag) (Vehicle type that is originally provided with a security ID)
- The remote controller for remote control engine starter (vehicle type with remote control engine starter)
- Registration command (Vehicle type that is originally provided with a security ID)



## 4 A type

Vehicle that does NOT have a keyless access with push button start system and is originally provided with a security ID (security tag)

### A: Structure

An immobilizer system consists of the following components: Combination meter or security CU (for a model with security CU), immobilizer indicator (in the combination meter), body integrated unit, ECM, ignition key, and immobilizer antenna.

### B: Operation

When the ignition key incorporating a transponder is inserted into the key cylinder, the body integrated unit receives the ignition key ID via the immobilizer antenna.

The received key ID is collated with the key ID stored in the memory of the body integrated unit. At the same time, the meter IDs (SCU IDs) stored in the memory of the body integrated unit and combination meter (or the security CU) are collated.

Then, the engine IDs stored in the memory of the ECM and body integrated unit are collated.

If the IDs do not match within the specified period of time after the RPM of the engine reaches the specified RPM, the engine stops.

If the IDs do not match, the engine stops within a couple of seconds. If the engine does not start as a result of a mismatch of the IDs, the immobilizer indicator in the combination meter turns on to indicate that the immobilizer is active. When the ignition key is removed, the immobilizer is activated and the immobilizer indicator lamp flashes to generate an alert notifying people around the vehicle that it is protected by the immobilizer.

### C: Caution

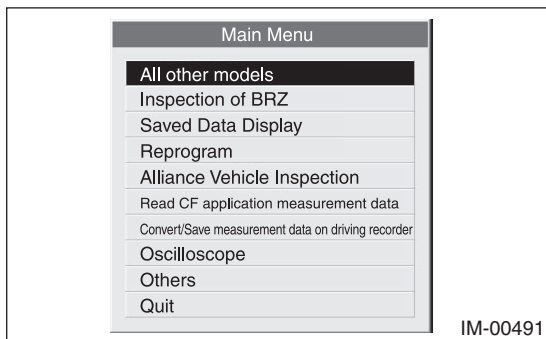
- **The security ID and registration command must be handled as confidential information and shall not be announced to outsiders.**
- **When you install wireless radios or car phones, make sure that the immobilizer system is not influenced by their electric waves.**
- **Do not operate cell phones or wireless radios or the like when either trouble diagnosis or immobilizer registration is in progress.**
- **During immobilizer registration, do not bring a key with a different ID close to the ignition switch. When the key is on a keychain, remove it from the chain before start of diagnosis. When there are several keys on one keychain, remove them from the keychain and use them individually for the work.**
- **When the engine cannot be started with a registered key, pull the ignition key from the ignition switch, wait approximately one second until the immobilizer warning lamp starts flashing, and then turn the ignition key slowly to start the engine.**
- **Confirm that the battery voltage is 11 V or more and execute each mode.**
- **During immobilizer registration, make sure connectors do not get disconnected.**

### 4-1 Registering Immobilizer Key

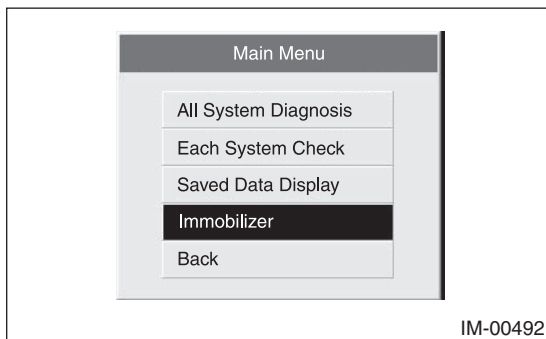
The immobilizer key must be registered to do any of the following. When the registration procedure is performed, all IDs stored in the memory are deleted from the registration.

- Add and register an ignition key.
- Delete the ID of the lost ignition key.
- Replace the body integrated unit.
- Replace the ECM.
- Replace the combination meter.
- Register the remote control engine starter for the immobilizer.

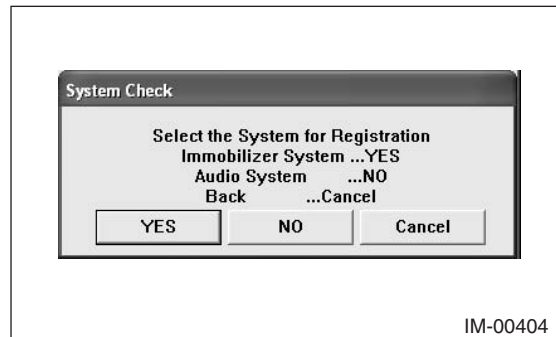
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



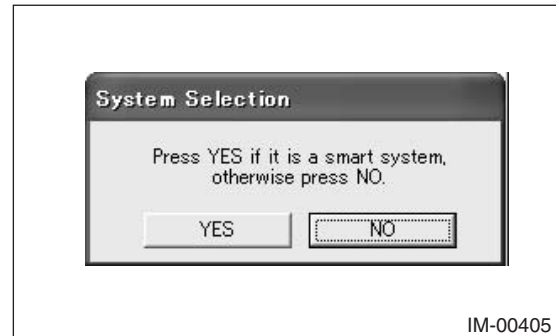
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



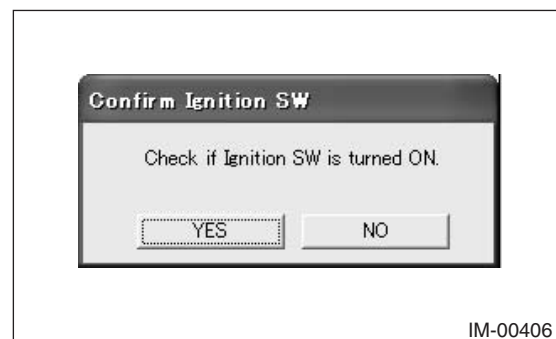
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

When an error screen is displayed, refer to No. 1 in "4-3 Correspondence table when registration is not possible".



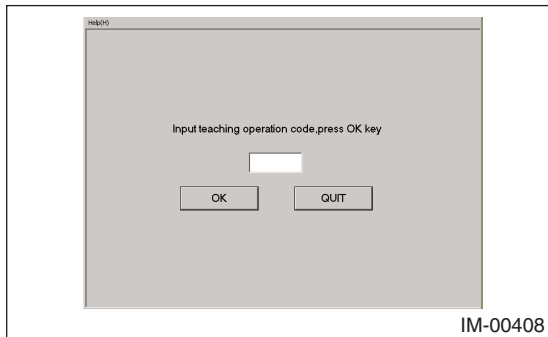
- 7) In response to the compliance verification dialog box that appears, click the [OK] button.



- 8) Input the teaching operation code, and then click the [OK] button.

**Note:**

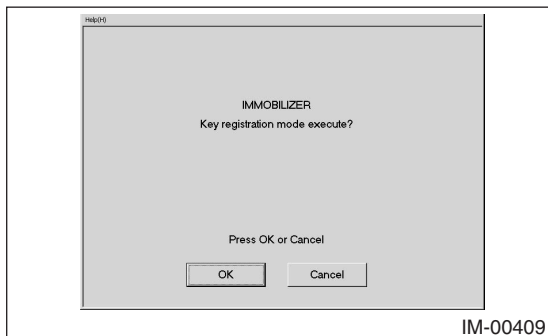
If the menu screen is displayed instead of the command input screen, the vehicle is B type. See the procedures for B type vehicle.



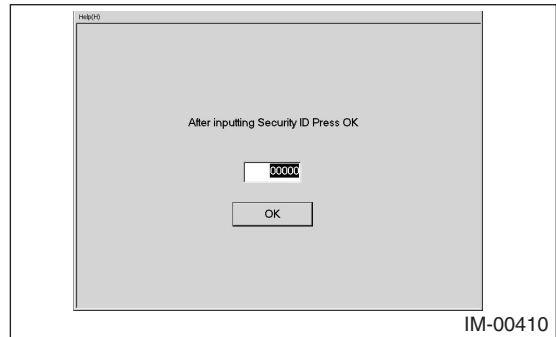
**Note:**

When you wish to return to the Main Menu screen, click the [QUIT] button.

- 9) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 10) Input the security ID and then click the [OK] button.



- 11) Stand by as the security ID is being collated.

**Note:**

When an error screen is displayed, refer to No. 2 in "4-3 Correspondence table when registration is not possible".



- 12) In response to the key registration confirmation screen dialog box that appears, click the [OK] button.

**Note:**

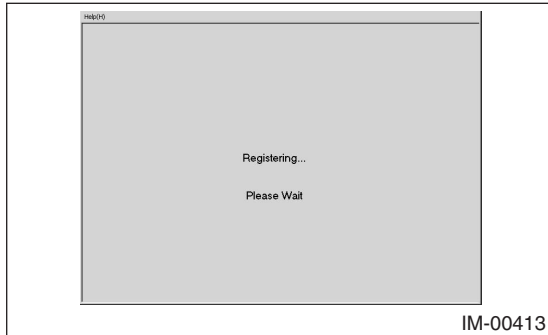
When an error screen is displayed, refer to No. 3 in "4-3 Correspondence table when registration is not possible".



13) Stand by as the key is registered.

**Note:**

When an error screen is displayed, refer to No. 3 in "4-3 Correspondence table when registration is not possible".



14) The screen shown below will appear if registration ends normally. If you have another key to be registered, click the [OK] button. If you do not have any more keys to be registered, click the [Cancel] button and advance to step 23.

**Caution:**

**If you have no more keys to be registered, make sure to click the [Cancel] button to quit the registration operation.**

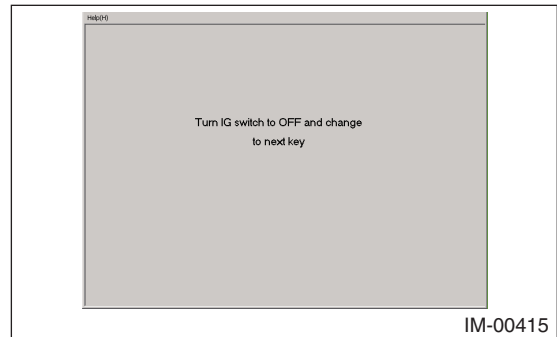
**If you quit the operation without clicking the [Cancel] button, the immobilizer indicator blinks differently than usual. In such a case, register the immobilizer again.**



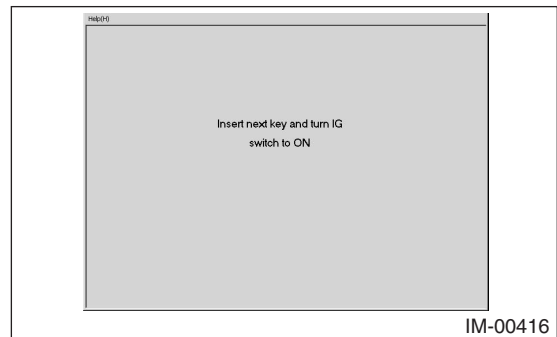
15) Turn off the ignition switch, and then change the key to one to be registered.

**Note:**

You need to change key within about 30 seconds. The screens shown in this section may be different depending on the model being used. In such a case, follow the instructions shown on the screens.



16) Turn off the ignition switch and the screen shown below will appear. Insert the key you want to register into the key cylinder, and turn on the ignition switch.



17) In response to the key registration confirmation screen dialog box that appears, click the [OK] button.

**Note:**

When an error screen is displayed, refer to No. 4 in "4-3 Correspondence table when registration is not possible".



18) Stand by as the key is registered.

**Note:**

When an error screen is displayed, refer to No. 4 in "4-3 Correspondence table when registration is not possible".



19) The screen shown below will appear if registration ends normally. If you have another key to be registered, click the [OK] button. If you do not have any more keys to be registered, click the [Cancel] button and advance to step 23.

**Caution:**

If you have no more keys to be registered, make sure to click the [Cancel] button to quit the registration operation.

If you quit the operation without clicking the [Cancel] button, the immobilizer indicator blinks differently than usual. In such a case, register the immobilizer again.



20) Repeat steps 15 through 18.

21) The screen shown below will appear if registration ends normally. If you have another key to be registered, click the [OK] button. If you do not have any more keys to be registered, click the [Cancel] button and advance to step 23.

**Caution:**

If you have no more keys to be registered, make sure to click the [Cancel] button to quit the registration operation.

If you quit the operation without clicking the [Cancel] button, the immobilizer indicator blinks differently than usual. In such a case, register the immobilizer again.

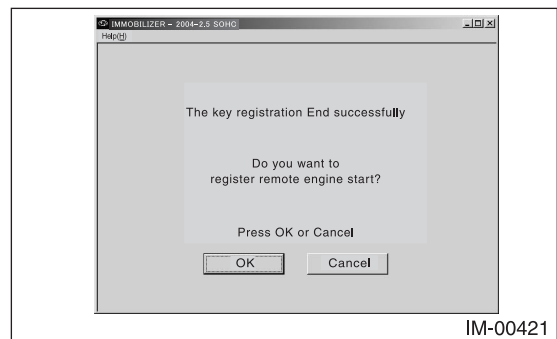


22) Repeat steps 15 through 18.

23) The remote control engine starter registration mode confirmation dialog box will be displayed. If you have another key to be registered, click the [OK] button. If you do not have any more keys to be registered, click the [Cancel] button and move on to step 26.

**Note:**

The screens shown in this section may be different depending on the model being used. In such a case, follow the instructions shown on the screens.



24) Wait until the remote control engine starter is then being registered.

**Note:**

When an error screen is displayed, refer to No. 5 in "4-3 Correspondence table when registration is not possible".



25) The screen shown below will appear if registration ends normally. Click the [OK] button.



26) After confirming that the keyless access with push button start system and remote control engine starter operate normally, quit the registration operation.

## 4-2 Immobilizer system: Correspondence table at the time of parts lost or failure

### 1. Parts replacement table

**Note:**

To register an immobilizer, your security ID is required. (\*3)

	Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement			
	Key	ECM	Body integrated unit	Meter*4 or Security CU*5	Key	ECM	Body integrated unit	Meter*4 or Security CU*5	(1)	(2)
1 parts failure	Not all									
	X				Keys you want to register (registered key or new key)				Registering Immobilizer Key	
		X			New key you want to register				Registering Immobilizer Key	
			X		All registered keys	X			Registering Immobilizer Key	
2 parts failure				X	Keys you want to register (registered key or new key)	X		X	Registering Immobilizer Key	
	X		X		Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
	X			X	All registered keys			X	Registering Immobilizer Key	
		X			New key you want to register	X			Registering Immobilizer Key	
			X		New key you want to register		X		Registering Immobilizer Key	
		X		X	New key you want to register				Registering Immobilizer Key	
3 parts failure				X	Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
	X		X		Keys you want to register (registered key or new key) (*1)	X		X	Registering Immobilizer Key	
	X			X	Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
		X		X	All registered keys	X		X	Registering Immobilizer Key	
			X		Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
		X		X	Keys you want to register (registered key or new key) (*1)	X		X	Registering Immobilizer Key	
4 parts failure				X	Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
	X		X		Keys you want to register (registered key or new key) (*1)	X		X	Registering Immobilizer Key	
	X			X	Keys you want to register (registered key or new key) (*1)		X		Registering Immobilizer Key	
		X		X	New key you want to register	X		X	Registering Immobilizer Key	
			X		New key you want to register		X		Registering Immobilizer Key	
		X		X	New key you want to register	X		X	Registering Immobilizer Key	

\*1: When the body integrated unit is replaced, a new key must be used.

The models that require a new key are following:

- LEGACY, OUTBACK (2004MY to 2008MY)
- IMPREZA (2008MY to 2010MY)
- FORESTER (2009MY to 2010MY)
- TRIBECA (From 2006MY)

\*2: The registration work cannot be performed in the current state. The security ID must be written. Contact your Subaru service representative.

\*3: If you have lost your security ID, please contact your Subaru service representative.

\*4: Without security CU

\*5: With security CU

### 4-3 Correspondence table when registration is not possible

A list of possible trouble mode, when an error screen is displayed at each status (procedure).

No.	Status (procedure)	Error screen	Trouble mode	Action to be taken
1	Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed	K line communication failure between Subaru Select Monitor and body integrated unit	Perform the diagnosis for the K line. (1) Click Normal Diagnosis for the body integrated unit to check if communication with Subaru Select Monitor is possible. (2) Perform communication with a system other than the body integrated unit, and when communication is possible, check mainly the K line of the body integrated unit connector. When communication with other systems is not possible as well, replace Subaru Select Monitor.
2	Enter the security ID → x "Security ID is being collated."	Communication error has occurred. NG Security ID is incorrect x 3 times → initial screen NG EGI security access NG	Security ID unregistered in either body integrated unit or combination meter/security CM Incorrect security ID •Subaru Select Monitor failure •ECM failure	Read out the security ID. Contact your Subaru service representative. Read out the security ID. Contact your Subaru service representative. Check version of Subaru Select Monitor. Replace the ECM.
3	→ "Do you want to register the Engine ECM?" → "Engine ECM Initializing communication..."	NG EGI-SSM Communication NG EGH-Immobilizer communication NG Meter/SCU error NG EGI unit EEPROM NG IMM Control Module EEPROM EGI unit NG NG Antenna NG Key Communication Failure This key has been already registered. NG EGI security access NG	ECM failure Body integrated unit failure ECM failure Immobilizer antenna failure Transponder failure Mode did not end normally last time •Subaru Select Monitor failure •ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line) Perform the diagnosis for DTC B1572 (P1572). Perform the diagnosis for DTC B1578 (P1578). * When a new body integrated unit is installed, DTC B1401 that is checked at step 1 of the diagnosis above is not detected. In this case, check the LAN communication system, and when no failure is detected, replace the combination meter or security CM. Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Perform the diagnosis for DTC B1577 (P1577). Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Perform the diagnosis for DTC B1570 (P1570). Perform the diagnosis for DTC B1574 (P1574). Press the Cancel button that appears to recover normally. Check version of Subaru Select Monitor. Replace the ECM.
4	→ "Key has been registered"	NG EGI-SSM Communication NG Antenna NG Key Communication Failure NG IMM Control Module EEPROM NG EGI unit EEPROM EGI unit NG	ECM failure ECM failure Immobilizer antenna failure Transponder failure Body integrated unit failure ECM failure ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line) Perform the diagnosis for DTC B1570 (P1570). Perform the diagnosis for DTC B1574 (P1574). Perform the diagnosis for DTC B1577 (P1577). Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery.



No.	Status (procedure)	Error screen	Trouble mode	Action to be taken
5	→ "Remote control engine start registering..."	Remote engine start Registration failed	Registration failure with remote control engine starter	The message on the left is indicated, when the diagnosis is performed on the remote control engine starter side, such as inspection for connection with the remote control engine starter (the message on the left is indicated, when registration is attempted with a non-genuine remote control engine starter installed), or when the remote control engine starter unit is malfunctioning.

**List of DTC codes, when the immobilizer is not registered**

<When body integrated unit is replaced> (The same DTC is detected, even when replacement is performed with ECM or combination meter/security CM as a set)	B1402 Immobilizer Key Collation NG B1571 (P1571) Reference Code Incompatibility B1575 (P0513) Incorrect Immobilizer Key
<When unregistered key is used>	B1402 Immobilizer Key Collation NG B1575 (P0513) Incorrect Immobilizer Key
<When ECM is replaced>	B1571 (P1571) Reference Code Incompatibility
<When combination meter is replaced>	B1401 M Collation NG B1578 (P1578) Meter Failure*
<When security CM is replaced>	B1405 SCU Collation NG B1578 (P1578) Meter Failure*

\* When meter failure is detected, registration may not be possible. (This is because meter failure remains even for communication failure or EEPROM failure.)

## 5 B type

Vehicle that does NOT have a keyless access with push button start system, without security ID (security tag) when the vehicle is new, and without immobilizer CM

### A: Structure

An immobilizer system consists of the following components: Combination meter or security CU (for a model with security CU), immobilizer indicator (in the combination meter), body integrated unit, ECM, ignition key, and immobilizer antenna.

### B: Operation

When the ignition key incorporating a transponder is inserted into the key cylinder, the body integrated unit receives the ignition key ID via the immobilizer antenna.

The received key ID is collated with the key ID stored in the memory of the body integrated unit. At the same time, the meter IDs (SCU IDs) stored in the memory of the body integrated unit and combination meter (or the security CU) are collated.

Then, the engine IDs stored in the memory of the ECM and body integrated unit are collated.

If the IDs do not match within the specified period of time after the RPM of the engine reaches the specified RPM, the engine stops.

If the IDs do not match, the engine stops within a couple of seconds. If the engine does not start as a result of a mismatch of the IDs, the immobilizer indicator in the combination meter turns on to indicate that the immobilizer is active. When the ignition key is removed, the immobilizer is activated and the immobilizer indicator lamp flashes to generate an alert notifying people around the vehicle that it is protected by the immobilizer.

### C: Caution

- **When you install wireless radios or car phones, make sure that the immobilizer system is not influenced by their electric waves.**
- **Do not operate cell phones or wireless radios or the like when either trouble diagnosis or immobilizer registration is in progress.**
- **During immobilizer registration, do not bring a key with a different ID close to the ignition switch. When the key is on a keychain, remove it from the chain before start of diagnosis. When there are several keys on one keychain, remove them from the keychain and use them individually for the work.**
- **When the engine cannot be started with a registered key, pull the ignition key from the ignition switch, wait approximately one second until the immobilizer warning lamp starts flashing, and then turn the ignition key slowly to start the engine.**
- **Confirm that the battery voltage is 11 V or more and execute each mode.**
- **During immobilizer registration, make sure connectors do not get disconnected.**

#### Note:

When performing either one of the operations shown below, perform also the "Registering Remote Control Engine Starter".

- Installing remote control engine starter
- Replacing remote control engine starter
- Replacing collation ECM of a vehicle equipped with remote control engine starter

## 5-1 Adding Keys

### Caution:

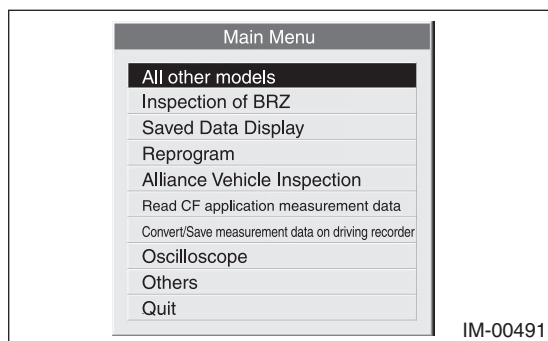
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

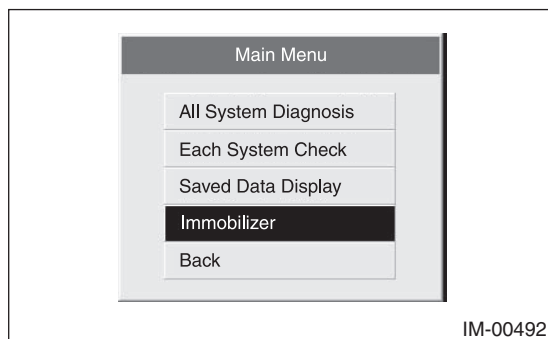
### Caution:

Make sure to use a registered key.

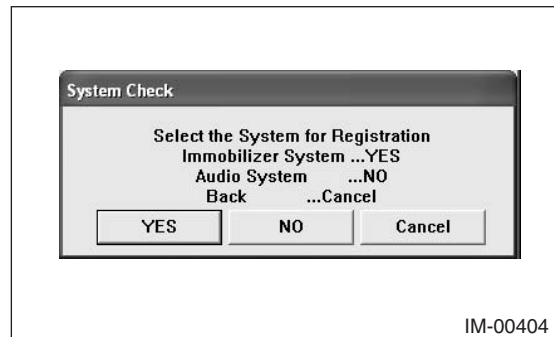
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



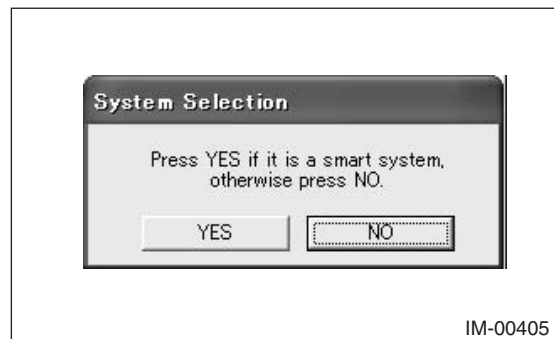
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

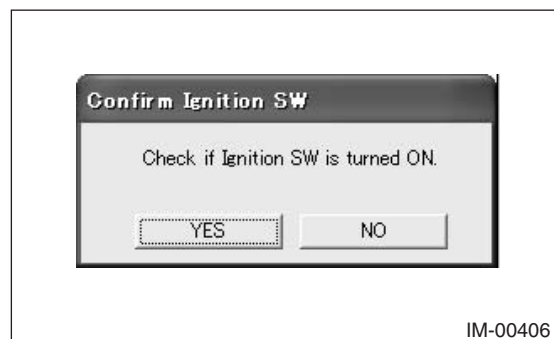
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

### Note:

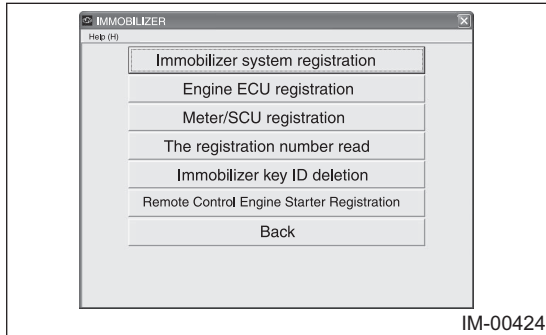
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



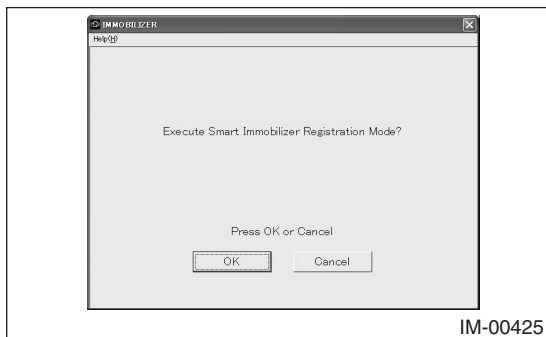
- 7) On the Main Menu that appears on the display, select [Immobilizer system registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



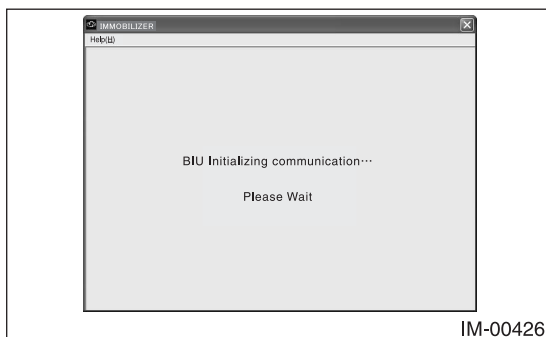
- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Stand by as the body integrated unit is initialized.

**Note:**

When an error screen is displayed, refer to No. 2 and 3 in "5-8 Correspondence table when registration is not possible".



- 11) Stand by as the key is being collated.

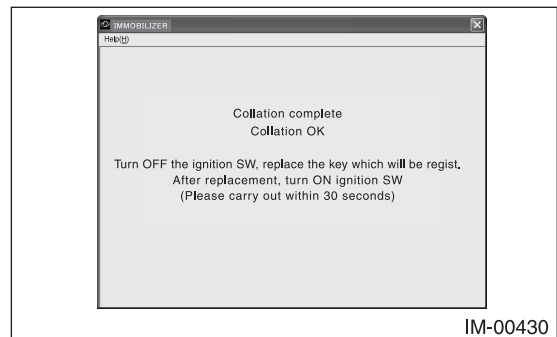
**Note:**

When an error screen is displayed, refer to No. 3 in "5-8 Correspondence table when registration is not possible".

- 12) The following screen showing successful key collation will be displayed. Turn off the ignition switch, and then replace the key with one to be registered to turn on the ignition.

**Note:**

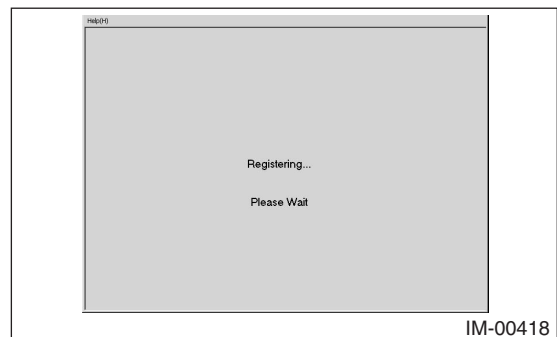
When an error screen is displayed, refer to No. 4 in "5-8 Correspondence table when registration is not possible".



- 13) Stand by as the key registration screen is displayed.

**Note:**

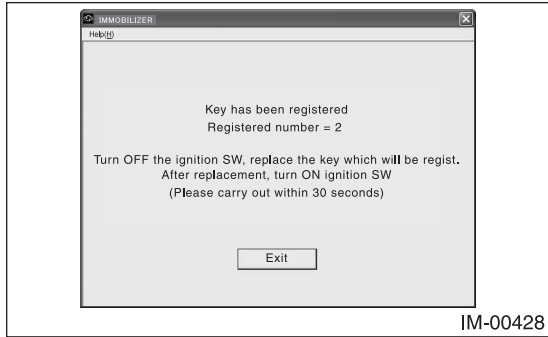
When an error screen is displayed, refer to No. 4 in "5-8 Correspondence table when registration is not possible".



- 14) The screen shown below will appear if registration ends normally. If you have another keys to be registered, insert the next key into the ignition switch, turn on the ignition key, and return to step 13. If you have no more keys to be registered, click the [Exit] button.

**Note:**

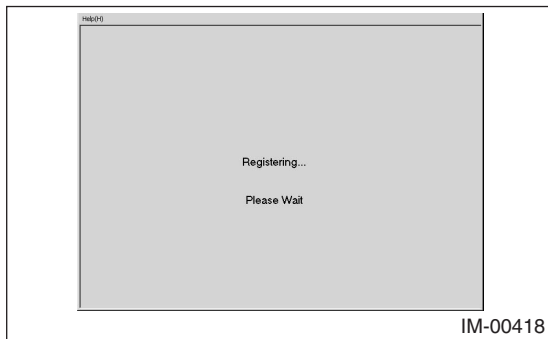
When an error screen is displayed, refer to No. 5 in "5-8 Correspondence table when registration is not possible".



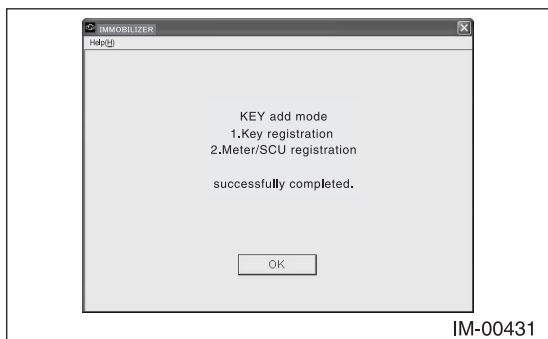
15) Stand by as the registration is processed.

**Note:**

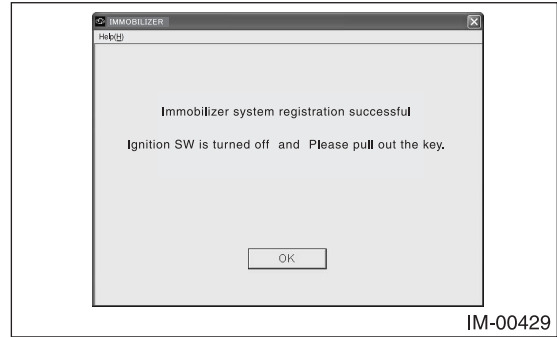
When an error screen is displayed, refer to No. 5 in "5-8 Correspondence table when registration is not possible".



16) The screen shown below will appear if registration ends normally. Click the [OK] button.



17) The screen shown below will appear if registration ends normally. Remove the key and click the [OK] button.



18) Make sure the engine can be started with all the registered keys, then quit the registration procedure.

## 5-2 Registering Body Integrated Unit

### Caution:

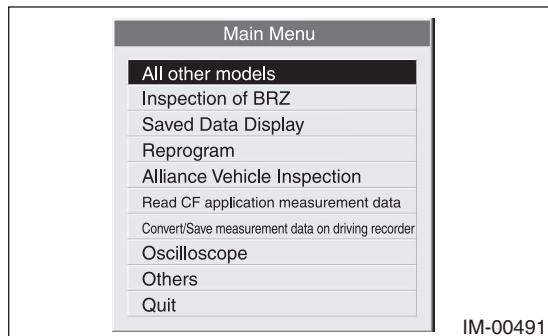
**All of the registered keys are required.**

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

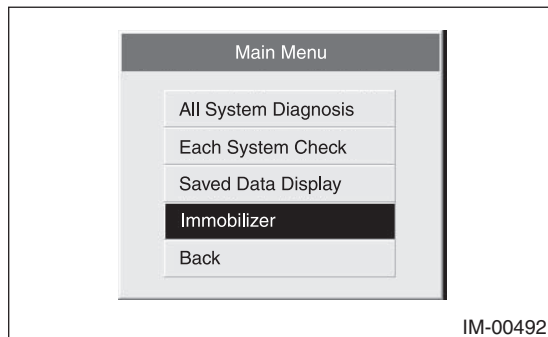
### Caution:

**Make sure to use a registered key.**

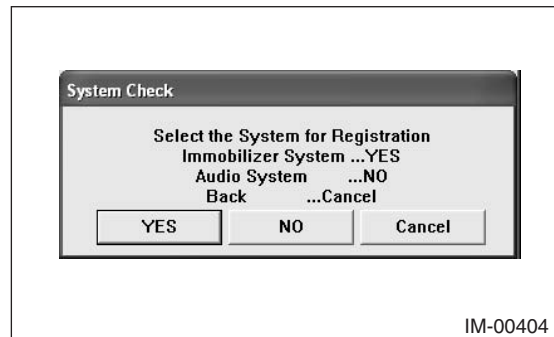
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



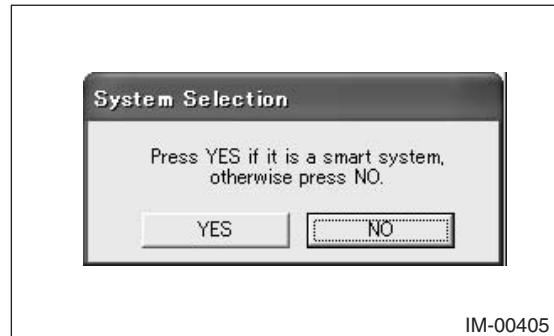
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

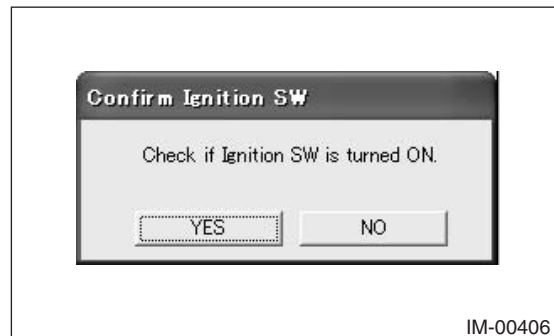
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

### Note:

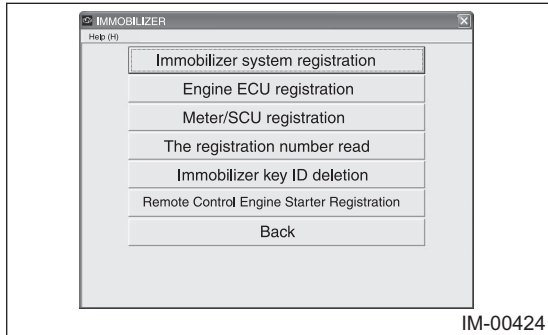
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



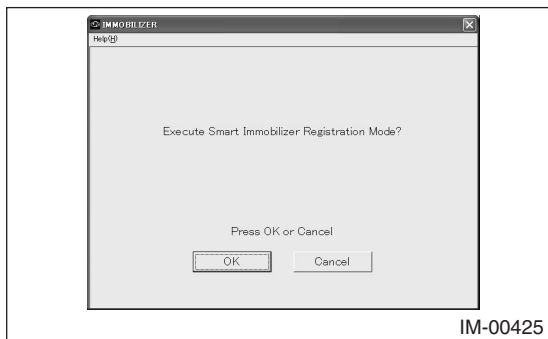
- 7) On the Main Menu that appears on the display, select [Immobilizer system registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



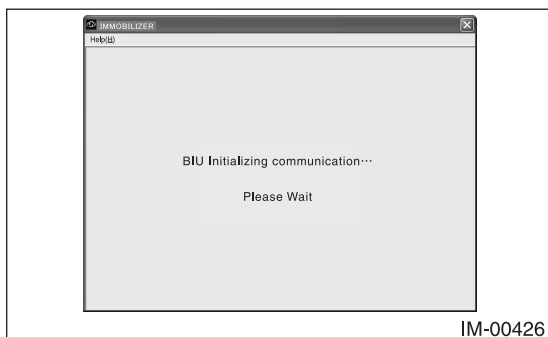
- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Stand by as the body integrated unit is initialized.

**Note:**

When an error screen is displayed, refer to No. 2 and 6 in "5-8 Correspondence table when registration is not possible".



- 11) Stand by as the key is being read.

**Note:**

When an error screen is displayed, refer to No. 6 in "5-8 Correspondence table when registration is not possible".

- 12) The screen showing that the key is successfully loaded appears. If there are any more keys to be read, turn off the ignition switch, turn on the ignition using another registered key, and then return to step 11. If there is no more key to be read, proceed to the next step.

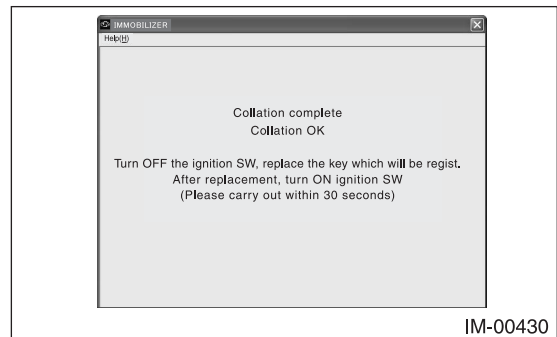
**Note:**

When an error screen is displayed, refer to No. 6 in "5-8 Correspondence table when registration is not possible".

- 13) The following screen showing successful key collation will be displayed. Turn off the ignition switch, and then replace the key with one to be registered to turn on the ignition.

**Note:**

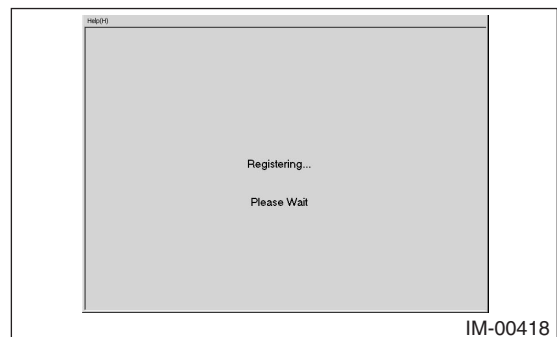
When an error screen is displayed, refer to No. 7 in "5-8 Correspondence table when registration is not possible".



- 14) Stand by as the key registration screen is displayed.

**Note:**

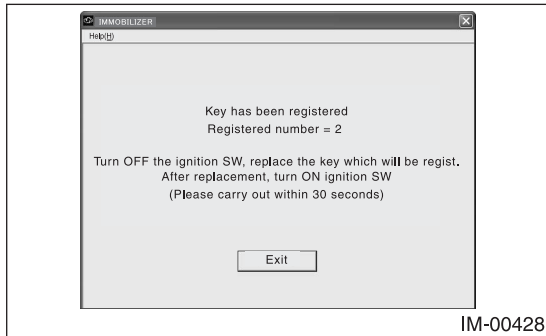
When an error screen is displayed, refer to No. 7 and 8 in "5-8 Correspondence table when registration is not possible".



15) The screen shown below will appear if registration ends normally. If you have another keys to be registered, insert the next key into the ignition switch, turn on the ignition key, and return to step 14. If you have no more keys to be registered, click the [Exit] button.

**Note:**

When an error screen is displayed, refer to No. 8 and 9 in "5-8 Correspondence table when registration is not possible".



16) Stand by as the registration is processed.

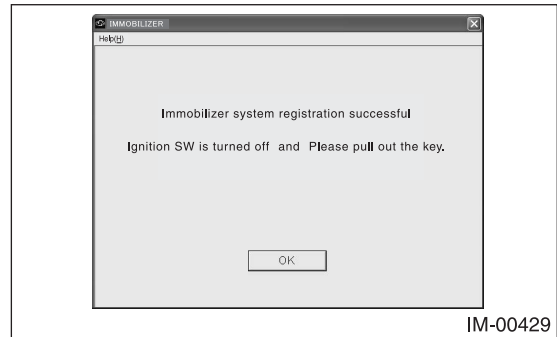
**Note:**

When an error screen is displayed, refer to No. 8 and 9 in "5-8 Correspondence table when registration is not possible".



17) The screen shows that <BIU exchange mode> has completed successfully if registration ends normally. Click the [OK] button.

18) The screen shown below will appear if registration ends normally. Remove the key and click the [OK] button.



19) Make sure the engine can be started with all the registered keys, then quit the registration procedure.



### 5-3 Registering Engine ECM

**Caution:**

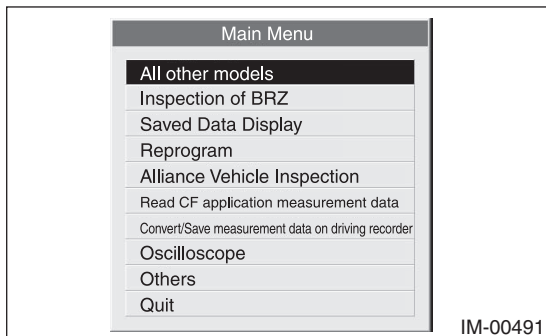
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

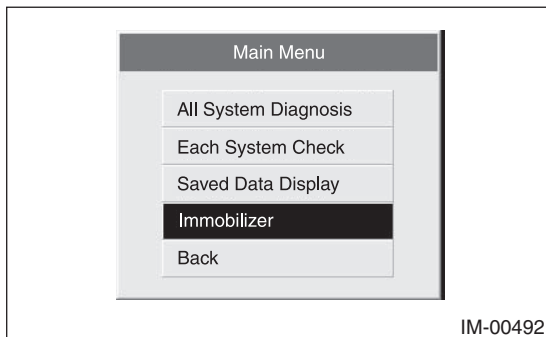
**Caution:**

Make sure to use a registered key.

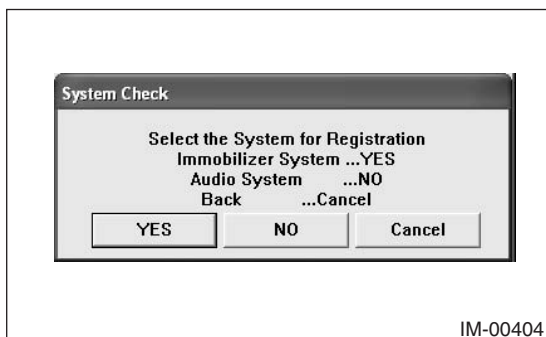
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



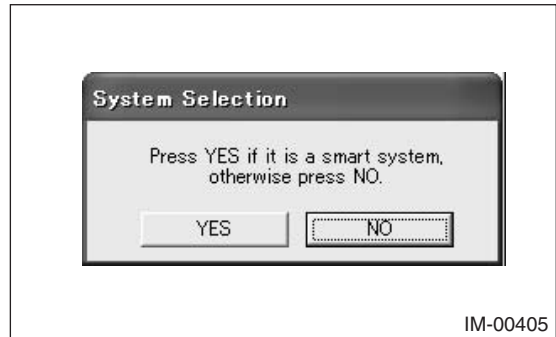
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

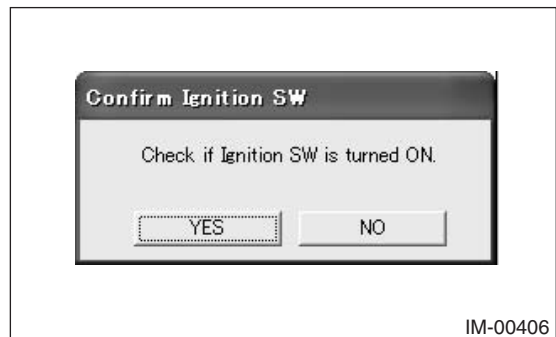
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

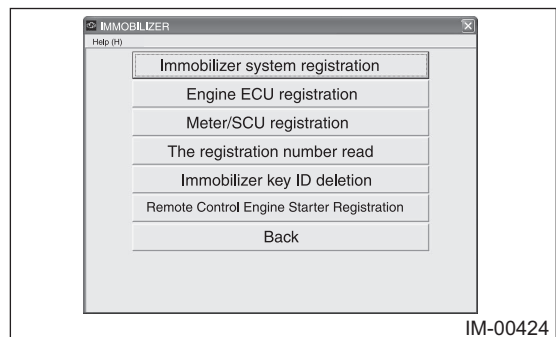
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Engine ECU registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Stand by as the body integrated unit is initialized.

**Note:**

When an error screen is displayed, refer to No. 10 and 11 in "5-8 Correspondence table when registration is not possible".



- 11) Stand by as the ECM is being initialized and registered.

**Note:**

When an error screen is displayed, refer to No. 11 in "5-8 Correspondence table when registration is not possible".

- 12) If registration ends normally, the screen shows that initialization and registration of the ECM have been completed successfully. Click the [OK] button.
- 13) The screen shows that processes have been completed. Remove the key and click the [OK] button.
- 14) After confirming that the engine can be started with the registered key, quit the registration procedure.

## 5-4 Registering Combination Meter or Security CU

**Caution:**

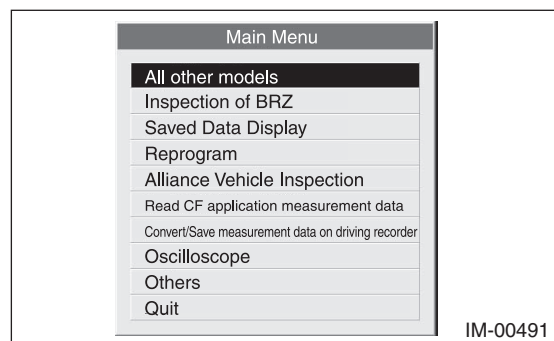
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

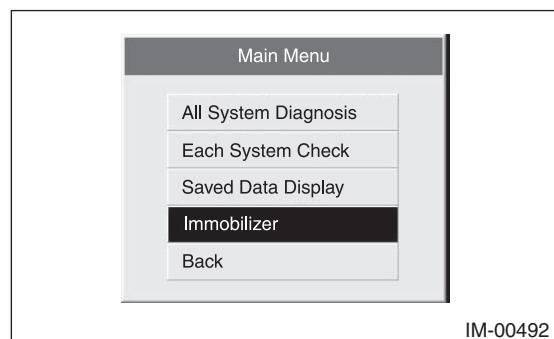
**Caution:**

Make sure to use a registered key.

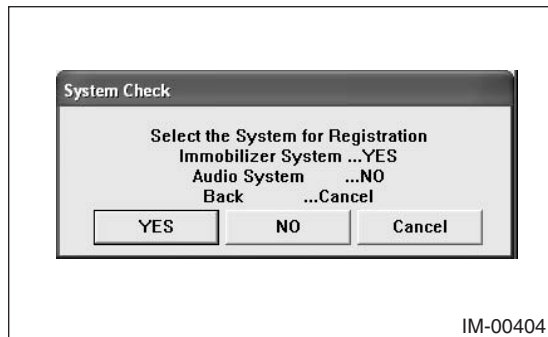
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



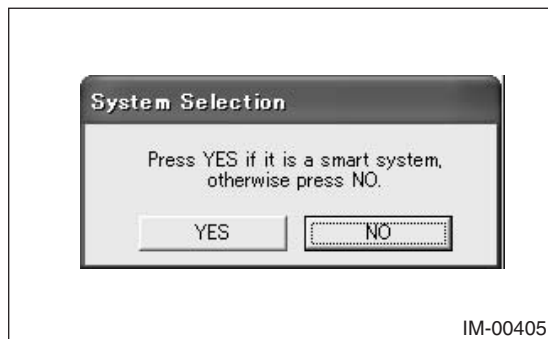
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

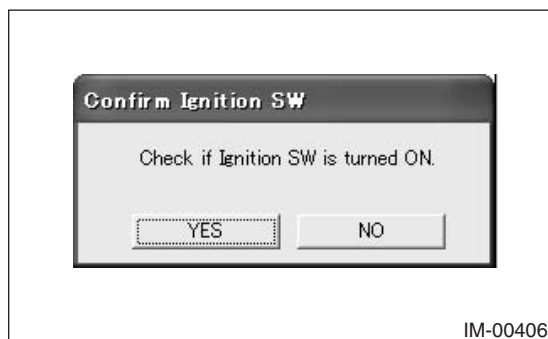
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

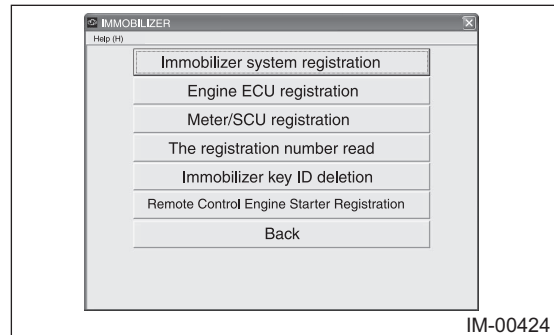
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Meter/SCU registration].

**Note:**

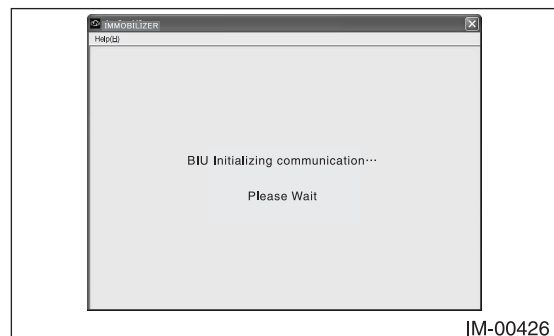
If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) The registration confirmation dialog box appears. Click the [OK] button.
- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Stand by as the body integrated unit is initialized.

**Note:**

When an error screen is displayed, refer to No. 12 in "5-8 Correspondence table when registration is not possible".



- 11) If registration ends normally, the screen shows that registration of the Meter/SCU has been completed successfully. Click the [OK] button.
- 12) The screen shows that processes have been completed. Remove the key and click the [OK] button.
- 13) After confirming that the engine can be started with the registered key, quit the registration procedure.

## 5-5 Registering Remote Control Engine Starter

**Caution:**

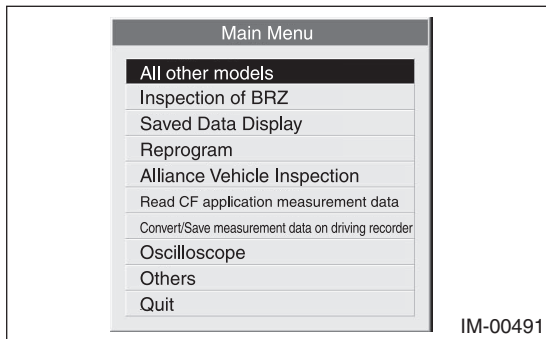
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

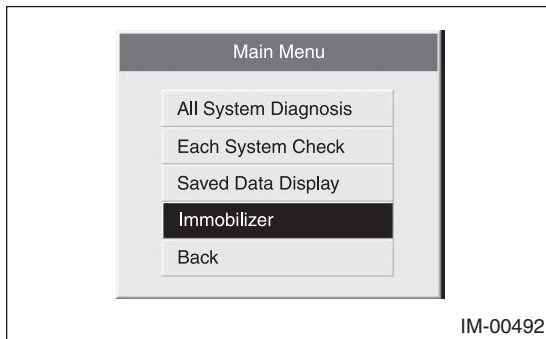
**Caution:**

Make sure to use a registered key.

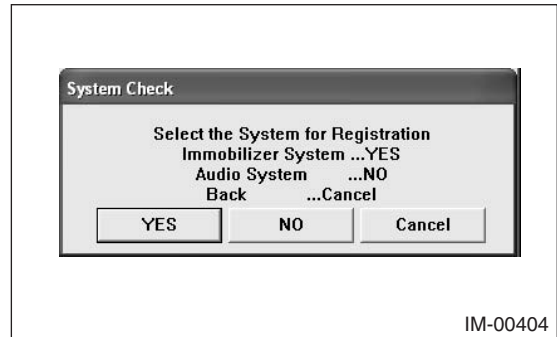
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



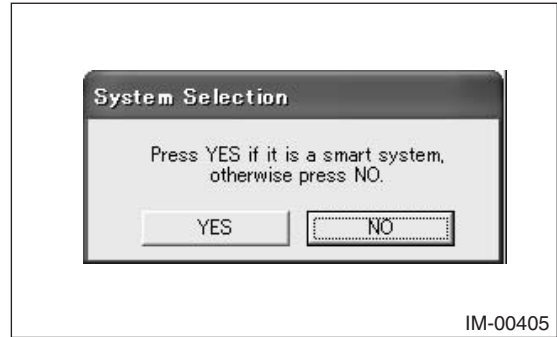
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

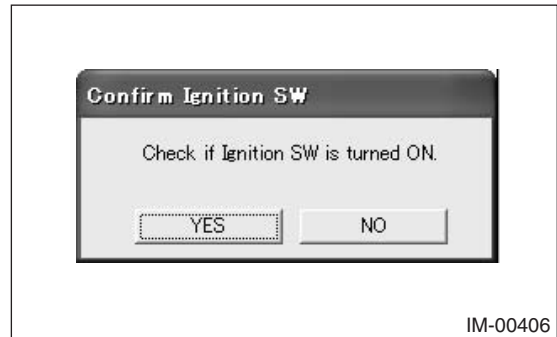
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

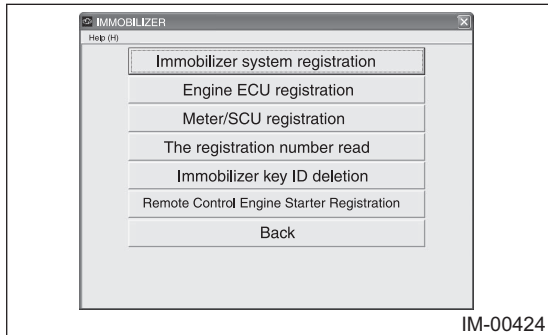
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Remote Control Engine Starter Registration].

**Note:**

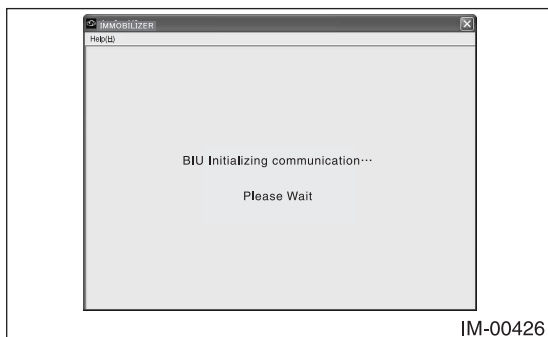
If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) The registration confirmation dialog box appears. Click the [OK] button.
- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Stand by as the body integrated unit is initialized.

**Note:**

When an error screen is displayed, refer to No. 14 in "5-8 Correspondence table when registration is not possible".



- 11) If registration ends normally, the screen shows that registration of the Remote Control Engine Starter has been completed successfully. Click the [OK] button.
- 12) The screen shows that processes have been completed. Remove the key and click the [OK] button.
- 13) Make sure the remote control engine starter can be started normally, then quit the registration procedure.

**5-6 Deleting Key ID****Caution:**

You can keep one key and delete all the rest of keys.

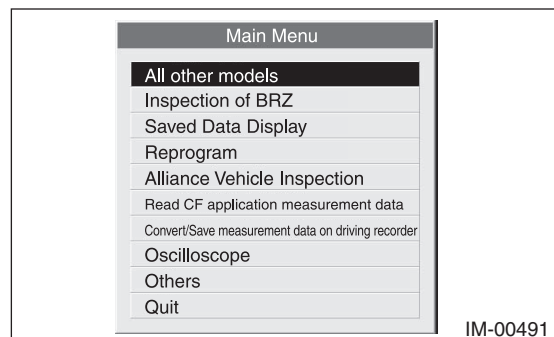
To do this, you need one registered key that is to be kept.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key you want to keep, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

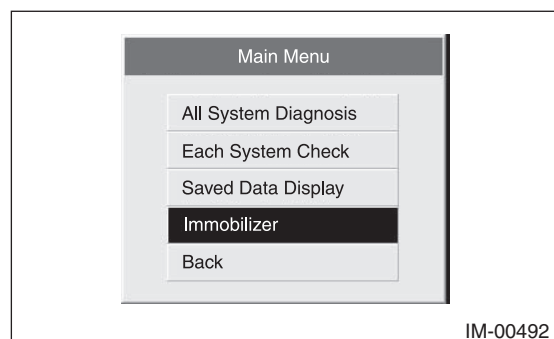
**Caution:**

Make sure to use a registered key.

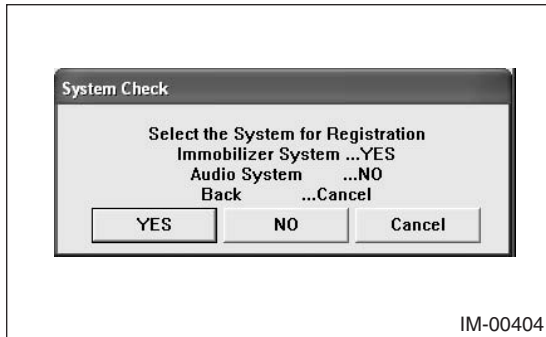
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



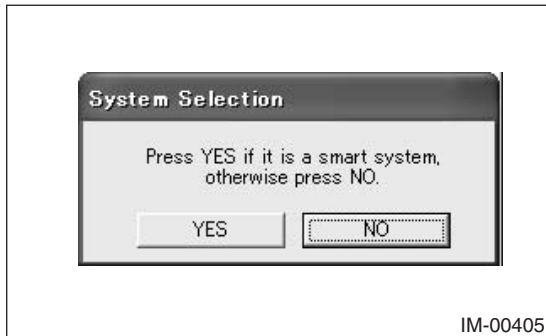
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

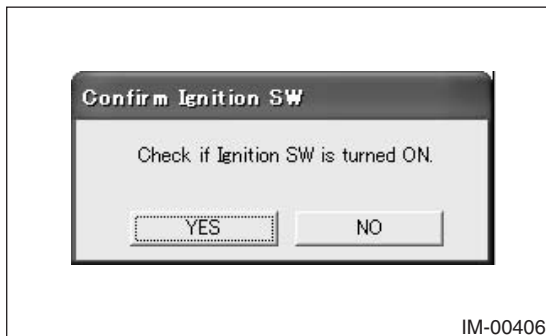
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

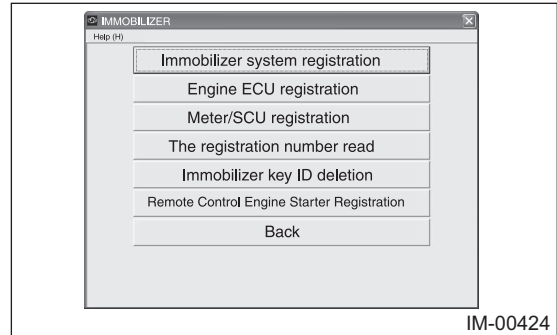
When an error screen is displayed, refer to No. 1 in "5-8 Correspondence table when registration is not possible".



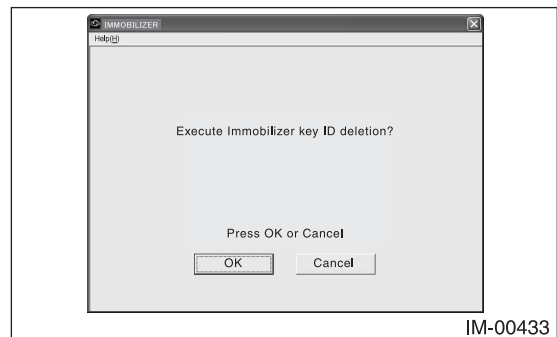
- 7) On the Main Menu that appears on the display, select [Immobilizer Key ID deletion].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) The deletion mode confirmation dialog box appears. Click the [OK] button.



- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.

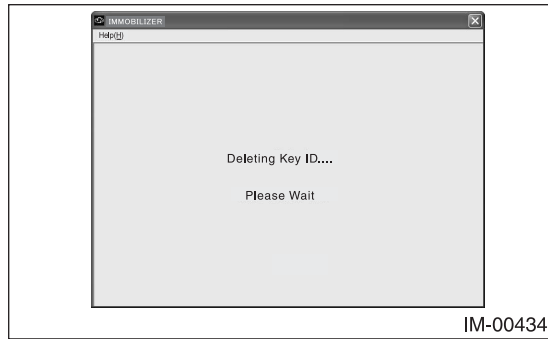
- 10) Stand by as the body integrated unit is initialized.

**Note:**

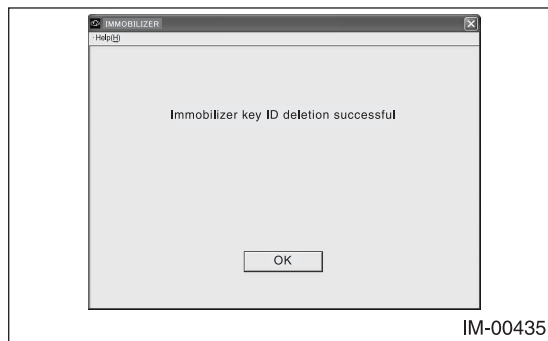
When an error screen is displayed, refer to No. 13 in "5-8 Correspondence table when registration is not possible".



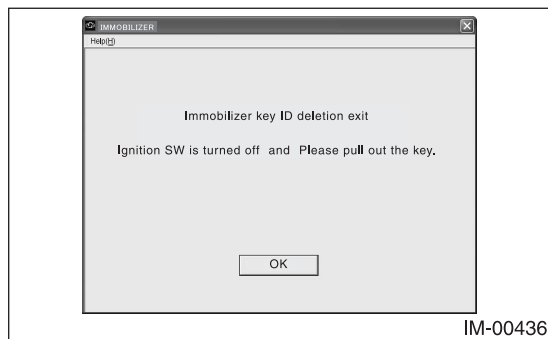
11) Stand by as the key ID is deleted.



12) If deletion ends normally, the following screen appears. Click the [OK] button.



13) The screen shows that processes have been completed. Remove the key and click the [OK] button.



14) Confirm the following conditions and quit the registration procedure.

- The engine starts with the key being inserted.
- The engine does not start with keys that have been deleted.
- Only one key is registered.

## 5-7 Immobilizer system: Correspondence table at the time of parts lost or failure

If all the keys are lost, for protection against vehicle theft you must contact your Subaru service representative.

### Caution:

**When replacing the parts, always use a new one. Used parts cannot be registered.**

### 1. Explanation of the SSM III registration mode

Mode name	Application	Items to be prepared
Immobilizer system registration	Perform when: 1. Additional keys are registered 2. When body integrated unit is replaced	1. One registered key 2. All registered keys and a key you want to register
Engine ECU registration	Perform when ECM is replaced. (If replacing it along with BIU, register immobilizer system.)	One registered key
Meter/SCU registration	Perform when replacing the combination meter or security CM. (If replacing it along with BIU, register immobilizer system.)	One registered key
Immobilizer Key ID deletion	Perform when one key is kept and all the rest of keys are deleted.	One registered key
Remote control engine starter registration	Perform when: 1. Remote control engine starter is installed and/or replaced 2. BIU is replaced (if remote control engine starter is equipped)	One registered key



## 2. Parts replacement table

**Note:**

- When performing each registration, make sure that the ignition switch is ON, and the driver's door is kept open. If ignition switch is OFF or all doors are closed, Body integrated unit will enter sleep mode, therefore each registration can not be performed.
- For vehicle with a remote control engine starter, perform "Registering Remote Control Engine Starter" when the BIU is replaced.

<When only one part is failed or lost>

Destination	Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement			
	U.K./Canada	Key		Body integrated unit	Combination meter	Security CU	ECM	Key	Body integrated unit	Combination meter	Security CU	ECM	(1)	(2)	(3)	(4)
		Others	Not all													
		X					One registered key						"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)		
			X				All registered keys	X					"Immobilizer system registration"			
					X		One registered key				X		"Meter/SCU registration"			
							One registered key					X	"Engine ECU registration"			
		X					One registered key						"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)		
			X				All registered keys	X					"Immobilizer system registration"			
					X		One registered key		X				"Meter/SCU registration"			
							One registered key				X		"Engine ECU registration"			

<When two parts are failed or lost>

Destination	Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement				
	U.K./Canada	Others	Key		Body integrated unit	Combination meter	Security CU	ECM	Key	Body integrated unit	Combination meter	Security CU	ECM	(1)	(2)	(3)	(4)
			Not all	All													
O	X					X			One registered key			X		"Meter/SCU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
O	X						X		One registered key			X		"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
O			X				X	All registered keys				X		"Immobilizer system registration"			
O							X	One registered key			X			"Meter/SCU registration"	"Engine ECU registration"		
O	X				X			One registered key		X				"Meter/SCU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
O	X						X	One registered key					X	"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
O				X				All registered keys		X			X	"Immobilizer system registration"			
O					X			One registered key			X		X	"Meter/SCU registration"	"Engine ECU registration"		

<When three parts are failed or lost>

Destination	Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement				
	U.K./Canada	Others	Key		Body integrated unit	Combination meter	Security CU	ECM	Key	Body integrated unit	Combination meter	Security CU	ECM	(1)	(2)	(3)	(4)
			Not all	All													
O	X					X			One registered key			X		"Meter/SCU registration"	"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)
O	X						X		One registered key		X		X	"Meter/SCU registration"	"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)

## 5-8 Correspondence table when registration is not possible

A list of possible trouble mode, when an error screen is displayed at each status (procedure).

### Note:

TYPE B-1: Model other than TYPE B-2

TYPE B-2: From 2015MY LEGACY / OUTBACK

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
1	Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed  Command input screen	CAN communication failure between Subaru Select Monitor and body integrated unit  CAN communication failure between Subaru Select Monitor and body integrated unit (Only when K line communication is used for ECM)	Perform the diagnosis for LAN system.  Perform the diagnosis for LAN system.
		NG BIU-SSM Communication	Body integrated unit erroneous operation (possibility that last registration mode still not canceled)	Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Monitor once. Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove and install the battery.
2	"Immobilizer system registration" start → "BIU Initializing communication..." display	NG BIU security access NG  NG Number of registrations exceeded  Meter/SCU not registration	Key IN, IGN-ON not completed [Only when the error screen on the left is indicated after five seconds or more elapsed]  •Subaru Select Monitor failure •Body integrated unit failure  Number of registrations exceeded  Combination meter/security CM unregistered	Wait approximately one minute, perform key IN, IGN-ON, and retry the procedure.  Check version of Subaru Select Monitor. Replace the body integrated unit.  —  Execute "Meter/SCU registration" to register the combination meter/security CM.
		Meters / SCU can not register for the quasi normalization.	[Body integrated unit unregistered] •Communication failure between combination meter/security CM and body integrated unit •Combination meter/security CM malfunction [Body integrated unit registered] •Collation unmatched between combination meter/security CM and body integrated unit •Communication failure with combination meter/security CM •Combination meter/security CM malfunction	DTC is detected except for a new unit of TYPE B-1. Therefore, check DTC and perform the diagnosis. [When body integrated unit is TYPE B-1 and unregistered] Inspect the communication line between meter/security CM and body integrated unit. (Diagnosis for DTC B1409) When the same error is indicated again even after the inspection and retrying the procedure, replace the combination meter/security CM. [Cases other than above] Read out DTC and perform the diagnosis. (Collation NG: B1401 or B1405) (Communication NG: B1407 or B1409) (EEPROM abnormal: B1408 or B1406)
3	(Additional registration mode) → "KEY is being collated."	NG Antenna  NG Key - Communication Failure  NG Key-Immobilizer comm/ Immobilizer unit EEPROM  NG Use of Unregistered Key  NG IMM Control Module EEPROM  NG Performed conditions not established.	Immobilizer antenna failure  Transponder failure  Transponder failure and body integrated unit failure  •NG key •Unregistered key  Body integrated unit failure  With collation status OK, the key was not replaced (left for 60 seconds)	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)  Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)  Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)  Prepare the registered key.  Perform the diagnosis for DTC B1577 (P1577).
4	→ "Collation complete"	NG Antenna  NG Key - Communication Failure  NG IMM Control Module EEPROM	Immobilizer antenna failure  Transponder failure  Body integrated unit failure	—  Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)  Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)  Perform the diagnosis for DTC B1577 (P1577).

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
5	→ "Key has been registered"	NG Antenna	Immobilizer antenna failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
		NG Key Communication Failure	Transponder failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Performed conditions not established.	With four keys registered, IGN-OFF → ON	—
		NG Meter/SCU error	Combination meter/security CM malfunction	Check DTC and perform the diagnosis. (When this screen is displayed, B1408/B1406 is stored.)
6	(Body integrated unit replacement mode) → "Confirm you replace all the keys..."	NG Meter/SCU Communication	Communication failure with combination meter/security CM	Check DTC and perform the diagnosis. (When this screen is displayed, B1407/B1409 is stored.)
		NG Performed conditions not established.	Time-out before the key is replaced (60 seconds)	—
		NG Antenna	Immobilizer antenna failure	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis for DTC B1411.
		NG Key - Communication Failure	Transponder failure	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis as follows: 1) Retry the procedure using a different key. 2) Replace the immobilizer antenna, and retry the procedure. 3) Replace the body integrated unit.
		NG Use of Unregistered Key	NG key (at least one key)	Prepare the registered key.
7	→ "Collation complete"	NG Performed conditions not established.	With collation status OK, the key was not replaced	—
		NG Antenna	Immobilizer antenna failure	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis for DTC B1411.
		NG Key - Communication Failure	Transponder failure	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis as follows: 1) Retry the procedure using a different key. 2) Replace the immobilizer antenna, and retry the procedure. 3) Replace the body integrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
8	→ "Key has been registered"	NG Antenna	Immobilizer antenna failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
		NG Key - Communication Failure	Transponder failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Performed conditions not established.	With four keys registered, IGN-OFF → ON	—
		NG Meter/SCU error	Combination meter/security CM malfunction	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1408/B1406 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis as follows: 1) Clear the memory, and retry the procedure. 2) When the same error is indicated again even after retrying the procedure, replace the combination meter/security CM.
		NG Meter/SCU Communication	Communication failure with combination meter/security CM	DTC is detected for TYPE B-2. Therefore, check DTC and perform the diagnosis. (When this screen is displayed, DTC B1407/B1409 is stored.) DTC is not detected for TYPE B-1. Therefore, perform the diagnosis as follows: 1) Inspect the communication line between combination meter/security CM and body integrated unit. 2) When the same error is indicated again even after the inspection and retrying the procedure, replace the combination meter/security CM.
9	→ "EGI initialization / During registration..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		NG EGI-Immobilizer communication	Communication failure between ECM and body integrated unit	Perform the diagnosis for DTC B1572 (P1572).
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG EGI unit EEPROM	ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery.
		NG EGI security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Replace the ECM.
		NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
10	"Engine ECU registration" start → "BIU Initializing communication..." display	NG BIU-SSM Communication	<ul style="list-style-type: none"> <li>•Body integrated unit erroneous operation (possibility that last registration mode still not canceled)</li> <li>•Key IN, IGN-ON not completed [Only when the error screen on the left is indicated after ten seconds or more elapsed]</li> </ul>	Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Monitor once. Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove and install the battery.
		NG BIU security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Replace the body integrated unit.
		NG Antenna	Immobilizer antenna failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
		NG Key - Communication Failure	Transponder failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Key-Immobilizer comm/ Immobilizer EEPROM	Transponder failure and body integrated unit failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Use of Unregistered Key	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> <li>•Body integrated unit unregistered</li> </ul>	Prepare the registered key. Execute "Immobilizer system registration" to register the key to the body integrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	<ul style="list-style-type: none"> <li>•Communication failure with combination meter/security CM</li> <li>•Combination meter/security CM malfunction</li> </ul>	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is stored.)
		NG Meters / SCU checking NG	Combination meter/security CM not genuine part	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1401/B1405 is stored.)
		NG Performed conditions not established.	Combination meter/security CM unregistered	Execute "Meter/SCU registration" to register the combination meter/security CM.
11	→ "EGI initialization / During registration..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		NG EGI-Immobilizer communication	Communication failure between ECM and body integrated unit	Perform the diagnosis for DTC B1572 (P1572).
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG EGI unit EEPROM	ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery.
		NG EGI security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Replace the ECM.
		NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
12	"Meter/SCU registration" start → "BIU Initializing communication..." display	NG BIU-SSM Communication	<ul style="list-style-type: none"> <li>•Body integrated unit erroneous operation (possibility that last registration mode still not canceled)</li> <li>•Key IN, IGN-ON not completed [Only when the error screen on the left is indicated after ten seconds or more elapsed]</li> </ul>	Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Monitor once. Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove and install the battery.
		NG BIU security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Replace the body integrated unit.
		NG Antenna	Immobilizer antenna failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
		NG Key - Communication Failure	Transponder failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Key-Immob comm/ Immob unit EEPROM	Transponder failure and body integrated unit failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Use of Unregistered Key	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> <li>•Body integrated unit unregistered</li> </ul>	Prepare the registered key. Execute "Immobilizer system registration" to register the key to body integrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	<ul style="list-style-type: none"> <li>•Communication failure with combination meter/security CM</li> <li>•Combination meter/security CM malfunction</li> </ul>	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is stored.)
		NG Meters / SCU checking NG	<ul style="list-style-type: none"> <li>•Combination meter/security CM not genuine part</li> <li>•Combination meter/security CM registered on another vehicle</li> </ul>	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1401/B1405 is stored.)
		NG Performed conditions not established.	Combination meter/security CM registered	—
		NG Meter/SCU Communication	Communication failure with combination meter/security CM	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1407/B1409 is stored.)
		13	"Immobilizer key ID deletion" start → "BIU Initializing communication..." display	NG BIU-SSM Communication
NG BIU security access NG	Subaru Select Monitor failure			Check version of Subaru Select Monitor. Replace the body integrated unit.
NG Antenna	Immobilizer antenna failure			Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
NG Key - Communication Failure	Transponder failure			Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
NG Key-Immob comm/ Immob unit EEPROM	Transponder failure and body integrated unit failure			Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
NG Use of Unregistered Key	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> <li>•Body integrated unit unregistered</li> </ul>			Prepare the registered key. Execute "Immobilizer system registration" to register the key to body integrated unit.
NG IMM Control Module EEPROM	Body integrated unit failure			Perform the diagnosis for DTC B1577 (P1577).
NG Meter/SCU error	<ul style="list-style-type: none"> <li>•Communication failure with combination meter/security CM</li> <li>•Combination meter/security CM malfunction</li> </ul>			Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is stored.)
NG Meters / SCU checking NG	<ul style="list-style-type: none"> <li>•Combination meter/security CM not genuine part</li> </ul>			Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1401/B1405 is stored.)
NG Performed conditions not established.	Combination meter/security CM unregistered			Execute "Meter/SCM registration" to register the combination meter/security CM.

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
14	"Remote Control Engine Starter Registration" start → "BIU Initializing" communication... display	NG BIU-SSM Communication	<ul style="list-style-type: none"> <li>•Body integrated unit erroneous operation (possibility that last registration mode still not canceled)</li> <li>•Key IN, IGN-ON not completed [Only when the error screen on the left is indicated after ten seconds or more elapsed]</li> </ul>	Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Monitor once. Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove and install the battery.
		NG BIU security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Replace the body integrated unit.
		NG Antenna	Immobilizer antenna failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1411 is stored.)
		NG Key - Communication Failure	Transponder failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Key-Immobilizer comm/Immobilizer EEPROM	Transponder failure and body integrated unit failure	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1410 is stored.)
		NG Use of Unregistered Key	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> <li>•Body integrated unit unregistered</li> </ul>	Prepare the registered key. Execute "Immobilizer system registration" to register the key to body integrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	Combination meter/security CM malfunction	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is stored.)
		NG Meters / SCU checking NG	Combination meter/security CM not genuine part	Check DTC and perform the diagnosis. (When this screen is displayed, DTC B1401/B1405 is stored.)
		NG Performed conditions not established.	Combination meter/security CM unregistered	Execute "Meter/SCU registration" to register the combination meter/security CM.
		NG Remote start registration NG	Registration failure with remote control engine starter	The message on the left is indicated, when the diagnosis is performed on the remote control engine starter side, such as inspection for connection with the remote control engine starter (the message on the left is indicated, when registration is attempted with a non-genuine remote control engine starter installed), or when the remote control engine starter unit is malfunctioning.

List of DTC codes, when the immobilizer is not registered

<When body integrated unit is replaced>	B1402 Immobilizer Key Collation NG B1401 M Collation NG (TYPE B-2 only) B1405 SCU Collation NG (TYPE B-2 only) B1571 (P1571) Reference Code Incompatibility B1575 (P0513) Incorrect Immobilizer Key B1402 Immobilizer Key Collation NG B1575 (P0513) Incorrect Immobilizer Key B1571 (P1571) Reference Code Incompatibility B1401 M Collation NG B1578 (P1578) Meter Failure * B1405 SCU Collation NG B1578 (P1578) Meter Failure *
<When unregistered key is used>	
<When ECM is replaced>	
<When combination meter is replaced>	
<When security CM is replaced>	

\* When meter failure is detected, registration may not be possible. (This is because meter failure remains even for communication failure or EEPROM failure.)



## 6 C type

Vehicle that has a keyless access with push button start system and is originally provided with a security ID (security tag)

### A: Structure

An immobilizer system consists of the following components: Combination meter, immobilizer indicator (in the combination meter), access key, immobilizer antenna (incorporating a push switch), collation CM, power supply CM, gateway CM, steering lock CM, ID code box, indoor and outdoor antennas, receiver, body integrated unit, and engine ECM.

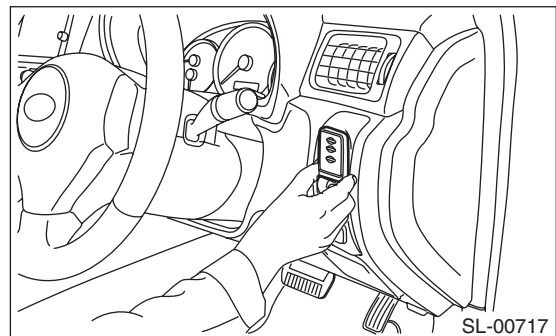
### B: Operation

Get in the vehicle with your access key and let the access key send the ID via the indoor antenna. The access key sends the ID to the receiver and the received ID is sent to the collation CM where it is collated with the IDs of other immobilizer-related units. Step on the brake pedal (for an AT model) or clutch pedal (for a MT model) and press the push engine switch so that the starter rotates to start the engine.

If the IDs do not match within the specified period of time after the RPM of the engine reaches the specified RPM, the engine stops. If the IDs do not match, the engine stops within a couple of seconds. If the engine does not start as a result of a mismatch of the IDs, the immobilizer indicator lamp in the combination meter turns on to indicate that the immobilizer is active. When the immobilizer is activated, the immobilizer indicator lamp flashes to generate an alert notifying people around the vehicle that it is protected by the immobilizer.

### C: Caution

- The security ID and registration command must be handled as confidential information and shall not be announced to outsiders.
- When you install wireless radios or car phones, make sure that the immobilizer system is not influenced by their electric waves.
- Do not operate cell phones or wireless radios or the like when either trouble diagnosis or immobilizer registration is in progress.
- During immobilizer registration, do not bring a key with a different ID close to the ignition switch. When the access key is on a keychain, remove it from the chain before the start of diagnosis. When there are several keys on one keychain, remove them from the keychain and use them individually for the work.
- The work of "Registering the Smart Immobilizer", "Registering the Smart ECM" and "Delete the Mobile Key (Access Key) ID" includes the operation of holding up the access key to the push engine switch (push-button ignition switch). Pay attention to the following when performing this operation.
  - Confirm that the battery voltage is 11 V or more and execute each mode.
  - When confirm/register access key, only one key can be brought into vehicle at a time. For registration of multiple keys, bring a key into vehicle and perform registration while leaving rest of other keys outside.
  - When holding up the access key to the push engine switch (push-button ignition switch), do not hold two or more access keys at the same time, but use only one each time. (When the access key is on a keychain, remove it from the keychain before the work.)
  - When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Hold the Subaru ornament side to the push engine switch (push-button ignition switch) side.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- When replacing the parts for a vehicle with a keyless access with push button start system, always use new parts for the "access key", "collation CM", "ID code box", "steering lock CM", and "body integrated unit". Never replace them with used parts.
  - If the engine cannot get started with a registered access key, wait approximately one second until the immobilizer warning lamp starts flashing. Then try to start the engine again with the registered access key.
  - Do not place a PC within 10 cm around access keys and receiver antennas to avoid any malfunctions of the keyless access with push button start system.

**Note:**

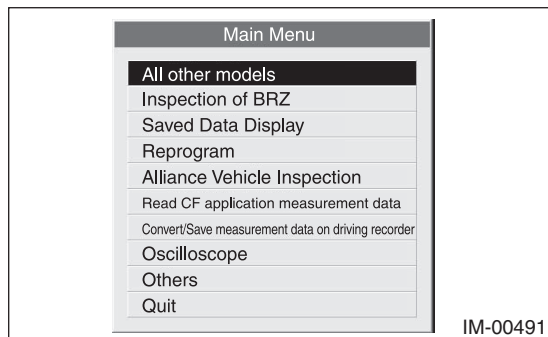
- Carry out the "Registering the Smart Immobilizer" procedure in case you replace an access key, collation CM, body integrated unit or a combination meter.
- In case of replacing a steering lock CM, execute the "Registering the Smart ECM" procedure.
- When replacing the ID code box, "Registering the Smart ECM" and "Registering the Engine ECM" must be performed in this order.
- In case of replacing an ECM, execute the "Registering the Engine ECM" procedure.
- Immobilizer registration is NOT necessary when a power supply CM or a gateway CM is replaced.
- When turning the ignition on, press the push engine switch (push-button ignition switch) twice without stepping on the brake pedal. Power supply status changes to ACC-ON, IG-ON, OFF, ACC-ON accordingly, as pressing the push engine switch (push-button ignition switch) once.
- At the time of engine start, press the push engine switch (push-button ignition switch) once with the brake pedal depressed in case of an AT vehicle. In case of a MT vehicle, press the push engine switch (push-button ignition switch) once with the clutch pedal depressed.
- When performing either one of the operations shown below, perform also the "Registering Remote Control Engine Starter".
  - Installing remote control engine starter
  - Replacing remote control engine starter
  - Replacing collation CM of a vehicle equipped with remote control engine starter
- When an access key has been lost, perform "Delete the Access Key ID". When all access keys have been lost, refer to "Keyless access with push button start system: Correspondence table at the time of parts failure".
- There is a possibility that registry fails due to poor connector coupling of cabin antenna. In such case, please repair electrical contacts of keyless access indoor antenna (front) before performing immobilizer registry. Keyless access indoor antenna (front) is the only antenna used in immobilizer registry.)

## 6-1 Adding Access Keys

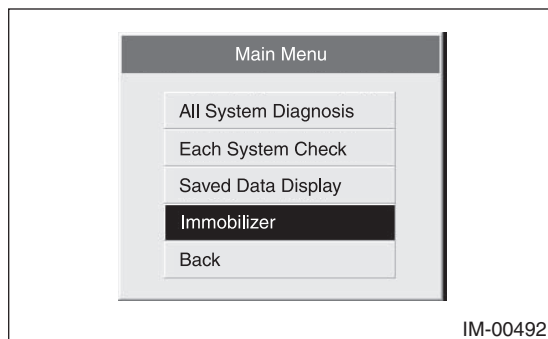
### Note:

Depending on the replacement part, a different screen from the screen shown in this item may be displayed. In such a case, follow the instructions shown on the screens.

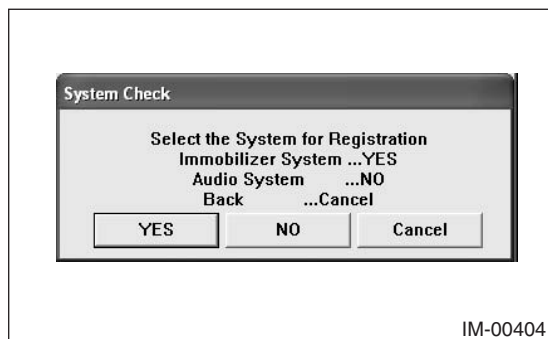
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



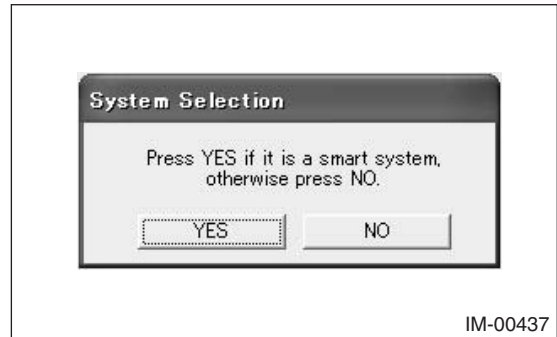
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



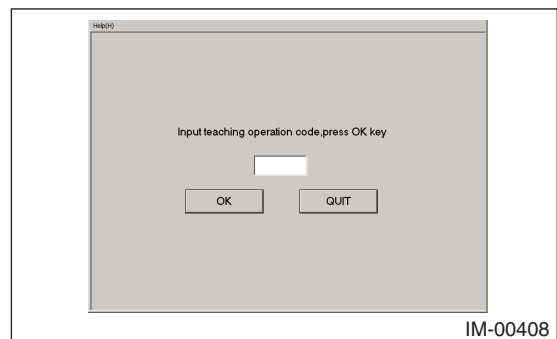
### Note:

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

### Note:

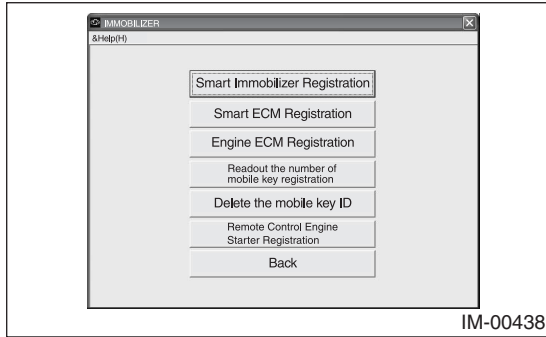
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.



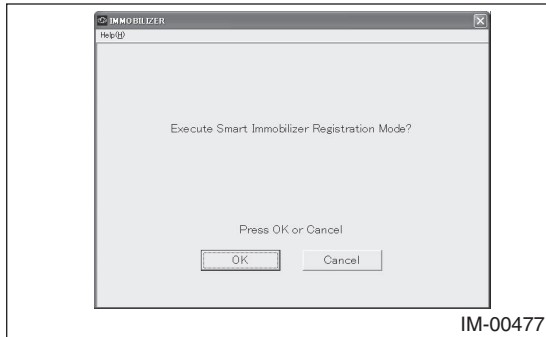
### Note:

When you wish to return to the Main Menu screen, click the [QUIT] button.

- 7) The registration mode selection dialog box appears. Click the [Smart Immobilizer Registration] button.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



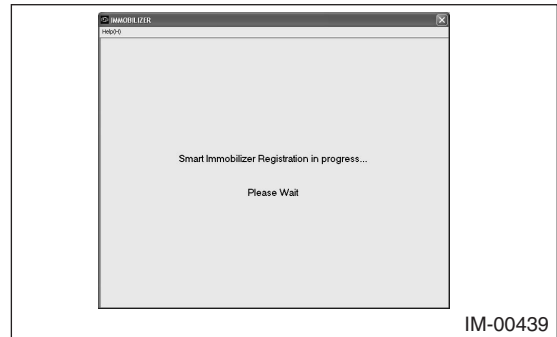
- 9) Input the security ID and then click the [OK] button.



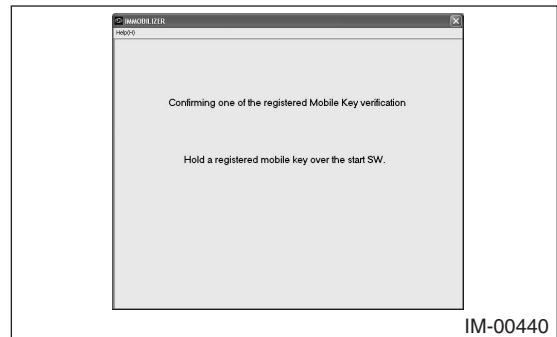
- 10) Stand by as the security ID is being collated.



- 11) Wait until the smart immobilizer is then being registered.

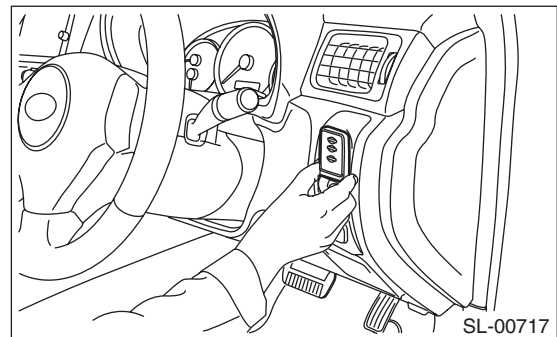


- 12) The dialog box to confirm already registered access keys appears. Hold one of those access keys over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



**Note:**

- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



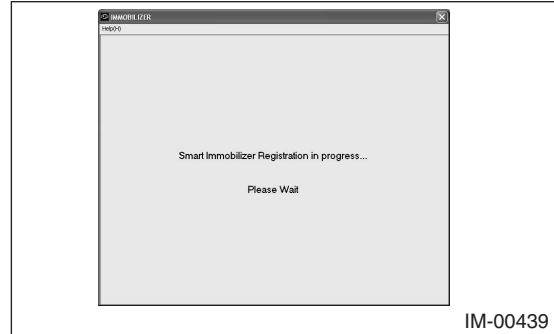
- (1) Let the mechanical key insertion opening of the access key face down.

- (2) Hold the Subaru ornament side to the push engine switch (push-button ignition switch) side.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
  - The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.
- 13) When screen displays access key registration mode shown below, hold one access key you wish to register additionally over the push engine switch (push-button ignition switch).

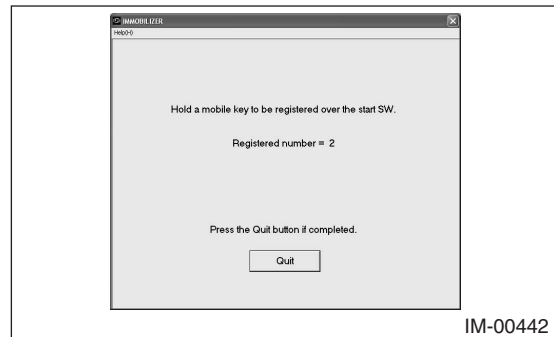
**Note:**

- When the buzzer has sounded twice, the work of holding the access key up has been completed, but for 10 seconds after the work, the access key should be kept inside the vehicle (near the select lever).
- For registration of the next access key, the previously registered access key should be removed from the vehicle.
- Do not click the [Quit] button until you finish registering all the access keys you wish to register.
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

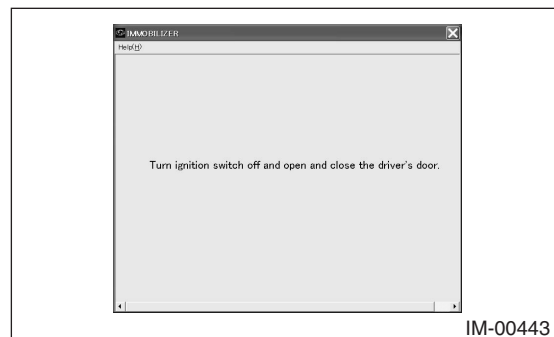
- 14) Stand by as the access key is registered.



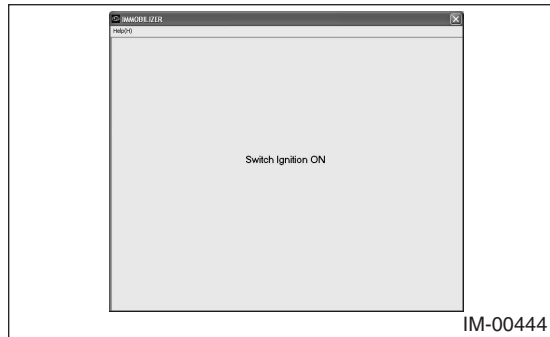
- 15) Once the registration ends normally, the [Registered number] increases by one as you can see on the screen below. If you have another access key to be registered, repeat steps 13 through 14. If you do not have any more keys to be registered, click the [Quit] button and move on to step 16.



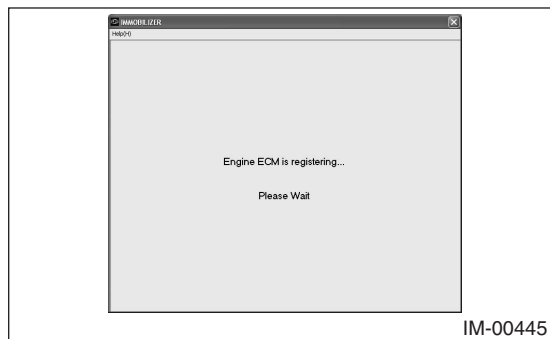
- 16) Once following screen appears, turn the push engine switch (push-button ignition switch) off. Then open or close the driver's door, depending on its status.



- 17) Then following screen appears. Turn the ignition on.



- 18) Stand by as the registration to the ECM is being completed.



- 19) The screen shown below will appear if registration ends normally. Click the [OK] button.



- 20) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

## 6-2 Registering Collation CU

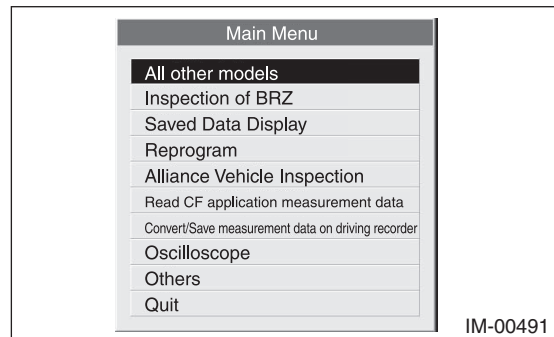
### Caution:

A registered access key is required. If registration completed before registering a desired access key, such an unregistered access key cannot be used anymore. When necessary, prepare a new access key, and perform additional registration.

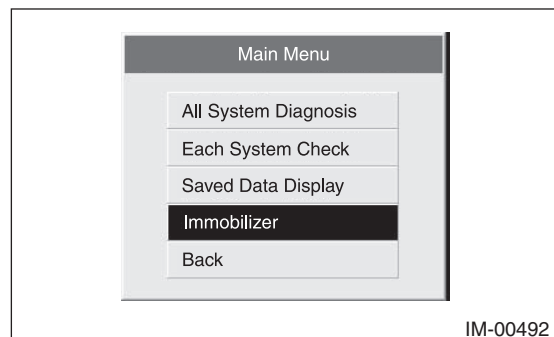
### Note:

Depending on the replacement part, a different screen from the screen shown in this item may be displayed. In such a case, follow the instructions shown on the screens.

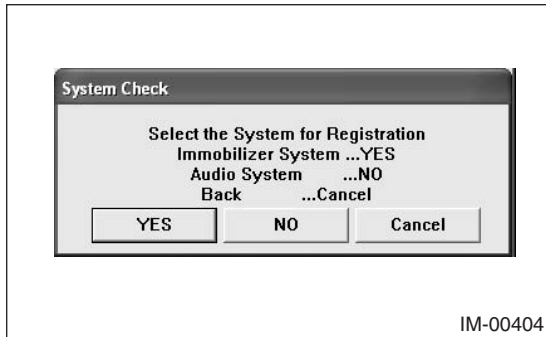
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



- 4) Click the [YES] button if the System Check screen is displayed.

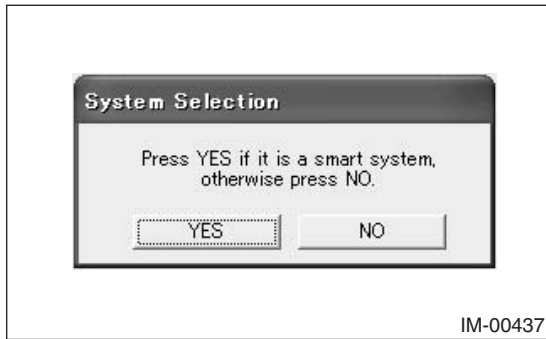


IM-00404

**Note:**

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



IM-00437

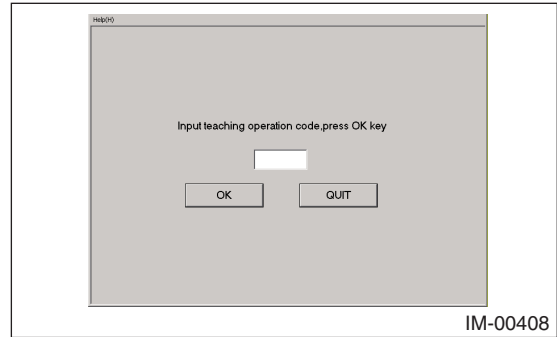
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

**Note:**

If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.

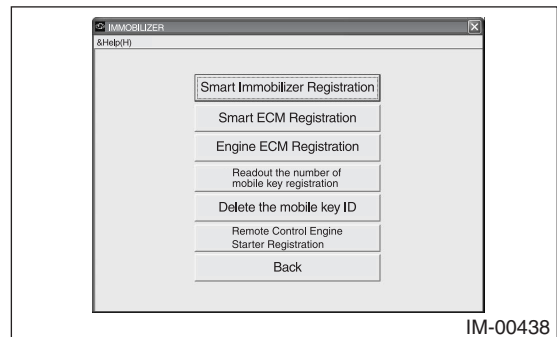


IM-00408

**Note:**

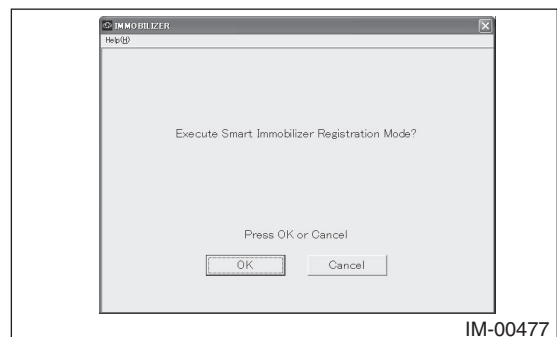
When you wish to return to the Main Menu screen, click the [QUIT] button.

- 7) The registration mode selection dialog box appears. Click the [Smart Immobilizer Registration] button.



IM-00438

- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



IM-00477

- 9) Input the security ID and then click the [OK] button.



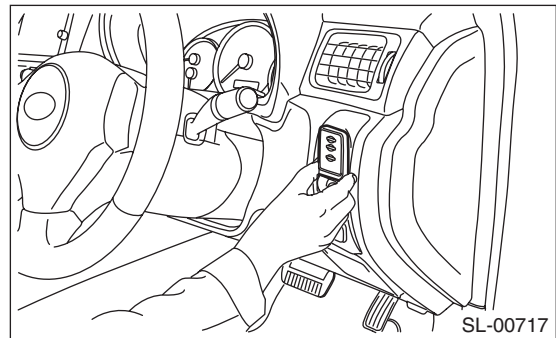
- 10) Stand by as the security ID is being collated.



- 11) When the access key confirmation screen appears, hold up the access key that was registered to the new collation CM to the push engine switch (push-button ignition switch). After the buzzer has sounded once, move the access key away from the push engine switch (push-button ignition switch).

**Note:**

- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Hold the Subaru ornament side to the push engine switch (push-button ignition switch) side.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.
- 12) If confirmation is successful, the remaining number decreases by 1. Repeat the confirmation work of step 11 until the remaining number becomes 0.



- 13) When screen displays access key registration mode shown below, hold one access key you wish to register additionally over the push engine switch (push-button ignition switch).



IM-00483

**Note:**

- When the buzzer has sounded twice, the work of holding the access key up has been completed, but for 10 seconds after the work, the access key should be kept inside the vehicle (near the select lever).
- For registration of the next access key, the previously registered access key should be removed from the vehicle.
- Do not click the [Quit] button until you finish registering all the access keys you wish to register.
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

- 14) Stand by as the access key is registered.



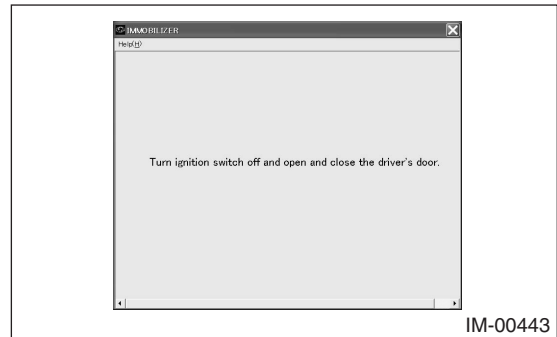
IM-00439

- 15) Once the registration ends normally, the [Registered number] increases by one as you can see on the screen below. If you have another access key to be registered, repeat steps 13 through 14. If you do not have any more keys to be registered, click the [Quit] button and move on to step 16.



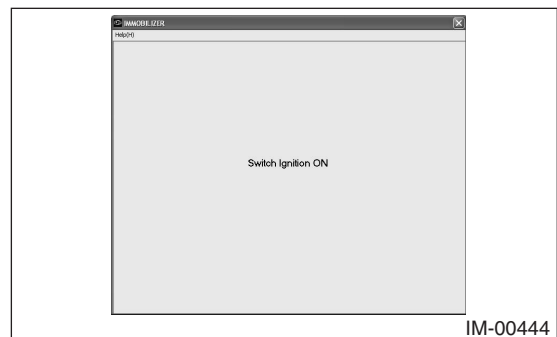
IM-00486

- 16) Once following screen appears, turn the push engine switch (push-button ignition switch) off. Then open or close the driver's door, depending on its status.



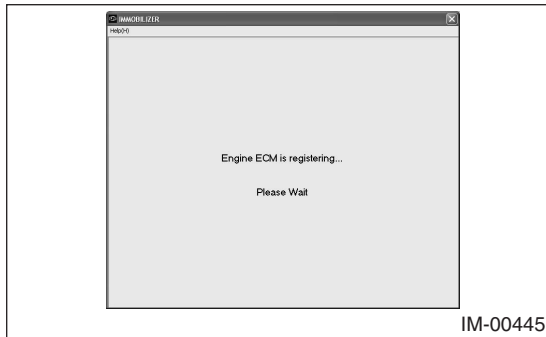
IM-00443

- 17) Then following screen appears. Turn the ignition on.

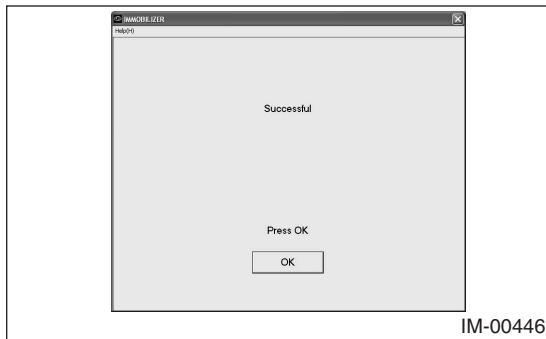


IM-00444

- 18) Stand by as the registration to the ECM is being completed.



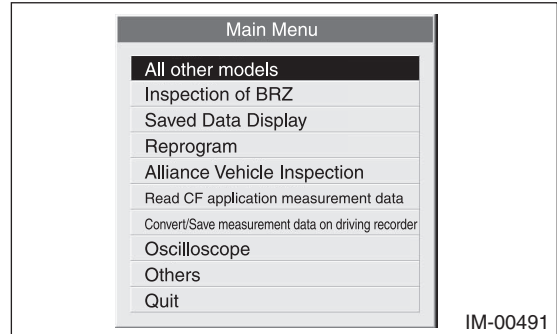
- 19) The screen shown below will appear if registration ends normally. Click the [OK] button.



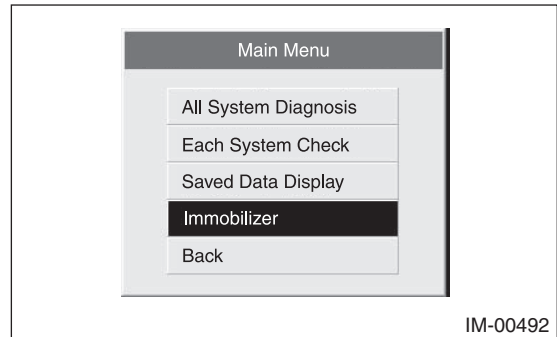
- 20) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

### 6-3 Registering the Steering Lock CU or ID Code Box

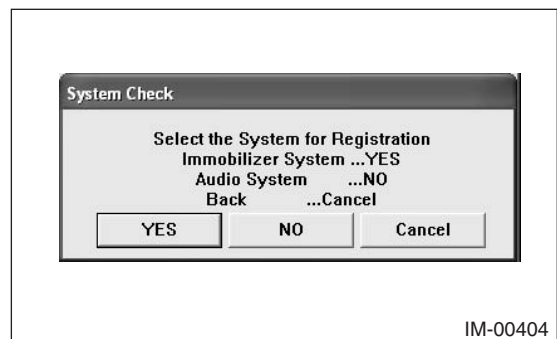
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.

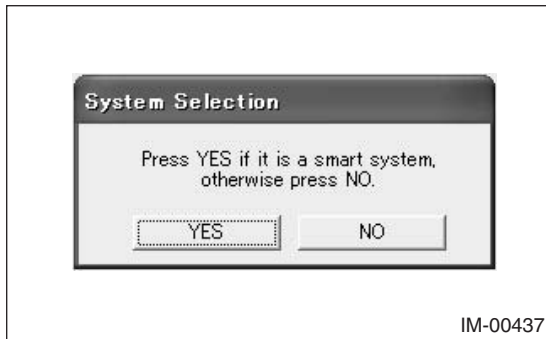


- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**  
Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



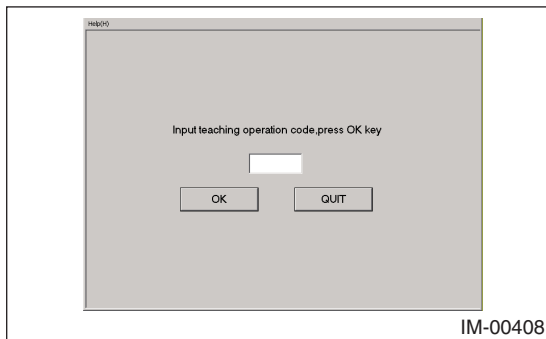
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

**Note:**

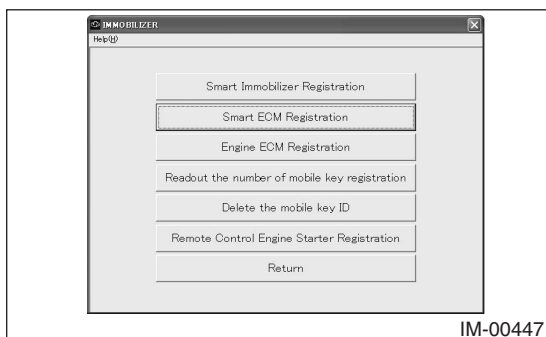
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.



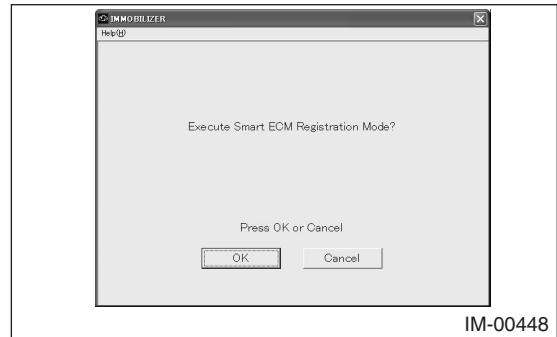
**Note:**

When you wish to return to the Main Menu screen, click the [QUIT] button.

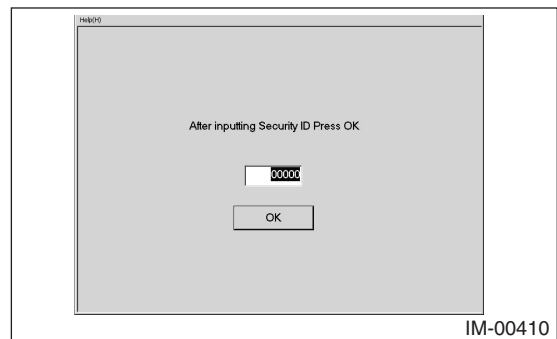
- 7) The registration mode selection dialog box appears. Click the [Smart ECM Registration] button.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



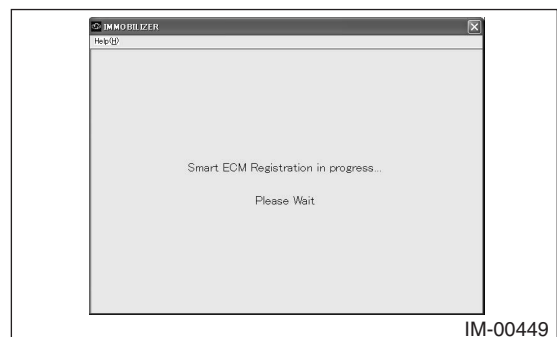
- 9) Input the security ID and then click the [OK] button.



- 10) Stand by as the security ID is being collated.



- 11) Wait until the smart ECM is then being registered.

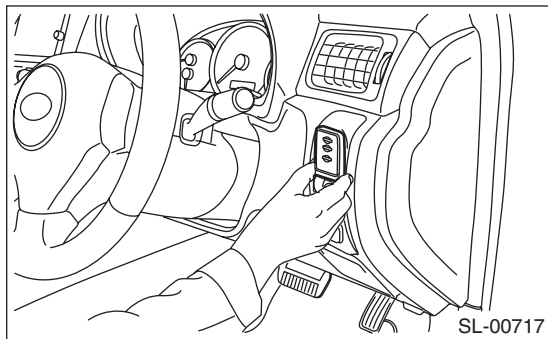


- 12) The dialog box to confirm already registered access keys appears. Hold one of those access keys over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



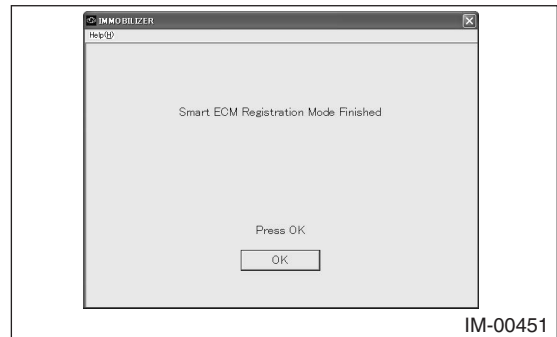
**Note:**

- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Hold the Subaru ornament side to the push engine switch (push-button ignition switch) side.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

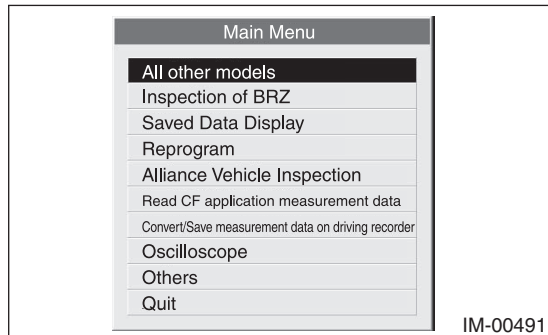
- 13) Smart ECM registration is then automatically executed. When the registration ends normally, the following screen appears. Click the [OK] button.



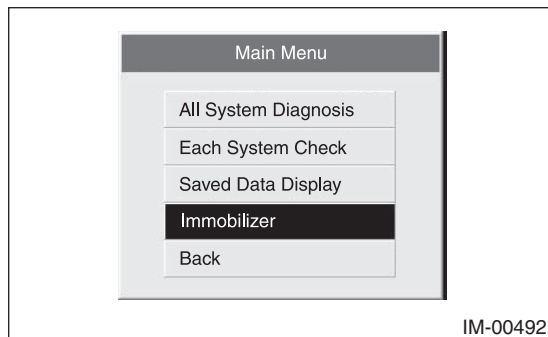
- 14) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

## 6-4 Registering the Engine ECM

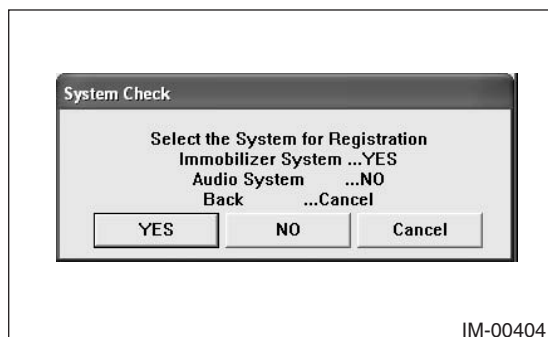
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.

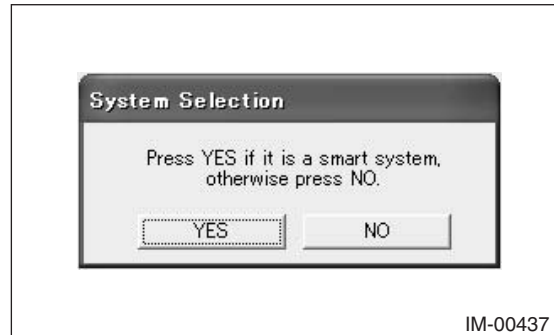


- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**  
Audio System is the specification only for the U.K.

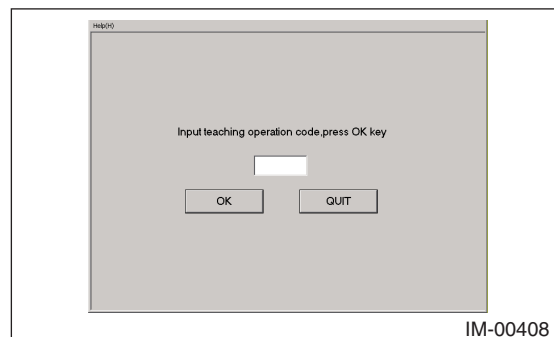
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



**Note:**  
The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

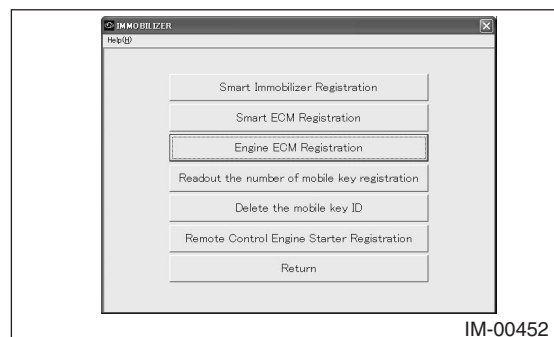
- 6) Input the teaching operation code, and then click the [OK] button.

**Note:**  
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.

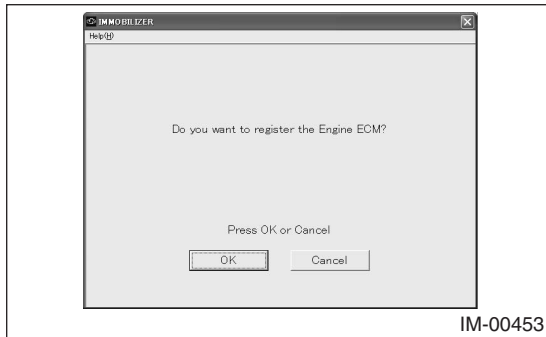


**Note:**  
When you wish to return to the Main Menu screen, click the [QUIT] button.

- 7) The registration mode selection dialog box appears. Click the [Engine ECM Registration] button.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) Input the security ID and then click the [OK] button.



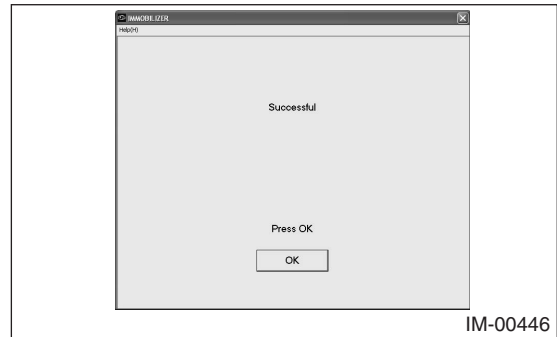
- 10) Stand by as the security ID is being collated.



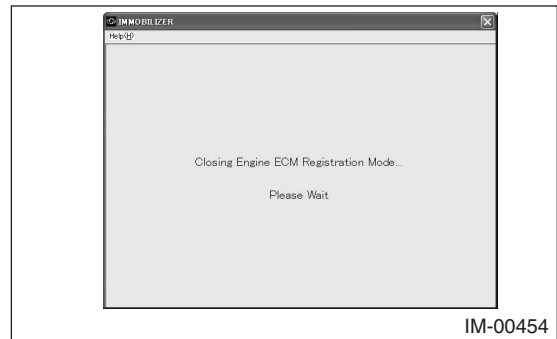
- 11) Wait until the engine ECM is then being registered.



- 12) The screen shown below will appear if registration ends normally. Click the [OK] button.



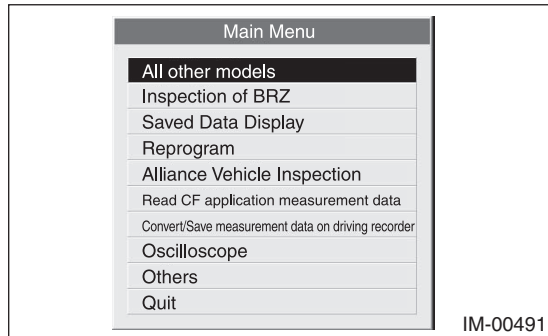
- 13) After the screen shown below appears, wait until the Main Menu screen shows up again.



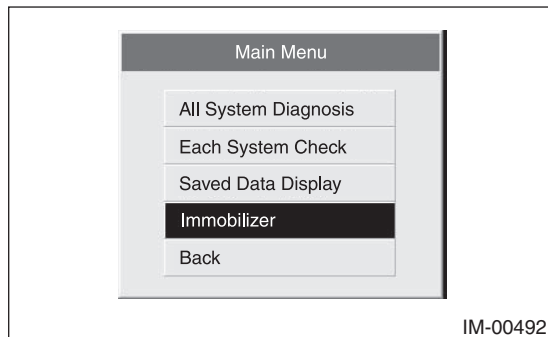
- 14) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

## 6-5 Readout the Number of Access Key Registration

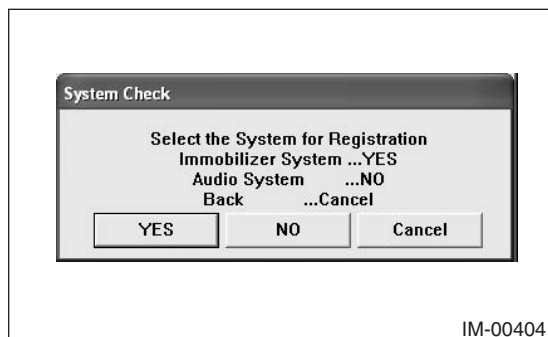
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



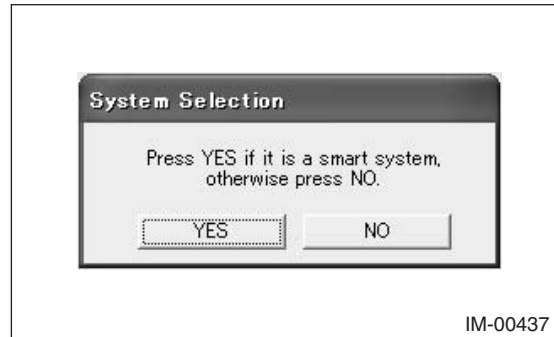
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



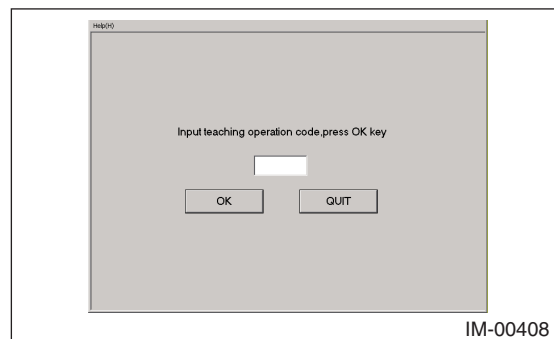
### Note:

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

### Note:

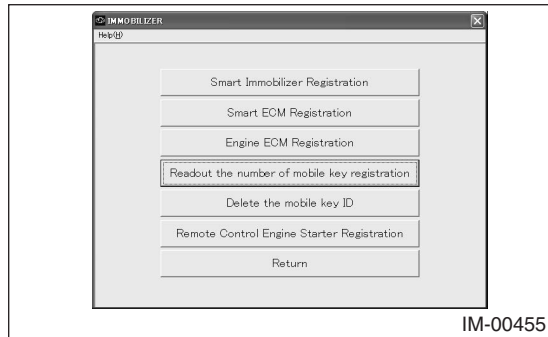
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.



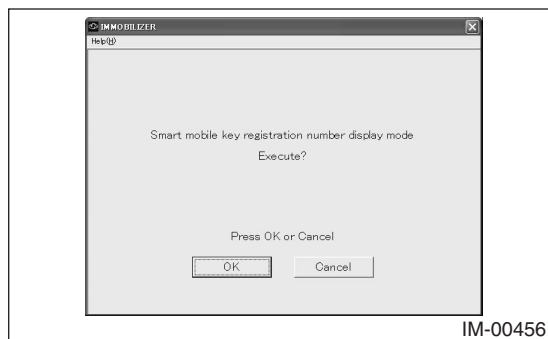
### Note:

When you wish to return to the Main Menu screen, click the [QUIT] button.

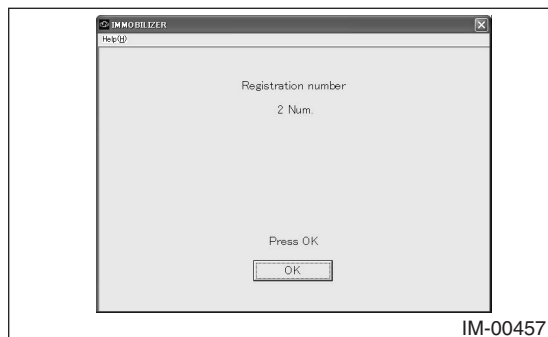
- 7) The registration mode selection dialog box appears. Click the [Readout the number of mobile key registration] button.



- 8) The confirmation dialog box to carry out the registered access key number reading mode is shown. Click the [OK] button.

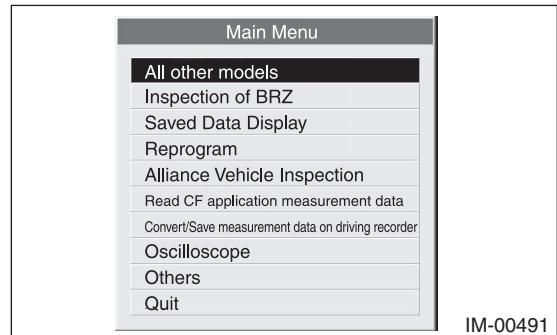


- 9) The number of access keys currently registered will be displayed. After clicking the [OK] button, the screen will return to the main menu.

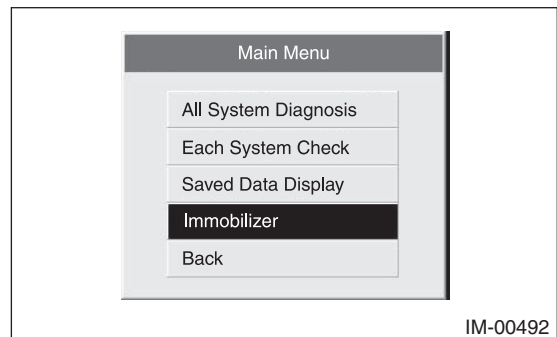


## 6-6 Delete the Access Key ID

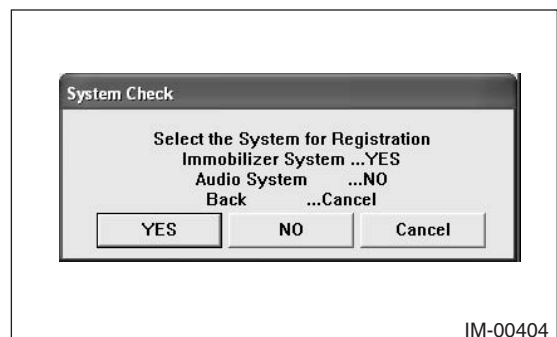
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



- 4) Click the [YES] button if the System Check screen is displayed.

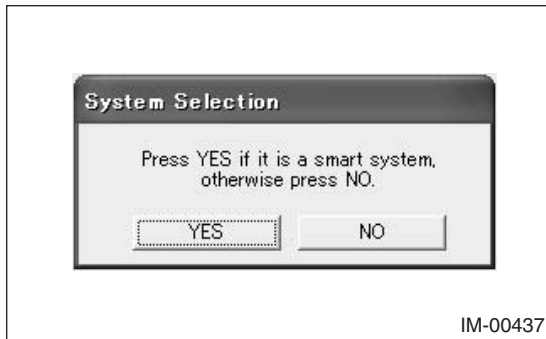


### Note:

Audio System is the specification only for the U.K.



- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



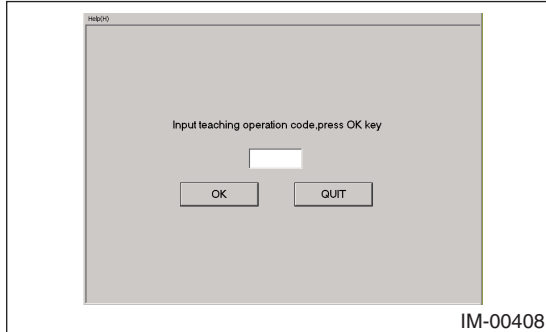
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

**Note:**

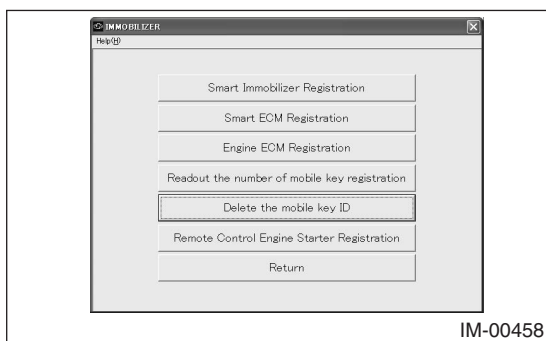
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.



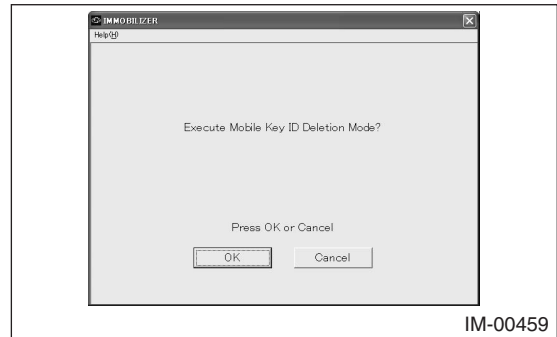
**Note:**

When you wish to return to the Main Menu screen, click the [QUIT] button.

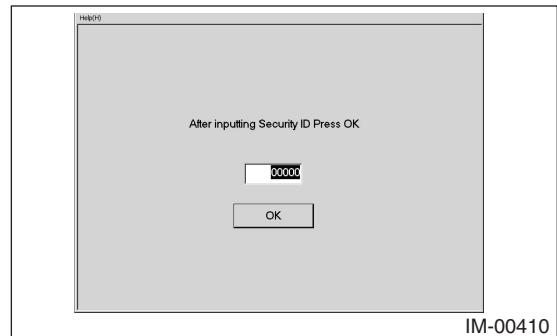
- 7) The registration mode selection dialog box appears. Click the [Delete the mobile key ID] button.



- 8) The confirmation dialog box to carry out the access key ID deletion mode appears. Click the [OK] button.



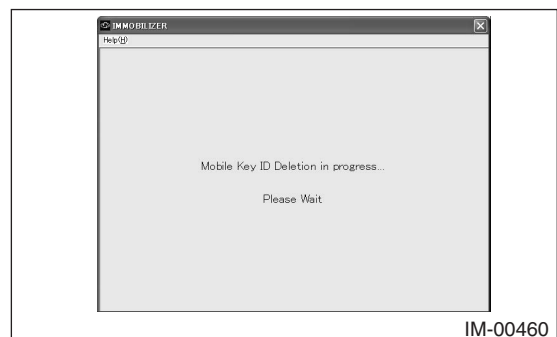
- 9) Input the security ID and then click the [OK] button.



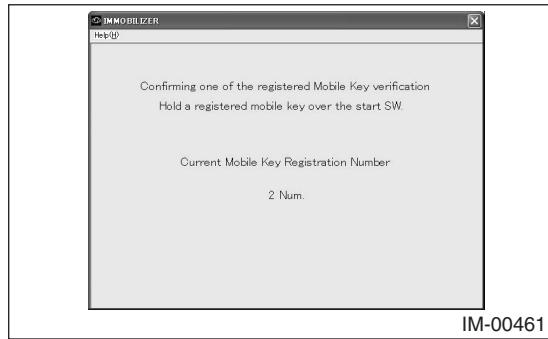
- 10) Stand by as the security ID is being collated.



- 11) Please wait for deleting registered access key ID.

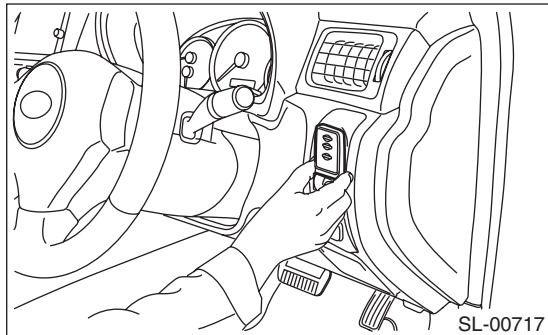


- 12) As the number of access keys confirmation screen will be displayed, place one of the access keys, the key, which you do not want to delete the ID, over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



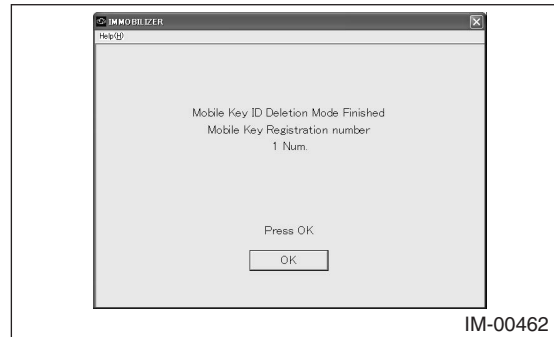
**Note:**

- The ID of an access key placed over the push engine switch (push-button ignition switch) will not be deleted.
- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Hold the Subaru ornament side to the push engine switch (push-button ignition switch) side.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

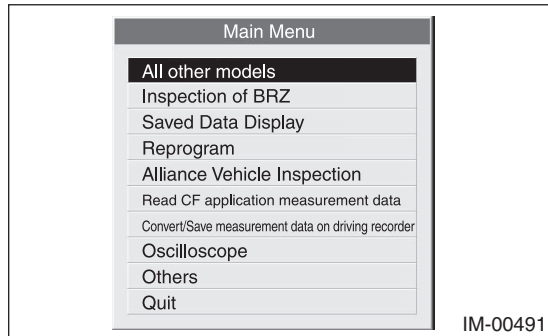
- 13) The screen shown below will appear if access key ID deletion ends normally. Click the [OK] button.



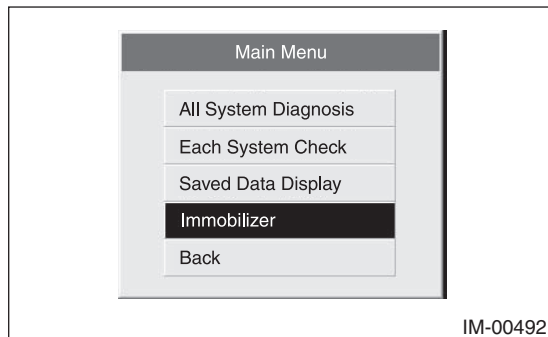
- 14) Complete this procedure after confirming if the keyless access with push button start system works properly by using an access key, which has the ID not deleted.

## 6-7 Registering Remote Control Engine Starter

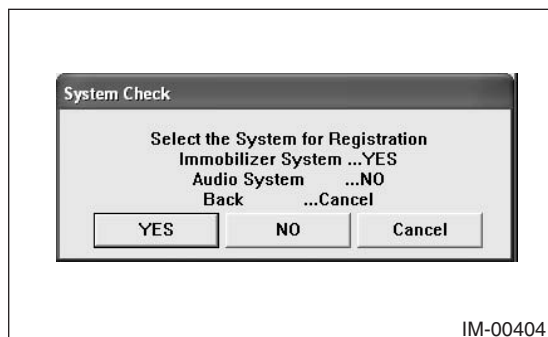
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



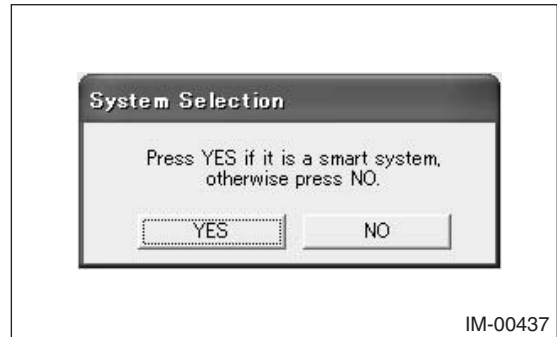
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



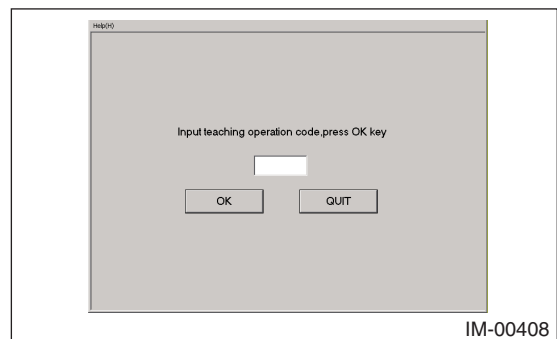
### Note:

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Input the teaching operation code, and then click the [OK] button.

### Note:

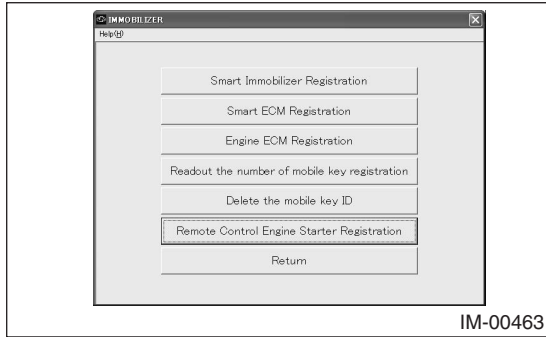
If the menu screen is displayed instead of the command input screen, the vehicle is D type. See the procedures for D type vehicle.



### Note:

When you wish to return to the Main Menu screen, click the [QUIT] button.

7) The registration mode selection dialog box appears. Click the [Remote Control Engine Starter Registration] button.



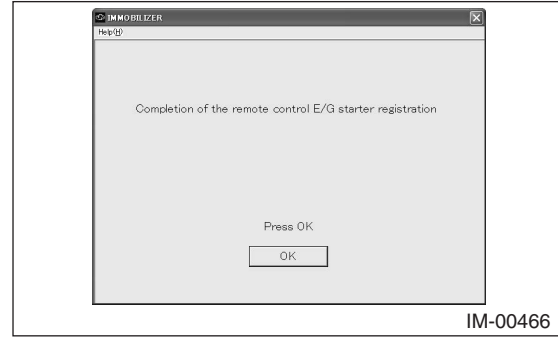
11) Wait until the remote control engine starter is then being registered.



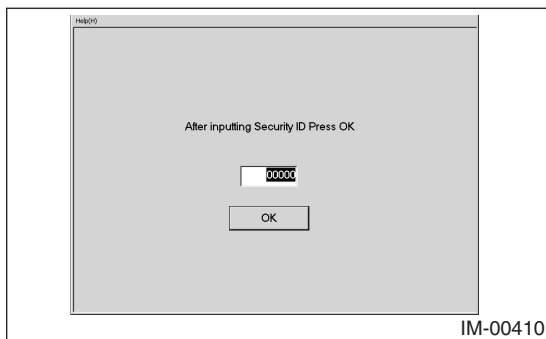
8) On the registration mode confirmation dialog box that appears, click the [OK] button.



12) The screen shown below will appear if remote control engine starter registration ends normally. Click the [OK] button.



9) Input the security ID and then click the [OK] button.



13) After confirming that the keyless access with push button start system and remote control engine starter operate normally, quit the registration operation.

10) Stand by as the security ID is being collated.



## **6-8 Registering Body Integrated Unit or Combination Meter**

Refer to the parts replacement table in "6-9 Keyless access with push button start system (except for North America): Correspondence table at the time of parts failure" and perform the measure that corresponds to each failure/lost state.

**Note:**

When replacing both the body integrated unit and combination meter at the same time or just one of them, refer to the procedure described in "6-1 Adding Access Keys" when executing smart immobilizer registration.

## 6-9 Keyless access with push button start system (except for North America): Correspondence table at the time of parts failure

If all the keys are lost, for protection against vehicle theft you must contact your Subaru service representative.

### Caution:

Parts to be replaced always shall be replaced by new parts, never by used parts.

### 1. Explanation of Registration Modes

Mode name	Contents	Items to be prepared 1	Items to be prepared 2	Remarks
Registering the Smart Immobilizer	To be performed at the time of registering an additional access key or replacement of the collation CM. (Up to seven access keys can be registered.)	Security ID	One registered access key	At the time of collation CM replacement, all access keys registered for the vehicle are required.
Registering the Smart ECM	To be performed when the ID code box or the steering lock CM has been replaced.	Security ID	One registered access key	
Delete the access key ID	Leave the ID of one access key and delete all others. (One is required at the time of mode execution.)	Security ID	One registered access key	
Registering Engine ECM	Perform registration between ECM and ID code box.	Security ID		This mode cannot be executed unless all parts other than the ECM have been registered.
Registering the Remote Control Engine Starter	When a remote control engine starter has been installed.	Security ID		

\* Smart immobilizer registration also includes steering lock initialization work and engine ECM registration.

## 2. Parts replacement table

**Note:**

- When performing each registration, make sure that the ignition switch is turned ON and driver's door is kept open. If ignition switch is OFF or all doors are closed, Body integrated unit will enter sleep mode, therefore each registration can not be performed.
- After replacing Collision CM without performing [Registering the Smart Immobilizer], if ignition switch is turned ON/OFF for 10 times, it will be impossible to turn ignition switch ON again. In this case, open driver's door and perform [Registering the Smart Immobilizer]. (In this case, it will possible to perform [Registering the Smart Immobilizer] even when ignition switch is OFF.)

**Note:**

- O: Part that failed/was lost
- X: Replace part with new one

<When only one part is failed or lost>

Access key Examples function- normally exists		Parts failed/lost							Parts required to replace or prepared when items on the left fail							Procedures to perform after parts replacement				
		Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)	(5)	
	O													Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)					
		O						X						Execution of smart immobilizer registration (*2)						
			O						X					Execution of smart ECM registration	Steering lock initialization work (*1)					
				O						X				Execution of smart ECM registration	(*4)	Execution of engine ECM registration				
					O						X			Execution of engine ECM registration						
						O						X		Execution of smart immobilizer registration						
													X	Execution of smart immobilizer registration						

<When two parts are failed or lost>

Access key		Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement					
		Examples functioning normally exists	Collation CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collation CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)
	All failed/lost														Execution of smart ECM registration	Steering lock initialization work (*1)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)	
O			O					One registered access key	X						Execution of smart ECM registration		Execution of engine ECM registration	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)
O				O				One registered access key			X				Execution of engine ECM registration	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)		
O					O			One registered access key				X			Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)			
O						O		One registered access key					X		Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)			
O								One registered access key					X		Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)			
O								All access keys to be registered	X						Execution of smart immobilizer registration	(*2)			
					O			All access keys to be registered	X			X			Execution of smart immobilizer registration	(*2)			
						O		All access keys to be registered	X				X		Execution of smart immobilizer registration	(*2)			
								All access keys to be registered	X					X	Execution of smart immobilizer registration	(*2)			
								One registered access key		X					Execution of smart ECM registration	Steering lock initialization work (*1)		Execution of engine ECM registration	(*4)
								One registered access key		X		X			Execution of smart ECM registration	Steering lock initialization work (*1)		Execution of engine ECM registration	(*4)
								One registered access key		X			X		Execution of smart ECM registration	Steering lock initialization work (*1)		Execution of engine ECM registration	



Access key		Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement					
		Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)	(5)
Examples functioning normally exists	All failed/lost		○					○											
							One registered access key		X				X	Execution of smart ECM registration	Steering lock initialization work (*1)				
							One registered access key			X	X			Execution of smart ECM registration		Execution of engine ECM registration (*4)			
						○	One registered access key			X		X		Execution of smart ECM registration					
							One registered access key							Execution of engine ECM registration					
							One registered access key							Execution of engine ECM registration					
							One registered access key							Execution of smart immobilizer registration (*3)					
							One registered access key							Execution of smart immobilizer registration (*3)					

<When three parts are failed or lost>

Access key		Parts failed/lost							Parts required to replace or prepared when items on the left fail							Procedures to perform after parts replacement				
		Examples functioning normally normally exists	Collation CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collation CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)	(5)
	○		○	○	○			One registered access key		X	X				Execution of smart ECM registration	Steering lock initialization work (*1)	(*4) Execution of engine ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)
	○		○	○	○			One registered access key		X	X	X			Execution of smart ECM registration	Steering lock initialization work (*1)	(*4) Execution of engine ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)
	○		○	○	○	○		One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	
	○		○	○	○			One registered access key		X	X			X	Execution of smart ECM registration	Steering lock initialization work (*1)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	
	○		○	○	○			One registered access key		X	X	X			Execution of smart ECM registration	Steering lock initialization work (*1)	(*4) Execution of engine ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)
	○		○	○	○	○		One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)	(*4) Execution of engine ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)
	○		○	○	○	○		One registered access key		X	X	X			Execution of smart ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	
	○		○	○	○			One registered access key		X	X	X			Execution of smart ECM registration	Deletion of the ID access key ID (deletion of a failed or lost access key)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)	

Access key		Parts failed/lost						Parts required to replace or prepared when items on the left fail						Procedures to perform after parts replacement						
		Examples functioning normally exists	All failed/lost	Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)
	○								One registered access key					X	X	Deletion of the access key ID (deletion of the ID of a failed or lost access key) (*3)	Execution of smart immobilizer registration (when an access key is to be added)			
				○	○	○	○	○	All access keys to be registered	X	X		X			Execution of smart immobilizer registration (*2)				
				○	○	○	○	○	All access keys to be registered	X	X		X	X		Execution of smart immobilizer registration (*2)				
				○	○	○	○	○	All access keys to be registered	X	X		X		X	Execution of smart immobilizer registration (*2)				
				○	○	○	○	○	All access keys to be registered	X	X		X		X	Execution of smart immobilizer registration (*2)				
				○	○	○	○	○	All access keys to be registered	X	X		X		X	Execution of smart immobilizer registration (*2)				
				○	○	○	○	○	All access keys to be registered	X	X		X		X	Execution of smart immobilizer registration (*3)				
				○	○	○	○	○	One registered access key		X	X	X			Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X	X	Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X	X	Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration
				○	○	○	○	○	One registered access key		X	X		X		Execution of smart ECM registration	Steering lock initialization work (*1)			Execution of engine ECM registration

Parts failed/lost										Parts required to replace or prepared when items on the left fail					Procedures to perform after parts replacement				
Access key		Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	Access key	Collision CM	Steering lock CM	ID Code Box	ECM	Body integrated unit	Combination meter	(1)	(2)	(3)	(4)	(5)
Examples functioning normally exists	All failed/lost							One registered access key			X	X		X	Execution of smart ECM registration (*4)		Execution of engine ECM registration		
								One registered access key			X		X	X	Execution of smart ECM registration (*3)		Execution of engine ECM registration		
												X	X	X	Execution of engine ECM registration (*3)				

\*1: Steering lock initialization work: Initialization is complete if the steering is locked about 10 seconds after the ignition switch is turned off and driver's door was either opened then closed or closed then opened.  
 \*2: When the collision CM has been replaced for a vehicle equipped with a remote control engine starter, perform "Registering Remote Control Engine Starter".  
 \*3: The registration work cannot be performed in the current state. Provide a new body integrated unit and then contact your Subaru service representative.  
 \*4: Set the vehicle power supply to OFF and then back to IG ON.

**6-10 Correspondence table when registration is not possible**

Status	Screen	Trouble mode	Action to be taken
Select "Immobilizer" from the Main Menu → System "Immobilize" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed	<ul style="list-style-type: none"> <li>•K line communication failure between Subaru Select Monitor and body integrated unit</li> <li>•B/up fuse disconnected</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the diagnosis for the K line.</li> <li>•Check that the B/up fuse in the M/B is connected.</li> </ul>
"Smart Immobilizer Registration" start Enter the security ID → "Security ID is being collated."	Communication error has occurred. NG Security ID is incorrect x 3 times → initial screen	Security ID not written in either body integrated unit or combination meter Incorrect security ID	Read out the security ID.
	NG Security ID Registration	<ul style="list-style-type: none"> <li>•Communication failure with combination meter (CAN communication related failure)</li> <li>•Combination meter failure</li> </ul>	Read out the security ID. Perform the diagnosis for CAN.
(Collation CM replacement mode) → "Initializing communication..." → Enter the security ID	NG Mode transition error	<ul style="list-style-type: none"> <li>•Temporary communication failure with Subaru Select Monitor</li> <li>•B/up fuse disconnected</li> <li>•Immobilizer amplifier failure</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•ID code box response failure</li> </ul>	<ul style="list-style-type: none"> <li>•Check the data link connector and harness.</li> <li>•Check that the B/up fuse in the M/B is connected.</li> <li>•Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>•Perform harness inspection between the power supply CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Check LIN between the collation CM and ID code box.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. DTC : B2201, B2202, B2203, B2200, B2217</li> </ul>
	NG Time Out * When the number of "Registered number" does not increase after 30 seconds from displaying "Hold an Access Key to be registered over the start SW," screen.	<ul style="list-style-type: none"> <li>•Time-out before the operator held access key (30 seconds)</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the procedure according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> </ul>
(Collation CM replacement mode) → "Confirm all Access Keys..." → "Hold an Access Key to be registered..."	NG Time Out * When [END] is pressed after holding of an access key is complete, or [YES] is pressed after "Registered number" becomes seven.	<ul style="list-style-type: none"> <li>•Access key not held with its ornament surface facing push button ignition switch</li> <li>•Already-collated access key was held</li> <li>•Another (already-collated) access key present near push button ignition switch</li> <li>•Access key malfunction (transponder function)</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>•Access key that was registered on another vehicle was held</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the procedure according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> <li>[No buzzer sounds, when access key is held]</li> <li>•Confirm the access key item number and check for malfunction.</li> <li>•Check that the access key is not registered on another vehicle.</li> <li>[Buzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>DTC : B2207</li> <li>•Check that another access key is not present inside the vehicle.</li> <li>•Check the battery of access key.</li> <li>•Check the access key for malfunction.</li> <li>•Check the connector wiring/harness of RF receiver.</li> <li>•Check the front indoor antenna for malfunction.</li> </ul>

Status	Screen	Trouble mode	Action to be taken
<p>→ "Ignition SW is turned off..."</p>	<p>NG Steering LOCK (Time Out)</p>	<p>[Following occurred during registration operation]</p> <ul style="list-style-type: none"> <li>•The operator pressed Quit button without registering access key</li> </ul> <p>[Following failure occurred before none of new registration access key was collated during new registration key collation process after registration mode is on.]</p> <ul style="list-style-type: none"> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Temporary communication failure with Subaru Select Monitor</li> </ul> <p>[When the following occurred during owner recognition]</p> <ul style="list-style-type: none"> <li>•Time-out before the operator held access key (30 seconds)</li> <li>•Time-out while already-collated access key was kept held (30 seconds)</li> <li>•Access key that was not registered to the vehicle was held</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Access key not held with its ornament surface facing push button ignition switch</li> <li>•Another (already-collated) access key present near push button ignition switch</li> <li>•Access key malfunction (transponder function)</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>•Antenna coil malfunction</li> <li>•CM code incompatibility between collation CM — steering lock CM — ID code box (replacement with used part)</li> </ul> <p>[IGN OFF impossible]</p> <ul style="list-style-type: none"> <li>•Operation not reflected due to push button ignition switch improper connection/malfunction</li> <li>•IGN relay stuck ON</li> <li>•Power supply-output short in harness between power supply CM and IGN relay</li> <li>•IGN harness power supply-output short</li> <li>•Shift positioned at other than P, or power supply CM falsely recognizing as shift positioned at other than P</li> </ul> <p>[Steering lock not confirmed]</p> <ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-OFF door open/close (60 seconds)</li> <li>•Steering lock not connected, or LIN not connected (occurred during key registration procedure)</li> <li>•Steering lock CM, ID code box, or power supply CM failure (control failure)</li> <li>•Door courtesy SW failure, or courtesy SW input failure of body integrated unit, G/W CM or collation CM</li> </ul>	<p>[During registration operation, or during owner recognition]</p> <ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2203, B2204)</li> <li>•Check the data link connector and harness.</li> <li>•Perform harness inspection between the power supply CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Retry the procedure from the beginning. (Check that the access key to be held is registered to the vehicle.)</li> </ul> <p>[During owner recognition]</p> <ul style="list-style-type: none"> <li>•Check that the access key is registered to the vehicle to be worked on.</li> <li>•Check the access key for malfunction.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>DTC : B2201, B2200, B2217</li> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> </ul> <p>[IGN OFF impossible]</p> <ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2105, B2106, B2107)</li> <li>•Check the harness between power supply CM and push button ignition switch, and push button ignition switch alone.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between power supply CM and IGN relay.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul> <p>[Steering lock not confirmed]</p> <ul style="list-style-type: none"> <li>•After initializing the steering lock, perform IGN ON and then execute "Engine ECM Registration".</li> <li>•On the data monitor of body integrated unit, check that "Driver's door SW input" changes ON-OFF according to the door opening/closing.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2200, B2217)</li> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>•Replace the steering lock CM.</li> </ul>

Status	Screen	Trouble mode	Action to be taken
→ "Switch Ignition ON"	NG IGN ON (Time Out)	<ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-ON (60 seconds)</li> <li>•Operation not reflected due to push button ignition switch improper connection/malfunction</li> <li>•Access key not present inside the vehicle</li> <li>•IGN relay stuck OFF</li> <li>•GND-output short/open in harness between power supply CM and IGN relay</li> <li>•IGN harness open/GND-output short</li> <li>•IGN fuse blown out</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2105, B2106, B2107)</li> <li>•Check if the access key is present inside the vehicle.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between power supply CM and IGN relay.</li> <li>•Check the upstream fuse of IGN relay.</li> <li>•Retry "Smart ECM Registration" only.</li> <li>•While turning the steering wheel, perform IGN ON ↔ OFF to check that the operation unlocks the steering lock.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul>
NG Immobilizer Unsetting (Time Out)	NG Number of registrations exceeded	<ul style="list-style-type: none"> <li>•Steering lock CM locked</li> <li>•Steering lock CM, ID code box, or collation CM failure (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul>
(Additional registration mode) "Smart Immobilizer Registration" start	NG Mode transition error	Additional registration impossible	<ul style="list-style-type: none"> <li>•Check the data link connector and harness.</li> <li>•Check that the B/up fuse in the M/B is connected.</li> <li>•Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>•Perform harness inspection between the power supply CM and push engine switch (push-button ignition switch), and inspection of the push engine switch (push-button ignition switch) alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Check LIN between the collation CM and ID code box.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2202, B2203, B2200, B2217)</li> </ul>

Status	Screen	Trouble mode	Action to be taken
<p>→ "Confirming one of the registered Access Key verification"</p>	<p>NG Mode transition error</p>	<ul style="list-style-type: none"> <li>• Temporary communication failure with Subaru Select Monitor</li> <li>• Immobilizer amplifier failure</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• ID code box response failure</li> <li>• Time-out before the registered access key being held (30 seconds)</li> <li>• Access key not held with its ornament surface facing push button ignition switch</li> <li>• Access key malfunction (transponder function)</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Antenna coil malfunction</li> <li>• CM code incompatibility between collation CM — steering lock CM — ID code box (control failure, replacement with used part)</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check that the access key to be held is registered to the vehicle.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2202, B2203)</li> <li>• Check the data link connector and harness.</li> <li>• Check LIN between the collation CM and ID code box.</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2202, B2203, B2200, B2217)</li> <li>• Perform harness inspection between the power supply CM and push engine switch (push-button ignition switch), and inspection of the push engine switch (push-button ignition switch) alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Confirm the access key item number and check for malfunction.</li> <li>• Check that the data monitor indicates "Normal" for "Code collated result between collation ECM and ID code box" and "Code collation result between steering locked ECM and ID code box".</li> </ul>
<p>→ "Hold an Access Key to be registered..."</p>	<p>NG Time Out</p> <p>* When the number of "Registered number" does not increase after 30 seconds from displaying "Hold an Access Key to be registered over the start SW," screen.</p>	<ul style="list-style-type: none"> <li>• Time-out before the operator held access key (30 seconds)</li> </ul> <p>[No buzzer sounds, when access key is held]</p> <ul style="list-style-type: none"> <li>• Access key not held with its ornament surface facing push button ignition switch</li> <li>• Already-collated access key was held</li> <li>• Another (already-collated) access key present near push button ignition switch</li> <li>• Access key malfunction (transponder function)</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Access key that was registered on another vehicle was held</li> <li>• Antenna coil malfunction</li> </ul> <p>[Buzzer sounds only once when access key is held, and number of registration does not increase]</p> <ul style="list-style-type: none"> <li>• Another access key present inside the vehicle (interference, etc.)</li> <li>• Access key out of battery/malfunction (RF function)</li> <li>• RF receiver improper connection/malfunction</li> <li>• Front indoor antenna improper connection/malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the procedure according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> <li>[No buzzer sounds, when access key is held]</li> <li>• Confirm the access key item number and check for malfunction.</li> <li>• Check that the access key is not registered on another vehicle.</li> <li>[Buzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2207)</li> <li>• Check that another access key is not present inside the vehicle.</li> <li>• Check the battery of access key.</li> <li>• Check the access key for malfunction.</li> <li>• Check the connector wiring/harness of RF receiver.</li> <li>• Check the front indoor antenna for malfunction.</li> </ul>
<p>→ "Hold an Access Key to be registered..."</p>	<p>NG Time Out</p> <p>* When [END] is pressed after holding of an access key is complete, or [YES] is pressed after "Registered number" becomes seven.</p>	<ul style="list-style-type: none"> <li>• Steering lock CM or ID code box improper connection</li> <li>• CM code incompatibility between collation CM — steering lock CM — ID code box (control failure)</li> <li>• Code writing failure between CMs</li> </ul>	<ul style="list-style-type: none"> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2200, B2217)</li> <li>• Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>• Retry the procedure from the beginning. (* Essentially neither writing incompatibility nor code incompatibility occurs.)</li> </ul>



Status	Screen	Trouble mode	Action to be taken
<p>→ "Ignition SW is turned off..."</p>	<p>Screen</p> <p>NG Steering LOCK (Time Out)</p>	<p>[Following occurred during registration operation]</p> <ul style="list-style-type: none"> <li>•The operator pressed Quit button without registering access key</li> </ul> <p>[Following failure occurred before none of new registration access key was collated during new registration key collation process after registration mode is on.]</p> <ul style="list-style-type: none"> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Temporary communication failure with Subaru Select Monitor</li> </ul> <p>[When the following occurred during owner recognition]</p> <ul style="list-style-type: none"> <li>•Time-out before the operator held access key (30 seconds)</li> <li>•Time-out while already-collated access key was kept held (30 seconds)</li> <li>•Access key that was not registered to the vehicle was held</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Access key not held with its ornament surface facing push button ignition switch</li> <li>•Another (already-collated) access key present near push button ignition switch</li> <li>•Access key malfunction (transponder function)</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>•Antenna coil malfunction</li> <li>•CM code incompatibility between collation CM — steering lock CM — ID code box (replacement with used part)</li> </ul> <p>[IGN OFF impossible]</p> <ul style="list-style-type: none"> <li>•Operation not reflected due to push button ignition switch improper connection/malfunction</li> <li>•IGN relay stuck ON</li> <li>•Power supply-output short in harness between power supply CM and IGN relay</li> <li>•IGN harness power supply-output short</li> <li>•Shift positioned at other than P, or power supply CM falsely recognizing as shift positioned at other than P</li> </ul> <p>[Steering lock not confirmed]</p> <ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-OFF door open/close (60 seconds)</li> <li>•Steering lock not connected, or LIN not connected (occurred during key registration procedure)</li> <li>•Steering lock CM, ID code box, or power supply CM failure (control failure)</li> </ul> <p>Door courtesy SW failure, or courtesy SW input failure of body integrated unit, G/W CM or collation CM</p>	<p>[During registration operation, or during owner recognition]</p> <ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2203, B2204)</li> <li>•Check the data link connector and harness.</li> <li>•Perform harness inspection between the power supply CM and push engine switch (push-button ignition switch), and inspection of the push engine switch (push-button ignition switch) alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Retry the procedure from the beginning. (Check that the access key to be held is registered to the vehicle.)</li> </ul> <p>[During owner recognition]</p> <ul style="list-style-type: none"> <li>•Check that the access key is registered to the vehicle to be worked on.</li> <li>•Check the access key for malfunction.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> </ul> <p>(DTC: B2201, B2200, B2217)</p> <ul style="list-style-type: none"> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> </ul> <p>[IGN OFF impossible]</p> <ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> </ul> <p>(DTC: B2105, B2106, B2107)</p> <ul style="list-style-type: none"> <li>•Check the harness between power supply CM and push button ignition switch, and push button ignition switch alone.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between power supply CM and IGN relay.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul> <p>[Steering lock not confirmed]</p> <ul style="list-style-type: none"> <li>•After initializing the steering lock, perform IGN ON and then execute "Engine ECM Registration".</li> <li>•On the data monitor of body integrated unit, check that "Driver's door SW input" changes ON-OFF according to the door opening/closing.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> </ul> <p>(DTC: B2201, B2200, B2217)</p> <ul style="list-style-type: none"> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>•Replace the steering lock CM.</li> </ul>

Status	Screen	Trouble mode	Action to be taken
→ "Switch Ignition ON"	NG IGN ON (Time Out)	<ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-ON (60 seconds)</li> <li>•Operation not reflected due to push button ignition switch improper connection/malfunction</li> <li>•Access key not present inside the vehicle</li> <li>•IGN relay stuck OFF</li> <li>•GND-output short/open in harness between power supply CM and IGN relay</li> <li>•IGN harness open/GND-output short</li> <li>•IGN fuse blown out</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2105, B2106, B2107)</li> <li>•Check if the access key is present inside the vehicle.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between power supply CM and IGN relay.</li> <li>•Check the upstream fuse of IGN relay.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul>
	NG Immobilizer Unsetting (Time Out)	<ul style="list-style-type: none"> <li>•Steering lock CM locked</li> <li>•Steering lock CM, ID code box, or collation CM failure (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>•While turning the steering wheel, perform IGN ON ← → OFF to check that the operation unlocks the steering lock.</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2200, B2217)</li> <li>•Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>•Retry "Smart ECM Registration" only.</li> </ul>
(All mode) → "EGI initialization / During registration..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN line)
	NG EGI-Immobilizer communication	Communication failure between ECM and ID code box	Perform the diagnosis for DTC B1572 (P1572).
	NG IMM Control Module EEPROM	ID code box failure	Perform the diagnosis for DTC B1577 (P1577).
	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).
	NG EGI security access NG	•Subaru Select Monitor failure •ECM failure	•Check version of Subaru Select Monitor. •Replace the ECM.
	NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When this does not solve the problem, remove and install the battery.
	Communication error has occurred.	Security ID not written in either body integrated unit or combination meter	Read out the security ID.
	NG Security ID is incorrect x 3 times → initial screen	Incorrect security ID	Read out the security ID.
	NG Security ID Registration	•Communication failure with combination meter (CAN communication related failure) •Combination meter failure	Perform the diagnosis for CAN.
	NG Access Key is not still registered	Access key unregistered	Execute "Smart Immobilizer Registration".

Status	Screen	Trouble mode	Action to be taken
<p>→ "Confirming one of the registered Access Key verification"</p>	<p>NG Mode transition error</p>	<ul style="list-style-type: none"> <li>• Temporary communication failure with Subaru Select Monitor</li> <li>• Immobilizer amplifier failure</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• ID code box response failure</li> <li>• B/up fuse disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• Check the data link connector and harness.</li> <li>• Perform harness inspection between the power supply CM and push engine switch (push-button ignition switch), and inspection of the push engine switch (push-button ignition switch) alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the B/up fuse in the M/B is connected.</li> <li>• Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Check LIN between the collation CM and ID code box.</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2202, B2203, B2200, B2217)</li> </ul>
	<p>NG Time Out * When holding an access key</p>	<ul style="list-style-type: none"> <li>• Time-out before the registered access key being held (30 seconds)</li> <li>• Access key not held with its ornament surface facing push button ignition switch</li> <li>• Access key malfunction (transponder function)</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Antenna coil malfunction</li> <li>• CM code incompatibility between collation CM — steering lock CM — ID code box (control failure, replacement with used part)</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check that the access key to be held is registered to the vehicle.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2202, B2203)</li> <li>• Perform harness inspection between the power supply CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Confirm the access key item number and check for malfunction.</li> <li>• Check that the data monitor indicates "Normal" for "Code collated result between collation ECM and ID code box" and "Code collation result between steering locked ECM and ID code box".</li> </ul>
	<p>NG Time Out * When holding an access key is complete</p>	<ul style="list-style-type: none"> <li>• Steering lock CM or ID code box improper connection</li> <li>• CM code incompatibility between collation CM — steering lock CM — ID code box (control failure)</li> <li>• Code writing failure between CMs</li> </ul>	<ul style="list-style-type: none"> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2201, B2200, B2217)</li> <li>• Check LIN between collation CM — power supply CM — ID code box — steering lock CM.</li> <li>• Retry the procedure from the beginning. (*Essentially neither writing incompatibility nor code incompatibility occurs.)</li> </ul>
<p>"Engine ECM Registration" start Enter the security ID → "Security ID is being collated."</p>	<p>Communication error has occurred. NG Security ID is incorrect x 3 times → initial screen NG Security ID Registration</p>	<p>Security ID not written in either body integrated unit or combination meter Incorrect security ID • Communication failure with combination meter (CAN communication related failure) • Combination meter failure</p>	<p>Read out the security ID. Read out the security ID. Perform the diagnosis for CAN.</p>

Status	Screen	Trouble mode	Action to be taken
→ "Engine ECM is registering..."  "Delete the Access Key ID" start Enter the security ID → "Security ID is being collated."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN line)
	NG EGI-Immobilizer communication	Communication failure between ECM and ID code box	Perform the diagnosis for DTC B1572 (P1572).
	NG IMM Control Module EEPROM	ID code box failure	Perform the diagnosis for DTC B1577 (P1577).
	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).
	NG EGI security access NG	<ul style="list-style-type: none"> <li>Subaru Select Monitor failure</li> <li>ECM failure</li> </ul>	<ul style="list-style-type: none"> <li>Check version of Subaru Select Monitor.</li> <li>Replace the ECM.</li> </ul>
	NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When this does not solve the problem, remove and install the battery.
	Communication error has occurred.	Security ID not written in either body integrated unit or combination meter	Read out the security ID.
	NG Security ID is incorrect x 3 times → initial screen	Incorrect security ID	Read out the security ID.
	NG Security ID Registration	<ul style="list-style-type: none"> <li>Communication failure with combination meter (CAN communication related failure)</li> <li>Combination meter failure</li> </ul>	Perform the diagnosis for CAN.
	Can not delete anything more.	Not enough number of access keys to delete registered	Execute "Smart Immobilizer Registration".
		<ul style="list-style-type: none"> <li>Check the data link connector and harness.</li> <li>Check that the B/up fuse in the M/B is connected.</li> <li>Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>Perform harness inspection between the power supply CM and push engine switch (push-button ignition switch), and inspection of the push engine switch (push-button ignition switch) alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>Check LIN between the collation CM and ID code box.</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> </ul>	
	<ul style="list-style-type: none"> <li>Temporary communication failure with Subaru Select Monitor</li> <li>B/up fuse disconnected</li> <li>Immobilizer amplifier failure</li> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>ID code box response failure</li> </ul>	(DTC: B2201, B2202, B2203, B2200, B2217)	

Status	Screen	Trouble mode	Action to be taken
<p>→ "Confirming one of the registered Access Key verification"</p>	<p>NG Time Out</p>	<ul style="list-style-type: none"> <li>• Time-out before the registered access key being held (30 seconds)</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• Immobilizer amplifier failure</li> <li>• Access key not held with its ornament surface facing push button ignition switch</li> <li>• Another (already-collated) access key present near push button ignition switch</li> <li>• Access key malfunction (transponder function)</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Antenna coil malfunction</li> <li>• Steering lock CM or ID code box improper connection</li> <li>• CM code incompatibility between collation CM — steering lock CM — ID code box (control failure)</li> <li>• Code writing failure between CMs</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check that the access key to be held is registered to the vehicle.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2200, B2201, B2217, B2202, B2203)</li> <li>• Perform harness inspection between the collation CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Confirm the access key item number and check for malfunction.</li> <li>• Check LIN between collation ECM — power supply CM — ID code box — steering lock CM.</li> <li>• Check that the data monitor indicates "Normal" for "Code collated result between collation ECM and ID code box" and "Code collation result between steering locked ECM and ID code box".</li> </ul>

List of DTC codes, when the immobilizer is not registered

<When collation CM is replaced>	B1572 (P1572) Imm Circuit Failure (Except Antenna Circuit)
<When ECM is replaced>	B1571 (P1571) Reference Code Incompatibility

## 7 D type

Vehicle that has a keyless access with push button start system and is originally NOT provided with a security ID (security tag)

### A: Structure

An immobilizer system consists of the following components: Immobilizer indicator (in the combination meter), ECM, access key, immobilizer antenna (incorporating a push switch), keyless access CM, steering lock CM, ID code box (for a model with ID code box), indoor and outdoor antennas, and receiver (may be incorporated in keyless access CM).

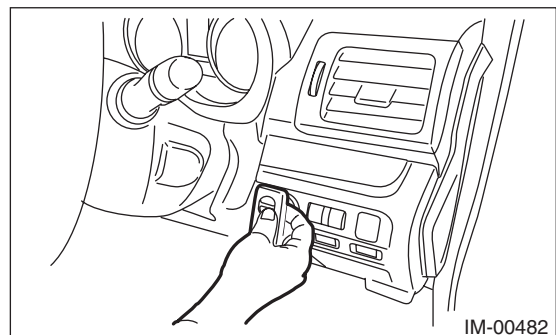
### B: Operation

Get in the vehicle with your access key and let the access key send the ID via the indoor antenna. The access key sends the ID to the receiver and the received ID is sent to the collation CM where it is collated with the IDs of other immobilizer-related units. Step on the brake pedal (for an AT model) or clutch pedal (for a MT model) and press the push engine switch so that the starter rotates to start the engine.

If the IDs do not match within the specified period of time after the RPM of the engine reaches the specified RPM, the engine stops. If the IDs do not match, the engine stops within a couple of seconds. If the engine does not start as a result of a mismatch of the IDs, the immobilizer indicator lamp in the combination meter turns on to indicate that the immobilizer is active. When the immobilizer is activated, the immobilizer indicator lamp flashes to generate an alert notifying people around the vehicle that it is protected by the immobilizer.

### C: Caution

- When you install wireless radios or car phones, make sure that the immobilizer system is not influenced by their electric waves.
- Do not operate cell phones or wireless radios or the like when either trouble diagnosis or immobilizer registration is in progress.
- During immobilizer registration, do not bring a key with a different ID close to the ignition switch. When the access key is on a keychain, remove it from the chain before start of diagnosis. When there are several keys on one keychain, remove them from the keychain and use them individually for the work.
- The work of "Registering the Smart Immobilizer", "Registering the Smart ECM" and "Delete the Mobile Key (Access Key) ID" includes the operation of holding up the access key to the push engine switch (push-button ignition switch). Pay attention to the following when performing this operation.
  - Confirm that the battery voltage is 11 V or more and execute each mode.
  - When confirm/register access key, only one key can be brought into vehicle at a time. For registration of multiple keys, bring a key into vehicle and perform registration while leaving rest of other keys outside.
  - When holding up the access key to the push engine switch (push-button ignition switch), do not hold two or more access keys at the same time, but use only one each time. (When the access key is on a keychain, remove it from the keychain before the work.)
  - When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Face the access key with the button surface facing yourself.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- When replacing the parts for a vehicle with a keyless access with push button start system, always use new parts for the "access key", "keyless access CM", "ID code box", "steering lock CM", and "body integrated unit". Never replace them with used parts.
  - If the engine cannot get started with a registered access key, wait approximately one second until the immobilizer warning lamp starts flashing. Then try to start the engine again with the registered access key.
  - Do not place a PC within 10 cm around access keys and receiver antennas to avoid any malfunctions of the keyless access with push button start system.
  - Do not execute "Smart ECM Registration" before replacing the steering lock CM or ID code box. When execution is performed, it may result as "NG". However, the system is normal.

**Note:**

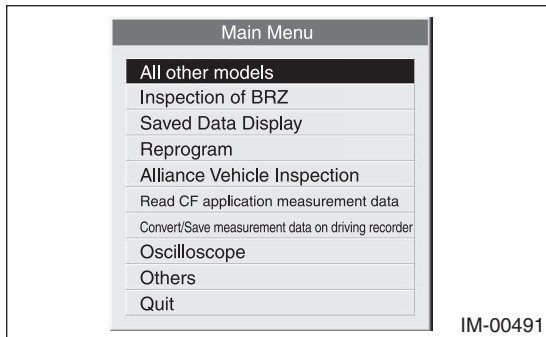
- After replacing an access key and keyless access CM, perform the "Registering the Smart Immobilizer" procedure.
- After replacing a steering lock CM, perform the "Registering the Smart ECM" procedure.
- When replacing the ID code box, "Registering the Smart ECM" and "Registering the Engine ECM" must be performed in this order.
- After replacing an engine ECM, perform the "Registering the Engine ECM" procedure.
- When turning the ignition on, press the push engine switch (push-button ignition switch) twice without stepping on the brake pedal. Power supply status changes to ACC-ON, IG-ON, OFF, ACC-ON accordingly, as pressing the push engine switch (push-button ignition switch) once.
- At the time of engine start, press the push engine switch (push-button ignition switch) once with the brake pedal depressed in case of an AT vehicle. In case of a MT vehicle, press the push engine switch (push-button ignition switch) once with the clutch pedal depressed.
- When performing either one of the operations shown below, perform also the "Registering Remote Control Engine Starter".
  - Installing remote control engine starter
  - Replacing remote control engine starter
  - Replacing keyless access CM of a vehicle equipped with remote control engine starter
- When an access key has been lost, perform "Delete the Access Key ID". When all access keys have been lost, refer to "Keyless access with push button start system: Correspondence table at the time of parts failure".
- There is a possibility that registry fails due to poor connector coupling of cabin antenna. In such case, please repair electrical contacts of keyless access indoor antenna (front) before performing immobilizer registry. Keyless access indoor antenna (front) is the only antenna used in immobilizer registry.)

## 7-1 Adding Access Keys

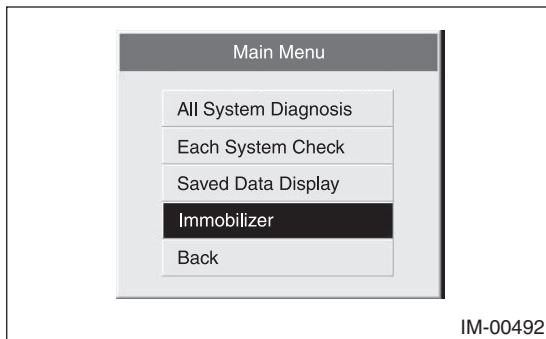
**Note:**

Depending on the replacement part, a different screen from the screen shown in this item may be displayed. In such a case, follow the instructions shown on the screens.

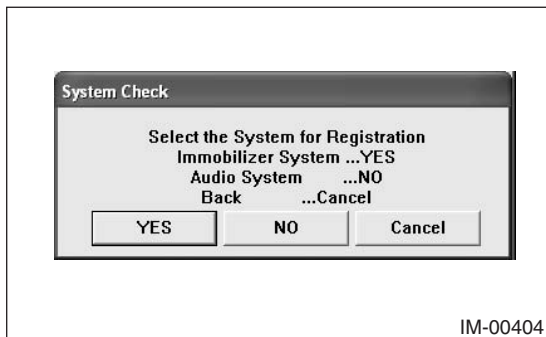
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



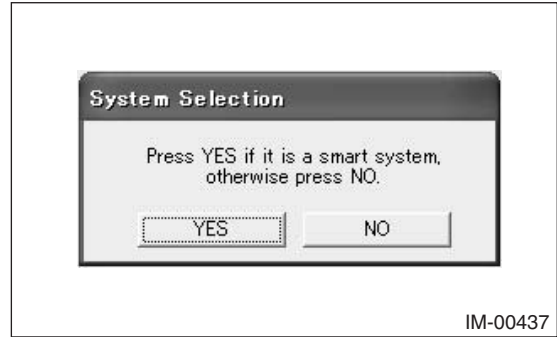
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



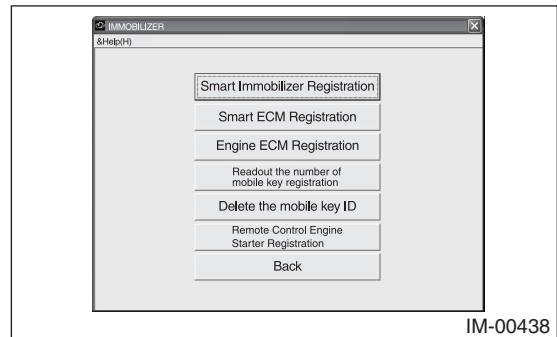
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) The registration mode selection dialog box appears. Click the [Smart Immobilizer Registration] button.

**Note:**

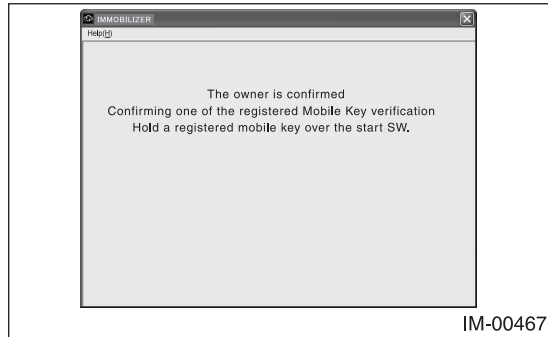
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



- 7) On the registration mode confirmation dialog box that appears, click the [OK] button.

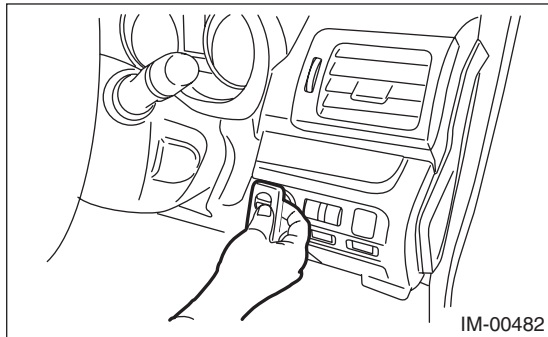


- 8) The dialog box to confirm already registered access keys appears. Hold one of those access keys over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



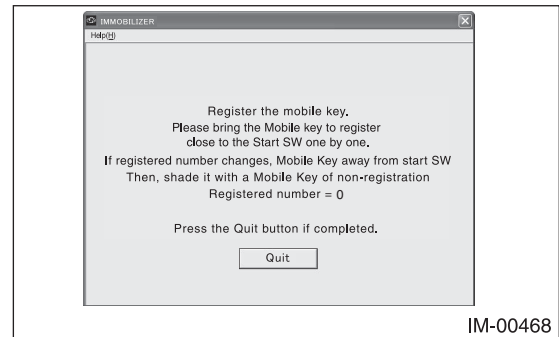
**Note:**

- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Face the access key with the button surface facing yourself.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

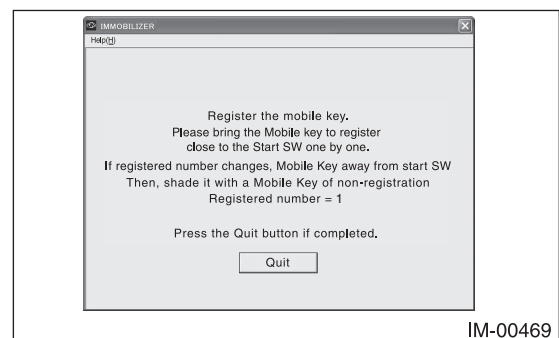
- 9) When screen displays access key registration mode shown below, hold one access key you wish to register additionally over the push engine switch (push-button ignition switch).



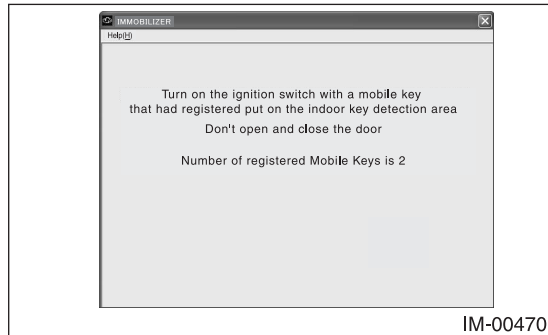
**Note:**

- When the buzzer has sounded twice, the work of holding the access key up has been completed, but for 10 seconds after the work, the access key should be kept inside the vehicle (near the select lever).
- For registration of the next access key, the previously registered access key should be removed from the vehicle.
- Do not click the [Quit] button until you finish registering all the access keys you wish to register.
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

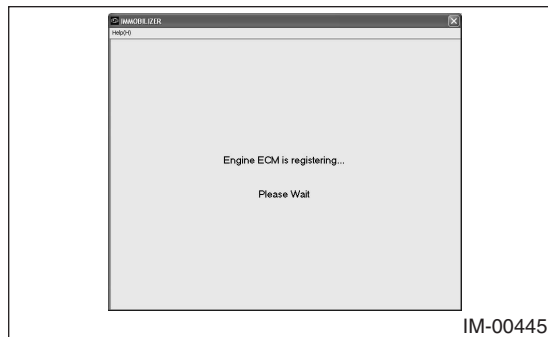
- 10) Once the registration ends normally, the [Registered number] increases by one as you can see on the screen below. If you have another access key to be registered, repeat step 9. If you do not have any more keys to be registered, click the [Quit] button and move on to step 11.



- 11) When the "Turn off the ignition switch" screen appears, turn the push engine switch (push-button ignition switch) off.
- 12) Then following screen appears. Turn the ignition on.



- 13) Stand by as the registration to the ECM is being completed.



- 14) The screen shown below will appear if registration ends normally. Click the [OK] button.



- 15) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

## 7-2 Registering Keyless Access CU

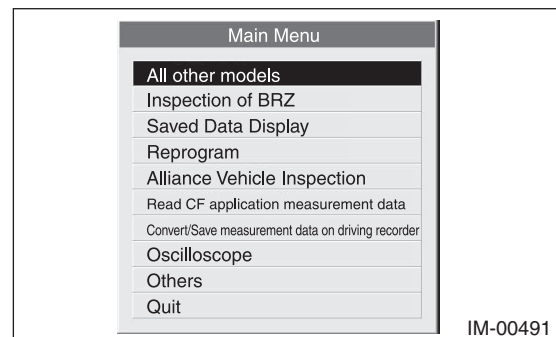
### Caution:

**All registered access keys are required. If registration completed before registering a desired access key, such an unregistered access key cannot be used anymore. When necessary, prepare a new access key, and perform additional registration.**

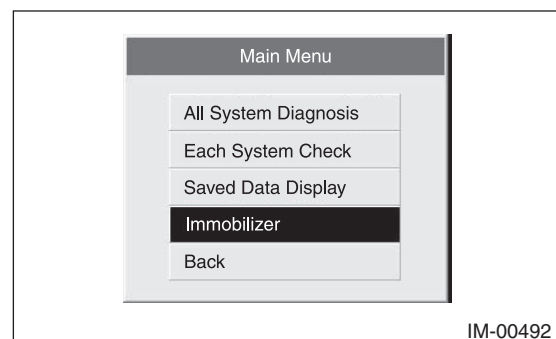
### Note:

Depending on the replacement part, a different screen from the screen shown in this item may be displayed. In such a case, follow the instructions shown on the screens.

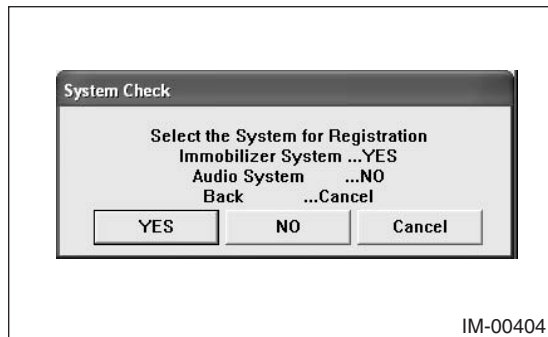
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



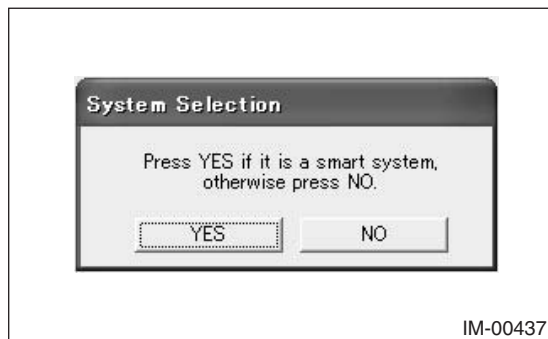
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

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- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



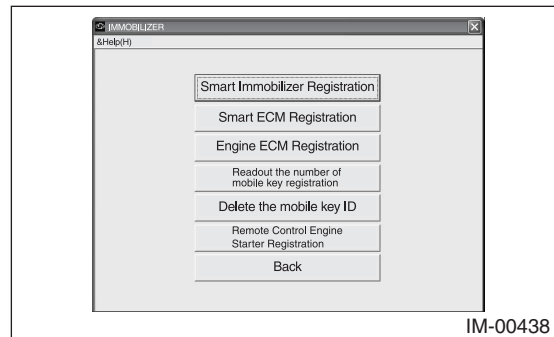
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) The registration mode selection dialog box appears. Click the [Smart Immobilizer Registration] button.

**Note:**

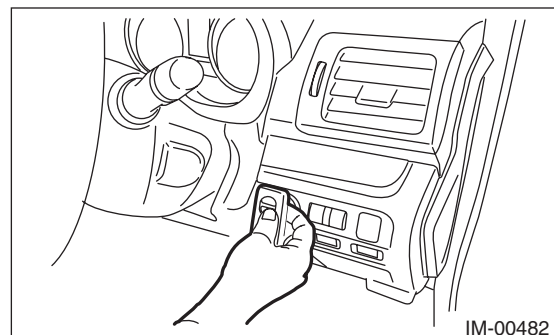
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



- 7) On the registration mode confirmation dialog box that appears, click the [OK] button.
- 8) When "Execute smart ECM replacement registration" appears, click the [OK] button.
- 9) When the access key confirmation screen appears, hold up the access key that was registered to the new keyless access CM to the push engine switch (push-button ignition switch). After the buzzer has sounded once, move the access key away from the push engine switch (push-button ignition switch).

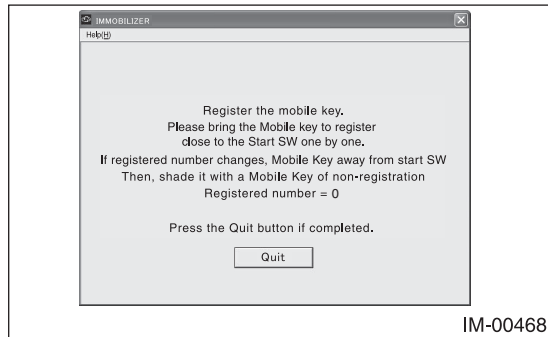
**Note:**

- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.

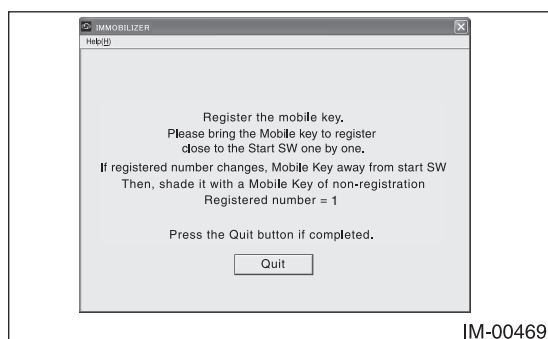


- (1) Let the mechanical key insertion opening of the access key face down.
- (2) Face the access key with the button surface facing yourself.
- (3) Bring it close until it touches the push engine switch (push-button ignition switch).

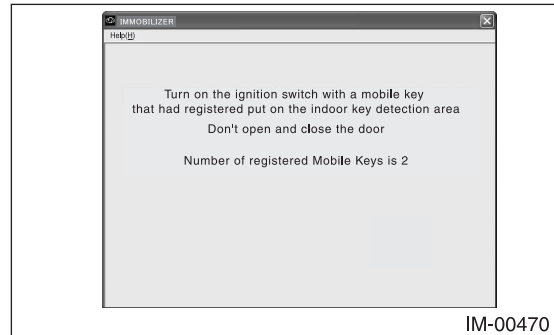
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.
- 10) If confirmation is successful, the remaining number decreases by 1. Repeat the confirmation work of step 9 until the remaining number becomes 0.
  - 11) When screen displays access key registration mode shown below, hold one access key you wish to register over the push engine switch (push-button ignition switch).

**Note:**

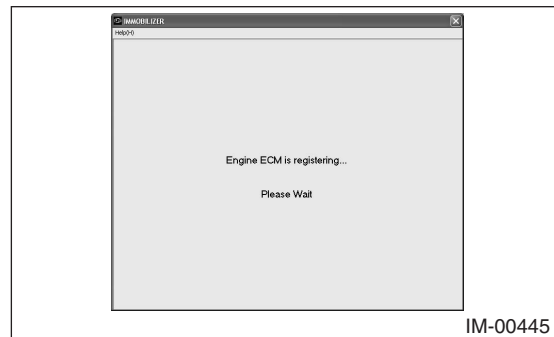
- When the buzzer has sounded twice, the work of holding the access key up has been completed, but for 10 seconds after the work, the access key should be kept inside the vehicle (near the select lever).
  - For registration of the next access key, the previously registered access key should be removed from the vehicle.
  - Do not click the [Quit] button until you finish registering all the access keys you wish to register.
  - The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.
- 12) Once the registration ends normally, the [Registered number] increases by one as you can see on the screen below. If you have another access key to be registered, repeat step 11. If you do not have any more keys to be registered, click the [Quit] button and move on to step 13.



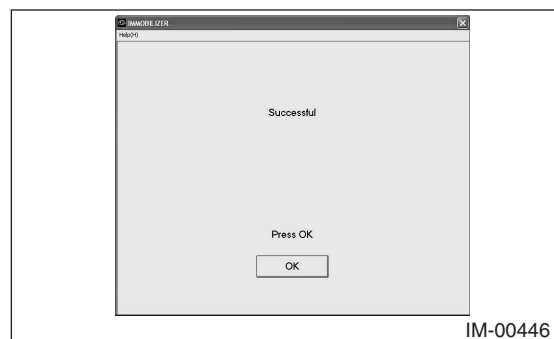
- 13) When the "Turn off the ignition switch" screen appears, turn the push engine switch (push-button ignition switch) off.
- 14) Then following screen appears. Turn the ignition on.



- 15) Stand by as the registration to the ECM is being completed.



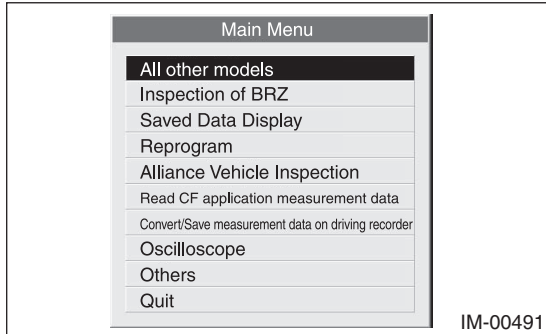
- 16) The screen shown below will appear if registration ends normally. Click the [OK] button.



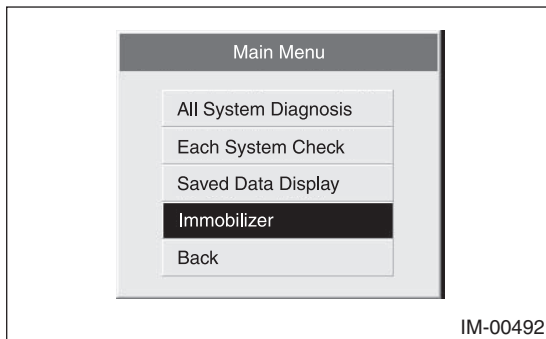
- 17) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

### 7-3 Registering the Steering Lock CU or ID Code Box

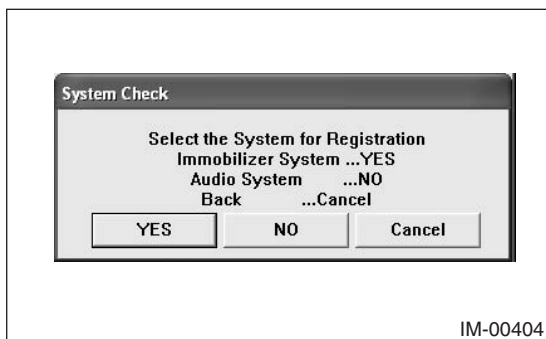
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.

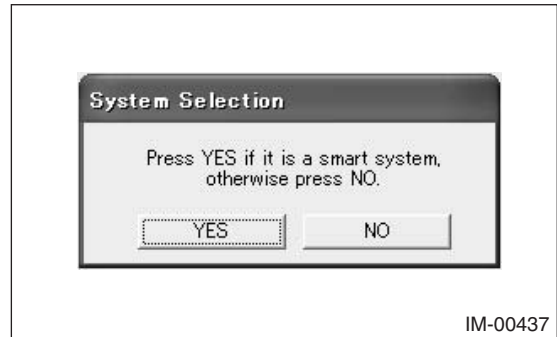


- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**  
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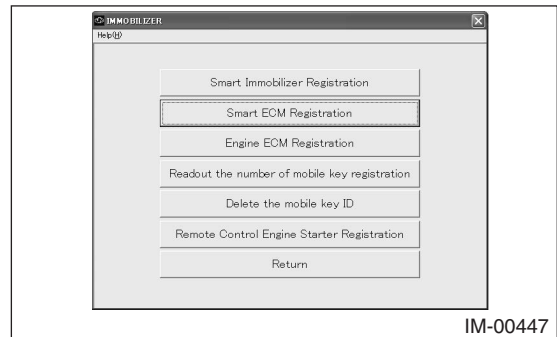
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



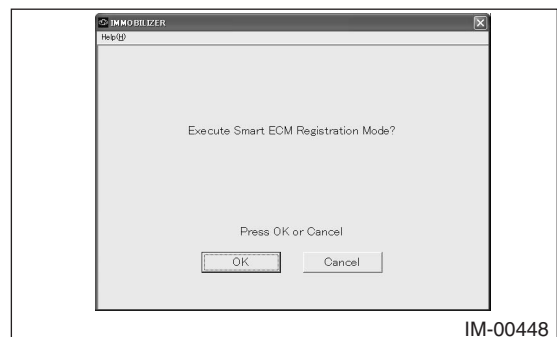
**Note:**  
The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) The registration mode selection dialog box appears. Click the [Smart ECM Registration] button.

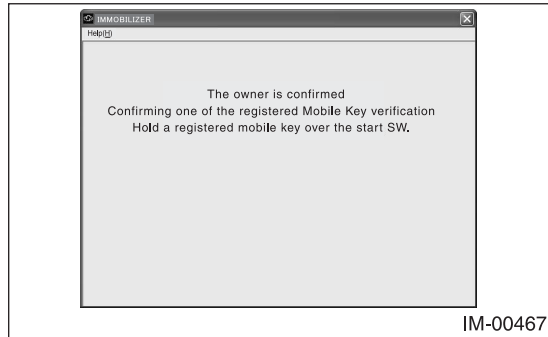
**Note:**  
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



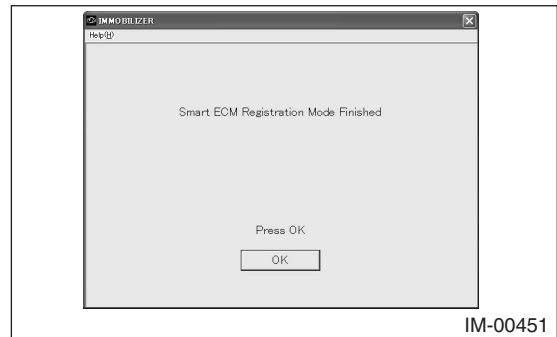
- 7) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 8) The dialog box to confirm already registered access keys appears. Hold one of those access keys over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



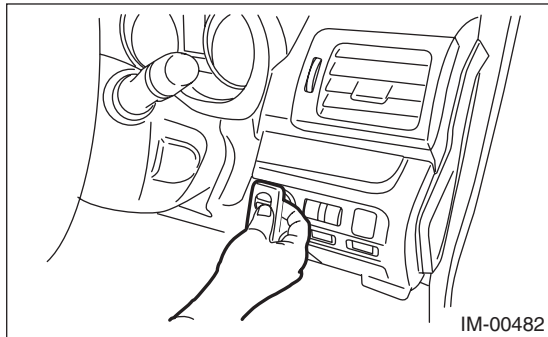
- 9) Smart ECM registration is then automatically executed. When the registration ends normally, the following screen appears. Click the [OK] button.



- 10) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

**Note:**

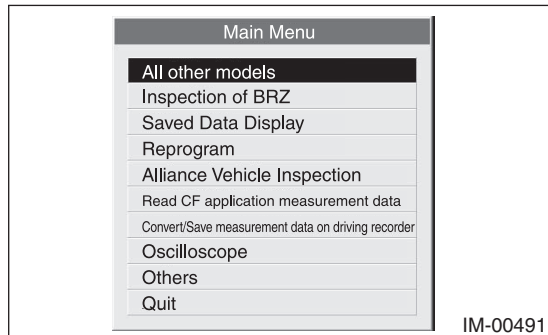
- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



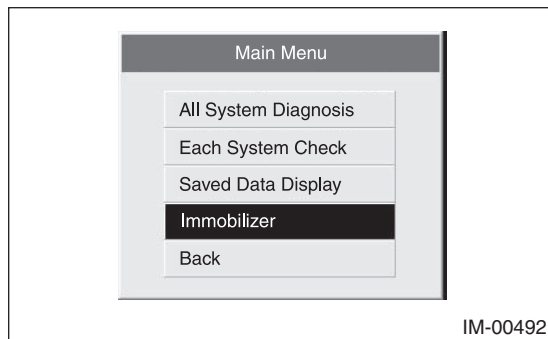
- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Face the access key with the button surface facing yourself.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

## 7-4 Registering the Engine ECM

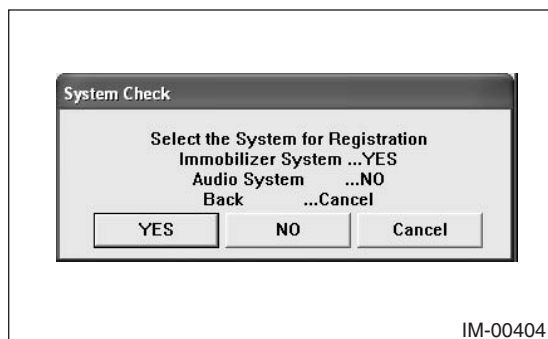
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.

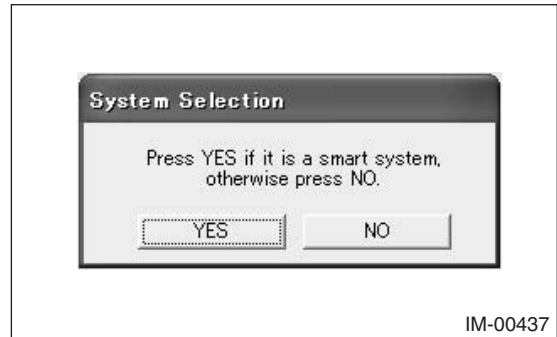


- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**  
Audio System is the specification only for the U.K.

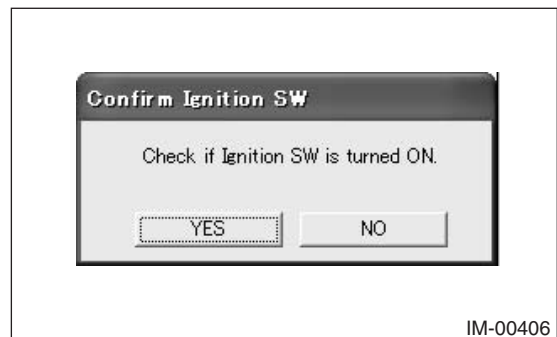
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

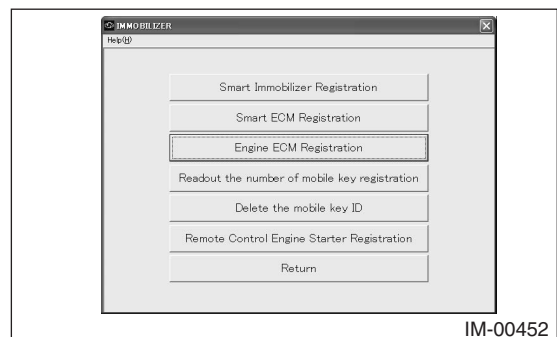
- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.



- 7) The registration mode selection dialog box appears. Click the [Engine ECM Registration] button.

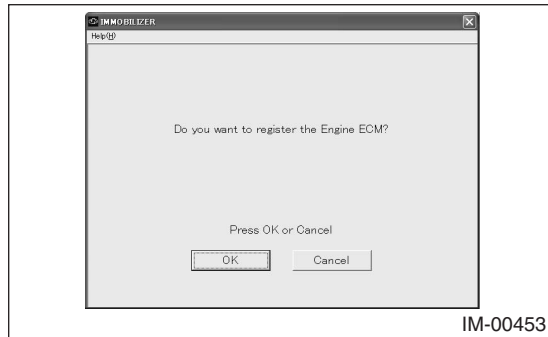
**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.

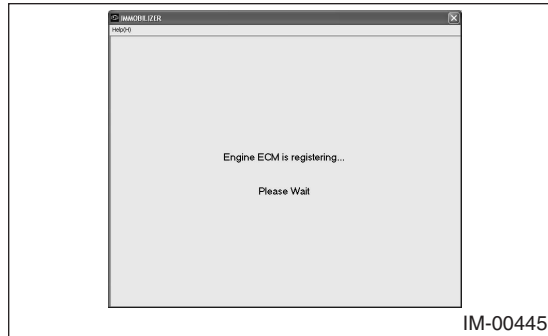




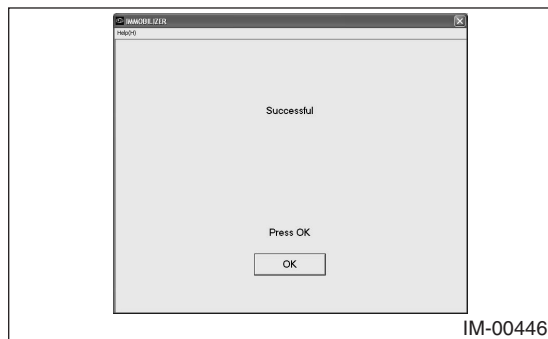
- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) The ignition confirmation dialog box appears. Confirm that the ignition switch is ON and then click the [OK] button.
- 10) Wait while the ECM registration process is performed.



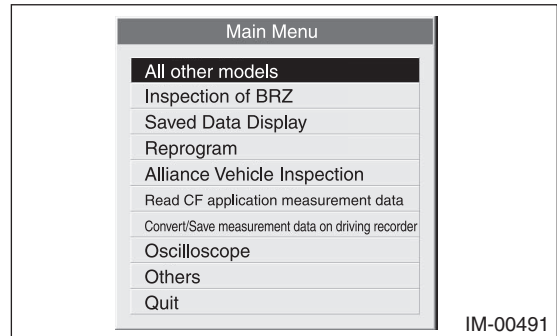
- 11) The screen shown below will appear if registration ends normally. Click the [OK] button.



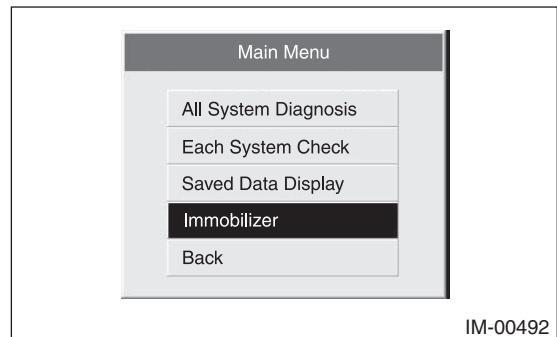
- 12) After confirming that the keyless access with push button start system operates normally, quit the registration operation.

## 7-5 Readout the Number of Access Key Registration

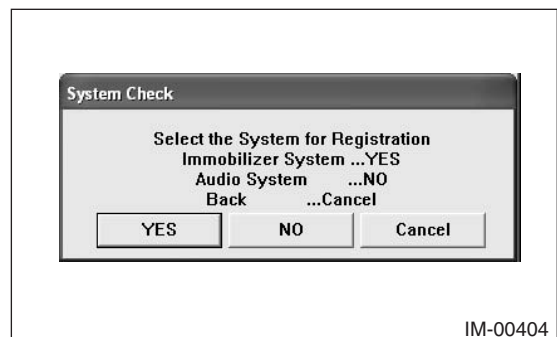
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



- 4) Click the [YES] button if the System Check screen is displayed.

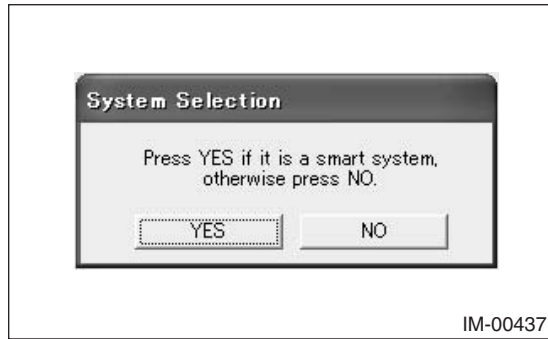


### Note:

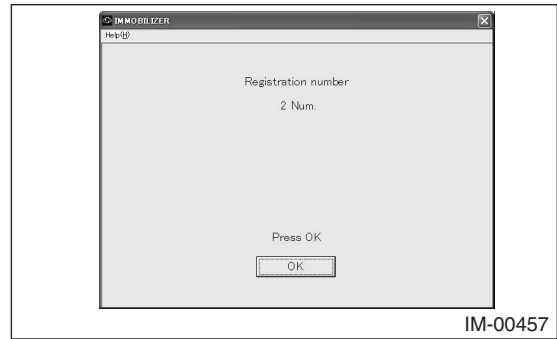
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- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



- 8) The number of access keys currently registered will be displayed. After clicking the [OK] button, the screen will return to the main menu.



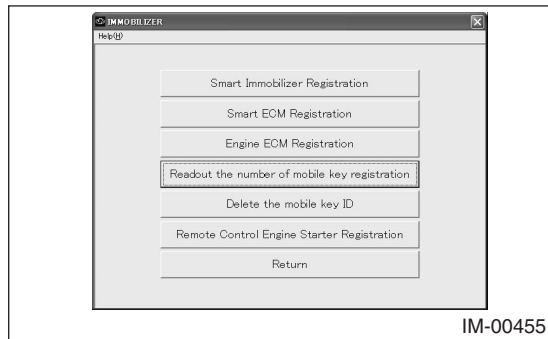
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

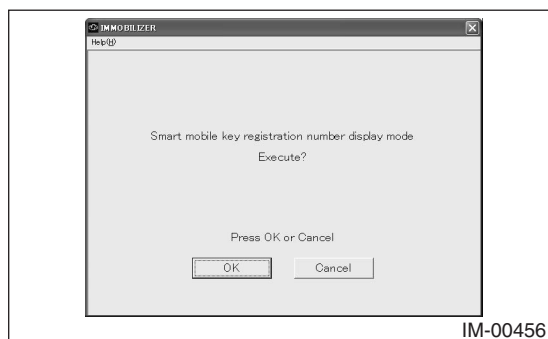
- 6) The registration mode selection dialog box appears. Click the [Readout the number of mobile key registration] button.

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.

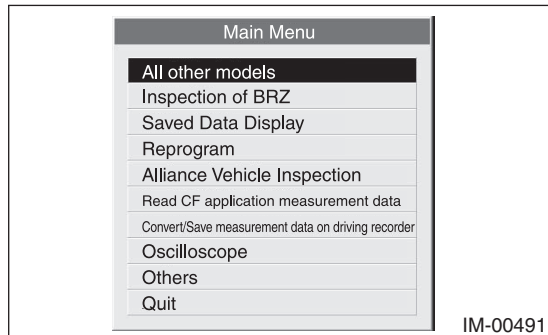


- 7) The confirmation dialog box to carry out the registered access key number reading mode is shown. Click the [OK] button.

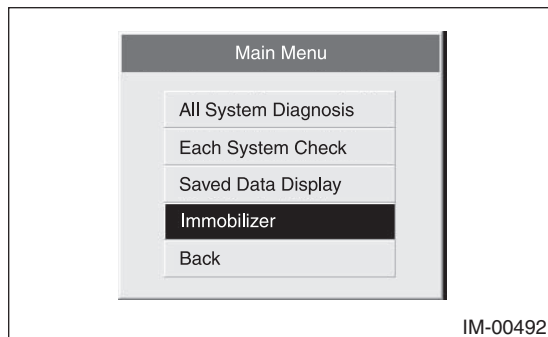


## 7-6 Delete the Access Key ID

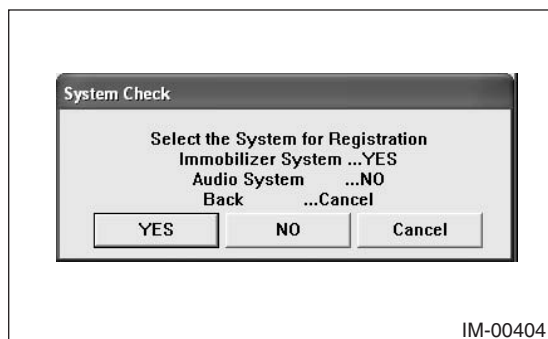
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



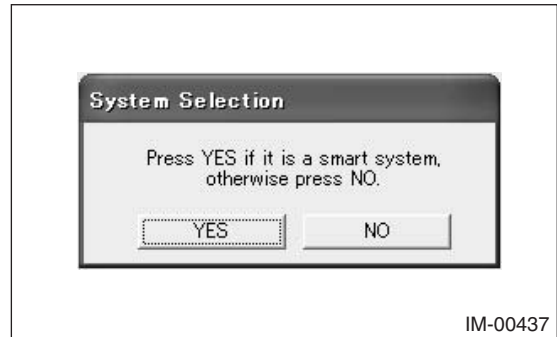
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

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- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



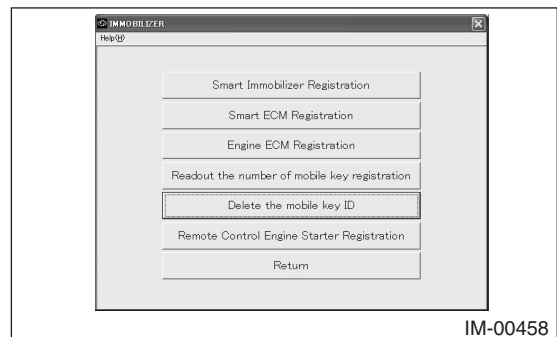
### Note:

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

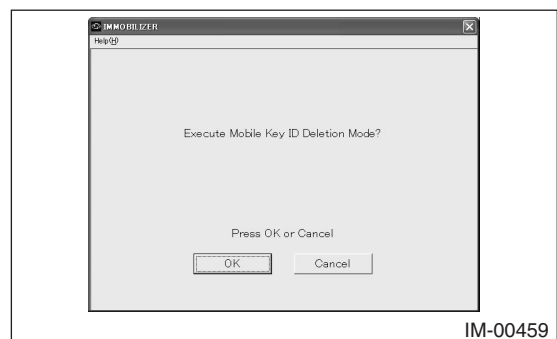
- 6) The registration mode selection dialog box appears. Click the [Delete the mobile key ID] button.

### Note:

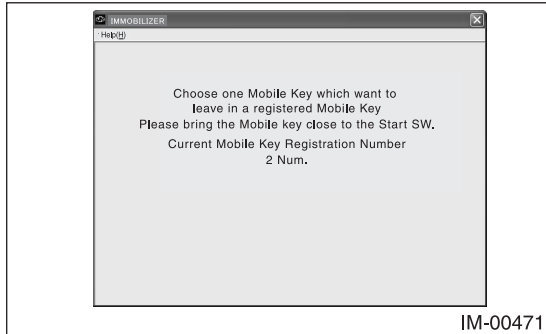
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



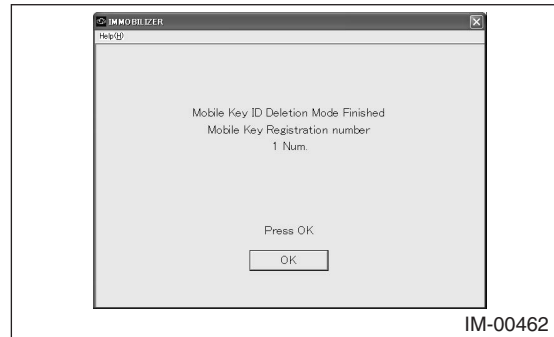
- 7) The confirmation dialog box to carry out the access key ID deletion mode appears. Click the [OK] button.



- 8) As the number of registered access keys confirmation screen will be displayed, place one of the registered access keys, the key, which you do not want to delete the ID, over the push engine switch (push-button ignition switch). After the buzzer sounds once, move the access key away from the push engine switch (push-button ignition switch) and go to the next step.



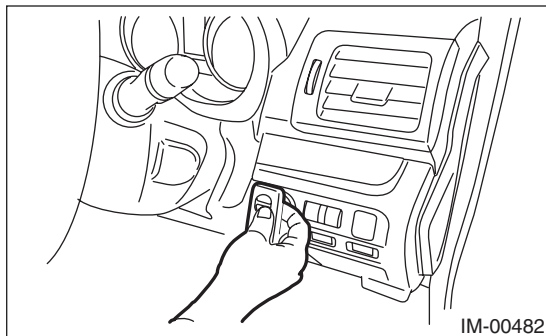
- 9) The screen shown below will appear if access key ID deletion ends normally. Click the [OK] button.



- 10) Complete this procedure after confirming if the keyless access with push button start system works properly by using an access key, which has the ID not deleted.

**Note:**

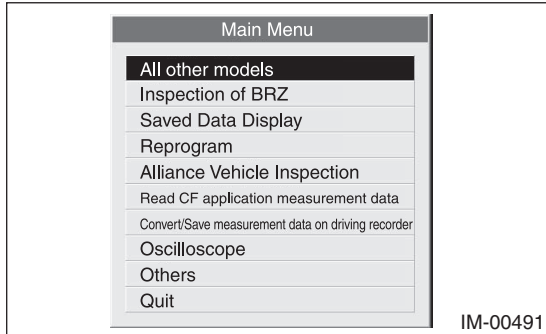
- When holding the access key up to the push engine switch (push-button ignition switch), bring the access key close to the push engine switch (push-button ignition switch) as shown below.



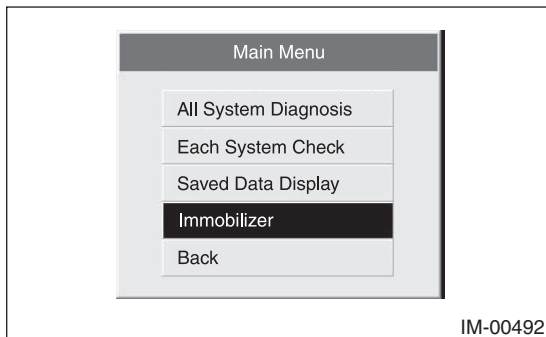
- (1) Let the mechanical key insertion opening of the access key face down.
  - (2) Face the access key with the button surface facing yourself.
  - (3) Bring it close until it touches the push engine switch (push-button ignition switch).
- The procedure to hold an access key over the push engine switch (push-button ignition switch) has to be done within 30 seconds after the screen above appears.

## 7-7 Registering Remote Control Engine Starter

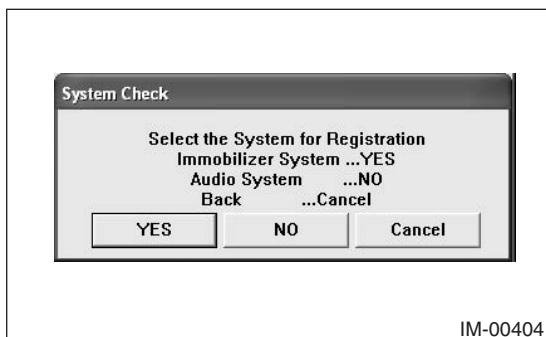
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.

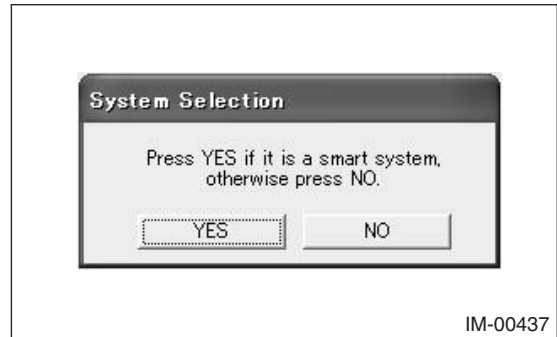


- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**  
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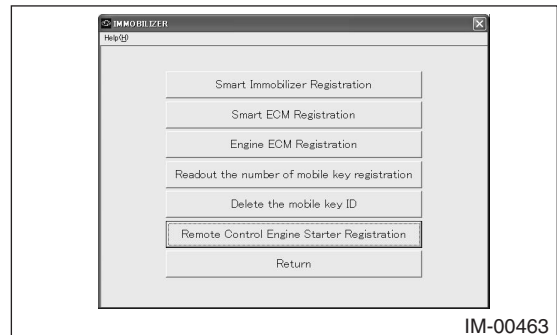
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



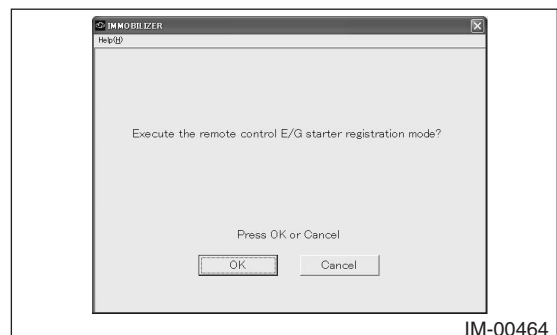
**Note:**  
The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) The registration mode selection dialog box appears. Click the [Remote Control Engine Starter Registration] button.

**Note:**  
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



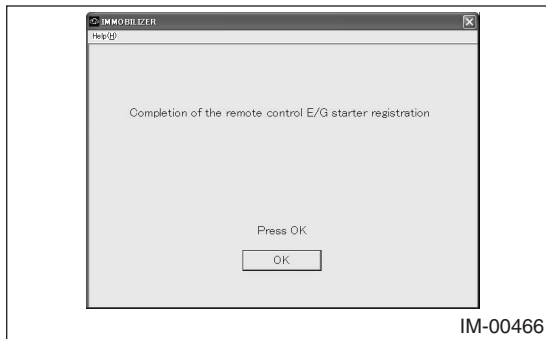
- 7) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 8) Wait until the remote control engine starter is then being registered.



- 9) The screen shown below will appear if remote control engine starter registration ends normally. Click the [OK] button.



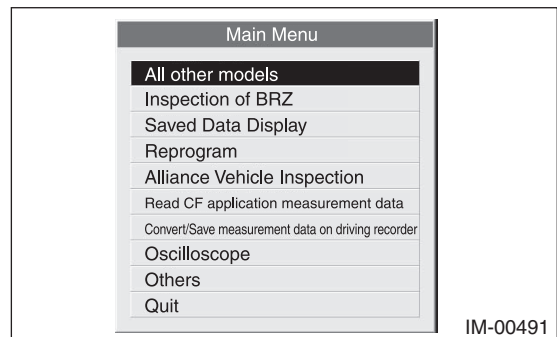
- 10) After confirming that the keyless access with push button start system and remote control engine starter operate normally, quit the registration operation.

## 7-8 Reading Registration History

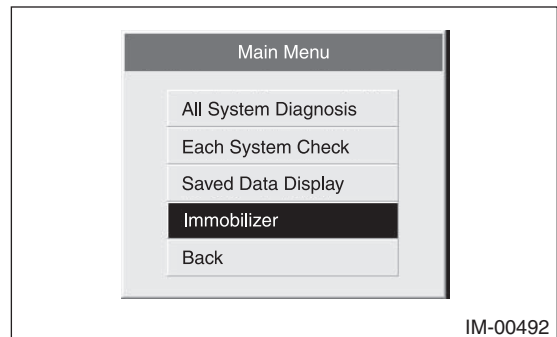
### Note:

Depending on the replacement parts, a screen displays other than indicated in this section may be displayed. In such a case, follow the instructions shown on the screens.

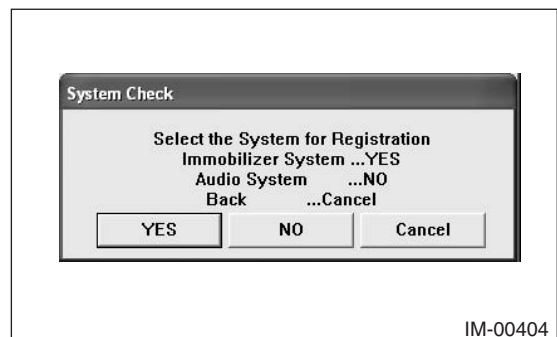
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



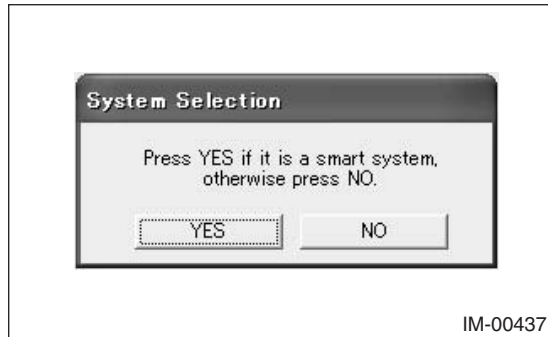
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [YES] button.



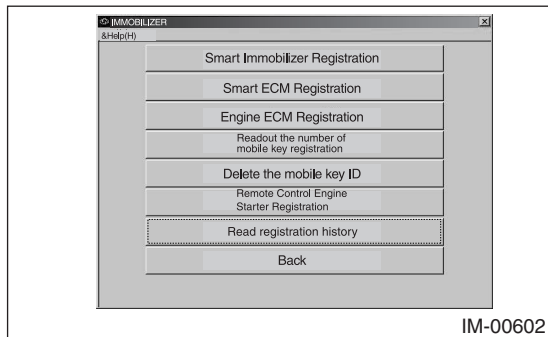
**Note:**

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) The registration mode selection screen appears. Click the [Read registration history] button.

**Note:**

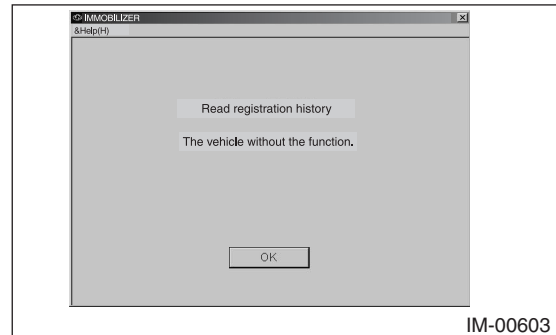
If the command input screen is displayed instead of the menu screen, the vehicle is C type. See the procedures for C type vehicle.



- 7) The registration history readout confirmation dialog box appears. Click the [OK] button.

**Note:**

If the confirmation dialog box does not appear and "The vehicle without the function." is displayed, the vehicle does not have this function.



- 8) Check the displayed Read registration history screen, and click the [OK] button.

**Note:**

For the details, refer to "7-12 List of registration history".

## 7-9 Keyless access with push button start system (when ID code box (U.K./CANADA)) : Correspondence table at the time of parts failure

If all the keys are lost, for protection against vehicle theft you must contact your Subaru service representative.

**Caution:**

Parts to be replaced always shall be replaced by new parts, never by used parts.

### 1. Explanation of Registration Modes

Mode name	Contents	Items to be prepared	Remarks
Registering the Smart Immobilizer	To be performed at the time of registering an additional access key or replacement of the keyless access CM. (Up to seven mobile keys (access keys) can be registered.)	One registered access key	At the time of keyless access CM replacement, all access keys registered for the vehicle are required.
Registering the Smart ECM	To be performed when the ID code box or the steering lock CM has been replaced.	One registered access key	
Delete the access key ID	Leave the ID of one access key and delete all others. (One is required at the time of mode execution.)	One registered access key	
Registering Engine ECM	Perform registration between ECM and ID code box.		All parts other than the ECM need to have been registered.
Registering the Remote Control Engine Starter	When a remote control engine starter has been installed.		

### 2. Parts replacement table

- When performing each registration, make sure that the ignition switch is turned ON and driver's door is kept open. If the ignition switch is OFF or all doors are closed, the keyless access CM module will enter sleep mode, so each registration cannot be performed.
- After replacing the keyless access CM without performing [Registering the Smart Immobilizer], if the ignition switch is turned ON/OFF 10 times, it will be impossible to turn the ignition switch ON again. In this case, open driver's door and perform [Registering the Smart Immobilizer]. (In this case, it will be possible to perform [Registering the Smart Immobilizer] even when ignition switch is OFF.)
- O: Part that failed/was lost
- X: Replace part with new one

<When only one part is failed or lost>

Parts failed/lost		Parts required to replace or prepared when items on the left fail				Procedures to perform after parts replacement							
Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	(1)	(2)	(3)	(4)
Not all	All									Deletion of the access key ID (*1)(deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)		
O					One registered access key					Execution of smart immobilizer registration (*1)	Execution of smart immobilizer registration (*2)		
	O				All access keys to be registered	X				Execution of smart immobilizer registration			
		O			One registered access key		X			Execution of smart ECM registration			
			O		One registered access key			X		Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	
				O					X	Execution of engine ECM registration			

<When two parts are failed or lost>

Parts failed/lost				Parts required to replace or prepared when items on the left fail				Procedures to perform after parts replacement					
Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	(1)	(2)	(3)	(4)
										Execution of smart ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)	
O		O			One registered access key		X			Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)
O			O		One registered access key			X		Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)
O				O	One registered access key				X	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)	
		O			All access keys to be registered		X			Execution of smart immobilizer registration	(*2)		
				O	All access keys to be registered				X	Execution of smart immobilizer registration	(*2)		
		O			One registered access key		X			Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	
			O		One registered access key			X	X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	
				O	One registered access key				X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	



<When three parts are failed or lost>

Parts failed/lost				Parts required to replace or prepared when items on the left fail				Procedures to perform after parts replacement						
Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	(1)	(2)	(3)	(4)	
					One registered access key		X	X		Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration(*1) (registration of additional access key)
					One registered access key		X		X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration(*1) (registration of additional access key)
					One registered access key				X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration(*1) (registration of additional access key)
					All access keys to be registered		X		X	Execution of smart immobilizer registration	(*2)			
					One registered access key				X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration(*1) (registration of additional access key)

<When four parts are failed or lost>

Parts failed/lost				Parts required to replace or prepared when items on the left fail				Procedures to perform after parts replacement						
Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	Access key	Keyless access CM	Steering lock CM	ID Code Box	ECM	(1)	(2)	(3)	(4)	
					One registered access key		X	X		Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)

\*1 : Execute if necessary.

\*2 : When the keyless access CM has been replaced for a vehicle equipped with a remote control engine starter, perform "Registering Remote Control Engine Starter".

## 7-10 Keyless access with push button start system (when no ID code box (except for U.K./CANADA)): Correspondence table at the time of parts failure

If all the keys are lost, for protection against vehicle theft you must contact your Subaru service representative.

**Caution:**

**Parts to be replaced always shall be replaced by new parts, never by used parts.**

### 1. Explanation of Registration Modes

Mode name	Contents	Items to be prepared	Remarks
Registering the Smart Immobilizer	To be performed at the time of registering an additional access key or replacement of the keyless access CM. (Up to seven access keys can be registered.)	One registered access key	At the time of keyless access CM replacement, all access keys registered for the vehicle are required.
Registering the Smart ECM	To be performed at the time of replacement of the steering lock CM.	One registered access key	
Delete the access key ID	Leave the ID of one access key and delete all others. (One is required at the time of mode execution.)	One registered access key	
Registering the Engine ECM	Perform access key code registration between ECM and keyless access CM.		All parts other than the ECM need to have been registered.
Registering the Remote Control Engine Starter	When a remote control engine starter has been installed.		

### 2. Parts replacement table

- When performing each registration, make sure that the ignition switch is turned ON and driver's door is kept open. If the ignition switch is OFF or all doors are closed, the keyless access CM will enter sleep mode, so each registration cannot be performed.
- After replacing the keyless access CM without performing [Registering the Smart Immobilizer], if the ignition switch is turned ON/OFF 10 times, it will be impossible to turn the ignition switch ON again. In this case, open driver's door and perform [Registering the Smart Immobilizer]. (In this case, it will be possible to perform [Registering the Smart Immobilizer] even when ignition switch is OFF.)
- O: Part that failed/was lost
- X: Replace part with new one

<When only one part is failed or lost>

Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement			
Access key	Keyless access CM	Steering lock CM	Access key	Keyless access CM	Steering lock CM	(1)	(2)	(3)	(4)
	All	ECM		ECM					
O			One registered access key			Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)		
	O		All registered access keys	X		Execution of smart immobilizer registration	(*3)		
		O	One registered access key		X	Execution of smart ECM registration			
						Execution of engine ECM registration			

<When two parts are failed or lost>

Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement					
Access key	Keyless access CM	Steering lock CM	ECM	Access key	Keyless access CM	Steering lock CM	ECM	(1)	(2)	(3)	(4)
○		○		One registered access key		X		Execution of smart ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)	
○			○	One registered access key			X	Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)	
	○		○	All registered access keys	X		X	Execution of smart immobilizer registration	(*3)		
		○	○	One registered access key		X	X	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration	

<When three parts are failed or lost>

Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement					
Access key	Keyless access CM	Steering lock CM	ECM	Access key	Keyless access CM	Steering lock CM	ECM	(1)	(2)	(3)	(4)
○		○	○	One registered access key		X	X	Execution of smart ECM registration	(*2) Execution of engine ECM registration	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration (*1) (registration of additional access key)

\*1: Execute if necessary.

\*2: Set the vehicle power supply to OFF and then back to IG ON.

\*3: When the keyless access CM has been replaced for a vehicle equipped with a remote control engine starter, perform "Registering Remote Control Engine Starter".

7-11 Correspondence table when registration is not possible

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed	CAN communication failure between Subaru Select Monitor and keyless access CM	Perform the diagnosis for CAN.	—
(Smart ECM replacement mode) → "Perform the [Smart Immobilizer Registration]" → "Registration mode during migration."	NG Abnormal Termination	<ul style="list-style-type: none"> <li>ID code box presence judgment circuit failure (harness setting failure)</li> <li>B/up fuse disconnected</li> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul style="list-style-type: none"> <li>Without ID code box: Check if IDW terminal is not connected or is grounded.</li> <li>With ID code box: Check that IDW terminal is connected to ground.</li> <li>Check that the B/up fuse in the M/B or F/B is connected.</li> <li>Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>Check the data link connector and harness.</li> </ul>	<ul style="list-style-type: none"> <li>Failure of the condition</li> <li>-vehicle speed detection</li> <li>-different ID code box setting</li> <li>-Among special mode</li> </ul>
	NG Mode transition error	<ul style="list-style-type: none"> <li>Temporary communication failure with Subaru Select Monitor</li> <li>Immobilizer amplifier failure</li> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>ID code box response failure</li> </ul>	<ul style="list-style-type: none"> <li>Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>For the vehicle with ID code box, check LIN between keyless access CM and ID code box.</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2789, B2790, B278A, B2784)</li> <li>Check the data link connector and harness.</li> </ul>	<ul style="list-style-type: none"> <li>Failure of the condition</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> </ul>
→ "ECU code checking..."	NG The confirmation of ECM registration status has failed.	<ul style="list-style-type: none"> <li>Steering lock CM or ID code box improper connection</li> <li>Keyless access CM, steering lock CM, or ID code box failure</li> <li>Immobilizer amplifier failure</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2789, B2790, B2786, B2785, B278A, B2784)</li> <li>Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> </ul>	<ul style="list-style-type: none"> <li>Failure of the condition</li> <li>-push-button SW amp error</li> <li>-LIN communication failure</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> <li>-Writing failure</li> <li>-Different code between ECM</li> <li>-ID code box/Steering lock CM abnormal response</li> </ul>

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
(Smart ECM replacement mode) → "Perform the [Smart ECM replacement and registration]" → "The owner is confirmed"	NG Check the owner NG	<ul style="list-style-type: none"> <li>•Time-out before the operator held access key (30 seconds)</li> <li>•Already-collated access key was held</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>•Another (already-collated) access key present near push button ignition switch</li> <li>•Access key malfunction (transponder function)</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>•Antenna coil malfunction</li> <li>•Steering lock CM or ID code box improper connection</li> <li>•Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check if owner recognition is performed for all access keys.)</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Confirm the access key item number and check for malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>•push-button SW amp error</li> <li>•Owner key's check fail</li> <li>-hold up the collated key just before</li> <li>•Failure of the condition</li> <li>-LIN communication failure</li> <li>•Different code between ECM</li> <li>-Between ID code box</li> <li>-Between Steering lock CM</li> </ul>
→ "Register the Access Key."	NG Time-out occurred during Access Key collation	<ul style="list-style-type: none"> <li>•Time-out before the operator held the key (30 seconds)</li> <li>[No buzzer sounds, when access key is held]</li> <li>•Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>•Another (already-collated) access key present near push button ignition switch</li> <li>•Access key malfunction (transponder function)</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>[Buzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>•Another access key present inside the vehicle (interference, etc.)</li> <li>•Access key out of battery/malfunction (RF function)</li> <li>•RF receiver connection</li> <li>•Front indoor antenna improper connection/malfunction</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the procedure according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> <li>[No buzzer sounds, when access key is held]</li> <li>•Confirm the access key item number and check for malfunction.</li> <li>[Buzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>•Check that another access key is not present inside the vehicle.</li> <li>•Check the battery of access key.</li> <li>•Check the access key for malfunction.</li> <li>•Check the connector wiring/harness of RF receiver.</li> <li>•Check the front indoor antenna for malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>•New key's check fail</li> <li>-hold up the collated key just before</li> </ul>
	NG While Access Key is registering, timeout has occurred.	<ul style="list-style-type: none"> <li>•Steering lock CM or ID code box improper connection</li> <li>•ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure)</li> <li>•Code writing failure between ECMs</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2785, B2786, B2789)</li> <li>•Check LIN between the keyless access CM and ID code box or steering lock CM.</li> <li>•Retry the procedure from the beginning.</li> </ul>	<ul style="list-style-type: none"> <li>•Time-out</li> <li>-no ECM reply mismatch</li> </ul>
→ "Access Key is registering..."	NG Failed to Portable Device Registration	<ul style="list-style-type: none"> <li>•ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure)</li> <li>•The operator pressed Quit button without registering key</li> <li>[Following failure occurred before none of new registration access key was collated during new registration key collation process after registration mode is on.]</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Temporary communication failure with Subaru Select Monitor</li> <li>•Steering lock CM or ID code box improper connection</li> <li>•Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2789, B2790, B2786, B2785, B278A, B2784)</li> <li>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•Check the data link connector and harness.</li> <li>•Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Retry the procedure from the beginning.</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> <li>-LIN communication failure</li> <li>•Access key PW difference</li> <li>•Writing failure</li> <li>-ECM code (ID code box)</li> <li>-ECM code (Steering lock ECM)</li> <li>-Keyless access CM reg info</li> </ul>

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
→ "Turn off the ignition switch."	NG While turning ignition switch off, timeout has occurred.	<ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-OFF (60 seconds)</li> <li>•Operation not reflected due to switch circuit of push button ignition switch improper connection/malfunction</li> <li>•IGN relay stuck ON</li> <li>•Power supply-output short in harness between keyless access CM and IGN relay</li> <li>•IGN harness power supply-output short</li> <li>•Keyless access CM malfunction (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2271)</li> <li>•Check the harness between keyless access CM and push button ignition switch, and push button ignition switch alone.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between keyless access CM and IGN relay.</li> <li>•Retry "Engine ECM Registration" only.</li> </ul>	
→ "Switch Ignition ON"	NG While turning ignition switch on, timeout has occurred.	<ul style="list-style-type: none"> <li>•Time-out before the operator performed IGN-ON (60 seconds)</li> <li>•Access key not present inside the vehicle</li> <li>•IGN relay stuck OFF</li> <li>•GND-output short/open in harness between keyless access CM and IGN relay</li> <li>•IGN harness open/GND-output short</li> <li>•IGN fuse blown out</li> <li>•Keyless access CM malfunction (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2271)</li> <li>•Check if the access key is present inside the vehicle.</li> <li>•Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>•Check the harness between keyless access CM and IGN relay.</li> <li>•Check the upstream fuse of IGN relay.</li> <li>•Retry "Engine ECM Registration" only.</li> </ul>	
	NG cannot Immobilizer unset	<ul style="list-style-type: none"> <li>•The operator opened or closed the door after IGN-ON</li> <li>•Steering lock locked</li> </ul>	<ul style="list-style-type: none"> <li>•After performing IGN OFF once and IGN ON again, retry "Engine ECM Registration" without opening/closing the driver's door.</li> <li>•While turning the steering wheel, perform IGN ON ←→ OFF to check that the operation unlocks the steering lock.</li> </ul>	
	NG Number of registrations exceeded	Additional registration impossible	When an additional access key needs to be registered, delete the registered access key.	
	NG Abnormal Termination	<ul style="list-style-type: none"> <li>•B/up fuse disconnected</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul style="list-style-type: none"> <li>•Check that the B/up fuse in the M/B or F/B is connected.</li> <li>•Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-vehicle speed detection</li> <li>-Among special mode</li> </ul>
(Additional registration mode) "Smart Immobilizer Registration" start	NG Mode transition error	<ul style="list-style-type: none"> <li>•Temporary communication failure with Subaru Select Monitor</li> <li>•Immobilizer amplifier failure</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul style="list-style-type: none"> <li>•Check the data link connector and harness.</li> <li>•Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B278A, B2784)</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> </ul>

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
→ "The owner is confirmed"	<p>NG Check the owner NG</p>	<ul style="list-style-type: none"> <li>• Access key other than registered key was held</li> <li>• Access key being held malfunctioning (transponder function)</li> <li>• Time-out before the operator held access key (30 seconds)</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• Immobilizer amplifier failure</li> <li>• Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Antenna coil malfunction</li> <li>• ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure, replacement with used part)</li> <li>• Steering lock CM or ID code box</li> <li>• Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<p>Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check that the access key to be held is registered to the vehicle.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".) • Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2789, B2790, B2786, B2785, B278A, B2784) • Check LIN between the keyless access CM and steering lock CM or ID code box. • Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support). • Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.) • Confirm the access key item number and check for malfunction. • Check that the data monitor indicates "Normal" for "Code collation result between keyless access CM and ID code box" and "Code collation result between steering locked CM and ID code box".</p>	<ul style="list-style-type: none"> <li>• push-button SW amp error</li> <li>• Owner key's check fail</li> <li>-hold up non-registration key</li> <li>• Failure of the condition</li> <li>-LIN communication failure</li> <li>• Different code between ECM</li> <li>-Between ID code box</li> <li>-Between Steering lock CM</li> </ul>
→ "Register the Access Key."	<p>NG Time-out occurred during Access Key collation</p>	<ul style="list-style-type: none"> <li>• Time-out before the operator held access key (30 seconds)</li> <li>[No buzzer sounds, when access key is held]</li> <li>• Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>• Another (already-collated) access key present near push button ignition switch</li> <li>• Access key malfunction (transponder function)</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Access key that was registered on another vehicle was held</li> </ul> <p>[Buzzer sounds only once when access key is held, and number of registration does not increase]</p> <ul style="list-style-type: none"> <li>• Another access key present inside the vehicle (interference, etc.)</li> <li>• Access key that was registered on another vehicle was held</li> <li>• Access key out of battery/malfunction (RF function)</li> <li>• RF receiver improper connection/malfunction</li> <li>• Front indoor antenna improper connection/malfunction</li> </ul>	<p>Perform the procedure according to REGISTRATION MANUAL FOR IMMOBILIZER. [No buzzer sounds, when access key is held] • Confirm the access key item number and check for malfunction. • Check that the access key is not registered on another vehicle. [Buzzer sounds only once when access key is held, and number of registration does not increase] • Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B1242, B27A5) • Check that another access key is not present inside the vehicle. • Check that the access key is not registered on another vehicle. • Check the battery of access key. • Check the access key for malfunction. • Check the connector wiring/harness of RF receiver. • Check the front indoor antenna for malfunction.</p>	<ul style="list-style-type: none"> <li>• New key's check fail</li> <li>-hold up the collated key just before</li> <li>-hold up registered key</li> <li>• Other vehicle key reg</li> </ul>

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
→ "Access Key is registering..."	<p>NG While Access Key is registering, timeout has occurred.</p> <p>NG Failed to Portable Device Registration</p>	<ul style="list-style-type: none"> <li>Steering lock CM or ID code box improper connection</li> <li>ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure)</li> <li>Code writing failure between ECMs</li> <li>The operator pressed Quit button without registering key</li> <li>ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure, replacement with used part)</li> <li>[Following failure occurred before none of new registration access key was collated during new registration key collation process after registration mode is on.]</li> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>Immobilizer amplifier failure</li> <li>Temporary communication failure with Subaru Select Monitor</li> <li>Steering lock CM or ID code box improper connection</li> <li>Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2785, B2786, B2789)</li> <li>Check LIN between the keyless access CM and ID code box or steering lock CM.</li> <li>Retry the procedure from the beginning.</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2785, B2786, B2788A, B2784)</li> <li>Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>Check the data link connector and harness.</li> <li>Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>Check that the data monitor indicates "Normal" for "Code collation result between keyless access CM and ID code box" and "Code collation result between steering lock CM and ID code box".</li> <li>Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> </ul>	<ul style="list-style-type: none"> <li>Time-out</li> <li>-no ECM reply mismatch</li> <li>Failure of the condition</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> <li>-LIN communication failure</li> <li>Access key PW difference</li> <li>Writing failure</li> <li>-ECM code (ID code box) ECM</li> <li>-ECM code (Steering lock)</li> <li>-Keyless access CM reg info</li> </ul>
→ "Turn off the ignition switch."	<p>NG While turning ignition switch off, timeout has occurred.</p>	<ul style="list-style-type: none"> <li>Time-out before the operator performed IGN-OFF (60 seconds)</li> <li>Operation not reflected due to switch circuit of push button ignition switch improper connection/malfunction</li> <li>IGN relay stuck ON</li> <li>Power supply-output short in harness between keyless access CM and IGN relay</li> <li>IGN harness power supply-output short</li> <li>Keyless access CM malfunction (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2271)</li> <li>Check the harness between keyless access CM and push button ignition switch, and push button ignition switch alone.</li> <li>Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>Check the harness between keyless access CM and IGN relay.</li> <li>Retry "Engine ECM Registration" only.</li> </ul>	
→ "Switch Ignition ON"	<p>NG While turning ignition switch on, timeout has occurred.</p>	<ul style="list-style-type: none"> <li>Time-out before the operator performed IGN-ON (60 seconds)</li> <li>Access key not present inside the vehicle</li> <li>IGN relay stuck OFF</li> <li>GND-output short/open in harness between keyless access CM and IGN relay</li> <li>IGN harness open/GND-output short</li> <li>IGN fuse blown out</li> <li>Keyless access CM malfunction (control failure)</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2271)</li> <li>Check if the access key is present inside the vehicle.</li> <li>Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>Check the harness between keyless access CM and IGN relay.</li> <li>Check the upstream fuse of IGN relay.</li> <li>Retry "Engine ECM Registration" only.</li> </ul>	
	<p>NG cannot Immobilizer unset</p>	<ul style="list-style-type: none"> <li>The operator opened or closed the door after IGN-ON</li> <li>Steering lock locked</li> </ul>	<ul style="list-style-type: none"> <li>After performing IGN OFF once and IGN ON again, retry "Engine ECM Registration" without opening/closing the driver's door.</li> <li>While turning the steering wheel, perform IGN ON ← → OFF to check that the operation unlocks the steering lock.</li> </ul>	



Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
(All mode) "EGI initialization / During registration..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN)	—
	NG EGI-Immobilizer communication	Communication failure between ECM and keyless access CM or ID code box	Perform the diagnosis for DTC B1572 (P1572).	—
	NG IMM Control Module EEPROM	Keyless access CM or ID code box failure	Perform the diagnosis for DTC B1577 (P1577).	—
	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).	—
	NG EGI security access NG	•Subaru Select Monitor failure •ECM failure	•Check version of Subaru Select Monitor. •Replace the ECM.	—
	NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When this does not solve the problem, remove and install the battery.	—

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
	NG Access Key is not still registered	Access key unregistered	Execute "Smart Immobilizer Registration".	—
	NG Abnormal Termination	<ul style="list-style-type: none"> <li>• B/up fuse disconnected</li> <li>• ID code box presence judgment circuit failure (harness setting failure)</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• Number of keys registered in keyless access CM: zero</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the B/up fuse in the M/B or F/B is connected.</li> <li>• Without ID code box: Check if IDW terminal is not connected or is grounded.</li> <li>• With ID code box: Check that IDW terminal is connected to ground.</li> <li>• Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>• Check if the keyless access CM is replaced with a new part. (DTC: B278D)</li> </ul>	<ul style="list-style-type: none"> <li>• Failure of the condition</li> <li>-vehicle speed detection</li> <li>-different ID code box setting</li> <li>-Among special mode</li> </ul>
	NG Mode transition error	<ul style="list-style-type: none"> <li>• Temporary communication failure with Subaru Select Monitor</li> <li>• Immobilizer amplifier failure</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• B/up fuse disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• Check the data link connector and harness.</li> <li>• Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• For the vehicle with ID code box, check LIN between keyless access CM and ID code box.</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>• (DTC: B2789, B2790, B278A, B2784)</li> <li>• Check that the B/up fuse in the M/B or F/B is connected. If the part was replaced with a new one, execute "Smart Immobilizer Registration".</li> </ul>	<ul style="list-style-type: none"> <li>• Failure of the condition</li> <li>-vehicle speed detection</li> <li>-Among special mode</li> <li>-diag. communication failure</li> <li>-push-button SW amp error</li> </ul>
"Smart ECM Registration" start		<ul style="list-style-type: none"> <li>• Access key other than registered key was held</li> <li>• Access key being held malfunctioning (transponder function)</li> <li>• Time-out before the operator held access key (30 seconds)</li> <li>• Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>• Immobilizer amplifier failure</li> <li>• Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>• Access key incorrect item number (incorrect destination/incorrect system)</li> <li>• Antenna coil malfunction</li> <li>• ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure, replacement with used part)</li> <li>• "Smart ECM Registration" executed without replacing the parts</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> <li>(Check that the access key to be held is registered to the vehicle.)</li> <li>(When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>• Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B278A, B2784)</li> <li>• Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>• Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>• Confirm the access key item number and check for malfunction.</li> <li>• Check that the data monitor indicates "Normal" for "Code collation result between keyless access CM and ID code box" and "Code collation result between steering locked CM and ID code box".</li> <li>• Check if the necessary part was replaced.</li> </ul>	<ul style="list-style-type: none"> <li>• Owner key's check fail</li> <li>-hold up non-registration key</li> <li>• Failure of the condition</li> <li>-vehicle speed detection</li> <li>-Among special mode</li> <li>-diag. communication failure</li> <li>-push-button SW amp error</li> <li>• Different code between ECM</li> <li>-Between ID code box</li> <li>-Between Steering lock CM</li> <li>• ECM code registered</li> </ul>

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
"Smart ECM Registration" start	NG Time-out occurred during registration	<ul style="list-style-type: none"> <li>Steering lock CM or ID code box improper connection</li> <li>Code writing failure between ECMs</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2785, B2786, B2789)</li> <li>Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>Retry the procedure from the beginning.</li> </ul>	<ul style="list-style-type: none"> <li>Time-out</li> <li>-no ECM reply mismatch</li> </ul>
	Not able to confirm IG SW ON	<ul style="list-style-type: none"> <li>The operator has not performed IGN ON</li> <li>IGN ON impossible (Procedure attempted while keyless access CM unregistered, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2271)</li> <li>Check if the access key is present inside the vehicle.</li> <li>Press the push button ignition switch a few times to check that the status changes as OFF → ACC ON → IGN ON.</li> <li>Check the harness between keyless access CM and IGN relay.</li> <li>Check the upstream fuse of IGN relay.</li> <li>Retry "Engine ECM Registration" only.</li> </ul>	
"Engine ECM Registration" start "Please confirm that IG SW becomes ON"	Because Immobilizer is not unset, cannot register	<ul style="list-style-type: none"> <li>The door was opened or closed after IGN-ON</li> <li>Keyless access CM unregistered and IGN ON still possible</li> </ul>	<ul style="list-style-type: none"> <li>After performing IGN OFF once and IGN ON again, retry "Engine ECM Registration" without opening/closing the driver's door.</li> <li>While turning the steering wheel, perform IGN ON ←→ OFF to check that the operation unlocks the steering lock.</li> </ul>	
	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN)	
"EGI initialization / During registration..."	NG EGI-Immobilizer communication	Communication failure between ECM and keyless access CM or ID code box	Perform the diagnosis for DTC B1572 (P1572).	
	NG IMM Control Module EEPROM	Keyless access CM or ID code box failure	Perform the diagnosis for DTC B1577 (P1577).	
	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).	
	NG EGI security access NG	<ul style="list-style-type: none"> <li>Subaru Select Monitor failure</li> <li>ECM failure</li> </ul>	<ul style="list-style-type: none"> <li>Check version of Subaru Select Monitor.</li> <li>Replace the ECM.</li> </ul>	
	NG EGI-SSM Communication	ECM failure	Wait until the self shut completes, and retry the procedure. When this does not solve the problem, remove and install the battery.	

Status	Screen	Trouble mode	Action to be taken	Registration history that possibly remains
"Delete the Access Key ID" start	NG Access Key is not still registered	Access key unregistered	Execute "Smart Immobilizer Registration".	—
	NG Abnormal Termination	<ul style="list-style-type: none"> <li>•B/up fuse disconnected</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul style="list-style-type: none"> <li>•Check that the B/up fuse in the M/B or F/B is connected.</li> <li>•Check the data monitor of body integrated unit to confirm that the B/up fuse is ON.</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Check the data link connector and harness.</li> <li>•Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B278A, B2784)</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-vehicle speed detection</li> <li>-diag. communication failure</li> </ul>
	NG Mode transition error	<ul style="list-style-type: none"> <li>•Temporary communication failure with Subaru Select Monitor</li> <li>•Immobilizer amplifier failure</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul style="list-style-type: none"> <li>•Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (Check that the access key to be held is registered to the vehicle.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2789, B2790, B2786, B2785, B2784)</li> <li>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•Perform harness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch alone, and check output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).</li> <li>•Check that the vehicle speed is normal. (Make sure that the vehicle speed pulse is not output from the direct line.)</li> <li>•Confirm the access key item number and check for malfunction.</li> <li>•Check that the data monitor indicates "Normal" for "Code collation result between keyless access CM and ID code box" and "Code collation result between steering locked CM and ID code box".</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-LIN communication failure</li> <li>-Writing failure</li> <li>-ECM code (ID code box)</li> <li>-ECM code (Steering lock ECM)</li> <li>-Keyless access CM reg info</li> <li>•Time-out</li> <li>-no ECM reply mismatch</li> </ul>
	NG Check the owner NG	<ul style="list-style-type: none"> <li>•Access key other than registered key was held</li> <li>•Access key being held malfunctioning (transponder function)</li> <li>•Time-out before the operator held access key (30 seconds)</li> <li>•Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>•Immobilizer amplifier failure</li> <li>•Access key not held over the push button ignition switch with the button surface facing yourself</li> <li>•Access key incorrect item number (incorrect destination/incorrect system)</li> <li>•Antenna coil malfunction</li> <li>•ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure, replacement with used part)</li> <li>•Steering lock CM or ID code box improper connection</li> <li>•Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul style="list-style-type: none"> <li>•Check for DTC, and if there is any, perform the diagnosis according to the DTC. (DTC: B2785, B2786, B2789)</li> <li>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER. (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> </ul>	<ul style="list-style-type: none"> <li>•Failure of the condition</li> <li>-LIN communication failure</li> <li>-Writing failure</li> <li>-ECM code (ID code box)</li> <li>-ECM code (Steering lock ECM)</li> <li>-Keyless access CM reg info</li> <li>•Time-out</li> <li>-no ECM reply mismatch</li> </ul>
	NG Access Key ID Deletion Mode NG	<ul style="list-style-type: none"> <li>•ECM code incompatibility between keyless access CM and steering lock CM or ID code box (control failure, replacement with used part)</li> <li>•Steering lock CM or ID code box improper connection</li> <li>•Code writing failure between ECMs</li> </ul>		

## &lt;List of DTC codes, when the immobilizer is not registered&gt;

<When keyless access CM is replaced>	B1572 (P1572) Imm Circuit Failure (Except Antenna Circuit)
<When ECM is replaced>	B1571 (P1571) Reference Code Incompatibility

7-12 List of registration history

SSM display	Job contents				Cause of failure	Action to be taken
	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM	Access key ID deletion		
Access key PW difference	<input type="radio"/>	<input type="radio"/>			<ul style="list-style-type: none"> <li>Registration was attempted for an access key for a different vehicle.</li> <li>Registration was attempted for an access key for a different brand.</li> </ul>	Check that the access key shape and item number are correct for the vehicle to register, and then perform the registration.
New key's check fail	<input type="radio"/>	<input type="radio"/>			<ul style="list-style-type: none"> <li>Time-out occurred while registration was attempted for an access key that was registered on another vehicle.</li> <li>Time-out occurred while registration was attempted for the access key that was registered to the vehicle to be worked on.</li> <li>Time-out occurred while registration was attempted again for the access key that had been held to register before.</li> </ul>	Check that the access key to be registered is an unregistered new part, and then perform the registration. * After registration, if number of access keys indicated in "Readout the number of Access Key registration" is the desired number, registration is completed correctly and is normal.
Owner key's check fail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<ul style="list-style-type: none"> <li>The access key that was new or registered on another vehicle was held over the push button ignition switch.</li> <li>Registration was attempted after the keyless access CM was wrongly replaced with a part registered on another vehicle.</li> </ul>	<ol style="list-style-type: none"> <li>Check that the access key is registered to the vehicle to be worked on, and then perform the registration.</li> <li>Check that the keyless access CM is not replaced with a part registered on another vehicle, and then perform the registration.</li> <li>When all the access keys that are registered to the vehicle to be worked on are not found, contact your Subaru service representative.</li> </ol>
	<input type="radio"/>	<input type="radio"/>			Time-out occurred while registration was attempted again for the access key that had been held to register before.	After registration, if number of access keys indicated in "Readout the number of Access Key registration" is the demanded number, registration is completed correctly and is normal. If registration completed before registering a desired access key, such an unregistered access key cannot be used anymore. When necessary, prepare a new access key, and perform additional registration.
Other vehicle key reg	<input type="radio"/>				Time-out occurred while registration was attempted for an access key that was registered on another vehicle.	Check that the access key to be registered is an unregistered new key. When registration is impossible, the key may have been registered on another vehicle. Therefore, prepare another new access key and register.

SSM display	Job contents			Cause of failure	Action to be taken
	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM		
		○		When checking all the access keys that were registered to the vehicle to be worked on, a new access key or access key that was registered on another vehicle was included.	1. Check that all the access keys to be held are registered to the vehicle to be worked on, and then perform registration. 2. When key registration is possible with the keyless access CM that was previously installed, return that keyless access CM back. Then, after executing "Access key ID deletion" until only one key remains as registered, replace the keyless access CM, and perform the registration. 3. When key registration is not possible with the keyless access CM that was previously installed, contact your Subaru service representative.
Between ID code box * Models with ID code box only	○	○	○	Before registration, the ID code box and steering lock CM were wrongly replaced as a set with parts that were registered on another vehicle.	1. Check that the ID code box and steering lock CM were not registered on another vehicle, and then perform the registration. 2. In the case of the key registered on another vehicle, contact your Subaru service representative.
	○	○	○	Before registration, the access key and keyless access CM were wrongly replaced as a set with parts that were registered on another vehicle.	1. Check that the access key and keyless access CM were not registered on another vehicle, and then perform the registration. 2. In the case of the key registered on another vehicle, contact your Subaru service representative.
Different code between ECM			○	Before registration, the ID code box was wrongly replaced with a new part.	1. Check that the ID code box was not replaced with a new part, and then perform registration. 2. Execute "Smart ECM Registration", and then perform desired registration.
		○		When checking all the access keys that were registered to the vehicle to be worked on, a new access key or access key that was registered on another vehicle was included. * Vehicle without ID code box only	1. Check that all the access keys to be held are registered to the vehicle to be worked on, and then perform the registration. 2. In the case of the key registered on another vehicle, contact your Subaru service representative.
Between Steering lock CM	○	○	○	Before registration, the ID code box or steering lock CM was wrongly replaced with a part that was registered on another vehicle.	1. Check that the ID code box or steering lock CM was not registered on another vehicle, and then perform the registration. 2. In the case of the key registered on another vehicle, contact your Subaru service representative.
	○	○	○	During registration, the access key and keyless access CM were wrongly replaced as a set with parts that were registered on another vehicle.* Vehicle without ID code box only	1. Check that the access key and keyless access CM were not registered on another vehicle, and then perform the registration. 2. In the case of the key registered on another vehicle, contact your Subaru service representative.
			○	Before registration, the steering lock CM was wrongly replaced with a new part.	1. Check that the steering lock CM was not replaced with a new part, and then perform registration. 2. Execute "Smart ECM Registration", and then perform desired registration.
ECM code registered			○	"Smart ECM Registration" was executed before replacing the ID code box or steering lock CM.	Check replacement history of the ID code box or steering lock CM to confirm that the ID code box or steering lock CM has been replaced, and then perform registration.
Time-out	○	○	○	Abnormal termination occurred due to strong noise, battery voltage change, etc.	Check that source of strong noise is not present nearby, and that the battery voltage is normal, and then perform registration.

SSM display	Job contents			Cause of failure	Action to be taken
	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM		
Failure of the condition	different ID code box setting	○		[Vehicle with ID code box] Registration was performed without the IDW terminal of keyless access CM connected to GND. [Vehicle without ID code box] Registration was performed with the IDW terminal of keyless access CM connected to GND.	Contact your Subaru service representative.
	push-button SW amp error	○	○	The immobilizer power supply circuit of push button ignition switch is shorted to ground.	Check the harness between keyless access CM and push button ignition switch.
	vehicle speed detection	○	○	Registration was performed while vehicle speed of 5 km/h or more was detected.	1. Perform registration with the vehicle at standstill. 2. Check the vehicle speed pulse output from VDC to confirm that the vehicle speed is normally output, and then perform registration.
	LIN communication failure	○	○	Registration was performed while LIN communication failure was detected between keyless access CM — ID code box — steering lock CM.	Perform the diagnosis for "DTC B2785 LIN COMMUNICATION ERROR", and then perform registration.
Writing failure	diag. communication failure	○	○	Registration was performed, while communication between Subaru Select Monitor and keyless access CM was not established.	1. Perform the diagnosis for "COMMUNICATION FOR INITIALIZING IMPOSSIBLE", and then perform registration. 2. Perform the diagnosis if "DTC U0073 CONTROL MODULE COMMUNICATION BUS "A" OFF" is detected, and then perform registration.
	Among special mode	○	○	•B/up fuse in M/B or F/B is disconnected or blown out. •Body integrated unit cannot detect B/up status correctly.	Check "B/up" on the data monitor of body integrated unit to check that the value is 9 V or more. When the displayed voltage is low, check the B/up fuse of M/B and F/B, and harness to body integrated unit, and then perform registration.
	ECM code (ID code box)	○	○	ID code box data writing failed due to temporary poor connection of LIN communication circuit during registration. * Vehicle with ID code box only	From the diagnosis for "DTC B2785 LIN COMMUNICATION ERROR", perform the harness and connector inspection, and then perform registration.
	ECM code (Steering lock ECM)	○	○	ID code box or steering lock CM data writing failed due to temporary poor connection of LIN communication circuit during registration.	From the diagnosis for "DTC B2785 LIN COMMUNICATION ERROR", perform the harness and connector inspection, and then perform registration.
ID code box/Steering lock CM abnormal response	Keyless access CM reg info	○	○	Keyless access CM data writing failed.	Check that battery voltage is normal, and then perform registration.
	—	○	○	Abnormal response from ID code box or steering lock CM was detected.	Retry registration.
	—	○	○	Abnormal termination occurred due to temporary mismatch.	Retry registration.



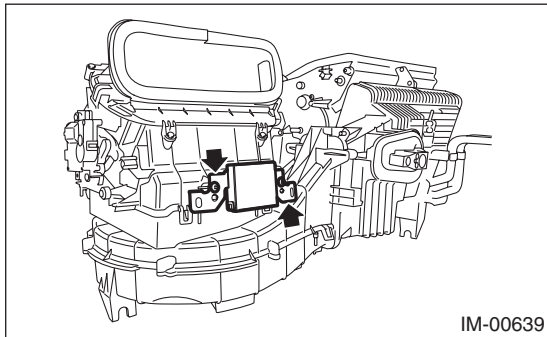
## 7-13 ID Code Box (With ID code box)

### Note:

Applied for 2015MY LEGACY only. For vehicles other than 2015MY LEGACY, refer to the service manual.

### A: Removal

- Before handling the airbag module, refer to "CAUTION" in "General Description" described in the "AIRBAG SYSTEM" section in the service manual.
  - Do not let the harness and connector interfere or tangle with other parts.
  - When the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VDC sensor midpoint setting mode" of VDC.
- 1) Disconnect the ground terminal from the battery sensor, wait for 60 seconds or more and begin the procedure.
  - 2) Remove the instrument panel assembly.
  - 3) Remove the heater and cooling unit assembly.
  - 4) Remove the ID code box.
    - (1) Remove the tapping screw to remove the immobilizer control module.



### B: Installation

- Before handling the airbag module, refer to "CAUTION" in "General Description" described in the "AIRBAG SYSTEM" section.
- Do not let the harness and connector interfere or tangle with other parts.
- When the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VDC sensor midpoint setting mode" of VDC.

- 1) Replace the air duct cover LWR.

### Caution:

**Make sure to replace the cover LWR. Without the replacement, the immobilizer control module cannot be tightened to the specified torque.**

- 2) Install the ID code box.

### Tightening torque:

**2.0 N·m (0.2 kgf-m, 1.5 ft-lb)**

- 3) Install the heater and cooling unit assembly.
- 4) Install the instrument panel assembly.
- 5) Install the ground terminal to the battery sensor.

## 8 E type

Vehicle without keyless access with push button start system, without security ID (security tag) when the vehicle is new, and with immobilizer CM.

### Note:

U.K./CANADA

### A: Structure

An immobilizer system consists of the following components: Immobilizer indicator (in combination meter), ECM, ignition key, immobilizer antenna, and immobilizer CM.

### B: Operation

When the ignition key with built-in transponder is inserted in the key cylinder, the immobilizer CM receives ignition key ID via the immobilizer antenna.

The received key ID is collated with the key ID stored in the memory of immobilizer CM.

Then, the engine IDs stored in the memory of the ECM and immobilizer CM are collated.

If the IDs do not match within the specified period of time after the RPM of the engine reaches the specified RPM, the engine stops.

If the IDs do not match, the engine stops within a couple of seconds. If the engine does not start as a result of a mismatch of the IDs, the immobilizer indicator in the combination meter turns on to indicate that the immobilizer is active. When the ignition key is removed, the immobilizer is activated and the immobilizer indicator lamp flashes to generate an alert notifying people around the vehicle that it is protected by the immobilizer.

### C: Caution

- When you install wireless radios or car phones, make sure that the immobilizer system is not influenced by their electric waves.
- Do not operate cell phones or wireless radios or the like when either trouble diagnosis or immobilizer registration is in progress.
- During immobilizer registration, do not bring a key with a different ID close to the ignition switch. When the key is on a keychain, remove it from the chain before start of diagnosis. When there are several keys on one keychain, remove them from the keychain and use them individually for the work.
- When the engine cannot be started with a registered key, pull the ignition key from the ignition switch, wait approximately one second until the immobilizer warning lamp starts flashing, and then turn the ignition key slowly to start the engine.
- Confirm that the battery voltage is 11 V or more and execute each mode.
- During immobilizer registration, make sure connectors do not get disconnected.

### Note:

When performing either one of the operations shown below, perform also the "Registering Remote Control Engine Starter".

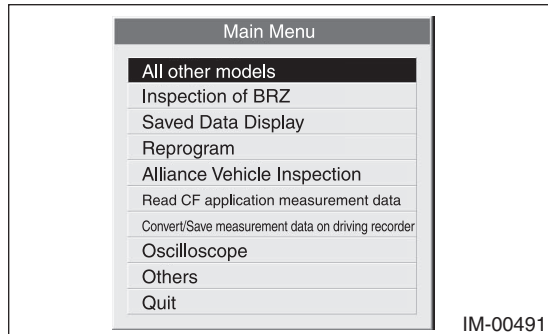
- Installing remote control engine starter
- Replacing remote control engine starter
- Replacing immobilizer CM of the vehicle with remote control engine starter

## 8-1 Registering Immobilizer CM

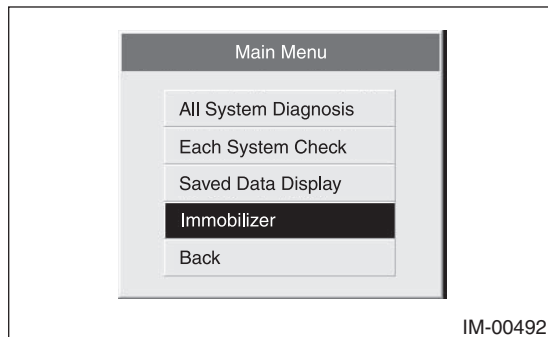
### Caution:

**Only when the immobilizer CM was replaced.**

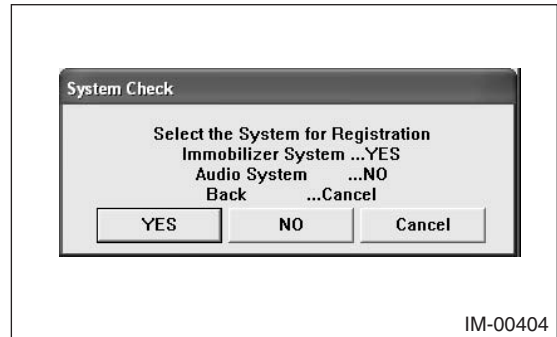
- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the key you want to register, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



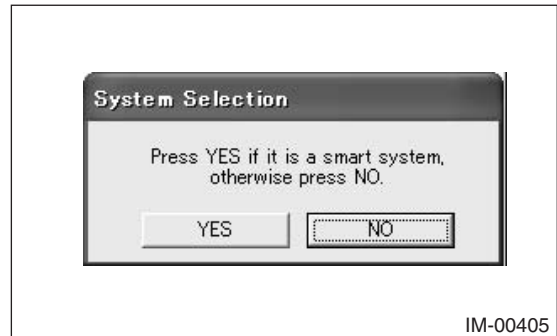
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



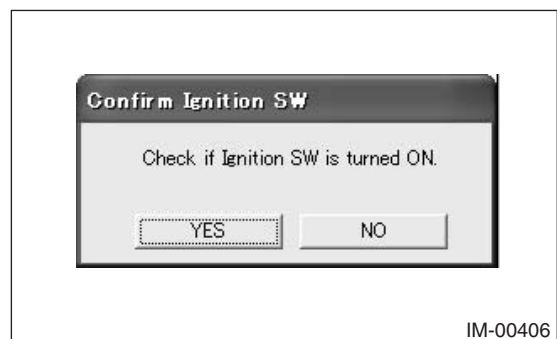
### Note:

The term [smart system] that appears on this screen is synonymous with the term [keyless access with push button start system] used in this text.

- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

### Note:

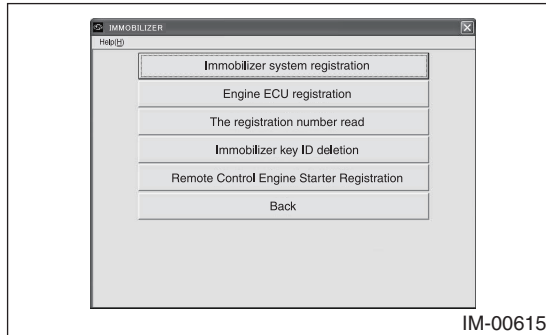
When an error screen is displayed, refer to No. 1 in "8-7 Correspondence table when registration is not possible".



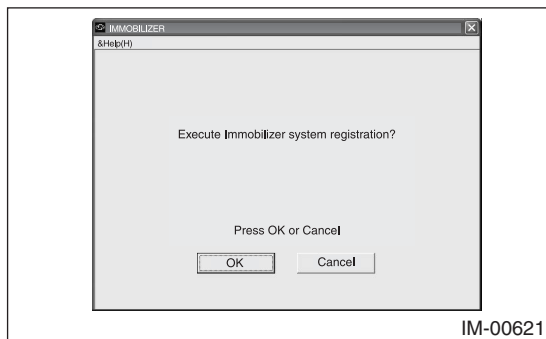
- 7) On the Main Menu that appears on the display, select [Immobilizer system registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



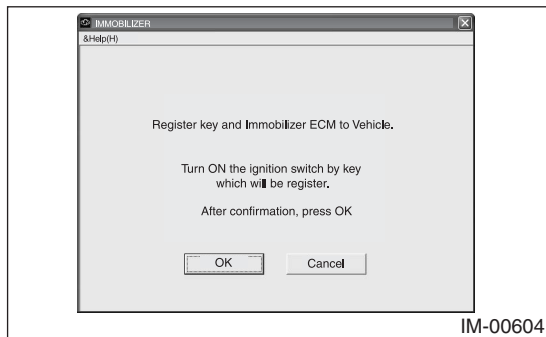
- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) Registration content appears. Confirm that the ignition is turned ON using the key you want to register, and click the [OK] button.

**Note:**

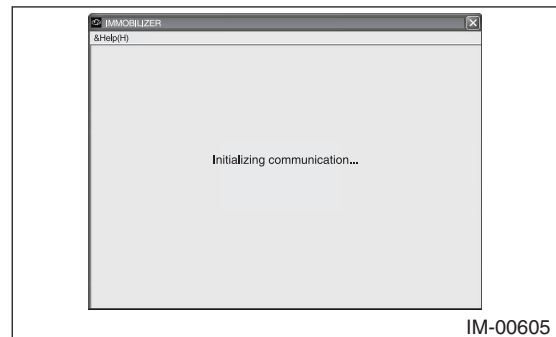
When an error screen is displayed, refer to No. 2 and 3 in "8-7 Correspondence table when registration is not possible".



- 10) Stand by as the communication initialization is performed.

**Note:**

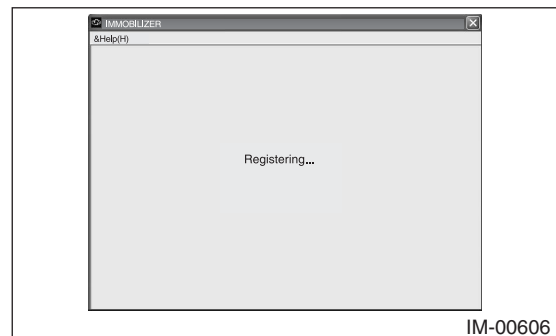
When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 11) Stand by as the key is registered.

**Note:**

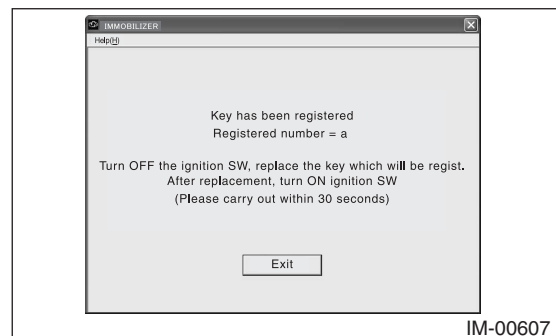
When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 12) The screen shown below will appear if registration ends normally. If you have another keys to be registered, insert the next key into the ignition switch, turn on the ignition key, and return to step 11. If you have no more keys to be registered, click the [Exit] button.

**Note:**

When an error screen is displayed, refer to No. 3 and 4 in "8-7 Correspondence table when registration is not possible".



**Note:**

a = Number of registered key

13) Stand by as the key registration ends.

**Note:**

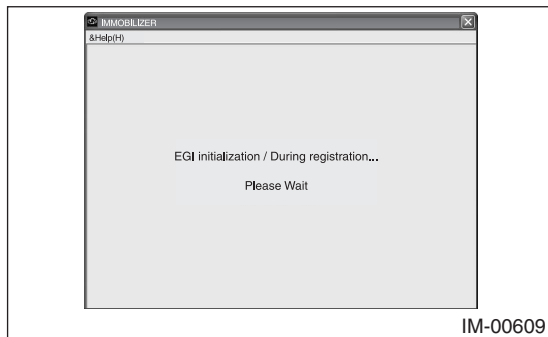
When an error screen is displayed, refer to No. 4 in "8-7 Correspondence table when registration is not possible".



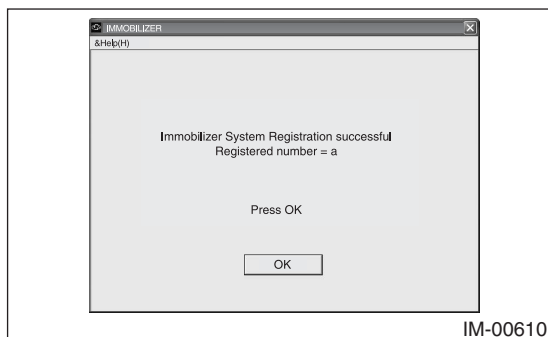
14) Stand by as next registration continues.

**Note:**

When an error screen is displayed, refer to No. 4 in "8-7 Correspondence table when registration is not possible".

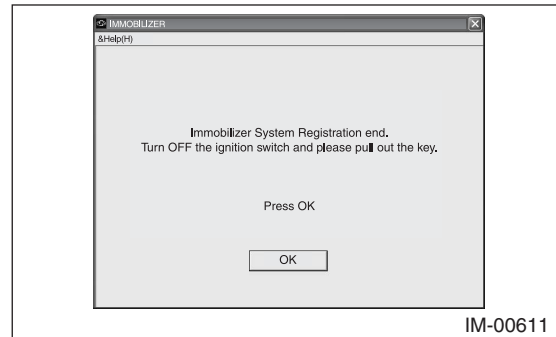


15) The screen shown below will appear if registration ends normally. Check the number of registered keys, and click the [OK] button.

**Note:**

a = Number of registered key

16) The screen shown below will appear if registration ends normally. Remove the key and click the [OK] button.



17) Make sure the engine can be started with all the registered keys, then quit the registration procedure.

## 8-2 Adding Keys

### Caution:

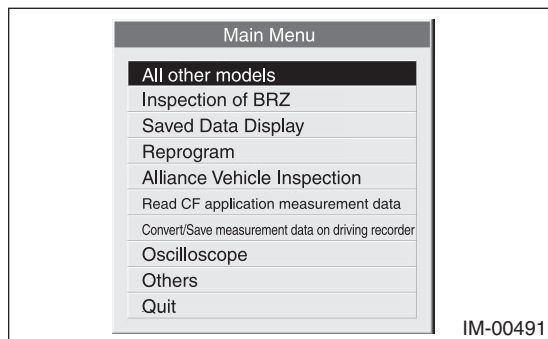
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

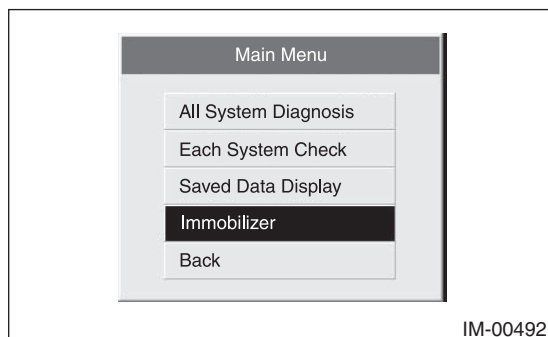
### Caution:

Make sure to use a registered key.

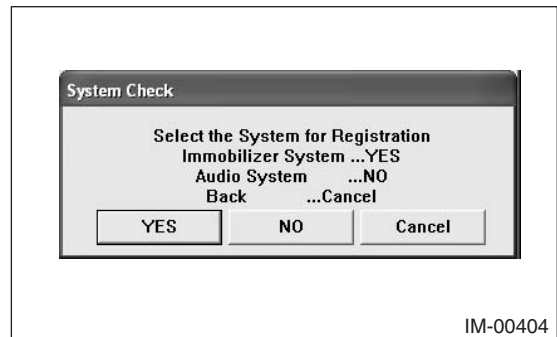
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



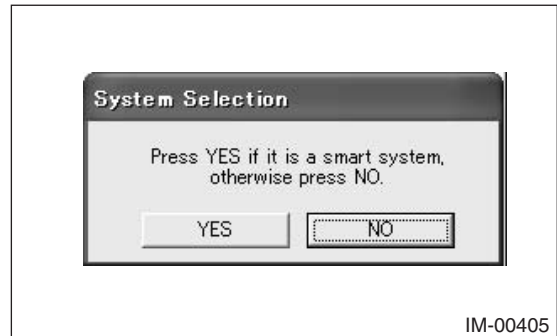
- 4) Click the [YES] button if the System Check screen is displayed.



### Note:

Audio System is the specification only for the U.K.

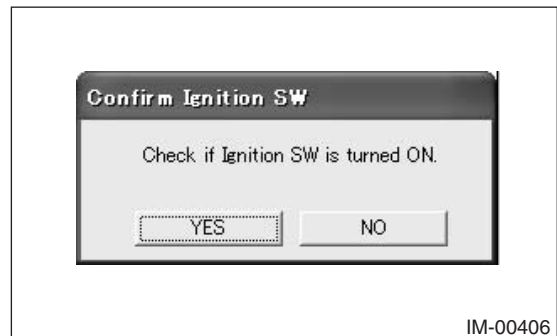
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

### Note:

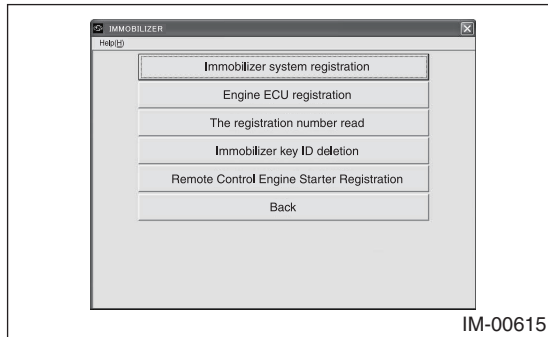
When an error screen is displayed, refer to No. 1 in "8-7 Correspondence table when registration is not possible".



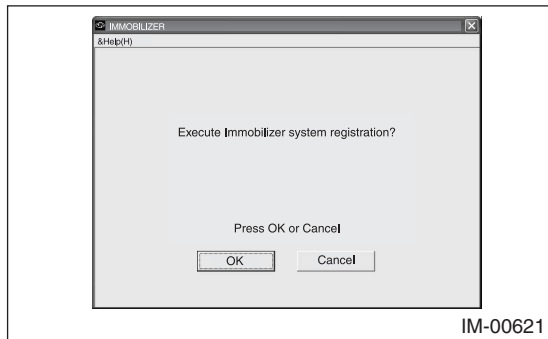
- 7) On the Main Menu that appears on the display, select [Immobilizer system registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.



- 9) Registration content appears. Confirm that the ignition is turned ON with the registered key, and then click the [OK] button.

**Note:**

When an error screen is displayed, refer to No. 2 and 3 in "8-7 Correspondence table when registration is not possible".

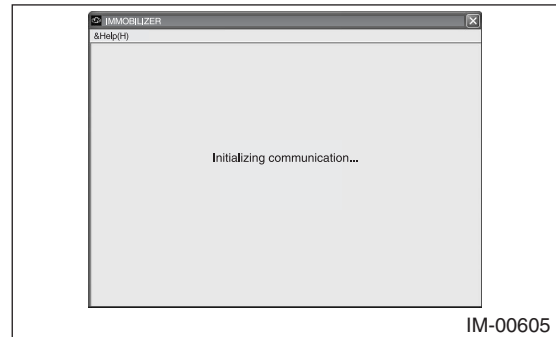
**Note:**

n = Number of registered key

- 10) Stand by as the communication initialization is performed.

**Note:**

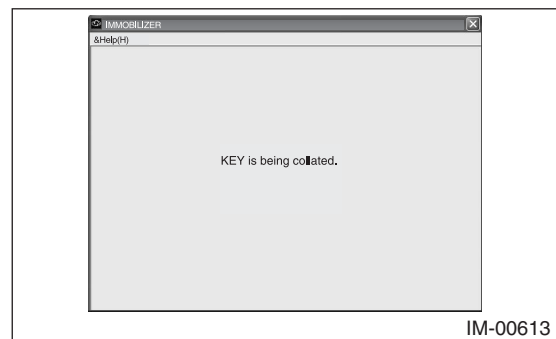
When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 11) Stand by as the key is being collated.

**Note:**

When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 12) The key collation completion screen appears. Turn the ignition switch OFF, and using a key to be newly registered, turn the ignition switch ON.

**Note:**

When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 13) Stand by as the key is registered.

**Note:**

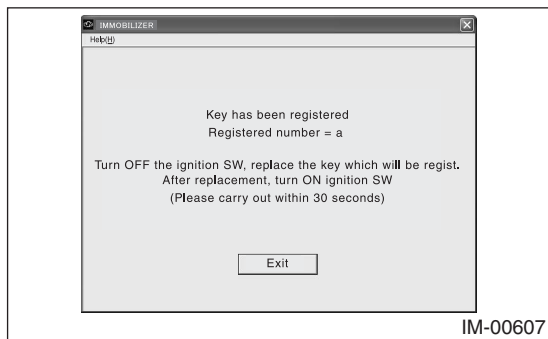
When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".



- 14) The screen shown below will appear if registration ends normally. If you have another keys to be registered, insert the next key into the ignition switch, turn on the ignition key, and return to step 13. If you have no more keys to be registered, click the [Exit] button.

**Note:**

When an error screen is displayed, refer to No. 3 in "8-7 Correspondence table when registration is not possible".

**Note:**

a = Number of registered key

- 15) Stand by as the key registration ends.

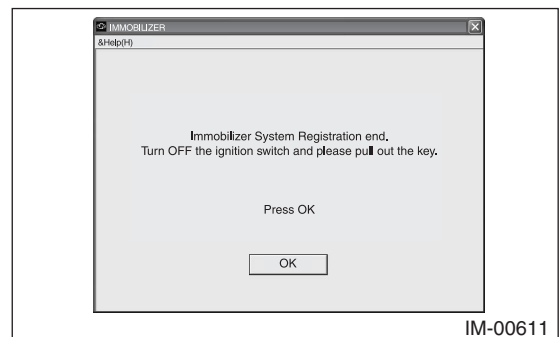


- 16) The screen shown below will appear if registration ends normally. Check the number of registered keys, and click the [OK] button.

**Note:**

a = Number of registered key

- 17) The screen shown below will appear if registration ends normally. Remove the key and click the [OK] button.



- 18) Make sure the engine can be started with all the registered keys, then quit the registration procedure.



### 8-3 Registering Engine ECM

**Caution:**

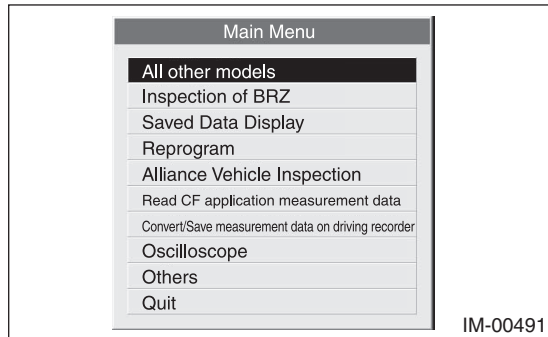
To add keys, you need one registered key.

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

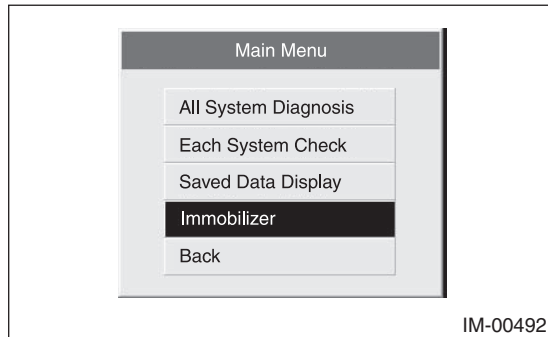
**Caution:**

Make sure to use a registered key.

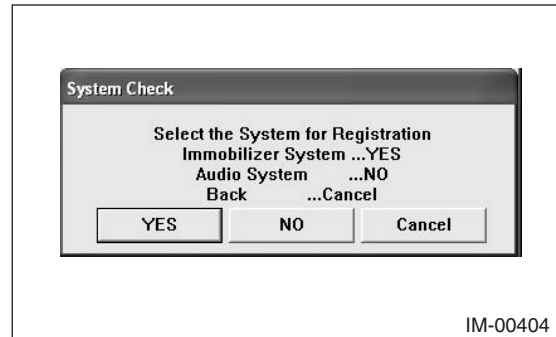
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



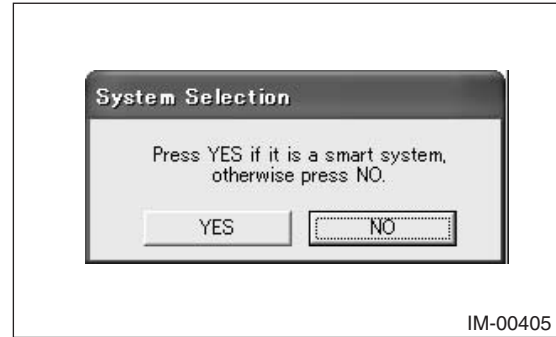
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

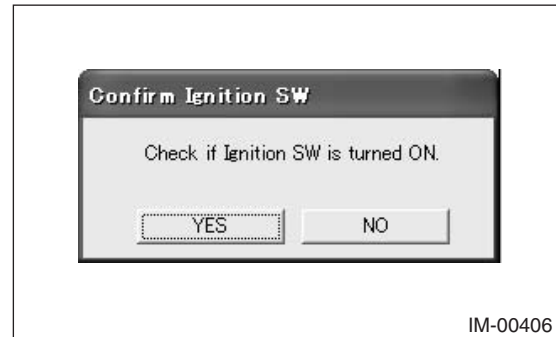
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

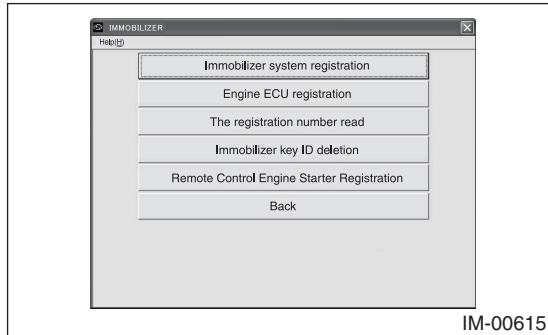
When an error screen is displayed, refer to No. 1 in "8-7 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Engine ECU registration].

**Note:**

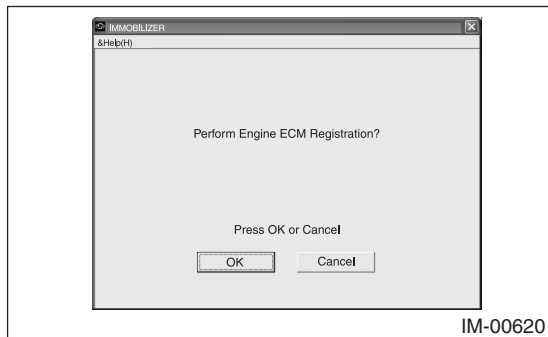
If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.

**Note:**

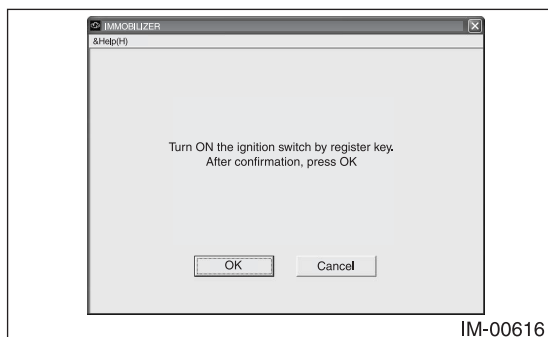
When an error screen is displayed, refer to No. 5 in "8-7 Correspondence table when registration is not possible".



- 9) Confirm that the ignition is turned ON using the registered key, and click the [OK] button.

**Note:**

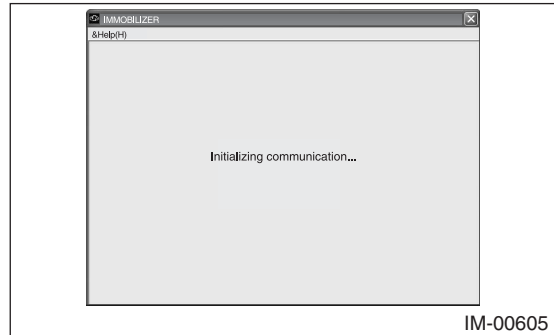
When an error screen is displayed, refer to No. 2, 6, 7 and 8 in "8-7 Correspondence table when registration is not possible".



- 10) Stand by as the communication initialization is performed.

**Note:**

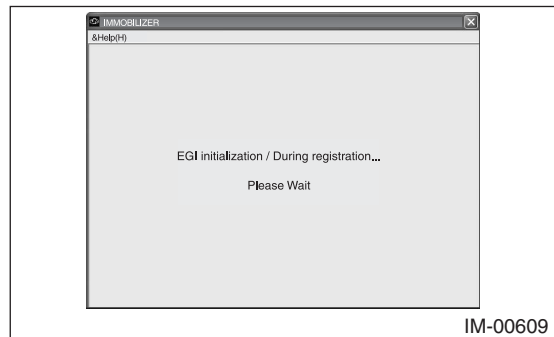
When an error screen is displayed, refer to No. 7 and 8 in "8-7 Correspondence table when registration is not possible".



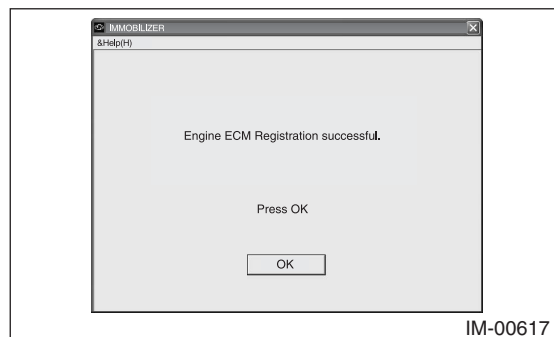
- 11) Stand by as registration is performed.

**Note:**

When an error screen is displayed, refer to No. 8 in "8-7 Correspondence table when registration is not possible".



- 12) The screen shown below will appear if registration ends normally. Click the [OK] button.



- 13) The screen shown below will appear if registration ends normally. Remove the key and click the [OK] button.



- 14) Make sure the engine can be started with all the registered keys, then quit the registration procedure.

## 8-4 Registering Remote Control Engine Starter

### Caution:

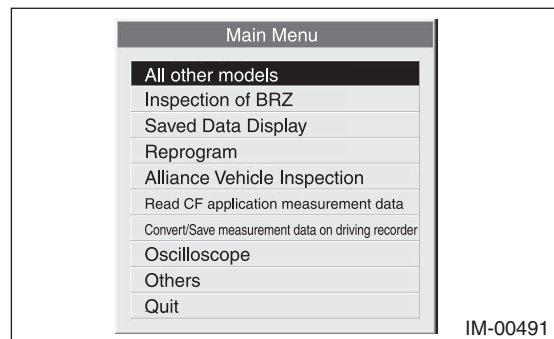
**To add keys, you need one registered key.**

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

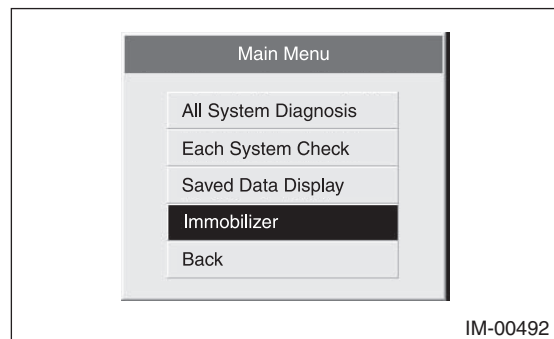
### Caution:

**Make sure to use a registered key.**

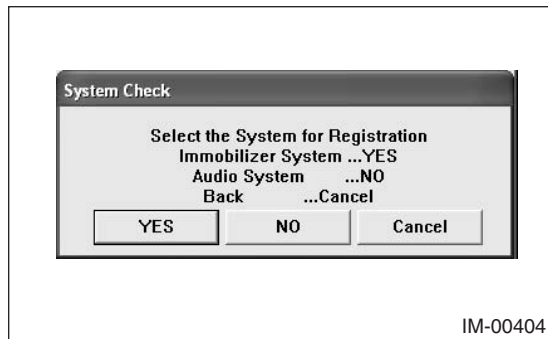
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



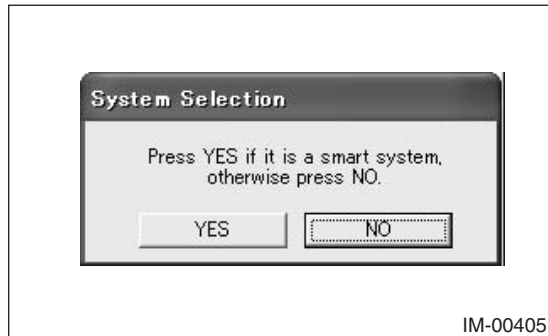
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

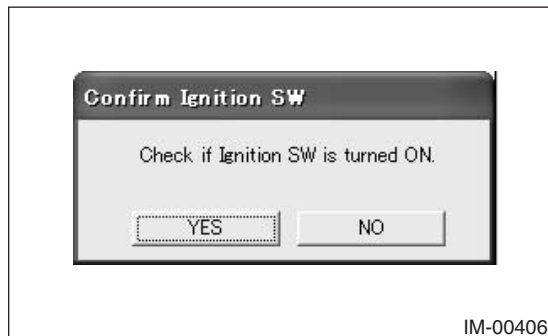
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

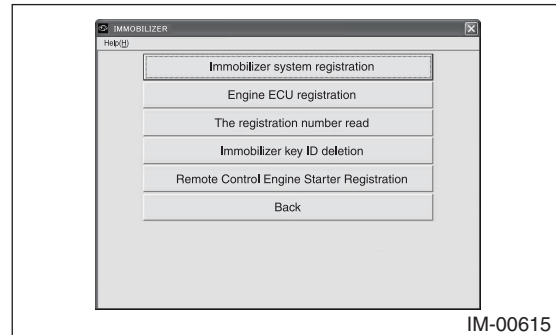
When an error screen is displayed, refer to No. 1 in "8-7 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Remote Control Engine Starter Registration].

**Note:**

If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) On the registration mode confirmation dialog box that appears, click the [OK] button.

**Note:**

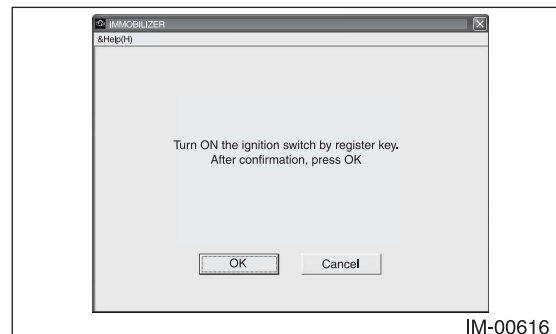
When an error screen is displayed, refer to No. 12 in "8-7 Correspondence table when registration is not possible".



- 9) Confirm that the ignition is turned ON using the registered key, and click the [OK] button.

**Note:**

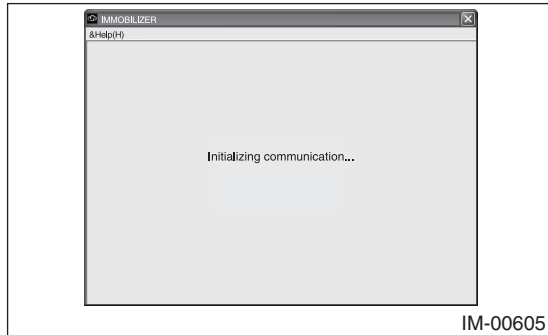
When an error screen is displayed, refer to No. 2, 13 and 14 in "8-7 Correspondence table when registration is not possible".



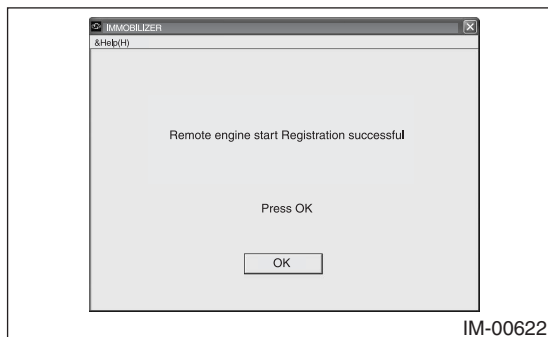
- 10) Stand by as the communication initialization is performed.

**Note:**

When an error screen is displayed, refer to No. 14 in "8-7 Correspondence table when registration is not possible".



- 11) The screen shown below will appear if registration ends normally. Click the [OK] button.



- 12) The screen shown below will appear if registration ends normally. Remove the key, and click the [OK] button.



- 13) Make sure the remote control engine starter can be started normally, then quit the registration procedure.

## 8-5 Deleting Key ID

**Caution:**

**You can keep one key and delete all the rest of keys.**

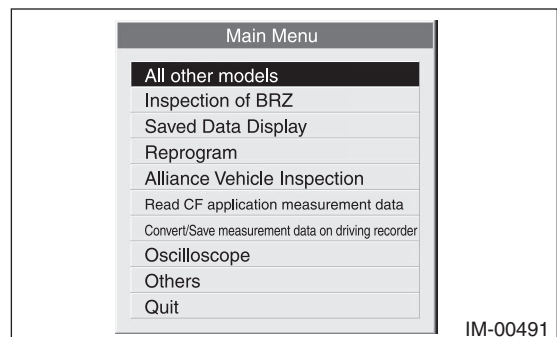
**To do this, you need one registered key that is to be kept.**

- 1) Start the PC application according to section "Starting Up the System" and display the Main Menu screen. Using the registered key you want to keep, turn on the ignition switch. (Refer to "PC application help for Subaru Select Monitor".)

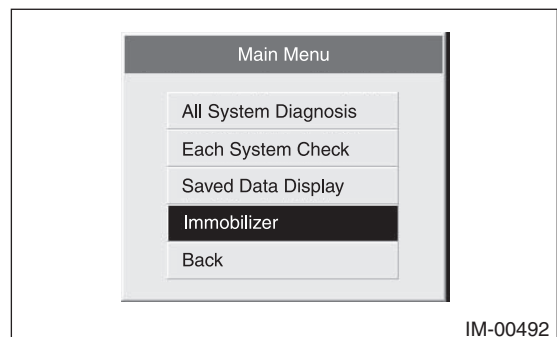
**Caution:**

**Make sure to use a registered key.**

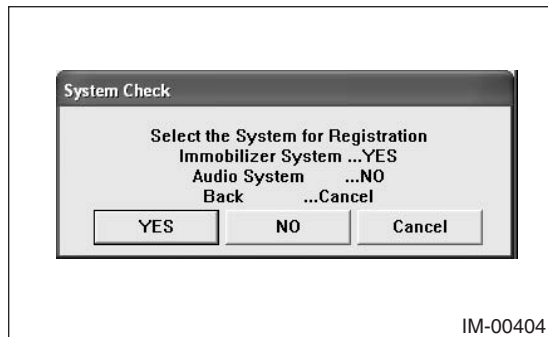
- 2) On the Main Menu, select [All other models].



- 3) Select [Immobilizer] from the item selection dialog box.



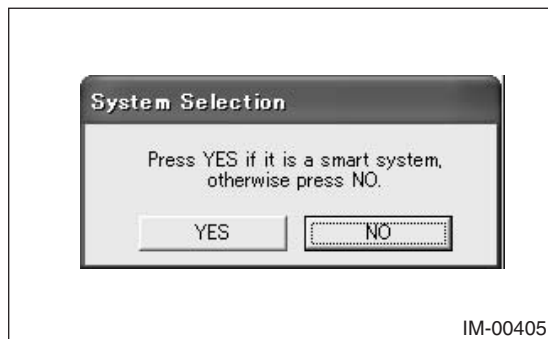
- 4) Click the [YES] button if the System Check screen is displayed.



**Note:**

Audio System is the specification only for the U.K.

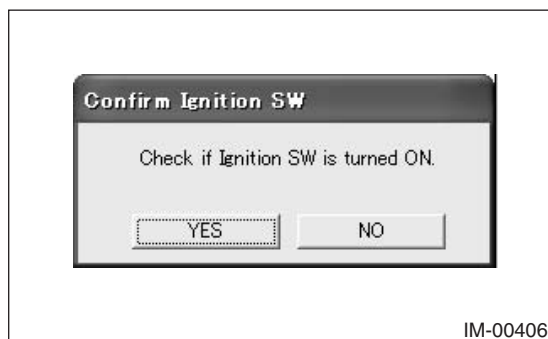
- 5) On the next screen, confirm the system is keyless access with push button start system. Click the [NO] button.



- 6) Click [YES] after confirming if the ignition switch is ON, as following screen will be displayed.

**Note:**

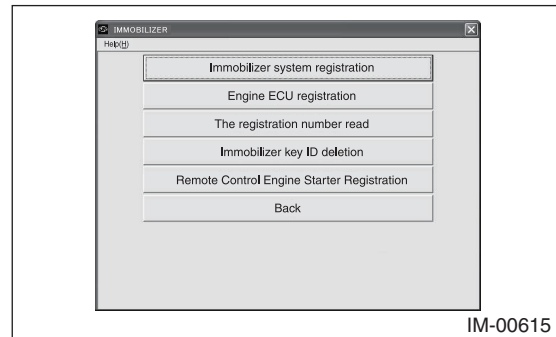
When an error screen is displayed, refer to No. 1 in "8-7 Correspondence table when registration is not possible".



- 7) On the Main Menu that appears on the display, select [Immobilizer Key ID deletion].

**Note:**

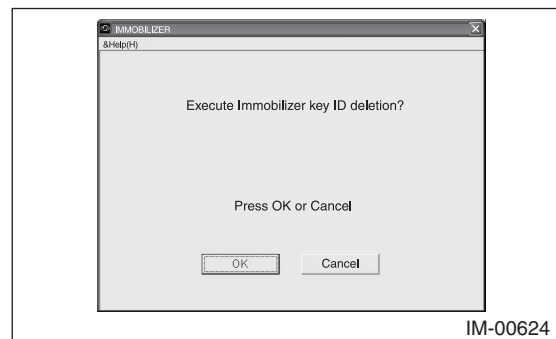
If the command input screen is displayed instead of the menu screen, the vehicle is A type. See the procedures for A type vehicle.



- 8) The deletion mode confirmation dialog box appears. Click the [OK] button.

**Note:**

When an error screen is displayed, refer to No. 9 in "8-7 Correspondence table when registration is not possible".



- 9) Confirm that the ignition is turned ON using the registered key, and click the [OK] button.

**Note:**

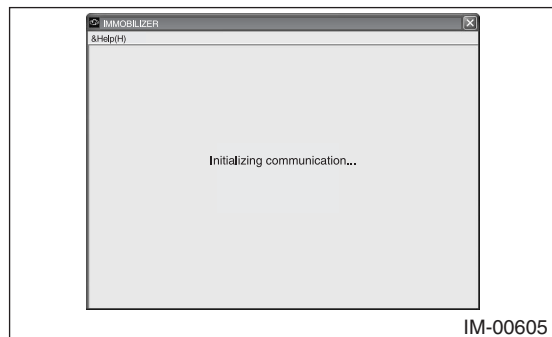
When an error screen is displayed, refer to No. 2, 10 and 11 in "8-7 Correspondence table when registration is not possible".



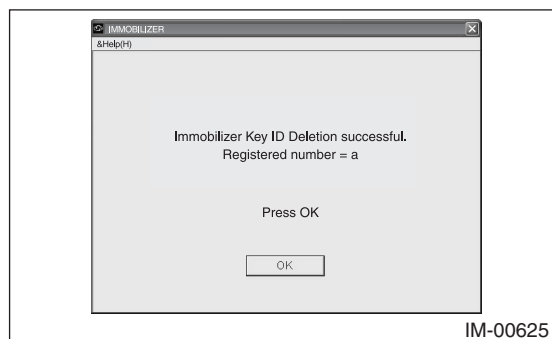
10) Stand by as the communication initialization is performed.

**Note:**

When an error screen is displayed, refer to No. 11 in "8-7 Correspondence table when registration is not possible".

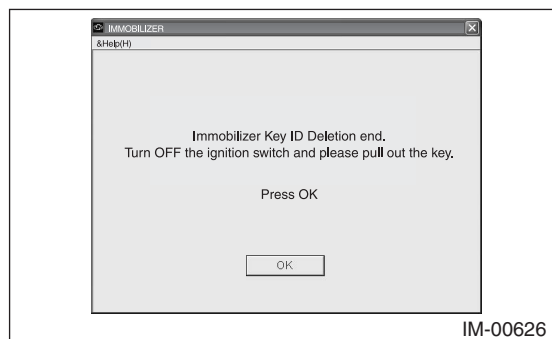


11) The screen shown below will appear if deletion ends normally. Confirm that the number of registered key is one, and click the [OK] button.

**Note:**

a = Number of registered key

12) The screen shown below will appear if deletion ends normally. Remove the key, and click the [OK] button.



13) Confirm the following conditions and quit the registration procedure.

- The engine starts with the key being inserted.
- The engine does not start with the deleted key.

## 8-6 Immobilizer system (when Immobilizer CU (U.K./CANADA)) : Correspondence table at the time of parts lost or failure

If all the keys are lost, for protection against vehicle theft you must contact your Subaru service representative.

### Caution:

When replacing the parts, always use a new one. Used parts cannot be registered.

### 1. Explanation of the SSM III registration mode

Mode name	Application	Items to be prepared
Immobilizer system registration	Perform when: 1. Additional keys are registered 2. Immobilizer CM is replaced	1. One registered key 2. Keys you want to register
Engine ECM registration	Perform when ECM is replaced. (When the immobilizer CM is replaced at the same time, execute "immobilizer system registration".)	One registered key
Immobilizer Key ID deletion	Perform when one key is kept and all the rest of keys are deleted.	One registered key
Remote control engine starter registration	Perform when: 1. Remote control engine starter is installed and/or replaced 2. Immobilizer CM is replaced (when remote control engine starter is equipped)	One registered key

### 2. Parts replacement table

- When performing each registration, make sure that the ignition switch is ON, and the driver's door is kept open. With the ignition switch OFF and all doors closed, the immobilizer CM will enter sleep mode, which disables any registration.
- For the vehicle with the remote control engine starter, perform "Remote Control Engine Starter Registration" when the immobilizer CM is replaced.

#### <When only one part is failed or lost>

Key	Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement			
	Immobilizer CM	ECM	ECM	Key	Immobilizer CM	ECM	(1)	(2)	(3)	(4)
Not all							"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)		
X				One registered key			"Immobilizer system registration"			
	X			All registered keys	X		"Immobilizer system registration"			
		X		One registered key		X	"Engine ECM registration"			

#### <When two parts are failed or lost>

Key	Parts failed/lost			Parts required to replace or prepared when items on the left fail			Procedures to perform after parts replacement			
	Immobilizer CM	ECM	ECM	Key	Immobilizer CM	ECM	(1)	(2)	(3)	(4)
Not all							"Immobilizer system registration"			
X	X			Keys you want to register	X		"Immobilizer system registration"			
X		X		One registered key		X	"Engine ECM registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	



## 8-7 Correspondence table when registration is not possible

A list of possible trouble mode, when an error screen is displayed at each status (procedure).

No.	Status (procedure)	Error screen	Trouble mode	Action to be taken
1	Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed	<ul style="list-style-type: none"> <li>•CAN communication failure between Subaru Select Monitor and immobilizer CM</li> <li>•CAN communication failure between Subaru Select Monitor and body integrated unit</li> </ul>	Perform the diagnosis for LAN system.
2	"Immobilizer system registration" start → "Turn ON the ignition switch."	Cannot confirm ignition ON.	IGN line of immobilizer CM not detected	Check the data monitor. Check the communication line.
3	→ "Initializing communication..."	NG Abnormal Termination	<ul style="list-style-type: none"> <li>•Subaru Select Monitor malfunction</li> <li>•Immobilizer CM malfunction</li> </ul>	Check version of Subaru Select Monitor. Replace the immobilizer CM.
		NG Cannot judge register mode (new or add)	Immobilizer CM malfunction	Check version of Subaru Select Monitor. Replace the immobilizer CM.
		NG Transponder communication failure.	Transponder failure	Check DTC and perform the diagnosis.
		NG Immobilizer antenna failure.	Antenna failure	Check DTC and perform the diagnosis.
		NG Non-volatile memory failure.	Immobilizer CM failure	Check DTC and perform the diagnosis.
4	→ "EGi initialization / During registration..."	NG Performed conditions not established.	IGN-OFF performed during registration mode	Perform re-registration.
5	"Engine ECU registration" start → "Turn ON the ignition switch."	NG Transponder collation failure.	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> </ul>	Check DTC and perform the diagnosis. Prepare the registered key.
		NG Registration was not successfully.	Immobilizer CM malfunction	When multiple attempts of registration did not solve the problem, replace the immobilizer CM.
6	→ "Turn ON the ignition switch."	NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
7	→ "Initializing communication..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure between Subaru Select Monitor and ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		Registered number = 0	Immobilizer CM unregistered	Execute "Immobilizer system registration" to register the key.
		Cannot confirm ignition ON.	IGN line of immobilizer CM not detected	Check the data monitor. → Check the communication line.
		NG Abnormal Termination	<ul style="list-style-type: none"> <li>•Subaru Select Monitor malfunction</li> <li>•Immobilizer CM malfunction</li> </ul>	Check version of Subaru Select Monitor. Replace the immobilizer CM.
		NG Transponder communication failure.	Transponder failure	Check DTC and perform the diagnosis.
7	→ "Initializing communication..."	NG Immobilizer antenna failure.	Antenna failure	Check DTC and perform the diagnosis.
7	→ "Initializing communication..."	NG Transponder collation failure.	<ul style="list-style-type: none"> <li>•NG key</li> <li>•Unregistered key</li> </ul>	Prepare the registered key.
		NG Performed conditions not established.	IGN-OFF performed during registration mode	—
		NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.

No.	Status (procedure)	Error screen	Trouble mode	Action to be taken
8	→ "EGI initialization / During registration..."	NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		NG EGH-Immobilizer communication	•IGN-OFF performed during registration mode •Communication failure between ECM and immobilizer CM	Retry the procedure. Perform the diagnosis for DTC B1572 (P1572).
		NG IMM Control Module EEPROM	Immobilizer CM failure	Perform the diagnosis for DTC B1577 (P1577).
		NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).
		NG EGI security access NG	•Subaru Select Monitor failure •ECM failure	Check version of Subaru Select Monitor. Replace the ECM.
9	→ "Immobilizer key ID deletion" start	NG EGI-SSM Communication	•ECM failure •Communication failure between Subaru Select Monitor and ECM	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery. Check the communication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		Registered number = 0	Immobilizer CM unregistered	Execute "immobilizer system registration" to register the key.
10	→ "Turn ON the ignition switch."	Cannot confirm ignition ON.	-	-
		NG Abnormal Termination	IGN line of immobilizer CM not detected Subaru Select Monitor malfunction Immobilizer CM malfunction	Check the data monitor. → Check the communication line. Check version of Subaru Select Monitor. Replace the immobilizer CM.
11	→ "Initializing communication..."	NG Transponder communication failure.	Transponder failure	Check DTC and perform the diagnosis.
		NG Immobilizer antenna failure.	Antenna failure	Check DTC and perform the diagnosis.
		NG Transponder collation failure.	•NG key •Unregistered key	Prepare the registered key.
		NG Non-volatile memory failure.	Immobilizer CM failure	DTC is detected except for a new unit. Therefore, check DTC and perform the diagnosis. When multiple attempts of registration did not solve the problem, replace the immobilizer CM.
		NG Performed conditions not established.	IGN-OFF performed during registration mode	-
12	→ "Remote Control Engine Starter Registration" start	NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
		Registered number = 0	Immobilizer CM unregistered	Execute "immobilizer system registration" to register the key.
13	→ "Turn ON the ignition switch."	Cannot confirm ignition ON.	IGN line of immobilizer CM not detected	Check the data monitor. → Check the communication line.
		NG Abnormal Termination	•Subaru Select Monitor malfunction •Immobilizer CM malfunction	Check version of Subaru Select Monitor. Replace the immobilizer CM.
		NG Transponder communication failure.	Transponder failure	Check DTC and perform the diagnosis.
		NG Immobilizer antenna failure.	Antenna failure	Check DTC and perform the diagnosis.
		NG Transponder collation failure.	•NG key •Unregistered key	Prepare the registered key.
		NG Performed conditions not established.	IGN-OFF performed during registration mode	-
		NG Remote Control Engine Starter communication failure.	CAN communication failure between immobilizer CM and remote control engine starter	Perform the diagnosis for LAN system.
		NG Remote start registration NG	•Remote control engine starter malfunction •Immobilizer CM malfunction	Perform the diagnosis for the remote control engine starter, and immobilizer CM. When the same error is indicated again, replace the immobilizer CM.
		NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
		14	→ "Initializing communication..."	NG Performed conditions not established.

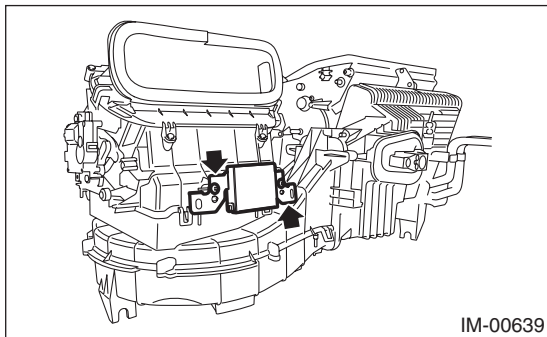
## List of DTC codes, when the immobilizer is not registered

<When immobilizer CM is replaced>	B1402 Immobilizer Key Collation NG B1571 (P1571) Reference Code Incompatibility B1575 (P0513) Incorrect Immobilizer Key
<When unregistered key is used>	B1402 Immobilizer Key Collation NG B1575 (P0513) Incorrect Immobilizer Key
<When ECM is replaced>	B1571 (P1571) Reference Code Incompatibility

## 8-8 Immobilizer control module

### A: Removal

- Before handling the airbag module, refer to "CAUTION" in "General Description" described in the "AIRBAG SYSTEM" section in the service manual.
  - Do not let the harness and connector interfere or tangle with other parts.
  - When the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VDC sensor midpoint setting mode" of VDC.
- 1) Disconnect the ground terminal from the battery sensor, wait for 60 seconds or more and begin the procedure.
  - 2) Remove the instrument panel assembly.
  - 3) Remove the heater and cooling unit assembly.
  - 4) Remove the immobilizer control module.
    - (1) Remove the tapping screw to remove the immobilizer control module.



### B: Installation

- Before handling the airbag module, refer to "CAUTION" in "General Description" described in the "AIRBAG SYSTEM" section.
- Do not let the harness and connector interfere or tangle with other parts.
- When the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VDC sensor midpoint setting mode" of VDC.

- 1) Replace the air duct cover LWR.

#### Caution:

**Make sure to replace the cover LWR. Without the replacement, the immobilizer control module cannot be tightened to the specified torque.**

- 2) Install the immobilizer control module.

#### Tightening torque:

**2.0 N·m (0.2 kgf-m, 1.5 ft-lb)**

- 3) Install the heater and cooling unit assembly.
- 4) Install the instrument panel assembly.
- 5) Install the ground terminal to the battery sensor.