# REGISTRATION MANUAL FOR IMMOBILIZER

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### **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		
	NOT provided with immobilizer CM	
C type	Vehicle that has a keyless access with push	
*1 button start system and is originally p		
	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	Vehicle without keyless access with push button	
*2	start system, without security ID (security tag)	
	when the vehicle is new, and with immobilizer	
	СМ	

\*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.
- 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.

Select th	e System for Ro	egistration
Immo	obilizer System	YES
Auc	lio System	NO
Bi	ackCar	ncel
YES	NO	Cancel

### Note:

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

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

Sys	tem Sele	ction		
	Press YES oth	6 if it is erwise	a smart press NC	system, ).
	YES	1	[[[]]]	10

### 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".

Confirm Ignition SW	
Check if Ignition SW	'is turned ON.
YES	NO

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.

-		
	HADD	
	IMMOBILIZER	
	Key registration mode execute?	
	Press OK or Cancel	
	OK Cancel	
	IM	00409
		00-100

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

+1600	
After inputting Security ID Press OK	
	IM-00410

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".

14605	
Do you want to register the key?	
Press OK	
	IM-00412

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.

H600	
Insert next key and turn IG	
switch to ON	
*	IM-00416

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".

integr	
Do you want to register the key?	
Press OK OK	
IM-	00417

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.

relpi	)	
	Key has been registered	
	Devides the loss of	
	Hegister 4th key?	
	Press OK or Cancel	
	OK Cancel	
		IM-004

- 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.

Help(H)	BILIZER - 2004-2.5 SOHO	
	The key registration End successfu <b>ll</b> y	
	Do you want to register remote engine start?	
	Press OK or Cancel	
	OK Cancel	
		IM 00.

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.

N600
R emote engine s tart Registration successful Turn off the engine And con firm restart engine
Press OK
OK
IM-00423

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)

		T	T	T	1	1		T	1	1	1	T		1	1.		1		1	T		1.		
after parts replacement	(2)														Registering Immobilizer Key			Registering Immobilizer Key			Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key
Procedures to perform	(1)	Registering Immobilizer Kev	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	Registering Immobilizer Key	(*2)	Registering Immobilizer Key	Registering Immobilizer Key	(*2)	Registering Immobilizer Key	Registering Immobilizer Key	(*2)	(*2)	(*2)	(*2)
	Meter *4 or Security CU	*5				х			х			×		×	х		×	×		×	×	×	×	×
t fail	Body integrated unit				×			×			×		×		×	×		×	×		×	×	×	×
items on the lef	ECM			×			×			×			×	×		×	×		×	×		×	×	×
Parts required to replace or prepared when i	Кеу	Kevs vou want to recister (recistered kev or new kev)	New key you want to register	All registered keys	Keys you want to register (registered key or new key) (* 1)	All registered keys	Keys you want to register (registered key or new key)	Keys you want to register (registered key or new key) (*1)	All registered keys	New key you want to register	New key you want to register	New key you want to register	Keys you want to register (registered key or new key) (*1)	All registered keys	Keys you want to register (registered key or new key) (*1)	Keys you want to register (registered key or new key) (*1)	Keys you want to register (registered key or new key)	Keys you want to register (registered key or new key) (*1)	New key you want to register	New key you want to register	New key you want to register	Keys you want to register (registered key or new key) (*1)	Keys you want to register (registered key or new key) (*1)	New key you want to register
	Meter *4 or Security CU	*5				×			×			×		×	×		×	×		×	×	×	×	×
lost	Body integrated unit				×			×			×		×		×	×		×	×		×	×	×	×
Parts failed/	ECM			×			×			×			×	×		×	×		×	×		×	×	×
	Key All		×							×	×	×							×	×	×			×
	Not all	×					×	×	×							×	×	×					×	
				1 parts failure	5						2 parts failure	5							3 parts failure				4 parts	failure
																11								

\*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 (2005MY to 2009MY)

•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

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		1	•	
No.	Status (procedure)	Error screen	Irouble mode	Action to be taken
-	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.
N	Enter the security ID → x "Security ID is being collated "	Communication error has occurred.	Security ID unregistered in either body integrated unit or combination meter/ security CM	Read out the security ID. Contact your Subaru service representative.
		NG Security ID is incorrect x 3 times $\rightarrow$ initial screen	Incorrect security ID	Read out the security ID. Contact your Subaru service representative.
		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 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)
		NG EGI-Immobilizer communication	Communication failure between ECM and body integrated unit	Perform the diagnosis for DTC B1572 (P1572).
ო	→ "Do you want to register the Engine ECM?" → "Engine ECM Initializing communication"	NG Meter/SCU error	<ul> <li>Communication failure with combination meter/security CM</li> <li>Combination meter/security CM malfunction</li> </ul>	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.
		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 IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		EGI unit NG	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 Antenna	Immobilizer antenna failure	Perform the diagnosis for DTC B1570 (P1570).
		NG Key Communication Failure	Transponder failure	Perform the diagnosis for DTC B1574 (P1574).
		This key has been already registered.	Mode did not end normally last time	Press the Cancel button that appears to recover normally.
		NG EGI security access NG	<ul> <li>Subaru Select Monitor failure</li> <li>ECM failure</li> </ul>	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)
4	ightarrow "Key has been registered"	NG Antenna	Immobilizer antenna failure	Perform the diagnosis for DTC B1570 (P1570).
		NG Key Communication Failure	Transponder failure	Perform the diagnosis for DTC B1574 (P1574).
		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.
		EGI unit NG	ECM failure	Wait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the battery.

A type

No.	Status (procedure)	Error screen	Trouble mode	Action to be taken
2	→ "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.
_ist	of DTC codes, when th€	e immobilizer is not registere	pę	
<whei< td=""><td>n body integrated unit is replaced&gt;</td><td></td><td>B1402 Immobilize</td><td>r Key Collation NG</td></whei<>	n body integrated unit is replaced>		B1402 Immobilize	r Key Collation NG
(The s	same DTC is detected, even when rep	lacement is performed with ECM or combina	ation meter/security CM B1571 (P1571) Re	sference Code Incompatibility
as a s	iet)		B1575 (P0513) In	sorrect Immobilizer Key
	n unrodictorod kovic ucod-		B1402 Immobilize	er Key Collation NG
			B1575 (P0513) In	sorrect Immobilizer Key
<whe.< td=""><td>n ECM is replaced&gt;</td><td></td><td>B1571 (P1571) R</td><td>sference Code Incompatibility</td></whe.<>	n ECM is replaced>		B1571 (P1571) R	sference Code Incompatibility
	a combination motor is rotation		B1401 M Collation	NG Distance of the second se
			B1578 (P1578) M	ster Failure*
	n soonrith OM is real and		B1405 SCU Colla	ion NG
			B1578 (P1578) M	eter 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.

 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.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
	IM-00492

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

Select th	e System for Ro	egistration
Immo	obilizer System	YES
Aud	lio System	NO
Ba	ackCar	ncel
YES	NO	Cancel

### 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.

Sy	stem Sel	ection	1		
	Press YI o	ES if it therwis	is a sma e press	art systei NO.	n.
	YE	S		NO	

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".

Confirm	n Ignition SW		
Ch	eck if Ignition SV	₩ is turned ON	
<u> </u>	YES	NO	

 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.

<u>⊘</u> IMMOINI IZER	X
Herb	
Execute Smart Immobilizer Registration Mode?	
Press OK or Cancel	
OK Cancel	
	IM-00425

- 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".

	ZER	×
Help(E)		
	BIU Initializing communication	
	Please Wait	
	ricase wait	
		IM-0042

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".

Hep(j)	
Collation complete	
Turn OFF the ignition SW, replace the key which will be regist.	
After replacement, turn ON ignition SW (Please carry out within 30 seconds)	

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.

MMOBILIZER	×
Hdp(H)	
KEY add mode	
1.Key registration	
2.Meter/SCU registration	
successfully completed.	
ОК	
	IM-004

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

MMOBILIZER	N IN
Heb(H)	
Immobilizer system registration successful Ignition SW is turned off and Please pull out the key.	
	IM-00429

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.

 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.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
1	
	All System Diagnosis Each System Check Saved Data Display Immobilizer Back

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

Select th	e System for Ro	egistration
Immo	bilizer System	YES
Aud	lio System	NO
Ba	ackCar	ncel
YES	NO	Cance

### Note:

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

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

Sy	stem Se	electio	n		
	Press	YES if i otherwi	t is a sma se press	art system NO.	1,
	1	/ES		NO	

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".

Gonfirm	Ignition S	W	
Che	ck if Ignition	SW is turne	ed ON.
(	YES	NC	

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.

C IMMOINTERTR Heb/SP	X
Execute Smart Immobilizer Registration Mode?	
Press OK or Cancel	
OK Cancel	
L	IM-00425

- 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".

	3
Collation complete Collation OK Turn OFF the ignition SW, replace the key which will be regist. After replacement, turn ON ignition SW (Please carry out within 30 seconds)	

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".

Helpon		
	Desistaring	
	e tegestelling	
	Please Wait	
		IM-004

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

IMMOBILIZER	N
Heţt(H)	
Immobilizer system registration successful Ignition SW is turned off and Please pull out the key.	
ОК	
	IM-00429

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.

 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.

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

System Se	electio	n	
Press	YES if it otherwi	: is a smart se press NC	system, ).
Y	ÆS		10

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".

Gonfirn	n Ignition St	W	
Ch	eck if Ignition S	SW is turned O	N.
	YES	NO	

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.

Immobilizer system registration Engine ECU registration Meter/SCU registration The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	
Engine ECU registration Meter/SCU registration The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Immobilizer system registration
Meter/SCU registration The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Engine ECU registration
The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Meter/SCU registration
Immobilizer key ID deletion Remote Control Engine Starter Registration Back	The registration number read
Remote Control Engine Starter Registration Back	Immobilizer key ID deletion
Back	Remote Control Engine Starter Registration
	Back

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



- 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.

 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].



 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.

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

System Sele	ction	
Press YE otl	S if it is a smart sys nerwise press NO.	stem,
YES	(NO	

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".

Confirm Ig	nition SW		
Check	if Ignition SW	is turned ON	N.
(Y	ES	NO	1

 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.

Engine ECU registration Meter/SCU registration The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Immobilizer system registration
Meter/SCU registration The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Engine ECU registration
The registration number read Immobilizer key ID deletion Remote Control Engine Starter Registration Back	Meter/SCU registration
Immobilizer key ID deletion Remote Control Engine Starter Registration Back	The registration number read
Remote Control Engine Starter Registration Back	Immobilizer key ID deletion
Back	Remote Control Engine Starter Registration
	Back

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

 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.

Select th	e System for Ro	egistration
Imma	bilizer System	YES
Aud	lio System	NO
Ba	ackCar	ncel
YES	NO	Cancel

### Note:

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

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

Sy	stem Select	ion
	Press YES if other	fit is a smart system, wise press NO.
	YES	NO

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".

Confi	rm Ignitio	n SW	-	
C	Sheck if Igni	tion SW is	turned (	DN.
C	YES		NO	

 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.
- 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.

 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].



 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.

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

System Select	tion
Press YES i other	if it is a smart system, wise press NO.
YES	NO

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".

Confirm le	nition SW		
Check	if Ignition SW	is turned ON	N.
<u> </u>	/ES	NO	1

 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.

Immobilizer system registration
Ininobilizer system registration
Engine ECU registration
Meter/SCU registration
The registration number read
Immobilizer key ID deletion
Remote Control Engine Starter Registration
Back

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

Help( <u>H</u> )		
	Execute Immobilizer key ID deletion?	
	Press OK or Cancel	
	OK Cancel	
		1111-00433

- 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".

	N.
Help(H)	
BIU Initializing communication…	
Please Wait	
	IM-00426

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	<ol> <li>One registered key</li> <li>All registered keys and a key you want to register</li> </ol>
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

• 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. Note:

• For vehicle with a remote control engine starter, perform "Registering Remote Control Engine Starter" when the BIU is replaced.

			(4)								
	ifter parts replacement		(3)								
	Procedures to perform a		(2)	"Immobilizer system registration" (Registering keys needed)				"Immobilizer system registration" (Registering keys needed)			
			(1)	'Immobilizer Key ID deletion" (Deleting lost <eys)< td=""><td>'Immobilizer system egistration"</td><td>'Meter/SCU registration"</td><td>'Engine ECU registration"</td><td>'Immobilizer Key ID deletion" (Deleting lost keys)</td><td>'Immobilizer system egistration"</td><td>'Meter/SCU registration"</td><td>'Engine ECU registration"</td></eys)<>	'Immobilizer system egistration"	'Meter/SCU registration"	'Engine ECU registration"	'Immobilizer Key ID deletion" (Deleting lost keys)	'Immobilizer system egistration"	'Meter/SCU registration"	'Engine ECU registration"
	items		ECM			-	×			_	×
	nehw be		Security CU			×					
	r prepare ft fail	Combi-	meter							×	
	place or	Body	inte- grated unit		×				×		
	Parts required to re c		Key	One registered key	All registered keys	One registered key	One registered key	One registered key	All registered keys	One registered key	One registered key
			ECM				х				х
			Security CU			×					
	iled/lost	Combi-	meter							×	
	Parts fa	Body	inte- grated unit		×				×		
-		ey	AII								
		X	Not all	×				×			
	ination		Others					0	0	0	0
	Dest		U.K./ Canada	0	0	0	0				

# <When only one part is failed or lost>

<When two parts are failed or lost>

	╞		ľ					Parts required to re	place o	r prepar	ed when	items				
Destinati	on		-	rans ia	lied/lost			0	in the le	ft fail				Procedures to periorm	arrer parts replacement	
	1	Key	>	Body	Combi-				Body	Combi-						
U.K./ Dtanada	hers N	lot all	AII	grated unit	nation meter	Security CU	ECM	Key	grated unit	meter	Security CU	ECM	(1)	(2)	(3)	(4)
0		×				×		One registered key			×		"Meter/SCU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
0		×					×	One registered key				×	"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
0				×			×	All registered keys	×			×	"Immobilizer system registration"			
0						×	×	One registered key			×	×	"Meter/SCU registration"	"Engine ECU registration"		
	0	×			×			One registered key		×			"Meter/SCU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
	0	×					×	One registered key				×	"Engine ECU registration"	"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)	
	0			×			×	All registered keys	×			×	"Immobilizer system registration"			
	0				×		×	One registered key		×		×	"Meter/SCU registration"	"Engine ECU registration"		
When t	hree	parts	are fa	ailed o	r lost>											
Destinati	uo			Parts fai	iled/lost			Parts required to re o	place o	r prepar ft fail	ed when	items		Procedures to perform (	after parts replacement	

### REGISTRATION MANUAL FOR IMMOBILIZER

"Immobilizer system registration" (Registering keys needed)

"Immobilizer Key ID deletion" (Deleting lost keys)

"Engine ECU registration"

"Meter/SCU registration"

×

×

One registered key

×

×

×

0

(4

(C)

3

Ξ

ECM

Security CU

Combination meter

Body integrated unit

Key

ECM

Security CU

Combination meter

Body integrated unit

Key

P

Others Not all

U.K./ Canada "Immobilizer system registration" (Registering keys needed)

"Immobilizer Key ID deletion" (Deleting lost keys)

"Engine ECU registration"

"Meter/SCU registration"

×

 $\times$ 

One registered key

×

×

×

0

B type

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).

	status (procedure)	Screen	Trouble mode	Action to be taken
Ŧ	Select "Immobilizer" from the Main Menu	NG Comm. Failed	CAN communication failure between Subaru Select Monitor and body to integrated unit	Perform the diagnosis for LAN system.
-	→ System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	Command input screen	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.
		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 Aonitor once. Wait approximately one minute, and retry the Vhen the same error is indicated again, remove and install the attery.
			Key IN, IGN-ON not completed [Only when the error screen on the left <sup>N</sup> is indicated after five seconds or more elapsed]	Nait approximately one minute, perform key IN, IGN-ON, and retry the procedure.
		NG BIU security access NG	•Subaru Select Monitor failure     •Body integrated unit failure     F	Check version of Subaru Select Monitor. Replace the body integrated unit.
c	"Immobilizer system registration" start	NG Number of registrations exceeded	Number of registrations exceeded	
N	→ "BIU Initializing communication" display	Meter/SCU not registration	Combination meter/security CM unregistered	Execute "Meter/SCU registration" to register the combination meter/ iscurity CM.
		Meters / SCU can not register for the quasi normalization.	<ul> <li>[Body integrated unit unregistered]</li> <li>Communication failure between combination meter/security CM and 1 body integrated unit</li> <li>Combination meter/security CM malfunction</li> <li>Combination meter/security CM and 1 combination meter/security CM and 1 body integrated unit</li> <li>Collation unmatched between combination meter/security CM and 1 body integrated unit</li> <li>Combination meter/security CM and 1 combination meter/security CM and 1 combination meter/security CM and 1 body integrated unit</li> <li>Combination meter/security CM and 1 combination meter/security CM</li> </ul>	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] When body integrated unit TYPE B-1 and unregistered] integrated unit. (Diagnosis for DTC B1409) When the same error is indicated again even after the inspection and errying the procedure, replace the combination meter/security CM. Cases other than above] Read out DTC and perform the diagnosis. (Collation NG: B1401 or 11408 or B1406)
		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.)
ო	(Additional registration mode) → "KEY is being collated."	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	•NG key •Unregistered key	Prepare the registered key.
		NG IMM Control Module EEPROM	Body integrated unit failure	<sup>2</sup> erform the diagnosis for DTC B1577 (P1577).
		NG Performed conditions not established.	With collation status OK, the key was not replaced (left for 60 seconds)	
4	→ "Collation complete"	NG Antenna	timmobilizer antenna failure	Check DTC and perform the diagnosis. When this screen is displayed, DTC B1411 is stored.)
		NG Key - Communication Failure	rransponder 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).

No	Status (procedure)	Screen	Trouble mode	Action to be taken
		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).
Ð	ightarrow "Key has been registered"	NG Performed conditions not established.	With four keys registered, IGN-OFF $\rightarrow$ 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.)
		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)	
	(Body integrated unit replacement	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.
9	mode) → "Confirm you replace all the keys"	NG Kav . Communication Failure	Transconder feilure	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
				or oursolves. 1) Repty 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.
		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.
7	→ "Collation complete"			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
		NG Key - Communication Failure	Iransponder failure	as follows: 1) Betry the procedure using a different key. 2) Beplace 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).

REGISTRATION MANUAL FOR IMMOBILIZER

B type

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
		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 $ ightarrow$ ON	
ω	→ "Key has been registered"	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.) 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. Security CM and body integrated unit. and retrying the procedure, replace the combination meter/security CM.
		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).
ۍ م	→ "EG1 initialization / During	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.
	registration	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)

### B type

<u> </u>	Ctature (accordine)	Corror Corror	Twittle mode	Action to bo tolion
NO.	orarus (procedure)	ocieeli		
		NG BIU-SSM Communication	Body integrated unit erroneous operation (possibility that last v registration mode still not canceled)     Key IN, IGN-ON not completed [Only when the error screen on the p left is indicated after ten seconds or more elapsed]	Vait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select fonitor once. Wait approximately one minute, and retry the rocedure. When the same error is indicated again, remove and install the attery.
		NG BIU security access NG	Subaru Select Monitor failure	check version of Subaru Select Monitor. teplace 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	theck DTC and perform the diagnosis. When this screen is displayed, DTC B1410 is stored.)
10	Engine ECO registration start → "BIU Initializing ommunication" displav	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> <li>NG key</li> <li>Unregistered key</li> <li>Body integrated unit unregistered</li> </ul>	repare the registered key. xecute "Immobilizer system registration" to register the key to the ody integrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	erform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	Communication failure with combination meter/security CM     Combination meter/security CM malfunction	check DTC and perform the diagnosis. Mhen this screen is displayed, DTC B1408/B1406 or B1407/B1409 is tored.)
		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.	E Combination meter/security CM unregistered	xecute "Meter/SCU registration" to register the combination meter/ ecurity CM.
		NG EGI-SSM Communication (Communication line judgment)	Communication failure with ECM	check the communication line between ECM and Subaru Select fonitor. (K line or CAN communication line)
		NG EGI-Immobilizer communication	Communication failure between ECM and body integrated unit	erform the diagnosis for DTC B1572 (P1572).
		NG IMM Control Module EEPROM	Body integrated unit failure	erform the diagnosis for DTC B1577 (P1577).
÷	<ul> <li>"EGI initialization / During</li> </ul>	NG EGI unit EEPROM	ECM failure	Vait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the attery.
-	egistration	NG EGI security access NG	Subaru Select Monitor failure	theck version of Subaru Select Monitor. teplace the ECM.
		NG EGI-SSM Communication	V V V ECM failure	Vait until the self shut completes, and retry the procedure. When the same error is indicated again, remove and install the attery. Check the communication line between ECM and Subaru Select fonitor. (K line or CAN communication line)

B type

### REGISTRATION MANUAL FOR IMMOBILIZER

	- - -			
No.	Status (procedure)	Screen	Irouble mode	Action to be taken
		NG BIU-SSM Communication	<ul> <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>	Vait approximately one minute, and retry the procedure. Vien the same error is indicated again, remove the Subaru Select foonitor once. Wait approximately one minute, and retry the rocedure. Vien the same error is indicated again, remove and install the attery.
		NG BIU security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Aeplace 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.)
ç	"Meter/SCU registration" start	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.)
<u>u</u>	communication" display	NG Use of Unregistered Key	NG key     Unregistered key     Body integrated unit unregistered	repare the registered key. Execute "Immobilizer system registration" to register the key to body tegrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	Perform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	Communication failure with combination meter/security CM     Combination meter/security CM malfunction	Check DTC and perform the diagnosis. When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is tored.)
		NG Meters / SCU checking NG	Combination meter/security CM not genuine part     Combination meter/security CM registered on another vehicle	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.)
		NG BIU-SSM Communication	Body integrated unit erroneous operation (possibility that last registration mode still not canceled)     •Key IN, IGN-ON not completed [Only when the error screen on the left is indicated after the seconds or more elansed!	Vait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Aonitor once. Wait approximately one minute, and retry the Vhen the same error is indicated again, remove and install the
				attery.
		NG BIU security access NG	Subaru Select Monitor failure	check version of Subaru Select Monitor. Aeplace the body integrated unit.
		NG Antenna	Immobilizer antenna failure	check DTC and perform the diagnosis. When this screen is displayed, DTC B1411 is stored.)
	"motion of the start	NG Key - Communication Failure	transponder failure	check DTC and perform the diagnosis. When this screen is displayed, DTC B1410 is stored.)
13	<ul> <li>Initial Durizer Key to deteriori start</li> <li>→ "BIU Initializing communication" display</li> </ul>	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	NG key     Unregistered key     Body integrated unit unregistered	repare the registered key. :xecute "Immobilizer system registration" to register the key to body ttegrated unit.
		NG IMM Control Module EEPROM	Body integrated unit failure	erform the diagnosis for DTC B1577 (P1577).
		NG Meter/SCU error	<ul> <li>Communication failure with combination meter/security CM</li> <li>Combination meter/security CM malfunction</li> </ul>	theck DTC and perform the diagnosis. When this screen is displayed, DTC B1408/B1406 or B1407/B1409 is tored.)
		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/SCM registration" to register the combination meter/ ecurity CM.

### REGISTRATION MANUAL FOR IMMOBILIZER

No.	Status (procedure)	Screen	Trouble mode	Action to be taken
		NG BIU-SSM Communication	<ul> <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 Fleft is indicated after ten seconds or more elapsed]</li> </ul>	Vait approximately one minute, and retry the procedure. When the same error is indicated again, remove the Subaru Select Aonitor once. Wait approximately one minute, and retry the procedure. When the same error is indicated again, remove and install the attery.
		NG BIU security access NG	Subaru Select Monitor failure	Check version of Subaru Select Monitor. Aeplace 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.)
14	"Remote Control Engine Starter Registration" start → "BIU Inititalizing communication" display	NG Use of Unregistered Key	NG key     Unregistered key     Body integrated unit unregistered	Prepare the registered key. Execute "Immobilitzer system registration" to register the key to body tregrated 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 tored.)
		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 sft is indicated, when registration is attempted with a non-genuine endee control engine starter installed), or when the remote control engine starter unit is malfunctioning.
-ist c	of DTC codes, when th	e immobilizer is not regis	tered	

36

	B1402 Immobilizer Key Collation NG
	B1401 M Collation NG (TYPE B-2 only)
<when body="" integrated="" is="" replaced="" unit=""></when>	B1405 SCU Collation NG (TYPE B-2 only)
	B1571 (P1571) Reference Code Incompatibility
	B1575 (P0513) Incorrect Immobilizer Key
- When unredictored law is used.	B1402 Immobilizer Key Collation NG
	B1575 (P0513) Incorrect Immobilizer Key
<when ecm="" is="" replaced=""></when>	B1571 (P1571) Reference Code Incompatibility
When combination mater is ranlaceds	B1401 M Collation NG
	B1578 (P1578) Meter Failure *
(When contrivity, CM is real-and-	B1405 SCU Collation NG
	B1578 (P1578) Meter Failure *
* Mile an active for the state of a state and the accelete (This is because active state state state active state	

allure.) ₫ d. When meter
### 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 (pushbutton 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.

- 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.

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Input teaching operation code press OK key	
IM-C	00408

### Note:

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

 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.

Hebb	
Convolts ID is balance colleged	
Security to is being collated.	
Please Wait	
IM	-00411

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

2 MARCHE BYR	
Smart Immobilizer Registration in progress	
Please Wat	
	IM-00/39
	101 00+03

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.

C paracelet lizer	
Trans to	
Confirming one of the registered Mobile Key verification	
Hold a registered mobile key over the start SW.	
	1111-00440

### 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.



 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).

C (ALA Pressilie)	KON IZUR HELEN KON	8	
	Hold a mobile key to be registered over the start SW.		
	Registered number = 1		
	Press the Quil bution if completed.		
		 IM-0044 <sup>-</sup>	1

### 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.

Paleon Paleon Manuel 178	
Smart Immobilizer Registration in progress	
riease wat	
	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.

SANCOE LYR Wrg	
Hold a mobile key to be registered over the start SW.	
Registered number = 2	
Press the Quit button if completed.	
Quit	
	 IM-0044

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.

C IMMOBILIZER	
Held State	
Turn ignition switch off and open and close the driver's door.	
	IM-00443

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.

- 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].



 Select [Immobilizer] from the item selection dialog box.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
	l
	IM-00492

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



### Note:

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

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

System Selection	_
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Help(H)	
Input teaching operation code,press OK key	
IM	-00408

### Note:

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

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

Smart Immobilizer Registration
Smart ECM Registration
Engine ECM Registration
Readout the number of mobile key registration
Delete the mobile key ID
Remote Control Engine Starter Registration
Back

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

S IMMOJIILIZER	
Help (E)	
Energy Court	Design the second
Execute Smart in	nmobilizer Registration Mode:
	220 CE 1 C
Prei	ss OK or Cancel
OK	Cancel
	IM 00477
	111-00477

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).

Shancere li/le	
Hold a mobile key to be registered over the start SW.	
Registered number = 0	
Press the Quit button it completed.	
Quit	
	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.

© AMACHE 127R Tenero	
Smart Immobilizer Registration in progress	
Please Wait	
	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.

Connects that (K	1
Hold a mobile key to be registered over the start SW.	
Registered number = 1	
Press the Guilt builton if completed.	
	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.

2 IMMOBILIZER 🛛 🗙
Held)
Turn ignition switch off and open and close the driver's door.
(C) (C)
IN 00440
IM-00443

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

1		
	N600	
	Switch Innitian ON	
	CHIRCH SERVICE A	
		IM-00444
		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

- 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.

Main Menu	
All System Diagnosis Each System Check Saved Data Display	
Immobilizer Back	
	<b>I</b> IM-00492

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

stem (	Check		
	Immo Aud Ba	e system for Ri bilizer System io System ickCar	YES NO ncel
	YES	NO	Cancel

### Note:

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

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

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Input teaching operation code,press OK key	
IM-	-00408

### Note:

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

 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.

S IMMORIN IZER	×
reeds Execute Smart ECM Registration Mode?	×
Press OK or Cancel	
	IM-00448

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

14600	
After inputting Security ID Press OK	
OK	
I	

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

Predo		
	Security ID is being collated.	
	Please Wait	
	IM-004	-1

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.

S IMMORILIZER	×
Large Ch.	
Smart EOM Registration Mode Finished	
Press OK	
OK	
	IM-00451

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

### 6-4 Registering the Engine ECM

- 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.

	Select th	e System for Ro	egistration
	Immo	ibilizer System	YES
	Aud	io System	NO
	Ba	ickCar	ncel
Γ	YES	NO	Cancel

### 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.

System Selection	
Press YES if it is a otherwise pre	smart system, ess NO.
YES	NO

### 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.

Heb(H)	
Input loophing operation and proce OK key	
in put teaching operation code, press on key	
IM-	00408

### Note:

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

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

Smart Immobilizer Registration
Smart ECM Registration
Engine ECM Registration
Readout the number of mobile key registration
Delete the mobile key ID
Remote Control Engine Starter Registration
Return

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.

C AMACHINI III	
Successful	
Press OK OK	
I	1-00446

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

S 14	IOBILIZER	
1460		
	Closing Engine ECM Registration Mode Please Wait	
	IM-0045	54

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

- 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.

	Select the Immo Aud Ba	e System for R bilizer System io System ickCar	egistration YES NO ncel	
Γ	YES	NO	Cancel	

### 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.

System Selection	
Press YES if it is a otherwise pre	smart system, ess NO.
YES	NO

### 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.

Heb(H)	
Input teaching operation code press OK key	
, IM	00400
IIVI	-00400

### Note:

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

 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.

Help		
	Registration number	
	2 Num	
	Press OK	
	OK	
		IM-004

### 6-6 Delete the Access Key ID

- 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.



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

System	Check		
	Immo Aud Ba	bilizer System io System ickCar	YES NO ncel
	YES	NO	Cancel

### 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.

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO. NO
YES	NO

### 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.

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



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

2 HERON Hero(S)	1126R	
	Execute Mobile Key ID Deletion Mode?	
	Press OK or Cancel	
		 IM-0045

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

After inputting Security ID Press OK
IM-0041

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.

	IMMORIELZER WD00	×
ŕ	44.0	
	Confirming one of the registered Mobile Key verification	
	Hold a registered mobile key over the start SW.	
- 1	Current Mobile Key Registration Number	
	2 Num	
_		IM-00

### 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.

in the table	INO UULIZERI So	×
	Mobile Key ID Deletion Mode Finished Mobile Key Registration number	
	, really	
	OK	
		IM-00462

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

- 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.

	Select the Immo Aud Ba	e System for R bilizer System io System ickCar	egistration YES NO ncel	
Γ	YES	NO	Cancel	

### Note:

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

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

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Help(H)	
Input teaching operation code,press OK key	
OK QUIT	
	1
IM	-00408

### Note:

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

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



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

S IMMOIIII 12ER	X
Help(H)	
Execute the remote control E/G starter registration mode?	
Press OK or Cancel	
OK Cancel	
	IM-00464

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



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

mkot	
Security ID is being collated.	
Please Walt	
IM	-00411

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

S IMMORILIZZER	
Heb(3)	
Remote control engine start Registration	
Provide the later	
Please Wait	
IM-0	)0465

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

f i	2. IMMORILLIZER	×
-	Heb(2)	
	Completion of the remote control E/G starter registration	
	Press OK	
	OK	
		IM-00466

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

### 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 Collation 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

lost>
P
failed
<u>.</u> 0
part
one
only
/hen
ş

	(5)							
acement	(4)							
rform after parts repl	(3)				cution of ine ECM regis- on			
Procedures to pe	(2)	xecution of smart mobilizer gistration (when n access key is , be added)	2)	teering lock ini- alization work 1)	4) Exe trati			
	(1)	Deletion of the E: access key ID in (deletion of the ID re of a failed or lost ar access key) to	Execution of smart immobilizer regis- (* tration	Execution of smart ti ECM registration (*	Execution of smart (*	Execution of engine ECM regis- tration	Execution of smart immobilizer regis- tration	Execution of smart immobilizer regis- tration
le left	Combi- nation meter							×
ns on th	Body integ- rated unit						×	
'hen iter	ECM					×		
pared w	Code Box				×			
e or pre fail	Steering lock CM			×				
o replac	Collation 5 CM		×					
Parts required t	Access key	One registered access key	All registered access keys	One registered access key	One registered access key		One registered access key	One registered access key
	Combi- nation meter							0
	Body integ- rated unit						0	
	ECM					0		
iled/lost	D Code Box				0			
Parts fa	Steering lock CM			0				
	Collation CM		0					
	Access key samples iunction- iunction- failed/ normally lost	0						

				-	-				•				
	(5)		Execution of smart immobilizer registration (when an access key is to be added)										
replacement	(4)	Execution of smart immobilitzer registration (when an access key is to be added)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)								Execution of engine ECM registration	Execution of engine ECM registration	
perform after parts	(3)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of engine ECM registration	Execution of smart immobilizer registration (when an access key is to be added)							(*4)	(*4)	
Procedures to	(2)	Steering lock initialization work (*1)	(*4)	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)	Execution of smart immobilizer registration (when an access key is to be added)	(*2)	(*2)	(*2)	(*2)	Steering lock initialization work (*1)	Steering lock initialization work (*1)	Steering lock initialization work (*1)
	(1)	Execution of smart ECM registration	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)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Execution of smart immobilizer registration	Execution of smart immobilizer registration	Execution of smart immobilizer registration	Execution of smart immobilizer registration	Execution of smart ECM registration	Execution of smart ECM registration	Execution of smart ECM registration
ne left	Combi- nation meter					×				×			
ms on t	Body integ- rated unit				×				×				×
vhen ite	ECM			×				×				×	
epared v I	D D Code Box		×								×		
ce or pre fai	Steering lock CM	×					×				×	×	×
to replac	Collation CM						×	×	×	×			
Parts required	Access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key	All access keys to be registered	One registered access key	One registered access key	One registered access key			
	Combi- nation meter					0				0			
	Body integ- rated unit				0				0				0
	ECM			ο				0				0	
iled/lost	D Code Box		0								0		
Parts fa	Steering lock CM	0					0				0	0	0
	Collation CM						0	0	0	0			
	ss key All failed/ lost												
	Acces Examples function- ing normally exists	0	0	0	0	0							

<When two parts are failed or lost>

### REGISTRATION MANUAL FOR IMMOBILIZER

r	1					1			
		(5)							
replacement		(4)							
o perform after parts		(3)		Execution of engine ECM registration					
Procedures to		(2)	Steering lock initialization work (*1)	(*4)					
		(1)	Execution of smart ECM registration	Execution of smart ECM registration	Execution of smart ECM registration	Execution of smart ECM registration	Execution of engine ECM registration	Execution of engine ECM registration	Execution of smart immobilizer registration (*3)
le left		Combi- nation meter	×			×		×	×
ns on th		Body integ- rated unit			×		×		×
hen iter		ECM		×			×	×	
pared w		D Code Box		×	×	×			
e or pre fail		Steering lock CM	×						
o replac		Collation							
Parts required t		Access key	One registered access key	One registered access key	One registered access key	One registered access key			One registered access key
		Combi- nation meter	0			0		0	ο
		Body integ- rated unit			0		0		0
		ECM		0			0	0	
led/lost		D Code Box		0	0	0			
Parts fai		Steering lock CM	0						
		Collation CM							
	s key	All failed/ lost							
	Acces	Examples function- ing normally exists							

### REGISTRATION MANUAL FOR IMMOBILIZER

	(5)	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)							
replacement	(4)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	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)	Execution of smart immobilitzer 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 immobilitzer registration (when an access key is to be added)	Execution of smart immobilizer registration (when an access key is to be added)		
perform after parts	(8)	(*4) Execution of engine ECM registration	(*4) Execution of engine ECM registration	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	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)	Execution of smart immobilizer registration (when an access key is to be added)
Procedures to	(2)	Steering lock initialization work (*1)	Steering lock initialization work (*1)	Steering lock initialization work (*1)	Steering lock initialization work (*1)	(*4) Execution of engine ECM registration	(*4) Execution of engine ECM registration	(*4) Execution of engine ECM registration	Deletion of the access key ID (deletion of the ID of a failed or lost access key)	Deletion of the access key ID (deletion of the ID of a failed or lost access key)
	(1)	Execution of smart ECM registration	Execution of engine ECM registration	Execution of engine ECM registration						
e left	Combi- nation meter				×			×		×
ems on th	Body integ- rated unit			×			×		×	
/hen ite	ECM		×			×			×	×
bared w	ID Code Box	×				×	×	×		
ce or prep fail	Steering (	×	×	×	×					
o repla	Collation CM									
Parts required t	Access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key	One registered access key
	Combi- nation meter				0			0		0
	Body integ- rated unit			0			0		0	
	ECM		0			0			0	0
led/lost	ID Code Box	0				0	0	0		
Parts fai	Steering lock CM	0	0	0	0					
-	Ilation CM									
1	õ									
	s key All Cc failed/ lost									

<When three parts are failed or lost>

_																
		(5)														
s replacement		(4)								Execution of engine ECM registration						
o perform after parts		(3)								(*4)	(*4)	(*4)	(*4)	(*4)		Execution of engine ECM registration
Procedures to		(2)	Execution of smart immobilizer registration (when an access key is to be added)	(*2)	(*2)	(*2)	(*2)	(*2)	(*2)	Steering lock initialization work (*1)	(*4)					
		(1)	Deletion of the access key ID (deletion of the ID of a failed or lost access key) (*3)	Execution of smart immobilizer registration	Execution of smart immobilizer registration (*3)	Execution of smart ECM registration	Execution of smart ECM registration									
e left		Combi- nation meter	×			×		×	×			×		×	×	
ns on th	, to a	integ- rated unit	×		×		×		×		×		×		×	×
rhen iter		ECM		×			×	×		×			×	×		×
pared w	ģ	Code Box								×	×	×				×
ce or pre fai		Steering lock CM		×	×	×				×	×	×	×	×	×	
to replac		Collation CM		×	×	×	×	×	×							
Parts required		Access key	One registered access key	All access keys to be registered	One registered access key	One registered access key										
		Combi- nation meter	0			0		0	0			0		0	0	
	Dody	integ- rated unit	0		0		0		0		0		0		0	0
		ECM		0			0	0		0			0	0		0
iled/lost	ģ	Code Box								0	0	0				0
Parts fa		Steering lock CM		0	0	0				0	0	0	0	0	0	
		Collation CM		0	0	0	0	0	0							
	ss key	All failed/ lost														
	Acces	Examples function- ing normally exists	0													

	-		r		
		(5)			
s replacement		(4)			
o perform after parts		(3)	Execution of engine ECM registration	Execution of engine ECM registration	
Procedures to		(2)	(*4)	(*4)	
		(1)	Execution of smart ECM registration	Execution of smart ECM registration (*3)	Execution of engine ECM registration (*3)
e left		Combi- nation meter	×	×	×
ns on th	i c	integ- rated unit		×	×
hen iter		ECM	×		×
pared w	!	D Code Box	×	×	
e or pre fail		steering ock CM			
o replac		Collation S CM			
Parts required t		Access key	One registered access key	One registered access key	
		Combi- nation meter	0	0	0
	ii C	integ- rated unit		0	0
		ECM	0		0
iled/lost	!	Box ee	0	0	
Parts fa		Steering lock CM			
		Collation CM			
	ss key	All failed/ lost			
	Acces	Examples function- ing normally exists			

\*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 collation 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.

not possible
S
registration
able when
pondence to
6-10 Corresp

Status	Screen	Trouble mode	Action to he taken
Select "Immobilizer" from the Main Menu→		<ul> <li>K line communication failure between Subaru Select Monitor and</li> </ul>	
System "Immobilizer" → Smart System "NO" → IGN-ON "YES" →	NG Comm. Failed	body integrated unit •B/up fuse disconnected	<ul> <li>remain the diagnosis for the Millie.</li> <li>Check that the B/up fuse in the M/B is connected.</li> </ul>
	Communication error has occurred.	Security ID not written in either body integrated unit or combination meter	Read out the security ID.
"Smart Immobilizer Registration" start Enter the security ID $\rightarrow$ "Security ID is	NG Security ID is incorrect x 3 times → initial screen	Incorrect security ID	Read out the security ID.
being collated."	NG Security ID Registration	Communication failure with combination meter (CAN communication related failure)     Combination meter failure	Perform the diagnosis for CAN.
(Collation CM replacement mode) → "Initializing communication" → Enter the security ID	NG Mode transition error	<ul> <li>Temporary communication failure with Subaru Select Monitor</li> <li>E/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> <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, B2217</li> </ul>
(Collation CM replacement mode) → "Confirm all Access Keys" → "Hold an Access Key to be registered"	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. NG Time Out NG Time Out * When [END] is pressed after holding of an access key is complete, or [YES] is pressed after holding of an access key is complete, or [YES] is pressed after holding of an access key is complete, or [YES] is pressed after holding of an access key is complete, or [YES] is pressed after holding of an access key is complete, or [YES] is pressed after "Registered	<ul> <li>No buzzer sounds, when access key is held]</li> <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 incorrect item number (incorrect destination/incorrect system)</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>Buzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>Access key tout of battery/malfunction</li> <li>Front indoor anterna improper connection/malfunction</li> <li>Front indoor anterna improper connection</li> <li>Code writing failure between CMs</li> </ul>	<ul> <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 is not registered on another vehicle.</li> <li>Elbuzzer 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>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 connector wiring/harness of RF receiver.</li> <li>Check the front indoor antenna for malfunction.</li> <li>Check the front indoor antenna for malfunction.</li> <li>Check the front indoor antenna for malfunction.</li> <li>TC : B2201, B2201, B2217</li> <li>OTC : B2201, B2201, 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.</li> <li>Check the from the beginning.</li> </ul>
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Status	Screen	Trouble mode	Action to be taken
		[Following occurred during registration operation]	During registration operation, or during owner recognition]
		<ul> <li>The operator pressed Quit button without registering access key</li> </ul>	•Check for DTC, and if there is any, perform the diagnosis according
			to the DTC.
		[Following failure occurred before none of new registration access key	(DTC: B2203, B2204)
		was collated during new registration key collation process after	<ul> <li>Check the data link connector and harness.</li> </ul>
		registration mode is on.]	<ul> <li>Perform harness inspection between the power supply CM and push</li> </ul>
		•Vehicle speed input exceeding 5 km/h (3 MPH)	button ignition switch, and inspection of the push button ignition
		<ul> <li>Immobilizer amplifier failure</li> </ul>	switch alone, and check output of the immobilizer amplifier power
		<ul> <li>Temporary communication failure with Subaru Select Monitor</li> </ul>	supply (VC5) (conduct from Work Support).
		-	•Check that the vehicle speed is normal. (Make sure that the vehicle
		[When the following occurred during owner recognition]	speed pulse is not output from the direct line.)
		<ul> <li>Time-out before the operator held access key (30 seconds)</li> </ul>	<ul> <li>Retry the procedure from the beginning.</li> </ul>
		•Time-out while already-collated access key was kept held (30	(Check that the access key to be held is registered to the vehicle.)
		seconds)	
		<ul> <li>Access key that was not registered to the vehicle was held</li> </ul>	During owner recognition]
		<ul> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	<ul> <li>Check that the access key is registered to the vehicle to be worked</li> </ul>
		<ul> <li>Immobilizer amplifier failure</li> </ul>	on.
		•Access key not held with its ornament surface facing push button	<ul> <li>Check the access key for malfunction.</li> </ul>
		ignition switch	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according</li> </ul>
		•Another (already-collated) access key present near push button	to the DTC.
		ignition switch	DTC : B2201. B2200. B2217
		Access key malfunction (transnonder function)	•Check I IN between collation CM — nower sumply CM — ID code
		• Access key incorrect item number (incorrect destination/incorrect	box — staaring look CM
→ "Ianition SW is turned off "	NG Steering LOCK (Time Out)	-Access ney incomed here harmon (incomed desination incomed system)	
		e Antanna coil malfunction	1GN OFF immossible1
			• CHECK TOT DIC, and IT THERE IS ANY, PERIORIN THE DIAGNOSIS ACCORDING
		IL) code box (replacement with used part)	
			(DIC: B2105, B2106, B2107)
		[IGN OFF impossible]	•Check the harness between power supply CM and push button
		<ul> <li>Operation not reflected due to push button ignition switch improper</li> </ul>	ignition switch, and push button ignition switch alone.
		connection/malfunction	<ul> <li>Press the push button ignition switch a few times to check that the</li> </ul>
		<ul> <li>IGN relay stuck ON</li> </ul>	status changes as OFF $\rightarrow$ ACC ON $\rightarrow$ IGN ON.
		•Power supply-output short in harness between power supply CM	<ul> <li>Check the harness between power supply CM and IGN relay.</li> </ul>
		and IGN relay	<ul> <li>Retry "Smart ECM Registration" only.</li> </ul>
		<ul> <li>IGN harness power supply-output short</li> </ul>	
		•Shift positioned at other than P, or power supply CM falsely[	Steering lock not confirmed]
		recognizing as shift positioned at other than P	•After initializing the steering lock, perform IGN ON and then execute
		[hered and and and and and and and and and an	Crigine com registration . .On the date mention of heads interacted unit sheet "Driver"
		[Steering lock not continued]	•On the data monitor of body integrated unit, check that "Driver's
			dout over input changes on-of according to the door opening of above opening.
		(bu seconds) • Ctooring hold not commonded (commissed during	closing. • Chock for DTC and if there is any norform the diagnosis according
		-steering lock ind confidenced, or Lin ind confidenced (occurred during bay radietration propadities)	to the DTC
		esteering lock CM ID code how or power supply CM failure (control	(DTC: R9201 R9200 R9217)
			•Check LIN between collation CM — power supply CM — ID code
		•Door courtesv SW failure, or courtesv SW input failure of body	box — steering lock CM.
		integrated unit, G/W CM or collation CM	Replace the steering lock CM.

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Status	Screen	Trouble mode	Action to be taken
→ "Switch Ignition ON"	NG IGN ON (Time Out)	<ul> <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> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(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> <li>Steering lock CM locked</li> <li>Steering lock CM, ID code box, or collation CM failure (control failure)</li> </ul>	<ul> <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>(DTC: B2201, B2201, 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>
	NG Number of registrations exceeded	Additional registration impossible	When an additional access key needs to be registered, delete the registered access key.
(Additional registration mode) "Smart Immobilizer Registration" start	NG Mode transition error	<ul> <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> <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 to DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2201, B2202, B2203, B2200, B2217)</li> </ul>

REGISTRATION MANUAL FOR IMMOBILIZER

Status	Screen	Trouble mode	Action to be taken
→ "Confirming one of the registered Access Key verification"	NG Mode transition error	<ul> <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>Ucode box response failure</li> <li>Time-out before the registered access key being held (30 seconds)</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 incorrect item number (incorrect destination/incorrect system)</li> <li>CM code incompatibility between collation CM — steering lock CM — ID code box (control failure, replacement with used part)</li> </ul>	<ul> <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.) (When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> <li>(Dhcs Bato ITC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2202, B2203)</li> <li>Check that alm ink connector and harness.</li> <li>Check to DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2202, B2203, B2200, B2217)</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(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), and inspection of the 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 Supper 10, the direct line.)</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 collated result between collation ECM and ID code box".</li> </ul>
→ "Hold an Access Key to be registered	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. 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> <li>Interoduction of the point of t</li></ul>	<ul> <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 is not registered on another vehicle.</li> <li>Euzzer sounds only once when access key is held, and number of egistration 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 the battery of access key is not present inside the vehicle.</li> <li>Check the battery of access key is not present inside the vehicle.</li> <li>Check the battery of access key.</li> <li>Check the connector wiring/harmess of RF receiver.</li> <li>Check the front indoor antenna for malfunction.</li> <li>Check the DTC.</li> <li>(DTC: B2207)</li> <li>Check the DTC.</li> <li>To the DTC.</li> <li>(DTC: B2201, B2200, B2217)</li> <li>Check the procedure from the beginning.</li> <li>Check the procedure from the beginning.</li> <li>(TE: B2201, B2200, B2217)</li> </ul>

Status	Screen	Trouble mode	Action to be taken
		[[ [Following occurred during registration operation] •The operator pressed Quit button without registering access key	During registration operation, or during owner recognition] •Check for DTC, and if there is any, perform the diagnosis according to the DTC.
		[Following failure occurred before none of new registration access key	(DTC: B2203, B2204) •Check the data link connector and harness
		was collated during new registration key collation process after	•Perform harness inspection between the power supply CM and push
		<ul> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	engine switch (push-button ignition switch), and inspection of the
		<ul> <li>Immobilizer amplifier failure</li> </ul>	push engine switch (push-button ignition switch) alone, and check
		<ul> <li>Temporary communication failure with Subaru Select Monitor</li> </ul>	output of the immobilizer amplifier power supply (VC5) (conduct from Work Support).
		[When the following occurred during owner recognition]	•Check that the vehicle speed is normal. (Make sure that the vehicle
		Time-out before the operator held access key (30 seconds)     Time-out while already-collated access key was kept held (30	speed pulse is not output from the direct line.)
		seconds)	(Check that the access key to be held is registered to the vehicle.)
		<ul> <li>Access key that was not registered to the vehicle was held</li> </ul>	
		•Vehicle speed input exceeding 5 km/h (3 MPH)     •Immobilizer amolifier failure	During owner recognition] •Check that the access key is registered to the vehicle to be worked
		Access key not held with its ornament surface facing push button	on.
		ignition switch	<ul> <li>Check the access key for malfunction.</li> </ul>
		•Another (already-collated) access key present near push button	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according</li> </ul>
		ignition switch	to the DTC.
		Access key malfunction (transponder function)	(DTC: B2201, B2200, B2217)
		<ul> <li>Access key incorrect item number (incorrect destination/incorrect</li> </ul>	•Check LIN between collation CM — power supply CM — ID code
$\rightarrow$ "lanition SW is turned off"	NG Steering LOCK (Time Out)	system)	box — steering lock CM.
		<ul> <li>Antenna coil malfunction</li> </ul>	
		•CM code incompatibility between collation CM — steering lock CM <sup>II</sup>	Icin OFF impossible] •Check for DTC, and if there is any, perform the diagnosis according
			to the DTC.
		IIGN OFF impossible]	(DTC: B2105, B2106, B2107)
		•Operation not reflected due to push button ignition switch improper	•Check the harness between power supply CM and push button
		connection/malfunction	ignition switch, and push button ignition switch alone.
		<ul> <li>IGN relay stuck ON</li> </ul>	•Press the push button ignition switch a few times to check that the
		•Power supply-output short in harness between power supply CM	status changes as OFF $\rightarrow$ ACC ON $\rightarrow$ IGN ON.
		and IGN relay	<ul> <li>Check the harness between power supply CM and IGN relay.</li> </ul>
		<ul> <li>IGN harness power supply-output short</li> </ul>	<ul> <li>Retry "Smart ECM Registration" only.</li> </ul>
		•Shift positioned at other than P, or power supply CM falsely	
		recognizing as shift positioned at other than P	outering lock not continued ●After initializing the steering lock, perform IGN ON and then execute
		[Steering lock not confirmed]	"Engine ECM Registration".
		•Time-out before the operator performed IGN-OFF door open/close	•On the data monitor of body integrated unit, check that "Driver's
		(60 seconds)	door SW input" changes ON-OFF according to the door opening/
		•Steering lock not connected, or LIN not connected (occurred during	closing.
		key registration procedure)	•Check for D1C, and if there is any, perform the diagnosis according
		Steering lock CM, ID code box, or power supply CM failure (control	to the DTC. (DTC: R2201 R2200 R2217)
			<ul> <li>Check IIN between collection CM — neuror cumuly CM — ID code</li> </ul>
		Door courtesy SW failure, or courtesy SW input failure of body integrated unit, G/W CM or collation CM	Check Lin between containon CM — power suppry CM — 10 code box — steering lock CM.
			<ul> <li>Replace the steering lock CM.</li> </ul>

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		<ul> <li>Time-out before the operator performed IGN-ON (60 seconds)</li> </ul>	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according</li> </ul>
		<ul> <li>Operation not reflected due to push button ignition switch improper</li> </ul>	to the DTC.
		connection/malfunction	(DTC: B2105, B2106, B2107)
		<ul> <li>Access key not present inside the vehicle</li> </ul>	<ul> <li>Check if the access key is present inside the vehicle.</li> </ul>
	NG IGN ON (Time Out)	<ul> <li>IGN relay stuck OFF</li> </ul>	•Press the push button ignition switch a few times to check that the
		•GND-output short/open in harness between power supply CM and	status changes as OFF $\rightarrow$ ACC ON $\rightarrow$ IGN ON.
		IGN relay	<ul> <li>Check the harness between power supply CM and IGN relay.</li> </ul>
		<ul> <li>IGN harness open/GND-output short</li> </ul>	<ul> <li>Check the upstream fuse of IGN relay.</li> </ul>
→ "Switch Ignition ON"		<ul> <li>IGN fuse blown out</li> </ul>	<ul> <li>Retry "Smart ECM Registration" only.</li> </ul>
			•While turning the steering wheel, perform IGN ON $\longleftrightarrow$ OFF to
			check that the operation unlocks the steering lock.
			<ul> <li>Check for DTC, and if there is any, perform the diagnosis according</li> </ul>
		•Steering lock CM locked	to the DTC.
	NG IMMODIIIZER UNSETTING (1 IME UUT)	•Steering lock CM, ID code box, or collation CM failure (control	(DTC: B2201, B2200, B2217)
		railure)	•Check LIN between collation CM — power supply CM — ID code
			box — steering lock CM.
			<ul> <li>Retry "Smart ECM Registration" only.</li> </ul>
	NG EGI-SSM Communication (Communication line indoment)	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).
(All moue) → "EGI initialization / During registration"	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).
		Subaru Select Monitor failure	<ul> <li>Check version of Subaru Select Monitor.</li> </ul>
	NG EGI security access NG	• ECM failure	<ul> <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.
"Smart ECM Registration" start	NG Security ID is incorrect x 3 times → initial screen	Incorrect security ID	Read out the security ID.
Enter the security ID → "Security ID is being collated."		•Communication failure with combination meter (CAN	
	NG Security ID Registration	communication related failure)	Perform the diagnosis for CAN.
		<ul> <li>Combination meter failure</li> </ul>	
	NG Access Key is not still registered	Access key unregistered	Execute "Smart Immobilizer Registration".

Status	Screen	Irouble mode	Action to be taken
	NG Mode transition error	<ul> <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> <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 that the B/up fuse in the M/B is connected.</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 to DTC, and if there is any, perform the diagnosis according to the DTC.</li> </ul>
→ "Confirming one of the registered Access Key verification"	NG Time Out • When holding an access key	<ul> <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>Ocd e incompatibility between collation CM — steering lock CM — ID code box (control failure, replacement with used part)</li> </ul>	<ul> <li>Perform the procedure again according to heats InATION MANUAL FOR IMMOBILIZER.</li> <li>(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.</li> <li>(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>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>
	NG Time Out * When holding an access key is complete	<ul> <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> <li>Check for DTC, and it 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> <li>Retry the procedure from the beginning.</li> <li>(*Essentially neither writing incompatibility nor code incompatibility occurs.)</li> </ul>
"Engine ECM Registration" start Enter the security ID → "Security ID is	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 Imeter Incorrect security ID	Read out the security ID. Read out the security ID.
being collated."	NG Security ID Registration		Perform the diagnosis for CAN.

Status	Coroon	Trauble mode	Action to be taken
	NG EGI-SSM Communication (Communication line indoment)	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).
ightarrow "Engine ECM is registering"	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.
		Communication failure with combination meter (CAN	
	NG Security ID Registration	communication related failure)	Perform the diagnosis for CAN.
		<ul> <li>Combination meter failure</li> </ul>	
	Can not delete anything more.	Not enough number of access keys to delete registered	Execute "Smart Immobilizer Registration".
			<ul> <li>Check the data link connector and harness.</li> </ul>
			<ul> <li>Check that the B/up fuse in the M/B is connected.</li> </ul>
"Delete the Access Key ID" start			•Check the data monitor of body integrated unit to confirm that the B/
Enter the security ID $\rightarrow$ "Security ID is			up fuse is ON.
being collated."			<ul> <li>Perform harness inspection between the power supply CM and push</li> </ul>
		<ul> <li>Temporary communication failure with Subaru Select Monitor</li> </ul>	engine switch (push-button ignition switch), and inspection of the
		<ul> <li>B/up fuse disconnected</li> </ul>	push engine switch (push-button ignition switch) alone, and check
	NG Mode transition error	<ul> <li>Immobilizer amplifier failure</li> </ul>	output of the immobilizer amplifier power supply (VC5) (conduct
		<ul> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> </ul>	from Work Support).
		<ul> <li>ID code box response failure</li> </ul>	•Check that the vehicle speed is normal. (Make sure that the vehicle
			speed pulse is not output from the direct line.)
			<ul> <li>Check LIN between the collation CM and ID code box.</li> </ul>
			<ul> <li>Check for DTC, and if there is any, perform the diagnosis according</li> </ul>
			to the DTC.
			(DTC: B2201, B2202, B2203, B2200, B2217)
Status	Screen	Trouble mode	Action to be taken
---	-----------------------------	--	---
→ "Confirming one of the registered Access Key verification"	NG Time Out	<ul> <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 incorrect item number (incorrect destination/incorrect system)</li> <li>Access key incorrect item number (incorrect destination/incorrect system)</li> <li>Anthena coil malfunction</li> <li>Code writing failure between CMS</li> <li>Code writing failure between CMS</li> </ul>	<ul> <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.) (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: B2200, B2201, B2217, B2202, B2203)</li> <li>•Perform harness inspection between the collation CM and 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 collation ECM — power supply CM — ID code box — steering lock CM.</li> </ul>
l ist of DTC codes when the	e immohilizer is not redist	interd	

# ົກ

<when cm="" collation="" is="" replaced=""></when>	B1572 (P1572) Imm Circuit Failure (Except Antenna Circuit)
<when ecm="" is="" replaced=""></when>	B1571 (P1571) Reference Code Incompatibility

C type

### 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 (pushbutton 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.

- 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.

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

System Selection	
Press YES if it is a otherwise pre	smart system, ess NO.
YES	NO

### 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.

 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.

1.40	
Smart Immobilizer Registration	
Smart ECM Registration	
Engine ECM Registration	
Readout the number of mobile key registration	
Delete the mobile key ID	
Remote Control Engine Starter Registration	
Back	

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).

IMMOBILIZER	×
lp(H)	
Register the mobile key.	
Please bring the Mobile key to register	
close to the Start SW one by one.	
If registered number changes, Mobile Key away from start	3W
Then, shade it with a Mobile Key of non-registration	
Registered number = 0	
Press the Quit button if completed.	
Quit	
	IN

### 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.

MMOBILIZER	×
Help(H)	
Register the mobile key.	
Please bring the Mobile key to register	
close to the Start SW one by one.	
If registered number changes, Mobile Key away from start SW	
Then, shade it with a Mobile Key of non-registration	
Registered number = 1	
Press the Quit button if completed.	
Ouit	
dun	
	114 004

- 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.

- 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.

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

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Smart Immobilizer Registration
Smart ECM Registration
Engine ECM Registration
Readout the number of mobile key registration
Delete the mobile key ID
Remote Control Engine Starter Registration
Back

- 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 (pushbutton 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

- 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.

	Select th Immo Aud	e System for Ro bilizer System lio System	egistration YES NO	
Ē			Cancel	

### 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.

System Selection	
Press YES if it is a otherwise pr	smart system, ess NO.
YES	NO

### 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.

 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.

Smart Immobilizer Registration	
Smart ECM Registration	
Engine ECM Registration	
Readout the number of mobile key registration	
Delete the mobile key ID	
Remote Control Engine Starter Registration	
Return	

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

2	⊇meomizera 🛞 ₩6⊕	
	Execute Smart ECM Registration Mode?	
	Press OK or Cancel	
	OK Cancel	
	IM-0044	48

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.

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

1	S IMMORE L/FR	
l í		
	Smart ECM Registration Mode Finished	
I I	Press OK	
	ок	
	IM	-00451

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

### 7-4 Registering the Engine ECM

- 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.

Select ti	ne System for Ro	egistration
Imm	obilizer System	YES
Au	dio System	NO
B	ackCa	ncel
YES	NO	Cancel

### 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.

System Selection	_
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

Check if Ignition SW is turned ON.
VES NO

 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.

Smart Immobilizer Registration
Smart ECM Registration
Engine ECM Registration
Readout the number of mobile key registration
Delete the mobile key ID
Remote Control Engine Starter Registration
Return

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



- 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

- 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.

Main Menu	
All System Diagnosis Each System Check Saved Data Display	
Immobilizer	
Back	
	l
	IM-00492

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

ystem (	Check		
	Select the Immo Aud Ba	e System for R bilizer System io System ickCai	egistration YES NO ncel
	YES	NO	Cancel

### Note:

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

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

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

 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.

Make 0.0		(A)
1440 (B)		
	Smart mobile key registration number display mode	
	Execute?	
	Press OK or Cancel	
	UK Cancel	

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

S IMMOBILIZER	
HIRD (G)	
Registration number	
2 Num.	
Press OK	
ок	
Anna an anna a	
IM-0	0457

### 7-6 Delete the Access Key ID

- 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.

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

 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.

Smart Immobilizer Registration	
Smart ECM Registration	
Engine ECM Registration	
Readout the number of mobile key registration	
Delete the mobile key ID	
Remote Control Engine Starter Registration	
Return	

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

MINDER Heb/S	IZER.	
	Execute Mobile Key ID Deletion Mode?	
	Press OK or Cancel	
	OK Cancel	
		IM-004

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.



### 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.

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

S IM NO	HL 17E H	×
Help(b)		
	Mobile Key ID Deletion Mode Finished	
	Mobile Key Registration number	
	1 Num.	
	<b>D</b>	
	Press UK	
	OK	
		IM-0046

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.

### 7-7 Registering Remote Control Engine Starter

- 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.

	Select th Immo Aud	e System for Ro bilizer System io System	egistration YES NO	
E		ickCar		

### Note:

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

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

System Selection	
Press YES if it is a otherwise pre	smart system, ss NO.
YES	NO

### 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.

 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.

1
Smart Immobilizer Registration
Smart ECM Registration
Engine ECM Registration
Readout the number of mobile key registration
Delete the mobile key ID
Remote Control Engine Starter Registration
Return

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

Hel	b.a.
	Execute the remote control E/G starter registration mode?
	Press UK or Cancel
	OK Cancel

 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.

![](_page_88_Picture_5.jpeg)

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.

- 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].

![](_page_88_Picture_12.jpeg)

 Select [Immobilizer] from the item selection dialog box.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
	IM-00492

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

Select th	e System for Ro	egistration
Immo	obilizer System	YES
Auc	lio System	NO
Bi	ackCar	ncel
YES	NO	Cancel

### Note:

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

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

System Selection	
Press YES if it is a s otherwise pre	smart system, ss NO.
YES .	NO

### 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.

![](_page_89_Figure_9.jpeg)

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.

&Help(H)	2EA	×
	Read registration history	
	The vehicle without the function.	
	OK	
		IM-0060:

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 possible to perform [Registering the Smart Immobilizer] even when ignition switch is OFF.)
  - O: Part that failed/was lost

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• X: Replace part with new one

<When only one part is failed or lost>

			-	-		
	(4)					
after parts replacement	(3)				Execution of engine ECM registration	
Procedures to perform	(2)	Execution of smart immobilizer registration (*1) (registration of additional access key)	(*2)		Set the vehicle power supply to OFF and then back to IG- ON.	
	(1)	Deletion of the access key ID (*1)(deletion of the ID of a failed or lost access key)	Execution of smart immobi- lizer registration	Execution of smart ECM reg- istration	Execution of smart ECM reg- istration	Execution of engine ECM registration
no sr	ECM					×
hen iter	D Code Box				×	
oared w	Steering ock CM			×		
e or pre	keyless access CM		×			
Parts required to replac the	Access key	One registered access (ey	All access keys to be egistered	One registered access (ey	One registered access (ey	
	ECM	Û¥	4 1	0 2	Û¥	ο
	Box Box				ο	
led/lost	Steering lock CM			0		
Parts fai.	Keyless access CM		0			
	ess key					
	Acc Not al	0				

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	Pê	arts faile	ed/lost			Parts required to item	o replaci s on the	e or pre e left fail	pared v	when		Procedure	s to perform after parts rel	olacement	
Access	key K∈	eyless St	teering		N C L	A 20000 Loss	eyless S	teering	D C		(1)				
Not all	All	CM lo	ck CM	Box	N L C M	Access key a	CM lo	ck CM	Box	N L C M	(1)	(7)	(6)	(4)	
0			0			One registered access key		×			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)		
0				0		One registered access key			×		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)
0					0	One registered access key				×	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)		
		0	0		<u>,</u>	All access keys to be reg- stered	×	×			Execution of smart immobilizer registration	(*2)			
		0			0	All access keys to be reg- stered	×			×	Execution of smart immobilizer registration	(*2)			
			0	0		One registered access key		×	×		Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration		
			0		0	One registered access key		×		×	Execution of smart ECM registration	Set the vehicle power supply to OFF and then back to IG-ON.	Execution of engine ECM registration		
				0	0	One registered access key			×	×	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>

			lal	la	اهر		
			Execution of smart immobilizer registration (*1) (registration of additior access key)	Execution of smart immobilizer registration(*1) (registration of additior access key)	Execution of smart immobilizer registration (*1) (registration of additior access key)		
placement	(1)	(4)	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)		
s to perform after parts re	107	(5)	Execution of engine ECM registration	Execution of engine ECM registration	Execution of engine ECM registration		Execution of engine ECM registration
Procedure		(7)	Set the vehicle power supply to OFF and then back to IG-ON.	Set the vehicle power supply to OFF and then back to IG-ON.	Set the vehicle power supply to OFF and then back to IG-ON.	(*2)	Set the vehicle power supply to OFF and then back to IG-ON.
	117	(1)	Execution of smart ECM registration	Execution of smart ECM registration	Execution of smart ECM registration	Execution of smart immobilizer registration	Execution of smart ECM registration
when	NA C L	N N N		×	×	×	×
epared v il		Box	×		×		×
ce or pre ie left fai	Steering	lock CŇ	×	×		×	×
to repla ms on th	Keyless	access CM				×	
Parts required ite		Access key	One registered access key	One registered access key	One registered access key	All access keys to be reg- istered	One registered access key
	NUL	N N N		0	0	0	0
-	a	Box	0		0		0
ailed/los	Steering	lock CM	0	0		0	0
Parts fa	Keyless	access CM				0	
	ess key	II AII					
	Acce	Not al	0	0	0		

## <When four parts are failed or lost>

			Execution of smart immobilizer registration (*1) (registration of additional access key)
eplacement		(4)	Execution of access key ID deletion (*1) (deletion of the ID of a failed or lost access key)
ss to perform after parts re		(3)	Execution of engine ECM registration
Procedure	Q	(Z)	Set the vehicle power supply to OFF and then back to IG-ON.
		(1)	Execution of smart ECM registration
when		ECM	×
epared il	□ 0	Box	×
ce or pr ne left fa	Steerina	lock CM	×
to repla ms on th	Keyless	access CM	
Parts required ite	-	Access key	One registered access key
		ECM ECM	0
		Box	0
uiled/lost	Steering	lock CM	0
Parts fa	Keyless	access CM	
	ss key	AII	
	Acce	Not all	ο

\*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	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 possible to perform [Registering the Smart Immobilizer] even when ignition switch is OFF.)
- O: Part that failed/was lost

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• X: Replace part with new one

<When only one part is failed or lost>

<b></b>			r							r		_	
		(4)											
tter parts replacement		(3)											
Procedures to perform a		(2)		Execution of smart immobilizer	registration (*1) (registration of	additional access key)		(6*/					
		(1)	Execution of access key ID	deletion	(*1)	deletion of the ID of a failed or	ost access key)	Execution of smart immobilizer	registration	Execution of smart ECM	registration	Execution of engine ECM	registration
hen		N S				-	_		_			>	<
oared w	teerina	ç CM								×	<		
e or pre	eyless <sub>S</sub>	CM Ic						×	<				
Parts required to replac items on the	<u> </u>	Access key		Constant and another		key		All registered access	keys	One registered access	key		
		ECM										c	)
ost	Steerina	lock CM								c	>		
rts failed/lc	Keyless	access CM						c	>				
Par	s key	AII											
	Acces	Not all			0								

<When two parts are failed or lost>

		(4)						
after parts replacement		(3)	Execution of smart immobilizer registration (*1)	(registration of additional access key)	Execution of smart immobilizer	registration ( ) (registration of additional access key)		Execution of engine ECM registration
Procedures to perform	Q	(7)	Execution of access key ID deletion	(*1) (deletion of the ID of a failed or lost access key)	Execution of access key ID deletion	(*1) (deletion of the ID of a failed or lost access key)	(*3)	Set the vehicle power supply to OFF and then back to IG-ON.
		(L)	Execution of smart ECM	registration	T contract of the second s	Execution of engine ECM registration	Execution of smart immobilizer registration	Execution of smart ECM registration
vhen		ECM				×	×	×
pared v	steering	ock CM	:	×				×
e or pre e left fail	keyless g	CM					×	
Parts required to replaction of the provident of the prov		Access key	One registered access	key		Une registered access key	All registered access keys	One registered access key
		ECM ECM				0	0	0
ost	Steering	lock CM		C				0
rts failed/lo	Keyless	access CM					0	
Par	s key	AII						
	Acces	Not all		0		0		

## <When three parts are failed or lost>

	Ра	arts failed/l	lost		Parts required to repla items on th	ice or pr re left fa	epared i	when		Procedures to perform	after parts replacement	
Acces	s key	Keyless	Steering		-	Keyless	Steering		3	Č	0	
Not all	AII	access CM	lock CM	ECM	Access key	access CM	lock CM	N N N N	E)	(2)	(3)	(4)
0			0	0	One registered access kev		×	×	Execution of smart ECM registration	(*2) Execution of engine ECM	Execution of access key ID deletion (*1)	Execution of smart immobilizer registration of
					N				9	registration	(deletion of the LD of a failed of lost access key)	additional access key)

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\*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".

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table
1 Correspondence
7-11

Status	Screen	Trouble mode	Action to be taken	Registration history that
Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart System "N0" → IGN-ON "YES" →	NG Comm. Failed	CAN communication failure between Subaru Select Monitor F and keyless access CM	Perform the diagnosis for CAN.	
(Smart FCM rankrement mode)	NG Abnormal Termination	<ul> <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> <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> </ul>	<ul> <li>Failure of the condition</li> <li>vehicle speed detection</li> <li>different ID code box setting</li> <li>Among special mode</li> </ul>
Non representation mode ( → "Perform the [Smart Immobilizer Registration]" → "Registration mode during migration."	NG Mode transition error	<ul> <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> <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 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, B2784, B2784)</li> </ul>	<ul> <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> <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> <li>Check the data link connector and harness.</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2789, B2790, B2786, B2785, B2784, 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> <li>Failure of the condition -push-button SW amp error -LIN communication failure -vehicle speed detection -diag. communication failure</li> <li>Writing failure</li> <li>Writing failure</li> <li>Ifferent code between ECM abnormal response</li> </ul>

	Screen	Trouble mode	Action to be taken	Hegistration history that
replacement mode) the [Smart ECM and registration]" er is confirmed"	NG Check the owner NG	<ul> <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)</li> <li>Access Key incorrect item number (incorrect destination)</li> <li>Access CM or ID code box improper connection</li> <li>Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul> <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>(DTC: B2789, B2786, B2786, B2784, B2784)</li> <li>(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, and inspection of the push button ignition switch, 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 malfurction.</li> </ul>	<ul> <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 botween ECM</li> <li>-Between Steering lock CM</li> </ul>
the Access Key."	NG Time-out occurred during Access Key collation	<ul> <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 [1 the button surface facing yourself</li> <li>Another (already-collated) access key present near push button ignition switch</li> <li>Access key motified access key incorrect destination/ n excess 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>Another access key out of battery/maltunction (RF function)</li> <li>Access key out of battery/maltunction (RF function)</li> </ul>	<ul> <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>Confirm the access key item number and check for mumber 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: B1242, B27A5)</li> <li>Check that another access key is not present inside the whicle.</li> <li>Check the battery of access key.</li> <li>Check the connector wiring/harness of RF receiver.</li> <li>Check the front indoor antenna for malfunction.</li> </ul>	•New key's check fail -hold up the collated key just before
key is registering	NG While Access Key is registering, timeout has occurred. NG Failed to Portable Device Registration	<ul> <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>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 Following failure occurred before none of new registration access key was collated during new registration key collation</li> <li>Temporary communication failure with Subaru Select Monitor</li> <li>Steering lock CM or ID code box improper connection</li> </ul>	<ul> <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> <li>Retry the procedure from the beginning.</li> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2789, B2786, B2785, B2784, B2784, B2784)</li> <li>Check ID between the keyless access CM and steering lock CM or ID code box.</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> <li>Time-out</li> <li>Failure of the condition</li> <li>Failure of the condition</li> <li>vehicle speed detection</li> <li>diag. communication failure</li> <li>LIN communication failure</li> <li>LIN communication failure</li> <li>Communication failure</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> <li>Time-out before the operator performed IGN-OFF (60 seconds)</li> <li>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> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2271)</li> <li>(DTC: B2271)</li> <li>Check the harness between keyless access CM and push button ignition switch, and 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> <li>Time-out before the operator performed IGN-ON (60 seconds)</li> <li>Access key not present inside the vehicle</li> <li>Access key nut short/open in harness between keyless access CM and IGN relay</li> <li>IGN harness open/GND-output short</li> <li>IGN tuse blown out</li> <li>Keyless access CM malfunction (control failure)</li> </ul>	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(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	•The operator opened or closed the door after IGN-ON •Steering lock locked	<ul> <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	•B/up fuse disconnected •Vehicle speed input exceeding 5 km/h (3 MPH)	<ul> <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> <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> <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> <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.</li> </ul>	<ul> <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
sr is confirmed"	NG Check the owner NG	<ul> <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>Anterna 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</li> </ul>	<ul> <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>(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: B2789, B2790, B2785, B2784, 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> <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>
the Access Key."	NG Time-out occurred during Access Key collation	<ul> <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 that was registered on another vehicle was held incorrect system)</li> <li>Access key present inside the vehicle (interference, etc.)</li> <li>Access key und buten value on another vehicle was held access key that was registered on another vehicle was held access key that was registered on another vehicle was held access key und batter/malfunction (RF function)</li> <li>Access key that was registered on another vehicle was held Access key und batter/malfunction (RF function)</li> <li>Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access key that was registered on another vehicle was held Access k</li></ul>	<ul> <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>Check that the access key is not registered on another vehicle.</li> <li>Eluzzer sounds only once when access key is held, and number of registration does not increase]</li> <li>Check that another access key is not registered on another vehicle.</li> <li>Check that another access key is not perform the diagnosis according to the DTC.</li> <li>(DTC: B1242, B27A5)</li> <li>Check that another access key is not present inside the vehicle.</li> <li>Check that the access key is not registered on another vehicle.</li> <li>Check that cacess key is not registered on another vehicle.</li> <li>Check that cacess key is not registered on another vehicle.</li> <li>Check the cacess key is not registered on another vehicle.</li> <li>Check the cacess key is not registered on another vehicle.</li> <li>Check the cacess key is not registered on another vehicle.</li> <li>Check the cacess key is not registered on another vehicle.</li> </ul>	<ul> <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
	NG While Access Key is registering, timeout has occurred.	<ul> <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> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2786, 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>	-Time-out -no ECM reply mismatch
→ "Access Key is registering"	NG Failed to Portable Device Registration	<ul> <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 tailure occurred before none of new registration access table registration mode is on]</li> <li>Vehicle speed input exceeding 5 km/h (3 MPH)</li> <li>Immobilizer amplifier failure with Subaru Select Monitor Steering lock CM or ID code box improper connection</li> <li>Temporary communication failure with Subaru Select Monitor</li> <li>Keyless access CM, steering lock CM, or ID code box failure</li> </ul>	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2789, B2790, B2786, B2785, B2784, 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>Check the data link connector and harness.</li> <li>Perform harness inspection between the keyless access CM and bush 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 locked CM and ID code box".</li> <li>Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILZER.</li> <li>(When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> </ul>	<ul> <li>Failure of the condition         <ul> <li>Vehicle speed detection</li> <li>diag. communication failure</li> <li>LIN communication failure</li> <li>Access key PW difference</li> <li>Mriting failure</li> <li>Code (D code box)</li> <li>ECM code (Steering lock ECM)</li> <li>Keyless access CM</li> <li>reg info</li> </ul> </li> </ul>
→ "Turn off the ignition switch."	NG While turning ignition switch off, timeout has occurred.	<ul> <li>Time-out before the operator performed IGN-OFF (60 seconds)</li> <li>e-Operation not reflected due to switch circuit of push button ignition switch improper connection/malfunction</li> <li>e-IGN relay stuck ON</li> <li>Power supply-output short in harness between keyless access CM and IGN relay</li> <li>e-Keyless access CM malfunction (control failure)</li> </ul>	<ul> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2271)</li> <li>(DTC: B2271)</li> <li>Check the harness between keyless access CM and push button ignition switch, and 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>	1
→ "Switch Ignition ON"	NG While turning ignition switch on, timeout has occurred.	<ul> <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>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> <li>Check for DTC, and if there is any, perform the diagnosis according to the DTC.</li> <li>(DTC: B2271)</li> <li>(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>	1
	NG cannot Immobilizer unset	<ul> <li>The operator opened or closed the door after IGN-ON</li> <li>Steering lock locked</li> </ul>	<ul> <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>	

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

Registration history that possibly remains			<ul> <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>	<ul> <li>Owner key's check fail -hold up non-registration key -Failure of the condition -Failure of the condition -Among special mode -diag. communication failure -push-button SW amp error -Different code between ECM</li> <li>Between ID code box</li> <li>EcM code registered</li> </ul>
Action to be taken	Execute "Smart Immobilizer Registration".	<ul> <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 to ris grounded.</li> <li>With ID code box: Check that IDW terminal is connected to orgund.</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 whice speed pulse is any, perform the diagnosis according to the DTC.</li> <li>(DTC : B278D)</li> <li>Check if the keyless access CM is replaced with a new part.</li> </ul>	<ul> <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 pubton 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 accest for DTC.</li> <li>Check that the BUp 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> <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: B2784) B2784)</li> <li>Perform tharness inspection between the keyless access CM and push button ignition switch, and inspection of the push button ignition switch, and inspection of the push button ignition switch, and inspection of the push button ignition switch, 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 is normal. (Make sure that the function.</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 keyless access CM and ID code box" and "Code collation result between steering locked CM and ID code box".</li> </ul>
Trouble mode	Access key unregistered	<ul> <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> <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> <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>
Screen	NG Access Key is not still registered	NG Abnormal Termination	NG Mode transition error	NG Check the owner NG
Status			"Smart ECM Registration" start	

Registration history that possibly remains	rm the diagnosis •Time-out and steering lock -no ECM reply mismatch	rm the diagnosis e vehicle. mes to check that GN ON. ess CM and IGN	I ON again, retry aning/closing the GN ON ←→ OFF ring lock.	and Subaru			1	ie procedure.
Action to be taken	<ul> <li>Check for DTC, and if there is any, perfoaccording to the DTC.</li> <li>(DTC: B2785, B2786, B2789)</li> <li>Check LIN between the keyless access CM CM or ID code box.</li> <li>Retry the procedure from the beginning.</li> </ul>	<ul> <li>Check for DTC, and if there is any, perfoaccording to the DTC.</li> <li>(DTC: B2271)</li> <li>(DTC: B2271)</li> <li>Check if the access key is present inside the Press the push button ignition switch a few tight a status changes as OFF → ACC ON → IC the status changes as OFF → ACC ON → IC the status changes as OFF and the status changes as OFF the transformer inside the transform is a status of the transform</li></ul>	<ul> <li>After performing IGN OFF once and IGN "Engine ECM Registration" without ope driver's door.</li> <li>While turning the steering wheel, perform It to check that the operation unlocks the steer</li> </ul>	Check the communication line between ECM Select Monitor. (K line or CAN)	Perform the diagnosis for DTC B1572 (P1572) Perform the diagnosis for DTC B1577 (P1577)	Perform the diagnosis for DTC B1576 (P1576)	•Check version of Subaru Select Monitor. •Replace the ECM.	What until the self shut completes, and retry th
Trouble mode	<ul> <li>Steering lock CM or ID code box improper connection</li> <li>Code writing failure between ECMs</li> </ul>	•The operator has not performed IGN ON •IGN ON impossible (Procedure attempted while keyless access CM unregistered, etc.)	<ul> <li>The door was opened or closed after IGN-ON</li> <li>Keyless access CM unregistered and IGN ON still possible</li> </ul>	Communication failure with ECM	Communication failure between ECM and keyless access CM or ID code box Keyless access CM or ID code box failure	ECM failure	Subaru Select Monitor failure     ECM failure	
Screen	NG Time-out occurred during registration	Not able to confirm IG SW ON	Because Immobilizer is not unset, cannot register	NG EGI-SSM Communication (Communication line judgment)	NG EGI-Immobilizer communication NG IMM Control	NG EGI unit EEPROM	NG EGI security access NG	NG EGI-SSM
Status	"Smart ECM Registration" start	"Engine ECM Registration" start "Please confirm that IG SW becomes ON"			"EGI initialization / During	registration"		

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	•B/up fuse disconnected •Vehicle speed input exceeding 5 km/h (3 MPH)	<ul> <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> <li>Failure of the condition</li> <li>vehicle speed detection</li> <li>Among special mode</li> </ul>
	NG Mode transition error	<ul> <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> <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.</li> </ul>	<ul> <li>Failure of the condition</li> <li>vehicle speed detection</li> <li>diag. communication failure</li> </ul>
"Delete the Access Key ID" start	NG Check the owner NG	<ul> <li>Access key other than registered key was held</li> <li>Access key being held maltunctioning 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>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> <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>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•CM or ID code box.</li> <li>•Check LIN between the keyless access CM and steering lock CM or ID code box.</li> <li>•CM or ID code box.</li> <li>•Check that the vehicle speed is normal. (Make sure that 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 locked CM and ID code box".</li> </ul>	<ul> <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>
	NG Access Key ID Deletion Mode NG	<ul> <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>	<ul> <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 steering lock CM or ID code box.</li> <li>Perform the procedure again according to REGISTRATION MANUAL FOR IMMOBILIZER.</li> <li>(When either the ID code box or steering lock CM is replaced with a new part, select "Smart ECM Registration".)</li> </ul>	<ul> <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>-ECM code sccess CM</li> <li>-ECM)</li> <li>-Keyless access CM</li> <li>reg info</li> <li>Time-out</li> <li>-no ECM reply mismatch</li> </ul>

### REGISTRATION MANUAL FOR IMMOBILIZER

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

<when access="" cm="" is="" keyless="" replaced=""></when>	B1572 (P1572) Imm Circuit Failure (Except Antenna Circuit)
<when ecm="" is="" replaced=""></when>	B1571 (P1571) Reference Code Incompatibility

history
registration
of
List
7-12

			Job col	ntents			
SSM d	display	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM	Access key ID deletion	Cause of failure	Action to be taken
Access key PW difference	I	0	0			<ul> <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	hold up the collated key just before hold up registered key	0	0			<ul> <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 is four access keys indicated in "Readout the "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	hold up non-registration key	0		0	0	•The access key that was new or registered on another vehicle was held over the push button ignition switch. •Registration was attempted after the keyless access CM was wrongly replaced with a part registered on another vehicle.	<ol> <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>
	hold up the collated key just before		0			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		0				Time-out occurred while registration was attempted for the 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.

			Job col	ntents			
SSM	display	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM	Access key ID deletion	Cause of failure	Action to be taken
			o			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.	<ol> <li>Check that all the access keys to be held are registered to the vehicle to be worked on, and then perform registration.</li> <li>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.</li> <li>When key registration is not possible with the keyless access CM that was previously installed, contact your Subaru service epresentative.</li> </ol>
	between to code box * Models with ID code box only	0	0	0	0	Before registration, the ID code box and steering lock CM were wrongly replaced as a set with parts that were registered on another vehicle.	<ol> <li>Check that the ID code box and steering lock CM were not registered on another vehicle, and then perform the registration.</li> <li>In the case of the key registered on another vehicle, contact your Subaru service representative.</li> </ol>
		0	0	0	0	Before registration, the access key and keyless access CM were wrongly replaced as a set with parts that were registered on another vehicle.	<ol> <li>Check that the access key and keyless access CM were not registered on another vehicle, and then perform the registration.</li> <li>In the case of the key registered on another vehicle, contact your Subaru service representative.</li> </ol>
Different code between ECM					0	Before registration, the ID code box was wrongly replaced with a new part.	<ol> <li>Check that the ID code box was not replaced with a new part, and then perform registration.</li> <li>Execute "Smart ECM Registration", and then perform desired registration.</li> </ol>
			0			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	<ol> <li>Check that all the access keys to be held are registered to the vehicle to be worked on, and then perform the registration.</li> <li>In the case of the key registered on another vehicle, contact your Subaru service representative.</li> </ol>
	Between Steering lock	0	0	0	0	Before registration, the ID code box or steering lock CM was wrongly replaced with a part that was registered on another vehicle.	<ol> <li>Check that the ID code box or steering lock CM was not registered on another vehicle, and then perform the registration.</li> <li>In the case of the key registered on another vehicle, contact your Subaru service representative.</li> </ol>
		0	0	0	0	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	<ol> <li>Check that the access key and keyless access CM were not registered on another vehicle, and then perform the registration.</li> <li>In the case of the key registered on another vehicle, contact your Subaru service representative.</li> </ol>
					0	Before registration, the steering lock CM was wrongly replaced with a new part.	<ol> <li>Check that the steering lock CM was not replaced with a new part, and then perform registration.</li> <li>Execute "Smart ECM Registration", and then perform desired registration.</li> </ol>
ECM code registered	I			0		"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	no ECM reply mismatch	0	0	0	0	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.

			Job col	ntents			
SSM	display	Access key additional registration	Keyless access CM replacement	Registering the Smart ECM	Access key ID deletion	Cause of failure	Action to be taken
	different ID code box setting		0			[Vehicle with ID code box] Registration was performed without the IDW terminal of keyless access CM connected to GND. [Vehicle without ID code with the IDW terminal of Registration was performed with the IDW terminal of keyless access CM connected to GND.	Contact your Subaru service representative.
	push-button SW amp error	0	0	0	0	The immobilizer power supply circuit of push button ignition switch is shorted to ground.	Check the harness between keyless access CM and push button gnition switch.
	vehicle speed detection	0	0	0	0	Registration was performed while vehicle speed of 5 km/h or more was detected.	<ol> <li>Perform registration with the vehicle at standstill.</li> <li>Check the vehicle speed pulse output from VDC to confirm that the vehicle speed is normally output, and then perform registration.</li> </ol>
Failure of the condition	LIN communication failure	0	0	0	0	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.
	diag. communication failure	0	0	0	0	Registration was performed, while communication between Subaru Select Monitor and keyless access CM 2 was not established.	<ol> <li>Perform the diagnosis for "COMMUNICATION FOR INITIALIZING MPOSSIBLE", and then perform registration.</li> <li>Perform the diagnosis if "DTC U0073 CONTROL MODULE COMMUNICATION BUS "A" OFF" is detected, and then perform egistration.</li> </ol>
	Among special mode	0	0	0	0	•B/up tuse in M/B or F/B is disconnected or blown out. •Body integrated unit cannot detect B/up status correctly.	Theck "B/up" on the data monitor of body integrated unit to check that he value is 9 V or more. When the displayed voltage is low, check the 3/up fuse of M/B and F/B, and harness to body integrated unit, and hen perform registration.
	ECM code (ID code box)	0	0	0	0	ID code box data writing failed due to temporary poor connection of LIN communication circuit during registration. * Vehicle with ID code box only	rom the diagnosis for "DTC B2785 LIN COMMUNICATION ERROR", berform the harness and connector inspection, and then perform egistration.
Writing failure	ECM code (Steering lock ECM)	ο	0	0	0	ID code box or steering lock CM data writing failed due to temporary poor connection of LIN communication circuit during registration.	-rom the diagnosis for "DTC B2785 LIN COMMUNICATION ERROR", berform the harness and connector inspection, and then perform egistration.
	Keyless access CM reg info	0	0	0	0	Keyless access CM data writing failed.	Check that battery voltage is normal, and then perform registration.
ID code box/Steering lock CM abnormal response		0	0	0	0	Abnormal response from ID code box or steering lock CM was detected.	Aetry registration.
Temporary mismatch detection	1	0	0	0	0	Abnormal termination occurred due to temporary li mismatch.	Aetry 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.

- 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].



 Select [Immobilizer] from the item selection dialog box.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
	Main Menu All System Diagnosis Each System Check Saved Data Display Immobilizer Back

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

Select Imi A	the System for Re mobilizer System audio System BackCar	egistration YES NO ncel
YES		Cancel

### Note:

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

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

Sys	tem Se	lectio	n		
	Press Y	′ES if i otherwi	t is a sr se pres:	nart syst s NO.	em,
	YE	ES		NÖ	

### 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".

Confirm Ignition SW	
Check if Ignition SW	'is turned ON.
YES	NO

 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.

		×
&Help(H)		
	Execute Immobilizer system registration? Press OK or Cancel	
	Girden	
		IM-00621

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".

S IMMOBILIZER BHelp(H)	
Initializing communication	
IN	1-00605

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".

MMOBILIZER	×
&Help(H)	
Desistarias	
Hegistering	
	IM-00606

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".

S IMMOBILIZER	
Help(H)	
Key has been registered	
Begistered number – a	
nogistered number – u	
Turn OFF the ignition SW, replace the key which will be regist. After replacement, turn ON ignition SW (Please carry out within 30 seconds)	
Exit	
	~~~~
INI-0	00607

### 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".

S IMMOBILIZER	
&Help(H)	
Key Registration in progress	
Don't turn the ignition switch OFF.	
IM	-00608

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".

	10
&Help(H)	
EGI init	alization / During registration
	Please Wait
	IM-00609

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

8Heb(H)
Immobilizer System Registration successful Registered number = a
Drass OK
FIESS OK
OK
IM-00610

### 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.

MMACRU IZER	
&Help(H)	
Immobilizer System Registration end. Turn OFF the ignition switch and please pull out the key. Press OK	
	IM-00611
	AMOUNTIZER Askep(+) Immobilizer System Registration end. Turn OFF the ignition switch and please pull out the key. Press OK OK

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.

 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.

Main Menu	
All System Diagnosis	
Each System Check	
Saved Data Display	
Immobilizer	
Back	
	IM-00492

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

Select th	e System for Ro	egistration
Immo	obilizer System	YES
Aud	lio System	NO
Ba	ackCar	ncel
YES	NO	Cancel

### 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.

Sy	stem Selecti	ion
	Press YES if otherv	it is a smart system, wise press NO.
	YES	NO

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".

Confir	m Ignition (	sw		
Cł	neck if Ignitio	n SW is tu	rned ON.	
	YES		NO	ĺ.

 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.

	X
&Help(H)	
Execute Imm	obilizer system registration?
Pr	ess OK or Cancel
OK	Cancel
	IM-00621

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".

MMOBILIZER	×
&Help(H)	
Initializing communication	
	IM-00605

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".

IMMOBILIZER 8Help(H)	
KEY is being collated.	
I	1-00613

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".

2 INMOBILIZER Holp@	8
Collation complete Collation OK Turn off ignition SW and change for key to register After replacement, turn ON the ignition switch. (Please carry out within 30 seconds)	
Exit	
	IM-0061

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.

1	MMOBILIZER	
	&Help(H)	
	Immobilizer System Registration successful	
	Registered number = a	
	Press OK	
	OK	
	IM	-00610

### 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.

6	MMOBILIZER	
8	BHeip(H) Immobilizer System Registration end, Turn OFF the ignition switch and please pull out the key.	
	Press OK	
	IM-	00611

 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.

 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.

All System Diagnosis Each System Check Saved Data Display		
Each System Check Saved Data Display		
Saved Data Display		
Immobilizer		
Back		
	Back	Back

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

Select the	e System for Re	egistration
Immo	bilizer System	YES
Aud	io System	NO
Ba	ckCar	ncel
YES	NO	Cancel

### Note:

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

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

Sy	stem Sele	ectio	n			
	Press YE of	ES if it therwis	is a sr se press	nart sy: s NO.	stem,	
	YE	S		NÖ		

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".

Gonfir m	Ignition SW		
Chec	ck if Ignition S∖	V is turned Of	N.
	YES	NO	

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.

Help(H)	
	Immobilizer system registration
	Engine ECU registration
	The registration number read
	Immobilizer key ID deletion
	Remote Control Engine Starter Registration
	Back

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".

MIMO &Нер(H)	LIZER	×
	Perform Engine ECM Registration?	
	Press OK or Cancel	
		IM-00620

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".

C Inwoellizer (X	-
Initializing communication	
I	√-00605

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".

-		
	2 IMMOBILIZER	×.
	&Help(H)	
	EGI initialization / During registration	
	Please Wait	
		IM-00609
L		00000

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.

 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].

Main Menu	
All other models	
Inspection of BRZ	
Saved Data Display	
Reprogram	
Alliance Vehicle Inspection	
Read CF application measurement data	
Convert/Save measurement data on driving recorder	
Oscilloscope	
Others	
Quit	
	IM-0049

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.

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

System Select	ion
Press YES if otherv	it is a smart system, wise press NO.
YES	NO

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".

Gonfirm 1	lgnition SW	ł.	
Chec	k if Ignition S\	∦ is turned ON	ł.
<u>[</u>	YES	NO	

 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.

E F	Immobilizer system registration
	Engine ECU registration
	The registration number read
	Immobilizer key ID deletion
	Remote Control Engine Starter Registration
	Back

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".

&Help(H	)	
	Evenute Remote control annine start Registration?	
	Press OK or Cancel	
	OK Cancel	
		IM-006 <sup>.</sup>

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".

2 IMMOBILIZER	
&Help(H)	
Turp ON the ignition switch by register key	
After confirmation, press OK	
OK Cancel	
	IIVI-00616

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.

&Help(	H)	
	Remote engine start Registration successful	
	Press OK	
	ОК	

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

MMOBILIZER	×	
Second (1)	_	
Turn OFF the ignition switch and please put out the key.		
······································		
Press OK		
OK		
<u>-</u>	18.0	

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.

 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.

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

System Selection	
Press YES if it is a smart : otherwise press NO	system, !
YES	IO I

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".

Confirm Igr	ition SW		
Check i	f Ignition SW	/ is turned O	N.
YE	s	NO	

 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.

F	Immobilizer avetern registration
j.	mmobilizer system registration
	Engine ECU registration
	The registration number read
1	Immobilizer key ID deletion
	Remote Control Engine Starter Registration
	Back

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".

MMOBILIZER		×
(8/160/(1)	Execute Immobilizer key ID deletion?	
	Press OK or Cancel	
	OK Cancel	
		IM-00624

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".

	ZER	
8Hels(H)	Turn ON the ignition switch by register key. After confirmation, press OK	
		IM-00616

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.

MMOBILIZER	X
&Help(H)	
Immobilizer Key ID Deletion successful. Registered number = a	
Press OK	
ОК	
	IM-00625

### 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.

MMOBILIZER X	
&Help(H)	
Immobilizer Key ID Deletion and	
Turn OFF the ignition switch and please pull out the key.	
Press OK	
UK	
IM	-00626

- 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	<ol> <li>One registered key</li> <li>Keys you want to register</li> </ol>
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>

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	Parts fé	ailed/lost		Parts required to r items	eplace or pregon the left fail	bared when		Procedures to perform 6	after parts replacement	
Key		Immobilizer	MÜ H	Ken	Immobilizer	MÜH	(1)	(6)	(8)	(4)
Not all	All	QM			CM			(2)		
×				One registered key			"Immobilizer Key ID deletion" (Deleting lost keys)	"Immobilizer system registration" (Registering keys needed)		
		×		All registered keys	×		"Immobilizer system registration"			
			×	One registered key		×	"Engine ECM registration"			
<when td="" two<=""><td>parts are</td><td>failed or los</td><td>3t&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></when>	parts are	failed or los	3t>							

	(4)	(1)		
after parts replacement	(3)	0		"Immobilizer system registration" (Registering keys needed)
Procedures to perform :	(6)	(=)		"Immobilizer Key ID deletion" (Deleting lost keys)
	(1)		"Immobilizer system registration"	"Engine ECM registration"
Parts required to replace or prepared when items on the left fail	ECM			×
	Immobilizer	CM	×	
	Key		Keys you want to register	One registered key
	ECM			×
ailed/lost	Immobilizer CM		×	
Parts f	Λi	AII		
	Key	Not all	×	×

not possible
<u>.</u>
registration
when
table
Correspondence
8-7

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 he taken
5	orarias (proceeder)			
-	Select "Immobilizer" from the Main Menu → System "Immobilizer" → Smart	NG Comm. Failed	•CAN communication failure between Subaru Select Monitor and immobilizer CM eCAN communication failure between Subaru Select Monitor and body integrated unit	Perform the diagnosis for LAN system.
	System "NO" → IGN-ON "YES" →	Meter/SCU registration	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
5	"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.
		NG Abnormal Termination	<ul> <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.
Ю	→ "Initializing communication"	NG Non-volatile memory failure.	Immobilizer CM failure	Check DTC and perform the diagnosis.
		NG Performed conditions not established.	IGN-OFF performed during registration mode	Perform re-registration.
		NG Transponder collation failure.	•NG key •Unregistered key	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.
		NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
4	→ "EGI initialization / During registration"	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)
£	"Engine ECU registration" start	Registered number = 0	Immobilizer CM unregistered	Execute "Immobilizer system registration" to register the key.
9	ightarrow "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	<ul> <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.
I	-	NG Immobilizer antenna failure.	Antenna failure	Check DTC and perform the diagnosis.
~	→ "Initializing communication"	NG Transponder collation failure.	•NG key •Unregistered key	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.

E type

- 4	Otation (automation)	Ture serves	Tranchia and a	
NO	Status (procedure)	LEITOL SCIEBU	Irouble mode	Action to be taken
		Communication line judgment)	Communication failure with ECM	Creek the continuorication line between ECM and Subaru Select Monitor. (K line or CAN communication line)
		NG EGI-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).
α	→ "EGI initialization / During	NG EGI unit EEPROM	ECM failure	Perform the diagnosis for DTC B1576 (P1576).
5	registration"	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 •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.
				Monitor. (K line or CAN communication line)
σ	"Immobilizer key ID deletion" start	Registered number = 0	Immobilizer CM unregistered	Execute "Immobilizer system registration" to register the key.
, ,		Registered number = 1	-	
10	ightarrow "Turn ON the ignition switch."	Cannot confirm ignition ON.	IGN line of immobilizer CM not detected	Check the data monitor. $\rightarrow$ 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.
÷	→ "Initializing communication"	NG Transponder collation failure.	•NG key     •Unregistered key	Prepare the registered key.
	7	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	
		NG BIU-SSM Communication	CAN communication failure between Subaru Select Monitor and immobilizer CM	Perform the diagnosis for LAN system.
12	"Remote Control Engine Starter Registration" start	Registered number = 0	Immobilizer CM unregistered	Execute "Immobilizer system registration" to register the key.
13	ightarrow "Turn ON the ignition switch."	Cannot confirm ignition ON.	IGN line of immobilizer CM not detected	Check the data monitor. $\rightarrow$ 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.
14	$\rightarrow$ "Initializing communication"	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	<ul> <li>Remote control engine starter malfunction</li> <li>Immobilizer CM malfunction</li> </ul>	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.

E type

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

	B1402 Immobilizer Key Collation NG
<when cm="" immobilizer="" is="" replaced=""></when>	B1571 (P1571) Reference Code Incompatibility
	B1575 (P0513) Incorrect Immobilizer Key
-When unredistered key is useds	B1402 Immobilizer Key Collation NG
	B1575 (P0513) Incorrect Immobilizer Key
<when ecm="" is="" replaced=""></when>	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.