

# **SECURITY AND LOCKS**

# IGNITION KEY

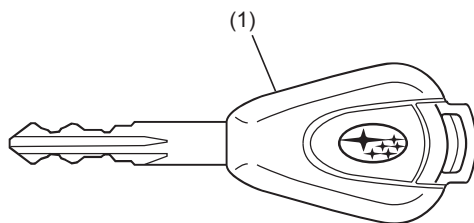
## SECURITY AND LOCKS

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### 1. Ignition Key

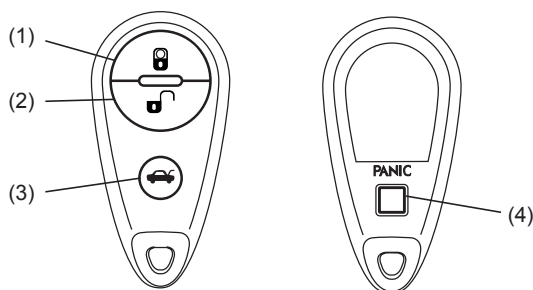
#### A: GENERAL

- A keyless entry system with a keyfob type transmitter is introduced. On models with immobilizer system, a transponder is assembled in the key.



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(1) Transponder built-in



SL-00389

- (1) Lock button  
(2) Unlock button

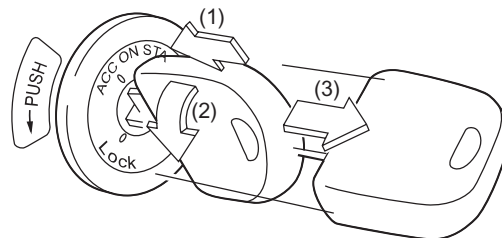
- (3) Trunk or rear gate button  
(4) Panic button

## 2. Ignition Switch

### A: GENERAL

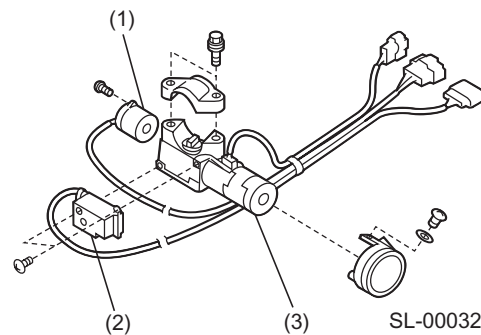
#### 1. IGNITION SWITCH

- The ignition switches on the MT models have a safety mechanism that prevents inadvertent locking of the steering wheel during driving. The driver cannot turn the ignition key from “ACC” to “LOCK” unless the key is pushed inward at the “ACC” position (arrow 1 in the drawing below).



SL-00031

- The ignition key for AT models can be turned to the LOCK position only when the select lever is in the P position.



SL-00032

- (1) Ignition switch
- (2) Key interlock solenoid (AT)
- (3) Ignition key cylinder

#### 2. KEY REMINDER CHIME

The reminder chime sounds when the driver’s door opens and the ignition key is in the “LOCK” or “ACC” position. The chime stops when the key is turned to the IGN position or removed from the ignition switch.

#### 3. IGNITION SWITCH ILLUMINATION

The ignition switch illumination is lit for 3 seconds and then gradually darkens and turns off after the driver’s door is closed. If the ignition switch is turned to the ON position while the ignition switch illumination is ON, the ignition switch illumination turns OFF immediately. The body integrated unit controls the delayed off function.

# POWER DOOR LOCK

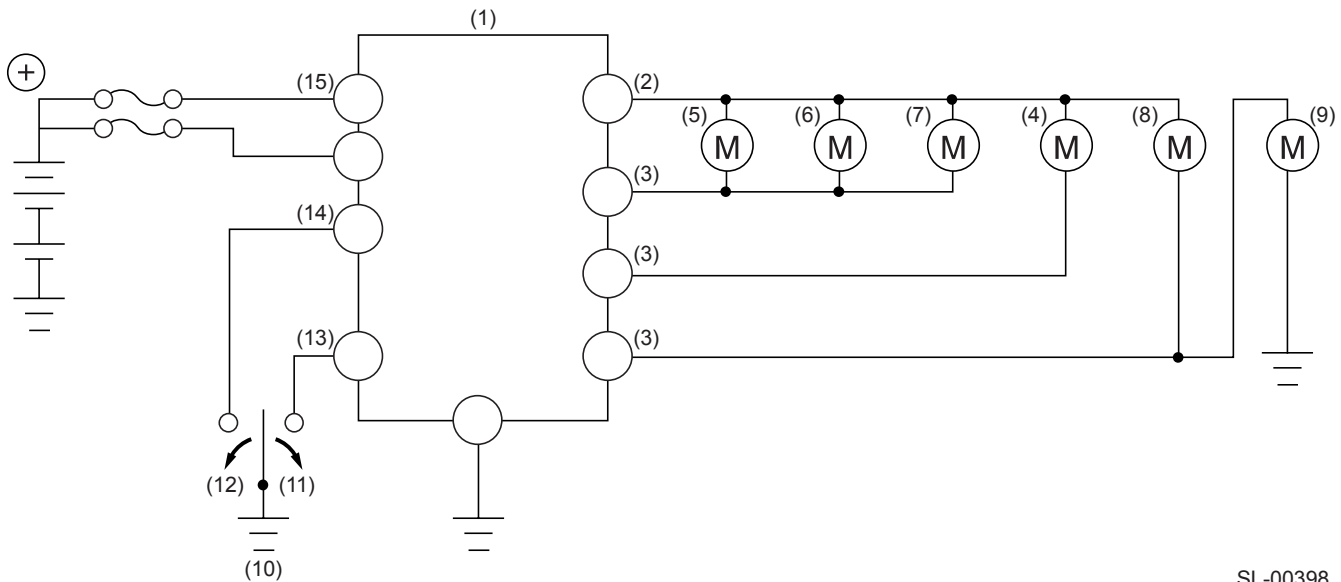
## SECURITY AND LOCKS

### 3. Power Door Lock

#### A: CONSTRUCTION

- The power door lock system consists of a body integrated unit, drivers door lock switch, front door lock actuators, rear door lock actuators, and a rear gate lock actuator.
- When the driver's/front passenger's door is locked or unlocked using the door lock switch, the other doors and the rear gate are also locked or unlocked automatically.

#### B: SCHEMATIC DRAWINGS



SL-00398

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| (1) Body integrated unit             | (9) Trunk opener actuator (sedans) |
| (2) Lock output                      | (10) Door lock switch              |
| (3) Unlock output                    | (11) Unlock                        |
| (4) Front LH actuator                | (12) Lock                          |
| (5) Front RH actuator                | (13) Unlock switch                 |
| (6) Rear LH actuator                 | (14) Lock switch                   |
| (7) Rear RH actuator                 | (15) Battery                       |
| (8) Rear gate lock actuator (wagons) |                                    |

## 4. Keyless Entry System

### A: CONSTRUCTION

- The keyless entry system consists of a transmitter, keyless entry control unit (with a built-in antenna), body integrated unit, door lock actuators, door switches, hazard warning lights, buzzer, and the interior light.
- The keyless entry system operates on a radio frequency, so the transmitter can be used in almost all directions relative to the vehicle. However, in some radio wave conditions the system may not operate properly.

#### NOTE:

The customizing function enables selection of coupled operation with the hazard warning lights. <Ref. to SL-12, Customizing Function.>

### B: FUNCTION

#### 1. DOOR LOCKING

- 1) Push the LOCK button on the transmitter once.
- 2) All doors are locked.
- 3) Check that the buzzer sounds once and the hazard warning lights flash once.

#### 2. DOOR UNLOCKING (DRIVER'S DOOR)

- 1) Push the transmitter's UNLOCK button once.
- 2) The driver's door is unlocked and the interior light turns ON (when the interior light switch is set at the DOOR position).

#### NOTE:

The interior light illuminates for 15 seconds and then fades out. (However, if a door locking procedure is performed again during this period, the lights will go out immediately.) The extinguishing time can be changed with the customizing function.

- 3) Check that the buzzer sounds twice and the hazard warning lights flash twice.

#### 3. DOOR UNLOCKING (ALL DOORS)

- 1) Push the UNLOCK button on the transmitter 2 times within 5 seconds.
- 2) All doors are unlocked.
- 3) Check that the buzzer sounds twice and the hazard warning lights flash twice.

#### NOTE:

- When the unlock button is pushed while any of the doors (except rear gate or trunk) is open, all door locks are unlocked.
- When pushing the UNLOCK button on the transmitter twice to unlock all doors, the system may not respond if the interval between the 1st time and 2nd time is too short.

# KEYLESS ENTRY SYSTEM

## SECURITY AND LOCKS

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### 4. OPENING THE TRUNK

- 1) Push the TRUNK button on the transmitter for more than 1 second.
- 2) The trunk lid opens.
- 3) Check that the buzzer sounds twice and the hazard warning lights flash twice.

### 5. UNLOCKING THE REAR GATE LOCK

- 1) Push the TRUNK button on the transmitter once.
- 2) The rear gate lock is unlocked.
- 3) Check that the buzzer sounds twice and the hazard warning lights flash twice.

### 6. SELF POSITION DETECTION FUNCTION

- 1) Push the LOCK button on the transmitter 3 times within 5 seconds.
- 2) Check that the horn sounds once and the hazard warning lights flash 3 times.

### 7. PANIC ALARM

- 1) Push the panic button on the transmitter.
- 2) The horn sounds intermittently and the hazard warning lights will flash too. The panic alarm sounds for 30 seconds, however, to stop the alarm within this 30 seconds period, push any button on the transmitter.

### 8. ANSWER BACK (BUZZER SIGNALING) ON/OFF SELECTION

- 1) Push the UNLOCK button on the transmitter.
- 2) Push the LOCK and UNLOCK buttons on the transmitter simultaneously for more than 2 seconds to deactivate the answer back function. The function is armed again when the same operation is repeated.
- 3) When the answer back function is activated, the buzzer will sound once and the hazard warning lights flash once. When it is deactivated, the buzzer will sound twice and the hazard warning lights flash twice.

### 9. DOOR OPEN WARNING FUNCTION

The buzzer sounds five times and the hazard warning lights flash five times if the LOCK button on the transmitter is pressed with any door, the rear gate, or the trunk lid open.

### 10. TRANSMITTER REGISTRATION

- Up to 4 transmitters per vehicle can be registered.
- For the transmitter registration method, see Service Manual.

## 5. Alarm System (Burglar Alarm System)

### A: FEATURES

- The alarm system protects the vehicle from a theft action (unauthorized entry into the vehicle). Upon detection of such an action, it gives alarm by causing the horn to sound and the hazard warning lights to flash.
- Unauthorized entry is monitored through the switches on the doors, rear gate, and trunk lid. If any of the switches is turned ON, the system interprets it as an attempt of unauthorized entry and gives alarm warning.
- Unauthorized entry is also monitored by the impact sensor (dealer option). The system operates in the same manner as mentioned above whenever the sensor senses an abnormal impact on the vehicle.

### 1. WARNING

- When activated, the alarm system causes the hazard warning lights to flash and the horn to sound intermittently. In addition to this, the security indicator light in the combination meter lights up.
- The alarms automatically turn OFF after 30 seconds. However, they will be reactivated if the vehicle is tampered with again.
- The alarms are activated when a door, rear gate or trunk lid is opened without unlocking with the keyless entry transmitter. (When the system is set, a warning is given even if a door is opened by operating the inner door handle.)
- The alarms are also activated when an impact on vehicle body is sensed. (Only vehicles with an impact sensor, which is available as dealer option.)
- On vehicles with an impact sensor, the alarms are activated even if electrical wirings for these equipment are cut.

### NOTE:

- For information regarding the impact sensor, refer to their installation and operating instructions.

# ALARM SYSTEM (BURGLAR ALARM SYSTEM)

## SECURITY AND LOCKS

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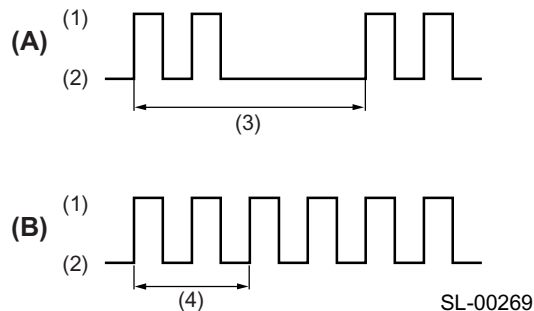
### 2. HOW TO SET THE SYSTEM

- 1) Remove the key from the ignition switch.
- 2) Close all the windows. Close and all doors, rear gate, and the trunk lid.
- 3) Push the LOCK button on the transmitter.
- 4) The keyless buzzer will sound once and the hazard warning lights flash once.

#### NOTE:

The system can be set even if the windows are open.

5) Check that the security indicator light flashes. If any of the doors or the rear gate is not closed properly, lock operation will not be accomplished when the LOCK button on the transmitter is pushed and therefore the keyless buzzer will not sound nor the hazard warning lights will not flash. When setting the alarm system, activation of the keyless entry system must be confirmed by the sound of keyless buzzer and flashing of the hazard warning lights. When the door, rear gate or trunk lid is closed, they will be automatically locked and the alarm system starts working. The indicator light blinks when the system is set and starts monitoring, and continues to blink until the system is disarmed. When the security indicator lamp is blinking as (B), the system is not ready yet and the alarm will not activate when a door is opened.



(A) Monitoring delay set to 0 seconds

(1) ON

(B) Monitoring delay set to 30 seconds (After 30 seconds has elapsed the system enters blinking status (A).)

(2) OFF

(3) 2 seconds

(4) 1 seconds



### 3. HOW TO UNSET THE SYSTEM

- 1) Push the UNLOCK button on the transmitter.
- 2) The keyless buzzer will sound twice and the hazard warning lights flash twice.
- 3) The security indicator light turns OFF.
- 4) The interior light illuminates for maximum 30 seconds and then fades out. (However, if a system is set during this period, the interior light will turn OFF.)
  - Insert the key into the door key cylinder and turn the key in the unlocking direction.

### 4. HOW TO STOP ALARMS

- Push a button on the transmitter. (Either of the LOCK, UNLOCK, or TRUNK buttons will work)
- Insert the key into the ignition switch and turn the key to the ON position. However, the alarm will not cease unless a registered key is used. (models with immobilizer)
- Insert the key into the ignition switch and repeat switching OFF to ON for three times. (models without immobilizer)
- Insert the key into the door key cylinder and turn the key in the unlocking direction.

## 6. Immobilizer System

### A: CONSTRUCTION

The immobilizer system consists of the following components: combination meter, body integrated unit, engine control module (ECM), transponder inside the ignition key, and an antenna fitted to the key cylinder.

The antenna receives a vehicle ID code emitted from the transponder when the key is inserted into the key cylinder.

The ID code is transmitted to the body integrated unit. The body integrated unit compares the code with a one that has been registered in it. The body integrated unit also compares the ID code with the ECM and the combination meter. If these ID codes match with each other, the system allows the engine to be started. The engine may be able to start when the key is inserted even if the codes do not match. The engine, however, will automatically stop after a few seconds.

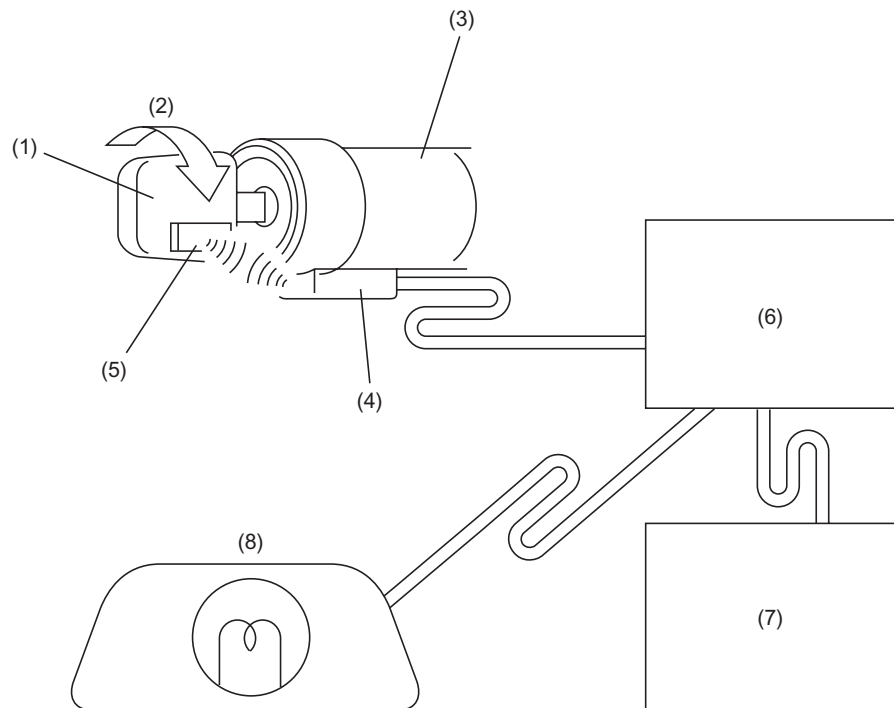
The immobilizer function is activated automatically when the key is removed from the key cylinder and when 60 seconds have passed after the ignition switch was turned to the "ACC" or "OFF" position. When the function is activated, the indicator light on the combination meter flashes at intervals of 0.2 seconds ON and 2.8 seconds OFF. (When security system is not set)

This indicator light flashing indicates to the thief that the system is ready to function.

If the immobilizer system fails, an incorrect key is used or an incorrect ECM is installed, the immobilizer indicator light will illuminate when the key is inserted into the key cylinder or when the ignition switch is turned ON.

#### NOTE:

To heighten the anti-theft performance of the immobilizer system, the system is designed in a way that the immobilizer cannot be deactivated by simply reconnecting the wiring or by replacing parts. Therefore, care must be taken when replacing or repairing the related components.



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- |                        |  |
|------------------------|--|
| (1) Key                | (5) Transponder  |
| (2) Ignition switch ON | (6) Body integrated unit                               |
| (3) Key cylinder       | (7) Engine control module                              |
| (4) Antenna            | (8) Combination meter<br>(immobilizer indicator light) |

## B: REGISTRATION

Registration is a procedure that must be carried out when an additional key is purchased or when either a key, ECM or combination meter is replaced. The procedure includes initialization of the system and re-registration of the ID code. Once initialized, the system loses the ID code it has retained so far and has no code until a new code is registered. ID codes for up to four keys (transponders) can be registered with a body integrated unit.

To prevent a copied key to be used, any set of keys (four maximum) can be registered only with one body integrated unit. Therefore, if a body integrated unit is replaced with a new one, the keys having been used with the old body integrated unit cannot be used with the new body integrated unit. The keys must be replaced simultaneously with the body integrated unit.

Registration is carried out by an authorized person using a select monitor and a special program. Access to the program is strictly controlled for reasons of security. The security ID (kept by customer) is required for registration. As the ID code for all registered keys are cleared when registration is started, registration must be performed with all keys including spares handed from the customer.

# CUSTOMIZING FUNCTION

## SECURITY AND LOCKS

### 7. Customizing Function

#### A: GENERAL

- The following system can be customized by using a SUBARU select monitor.

System name		Initial setting	Customized settings	
Room light (delayed extinguishment)	Illuminating time after door closed	5 seconds	0 seconds (OFF)	
			3 seconds (short)	
			8 seconds (long)	
	Illuminating time after keyless unlock operation	20 seconds	0 seconds (OFF)	
			10 seconds (short)	
			30 seconds (long)	
Keyless entry system	Answer back buzzer	Existence setting	Yes	No
		ON/OFF	ON	OFF
	Hazard answer back		ON	OFF
Alarm system	Warning	ON/OFF	ON	OFF
		Monitoring delay setting	30 seconds	0 seconds
	Impact sensor	Existence setting	No	Yes
		ON/OFF	OFF	ON
	Passive arming switching		OFF	ON
Rear defogger timer		OFF after 15 minutes	Operates for 15 minutes or continuously	
Wiper deicer		OFF after 15 minutes	Operates for 15 minutes or continuously	
Lockout prevention		ON	OFF	
Battery drain prevention		ON	OFF	

\*:Setting is possible only with SUBARU select monitor.

#### NOTE:

Items above must be set to coincide with the vehicle's equipment and specifications for normal operation and diagnosis.