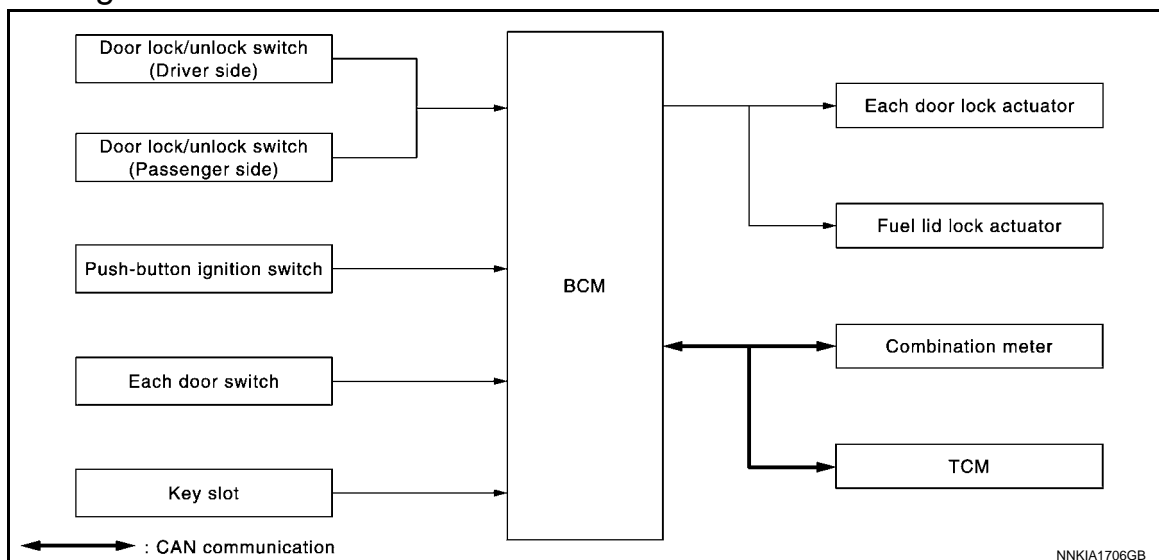


SYSTEM DESCRIPTION

POWER DOOR LOCK SYSTEM

System Diagram



System Description

INFOID:000000004992594

DOOR LOCK FUNCTION

Door Lock and Unlock Switch

- The door lock and unlock switch (driver side) is build into power window main switch.
- The door lock and unlock switch (passenger side) is build into power window sub-switch.
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are unlocked.

KEY REMINDER FUNCTION

When door lock and unlock switch are operated while Intelligent Key is inserted into key slot and any door is open, door locks once but immediately unlocks. This operation prevents Intelligent Key from being left in the vehicle.

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (LOCK OPERATION)

The interlock door lock function is the function that locks all doors linked with the vehicle speed or shift position. It has 2 types as per the following items.

Vehicle Speed Sensing Auto Door Lock*

All doors are locked when the vehicle speed reaches 24 km/h (15 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the combination meter via CAN communication becomes 24 km/h (15 MPH) or more.

P Range Interlock Door Lock

All doors are locked when shifting the selector lever from the P position to any position other than P.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from the TCM via CAN communication is shifted from the P position to any position other than P.

Setting change of Automatic Door Lock/Unlock Function

The lock operation setting of the automatic door lock/unlock function can be changed.

With CONSULT-III

The ON/OFF switching of the automatic door lock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT-III.

POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Without CONSULT- III

The automatic door lock function ON/OFF can be switched by performing the following operation.

1. Close all doors (door switch OFF)
2. Turn ignition switch ON
3. Press and hold the door lock and unlock switch for 5 seconds or more in the lock direction within 20 seconds after turning the ignition switch ON.
4. The switching is complete when the hazard lamp blinks.

OFF → ON : 2 blinks

ON → OFF : 1 blink

*: This function is set to ON before delivery.

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNLOCK OPERATION)

The automatic door lock/unlock function is the function that unlocks all doors linked with the key position or shift position. It has 2 types as per the following items.

IGN OFF Interlock Door Unlock*

All doors are unlocked when the power supply position is changed from ON to OFF.

BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.

P Range Interlock Door Unlock

All doors are unlocked when shifting the selector lever from any position other than the P to P position.

BCM outputs the unlock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from TCM via CAN communication is shifted from any position other than the P to P position.

Setting change of Automatic Door Lock/Unlock Function

The unlock operation setting of the automatic door lock/unlock function can be changed.

With CONSULT- III

The ON/OFF switching of the automatic door lock/unlock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT-III.

Without CONSULT- III

The automatic door lock/unlock function ON/OFF can be switched by performing the following operation.

1. Close all doors below (door switch OFF)
2. Turn ignition switch ON
3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the ignition switch ON.
4. The switching is complete when the hazard lamp blinks.

OFF → ON : 2 blinks

ON → OFF : 1 blink

*: This function is set to ON before delivery.

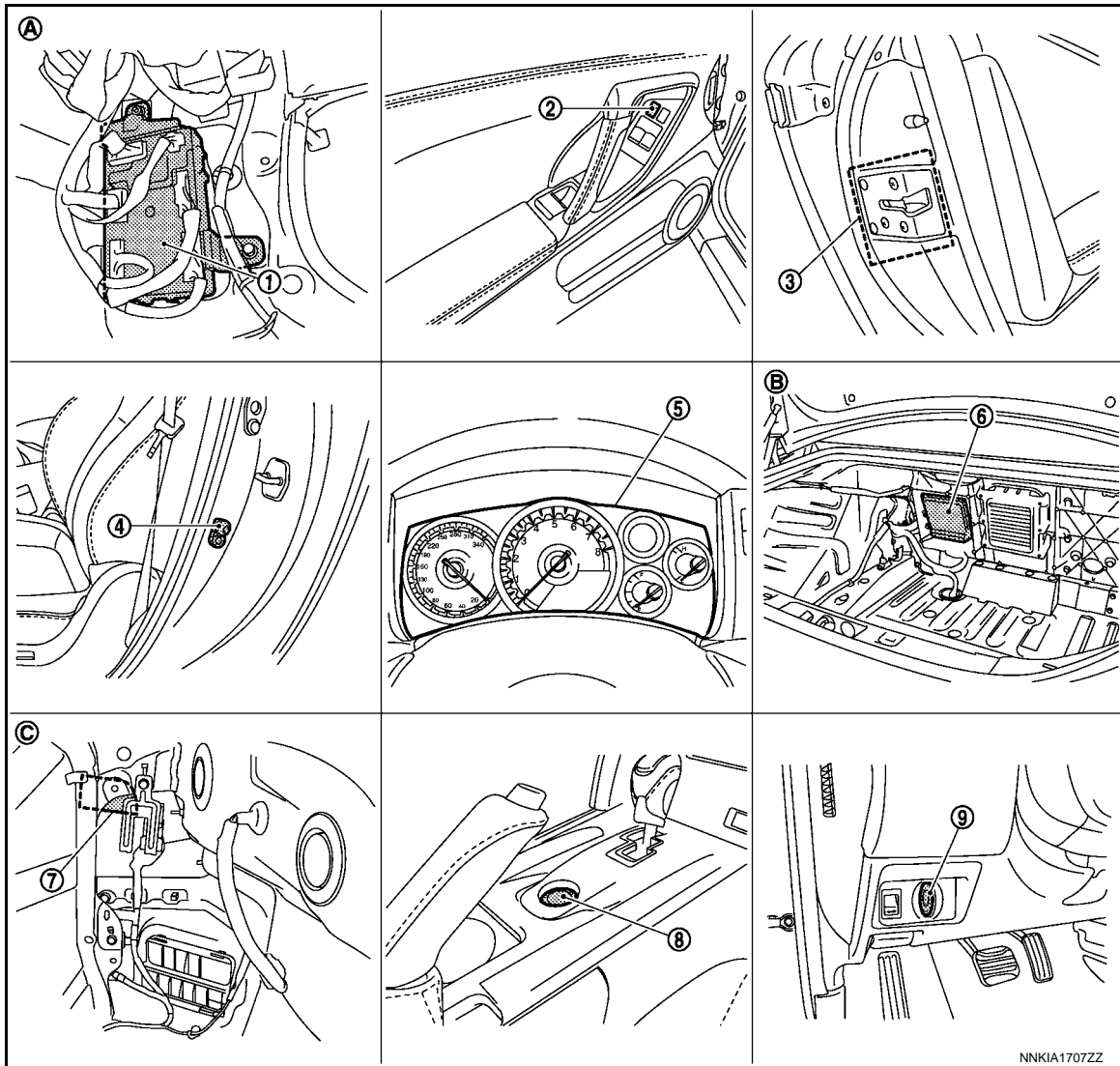
POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Component Parts Location

INFOID:000000004992595



- | | | |
|--|--|--|
| 1. BCM M118, M119, M122, M123 | 2. Power window main switch (door lock and unlock switch) D8 | 3. Driver side door lock actuator D15 |
| 4. Driver side door switch B21 | 5. Combination meter M53 | 6. TCM B45 |
| 7. Fuel lid lock actuator B244 | 8. Push-button ignition switch M131 | 9. Key slot M60 |
| A. View with center console assembly removed | B. View with trunk front finisher removed | C. View with trunk side finisher removed |

Component Description

INFOID:000000004992596

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Inputs lock or unlock signal to BCM.
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Key slot	Inputs key insert/remove signal to BCM.
Combination meter	Transmits vehicle speed signal to BCM via CAN communication line.
TCM	Transmits shift position signal to BCM via CAN communication line.

POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

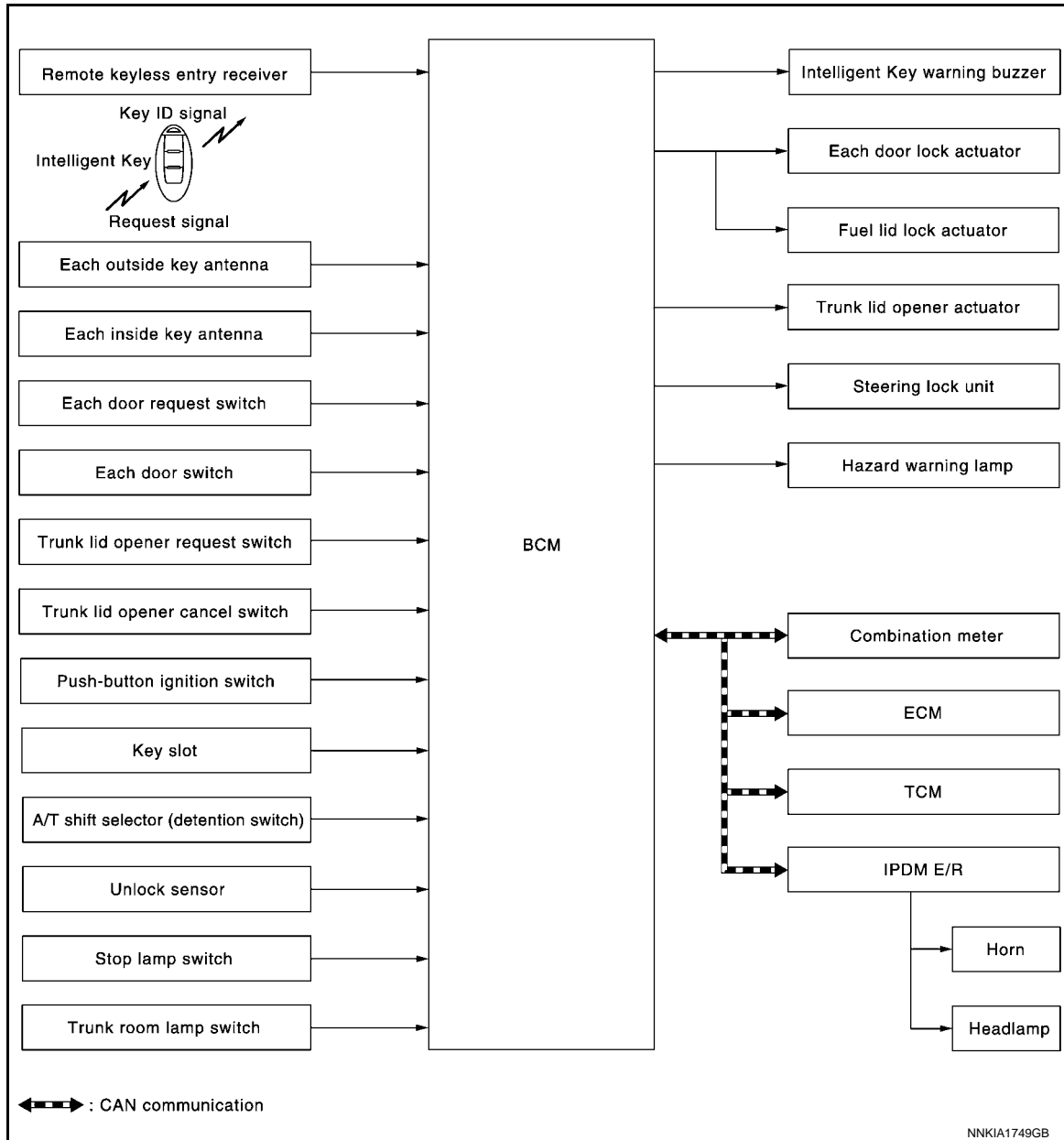
Item	Function
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM.

INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM : System Diagram

INFOID:000000004992597



INTELLIGENT KEY SYSTEM : System Description

INFOID:000000004992598

- The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (BCM).

CAUTION:

The driver should always carry the Intelligent Key

- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with CONSULT-III.

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	DLK-374
Remote keyless entry function	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	DLK-383
Trunk open function	The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener request switch.	DLK-379
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	DLK-390
Warning function	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver.	DLK-393
Engine start function	The engine be turned on while carrying the Intelligent Key.	SEC-10

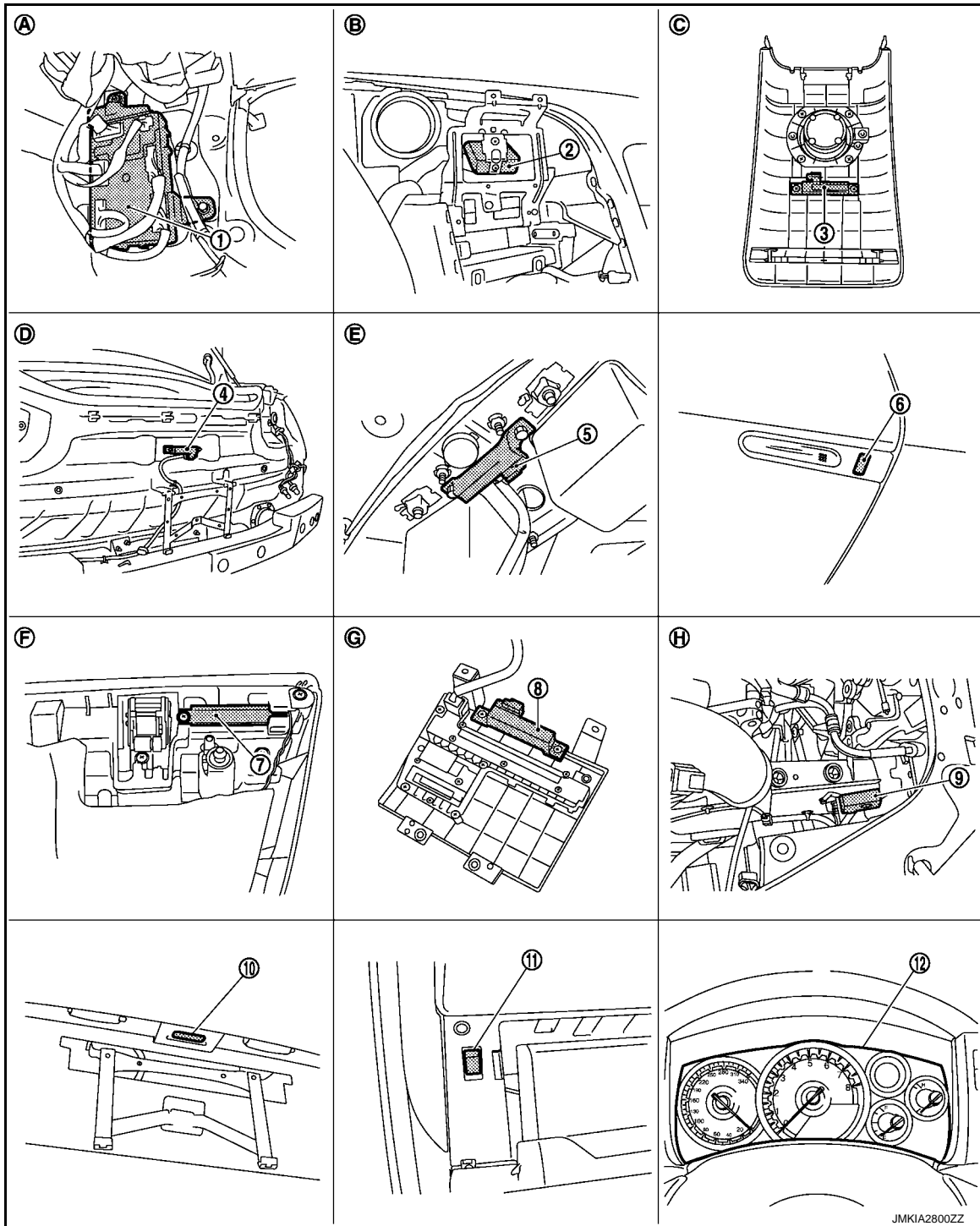
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

INTELLIGENT KEY SYSTEM : Component Parts Location

INFOID:000000004992599



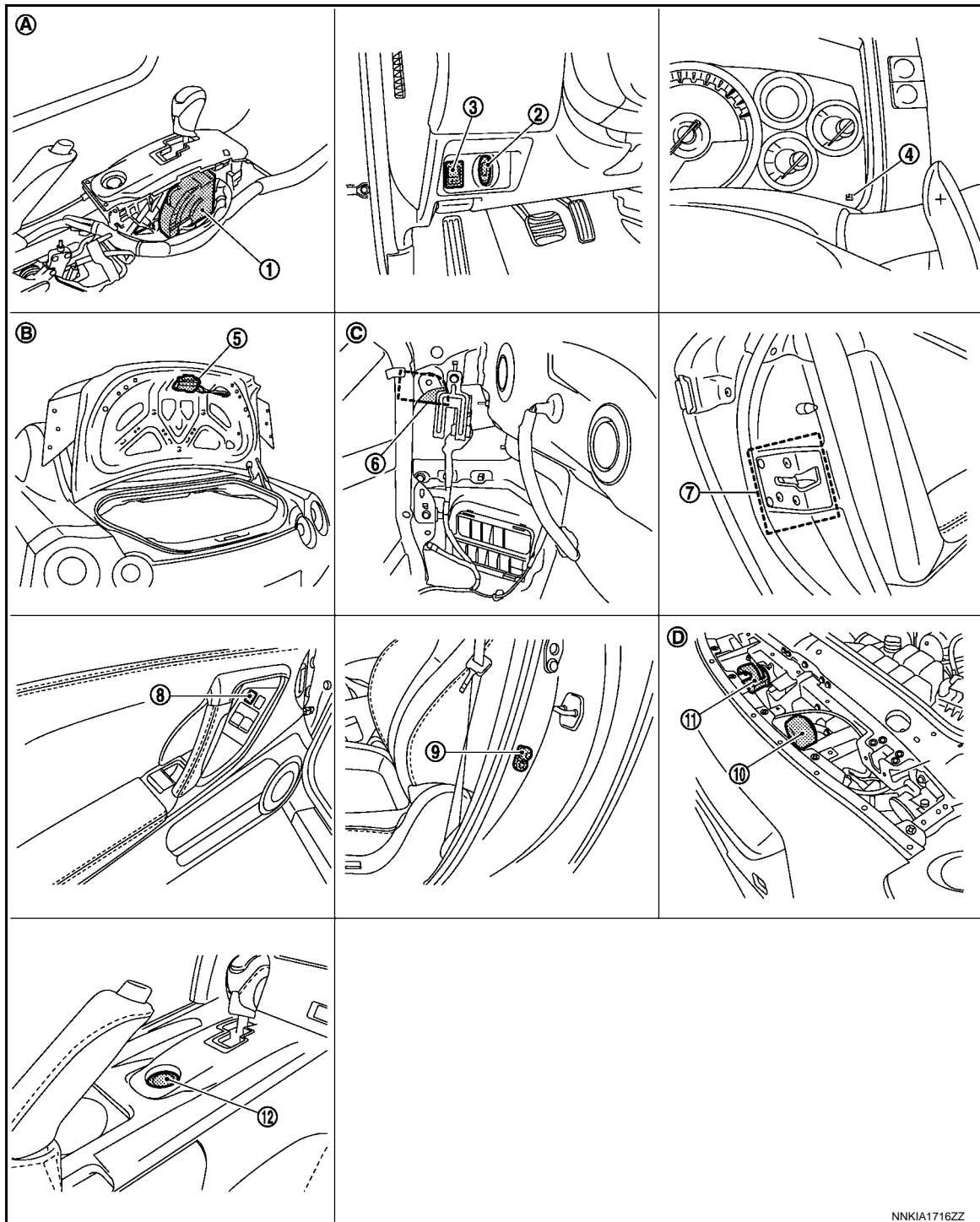
- | | | |
|---|---|---|
| 1. BCM M118, M119, M120, M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed. B. View with trunk lid finisher removed. C. View with trunk side finisher removed. D. Behind front bumper

INTELLIGENT KEY SYSTEM : Component Description

INFOID:000000004992600

Item	Function
BCM	Controls the Intelligent Key system.
IPDM E/R	Sounds horn and blinks headlamp via CAN communication between BCM.
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door.
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.
Door switch	Inputs door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Door request switch	Inputs lock/unlock operation to BCM.
Key slot	Inputs key insert/remove signal to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Unlock sensor	Detects door lock condition of driver side door.
A/T shift selector (detention switch)	Detects the P range position of shift lever.
Combination meter	<ul style="list-style-type: none"> • Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter. • Transmits vehicle speed signal to BCM via CAN communication line.
Trunk lid opener actuator	Transmits trunk open operation to BCM.
Trunk lid opener request switch	Inputs lock/unlock operation to BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Trunk room lamp switch	Input trunk lid open/close condition to BCM.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.
Hazard warning lamp	Warns the user of the each door open/close condition and inappropriate operations with the lamps blink.
TCM	Transmits shift position signal to BCM via CAN communication line.
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM.

DOOR LOCK FUNCTION

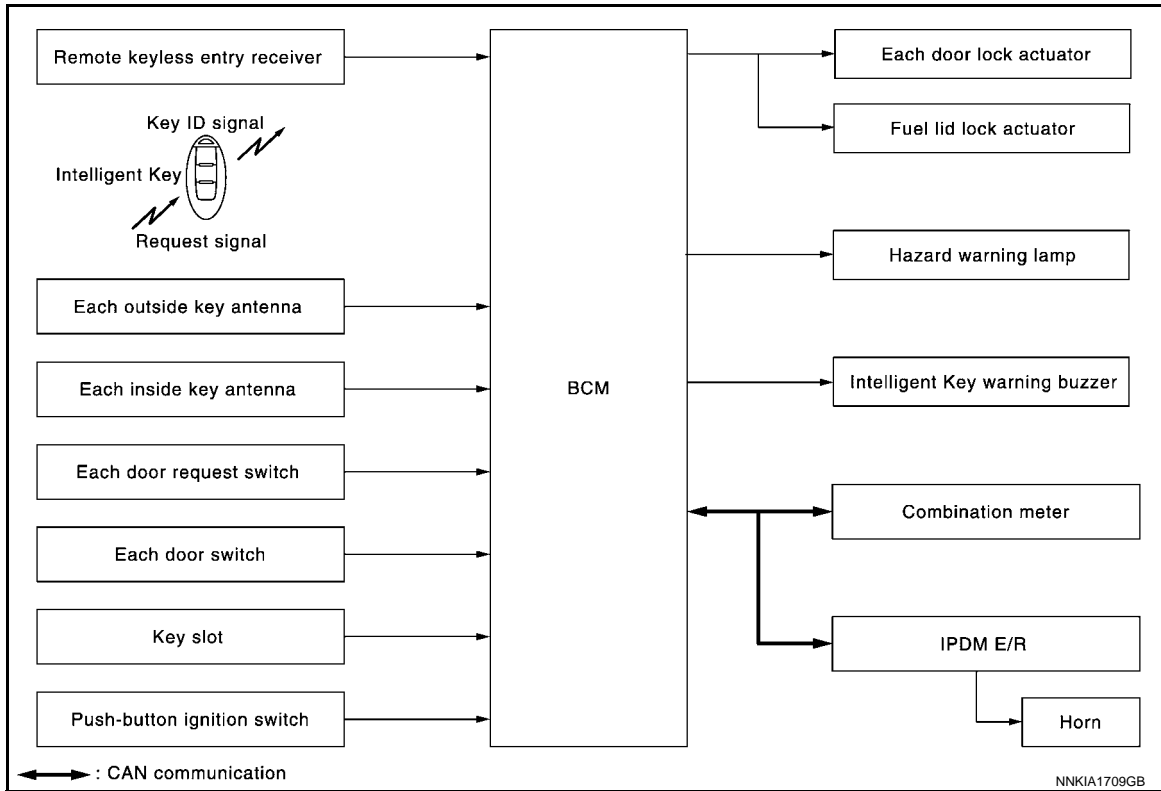
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

DOOR LOCK FUNCTION : System Diagram

INFOID:000000004992601



DOOR LOCK FUNCTION : System Description

INFOID:000000004992602

Only when pressing the door request switch, it is possible to lock and unlock the door by carrying the Intelligent Key.

OPERATION DESCRIPTION

- When the BCM detects that each door request switch is pressed, it starts the outside key antenna and inside key antenna corresponding to the pressed door request switch and transmits the request signal to the Intelligent Key. Then check that the Intelligent Key is near the door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM lock/unlock each door and fuel lid and sounds Intelligent Key buzzer warning (lock: 2 times, unlock: 1 time) at the same time as a reminder.

OPERATION CONDITION

If the following conditions are satisfied, door lock/unlock operation is performed if the door request switch is operated.

Each door request switch operation	Operation condition
Lock operation	<ul style="list-style-type: none"> • All doors are closed • P position warning is not activated • Panic alarm is not activated • Intelligent Key is outside the vehicle • Intelligent Key is within outside key antenna detection area
Unlock operation	<ul style="list-style-type: none"> • Panic alarm is not activated • Intelligent Key is outside the vehicle • Intelligent Key is within outside key antenna detection area *

*: Even with a registered Intelligent Key remaining inside the vehicle, door locks can be unlocked from outside of the vehicle with a spare Intelligent Key as long as key IDs are different.

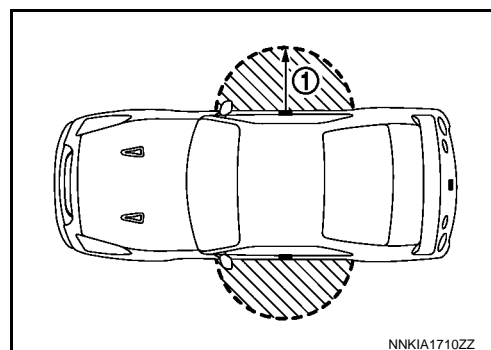
OUTSIDE KEY ANTENNA DETECTION AREA

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver, passenger door handles (1). However, this operating range depends on the ambient conditions.



SELECTIVE UNLOCK FUNCTION

Lock Operation

When an LOCK signal is sent from door request switch (driver side or passenger side), all doors and fuel lid are locked.

Unlock Operation

- When an UNLOCK signal from driver side door request switch is transmitted, driver side door and fuel lid unlocks. When another UNLOCK signal is transmitted within 60 seconds, passenger side door unlocks.
- When an UNLOCK signal from passenger side door request switch is transmitted, passenger side door unlock. When another UNLOCK signal is transmitted within 60 seconds, driver side door and fuel lid unlocks.

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUPPORT". Refer to [DLK-403, "DOOR LOCK : CONSULT-III Function \(BCM - DOOR LOCK\)"](#).

HAZARD AND BUZZER REMINDER FUNCTION

During lock, unlock, operation by each door request switch, the hazard warning lamps and Intelligent Key warning buzzer blinks or honk as a reminder.

When doors are locked, unlocked by each door request switch, BCM honks Intelligent Key warning buzzer as a reminder and blinks.

Operating Function of Hazard and Buzzer Reminder

Operation	Hazard warning lamp blinks	Intelligent Key warning buzzer honk
Unlock	Once	Once
Lock	Twice	Twice

Hazard and buzzer reminder does not operate if ignition switch ON position.

How to Change Hazard and Buzzer Reminder Mode

Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

AUTO DOOR LOCK FUNCTION

When all doors are locked, ignition switch is in the OFF position and key switch is OFF (Intelligent Key is not inserted in key slot), doors are unlocked with door request switch

When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is open)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from door request switch. For detailed description. Refer to [INL-231, "System Description"](#).

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator and fuel lid lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch	Combination meter
Door lock/unlock function	×	×	×	×	×	×	×	×			×			
Hazard and buzzer reminder function for door lock/unlock operation									×	×	×	×		×
Selective unlock function	×				×	×	×	×			×			
Auto door lock function	×	×		×	×	×					×		×	

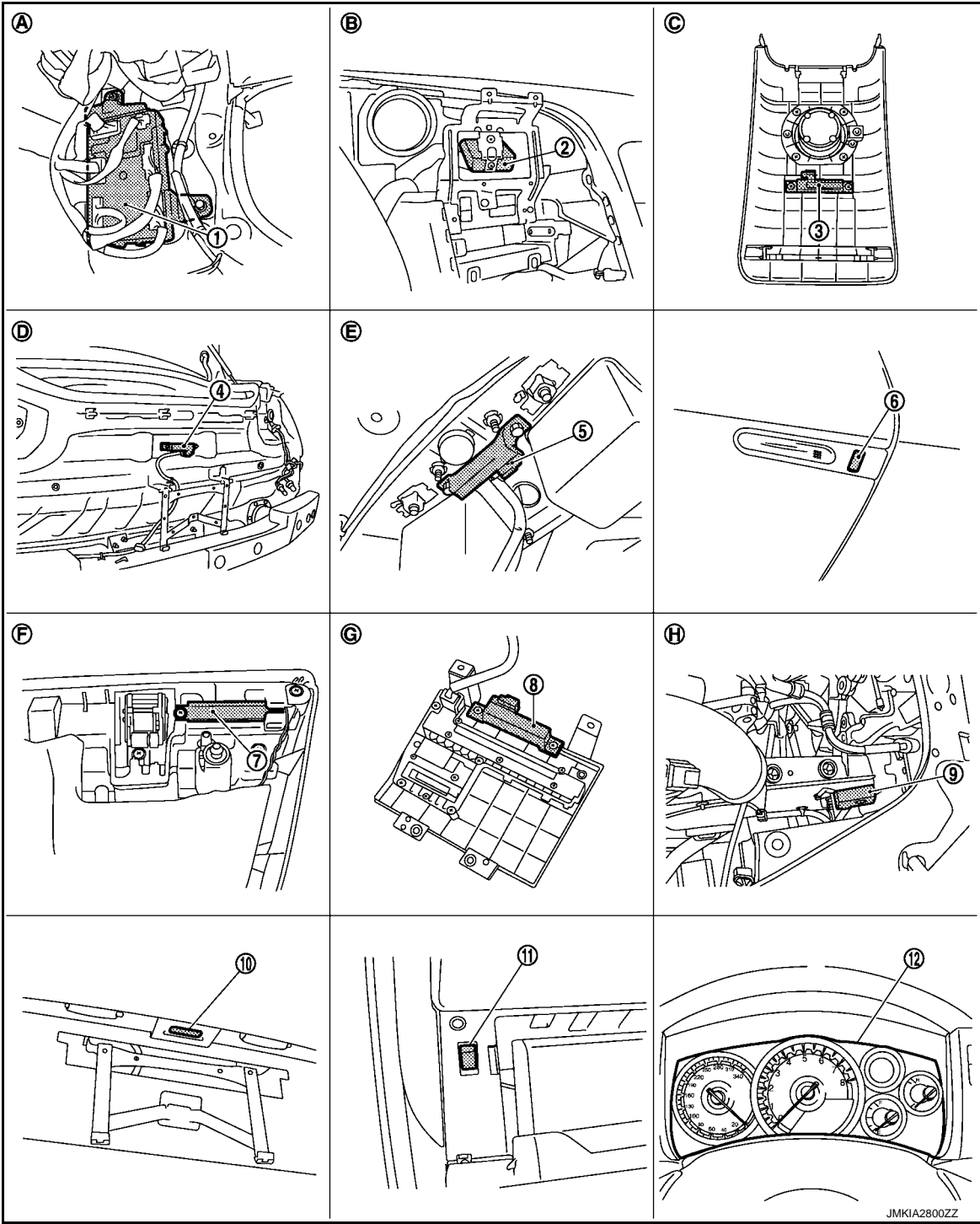
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

DOOR LOCK FUNCTION : Component Parts Location

INFOID:000000004992603



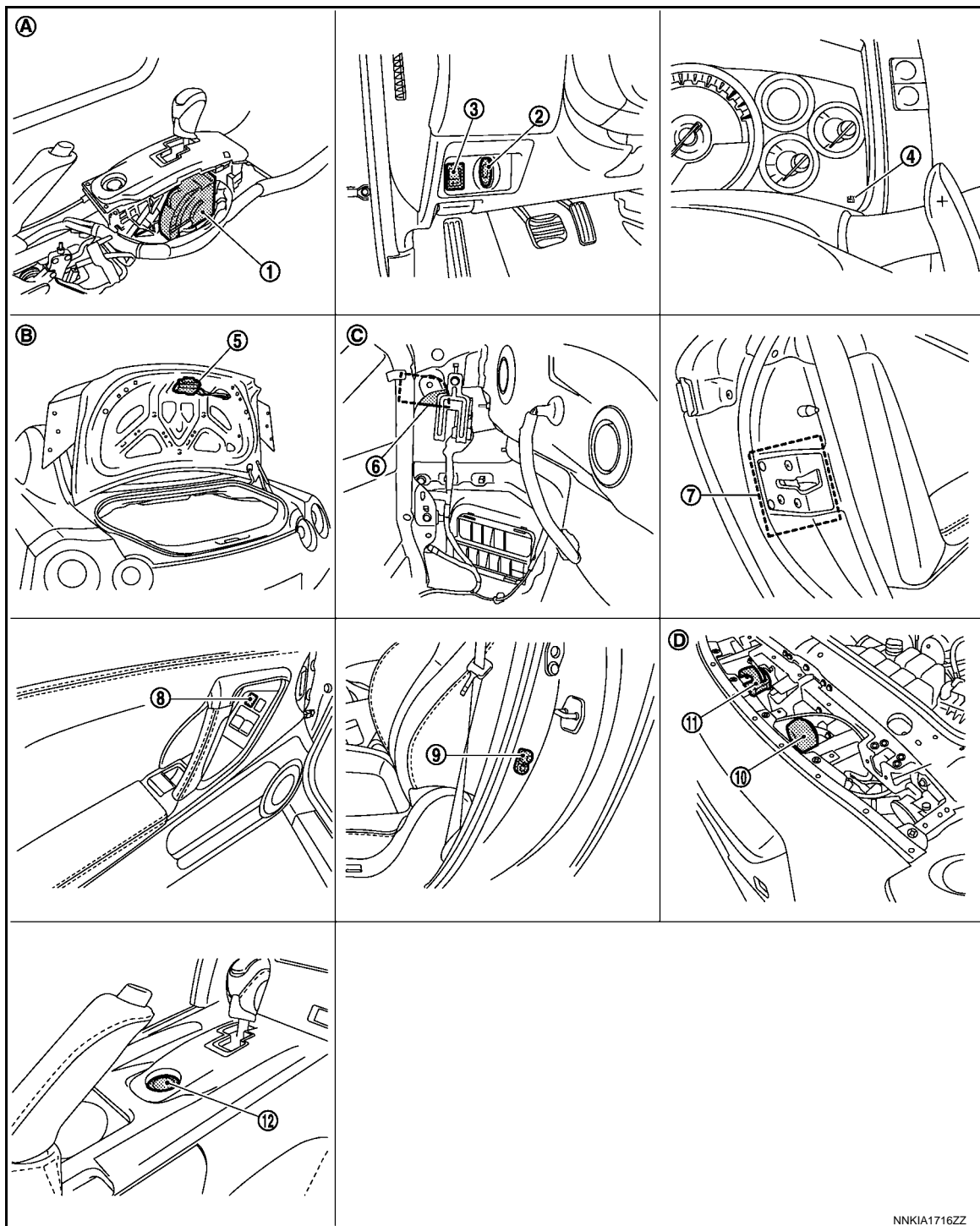
- | | | |
|--|---|---|
| 1. BCM M118, M119, M120,M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed. B. View with trunk lid finisher removed. C. View with trunk side finisher removed.
D. Behind front bumper

DOOR LOCK FUNCTION : Component Description

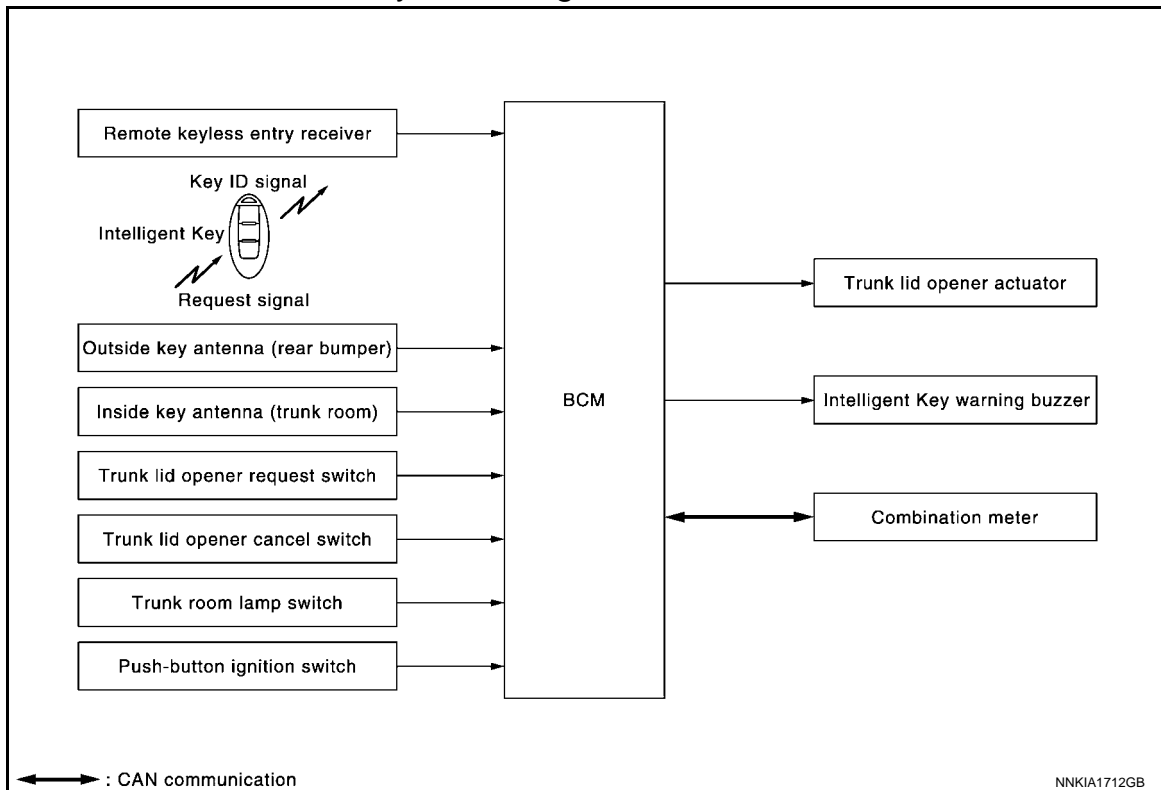
INFOID:000000004992604

Item	Function
BCM	Controls the door lock function.
IPDM E/R	Sounds horn and blinks headlamp via CAN communication with BCM.
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door.
Fuel lid lock actuator	Inputs lock/unlock signal from BCM and lock/unlocks fuel filler lid.
Door switch	Inputs door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Door request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Combination meter	Hazard warning lamp is installed to combination meter.
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.
Hazard warning lamp	Warns the user of the door lock/unlock condition and in appropriate operations with the lamps blink.

TRUNK OPEN FUNCTION

TRUNK OPEN FUNCTION : System Diagram

INFOID:000000004992605



TRUNK OPEN FUNCTION : System Description

INFOID:000000004992606

TRUNK LID OPENER

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- When the BCM detects that trunk lid opener request switch is pressed, it activates the outside key antenna (rear bumper) and inside key antenna and transmits the request signal to the Intelligent Key. And then, checks that the Intelligent Key is near the trunk lid.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM transmits the trunk open request signal and sounds Intelligent Key warning buzzer 4 times at the same time (buzzer reminder). However, buzzer reminder does not operate when ignition switch is in the ON position.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

How to change buzzer reminder mode

ⓑ With CONSULT-III

Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)".](#)

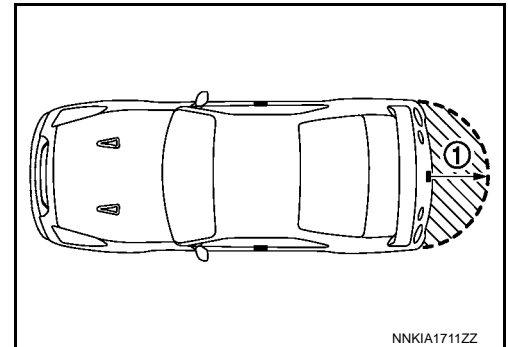
OPERATION CONDITION

If the following conditions are not satisfied, trunk open operation is not performed even if the trunk lid opener request switch is operated.

Trunk lid opener request switch operation	Operation condition
Trunk open operation	<ul style="list-style-type: none"> • Vehicle speed is less than 5 km/h (3 MPH) • Intelligent Key is within outside key antenna (rear bumper) detection area • Trunk cancel switch is ON • Trunk lid is closed. • Panic alarm is not activated.

OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of trunk open function is in the range of approximately 80 cm (31.50 in) surrounding trunk lid opener request switch (1). However, this operating range depends on the ambient conditions.



LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

Trunk open function	Intelligent Key	Remote keyless entry receiver	Trunk room lamp switch	Trunk lid opener request switch	Trunk lid opener actuator	Inside key antenna (trunk)	Outside key antenna (rear bumper)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Trunk lid opener cancel switch
Trunk open function	×	×	×	×	×	×	×		×	×		×
Buzzer reminder for trunk open operation								×	×	×		

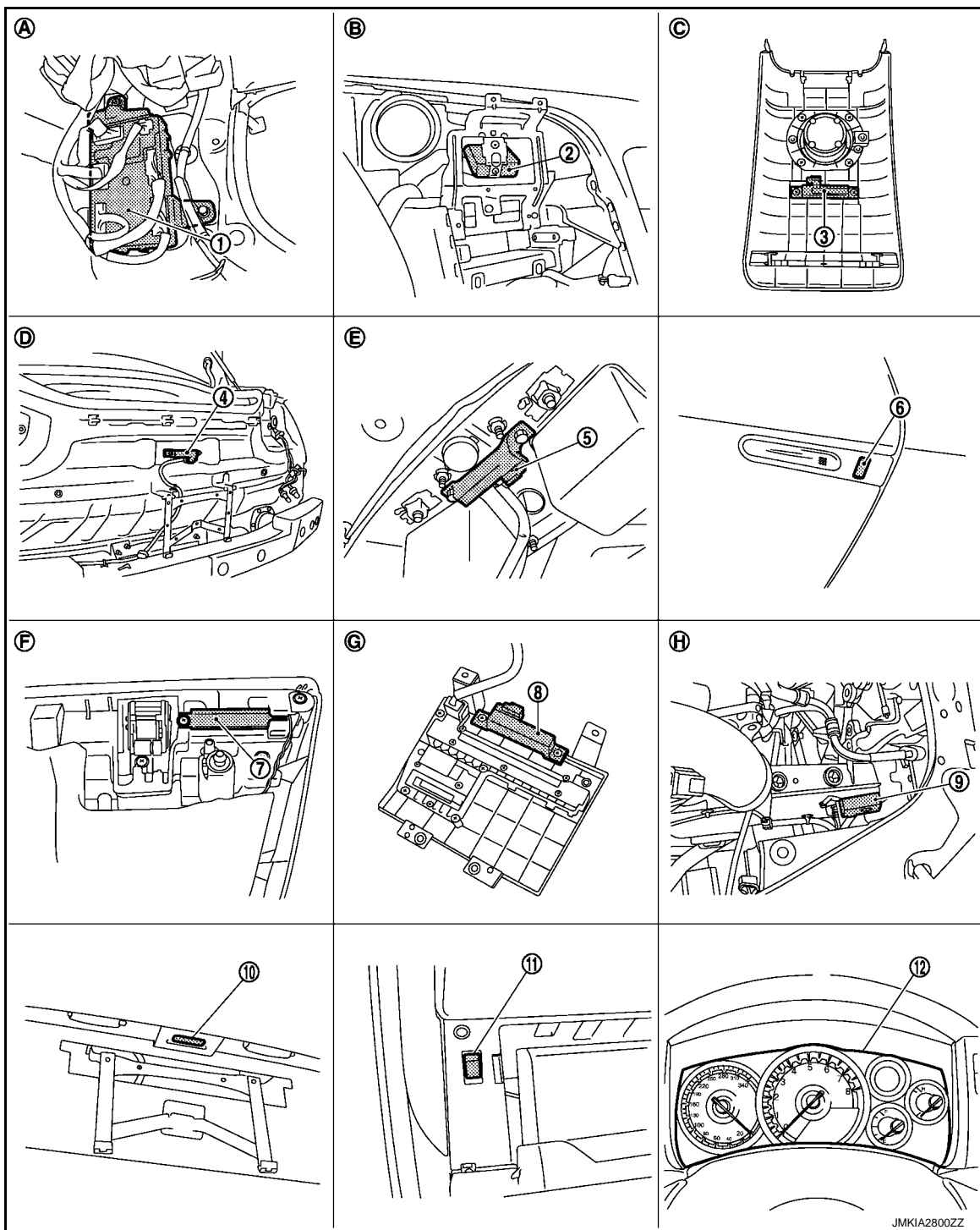
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

TRUNK OPEN FUNCTION : Component Parts Location

INFOID:000000004992607



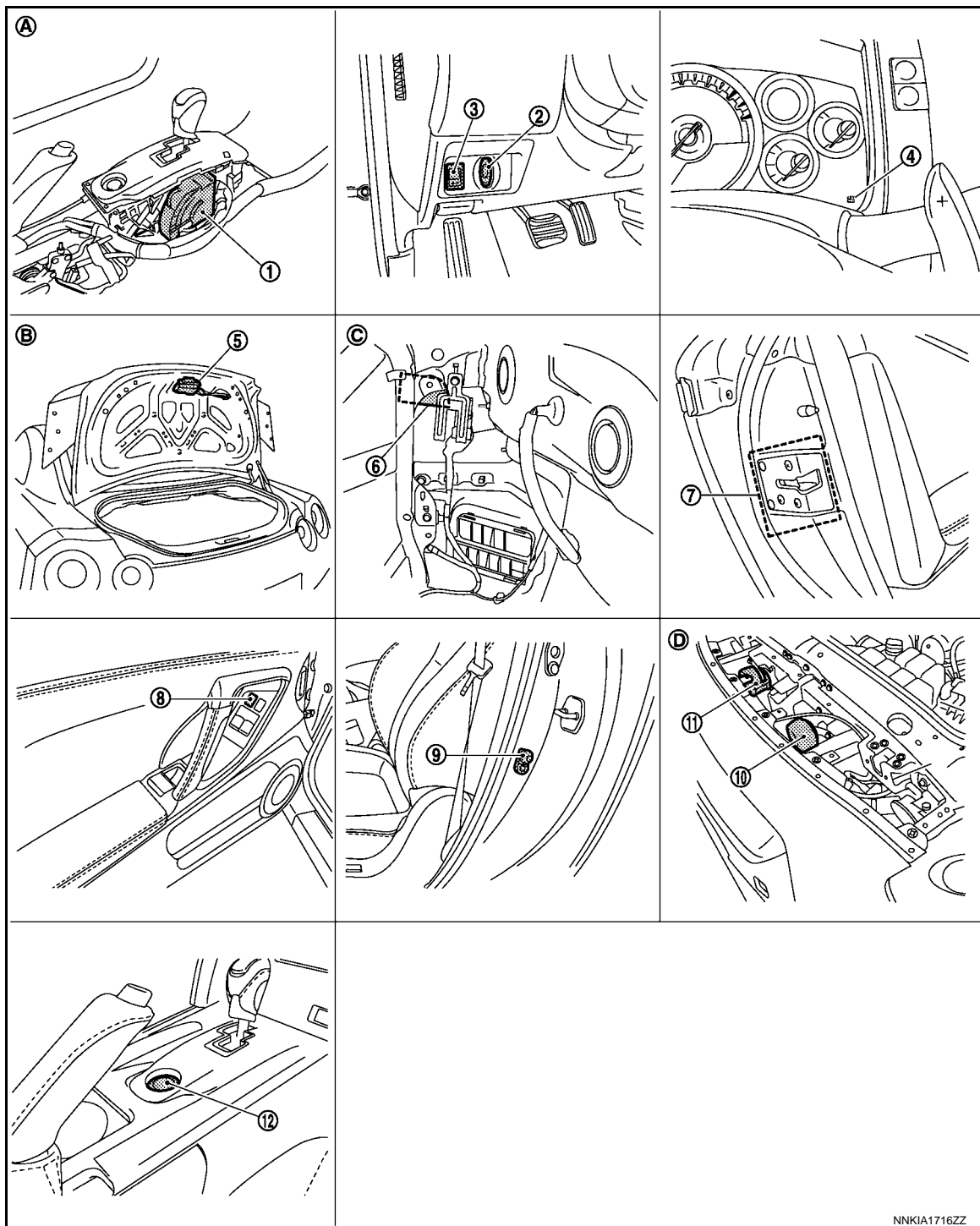
- | | | |
|---|---|---|
| 1. BCM M118, M119, M120, M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed. B. View with trunk lid finisher removed. C. View with trunk side finisher removed.
D. Behind front bumper

TRUNK OPEN FUNCTION : Component Description

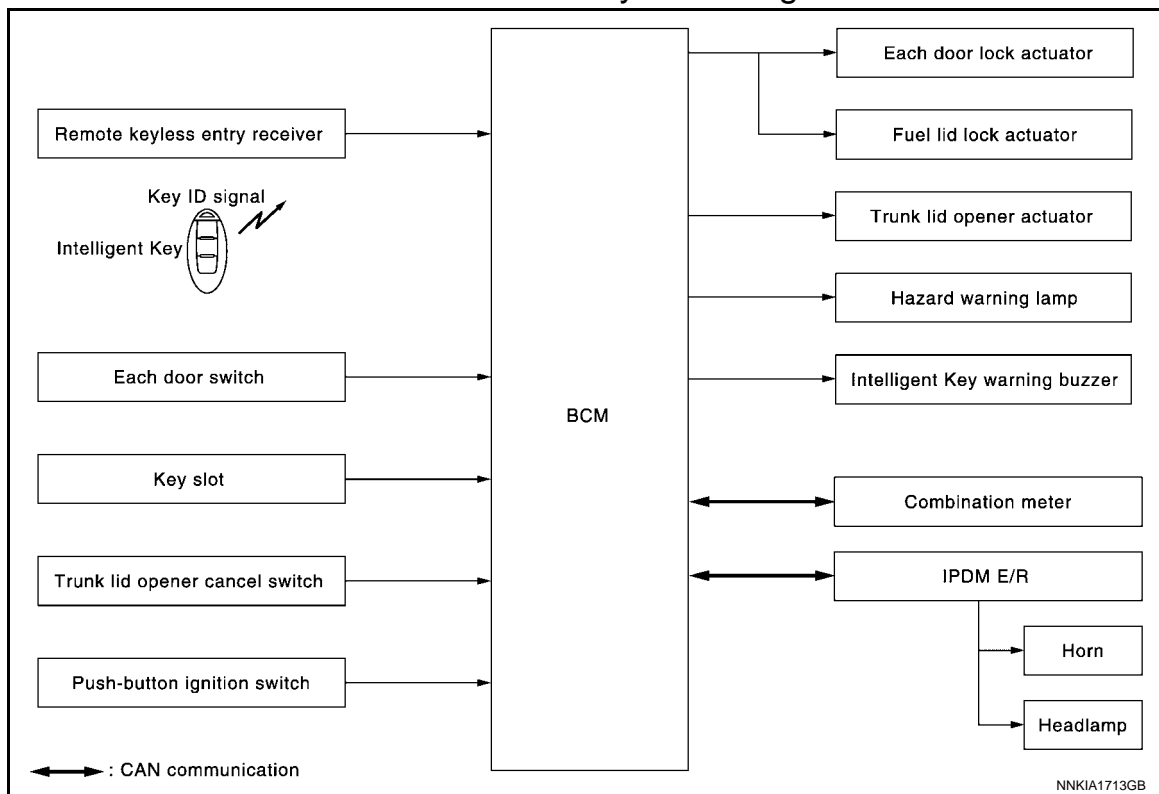
INFOID:000000004992608

Item	Function
BCM	Controls the trunk open function.
Trunk lid opener actuator	Transmits trunk open operation to BCM.
Combination meter	Transmits vehicle sleep signal to CAN communication line.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Trunk lid opener request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna (rear bumper)	Detects if Intelligent Key is outside the vehicle.
Inside key antenna (trunk room)	Detects if Intelligent Key is inside the vehicle.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Intelligent Key warning buzzer	Warns the user of the open condition and inappropriate operations with the buzzer sound.
Trunk room lamp switch	Input trunk lid open/close condition to BCM.
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Diagram

INFOID:000000004992609



REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:000000004992610

The Intelligent Key has the same functions as the remote control entry system. Therefore, it can be used in the same manner as the remote controller by operating the door lock/unlock button.

OPERATION

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Remote keyless entry system controls operation of the following items.

- Door lock/unlock
- Selective unlock
- Trunk open
- Hazard and horn reminder
- Auto door lock
- Panic alarm
- Interior lamp

OPERATION AREA

To check that the Intelligent Key works normally, use within 1 m (3 ft) range of each doors, however the operable range may differ according to surroundings.

DOOR LOCK/UNLOCK FUNCTION

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal transmitted from Intelligent Key to BCM via remote keyless entry receiver.
- When BCM receives the door lock/unlock signal, it operates all door lock actuators and fuel lid lock actuator the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 2 times) as a reminder

OPERATION CONDITION

Remote controller operation	Operation condition
Lock/Unlock	More than 3 seconds are passed since intelligent Key is removed from key slot.

SELECTIVE UNLOCK FUNCTION

- When an LOCK signal is transmitted from Intelligent Key, all doors and fuel lid are locked.
- When an UNLOCK signal is transmitted from Intelligent Key once, driver side door and fuel lid are unlocked.
- Then, if an UNLOCK signal is transmitted from Intelligent Key again within 60 seconds, all other doors are unlocked.

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUPPORT". Refer to [DLK-403, "DOOR LOCK : CONSULT-III Function \(BCM - DOOR LOCK\)"](#).

TRUNK OPEN FUNCTION

- When trunk button of the Intelligent Key is pressed, the trunk open signal is transmitted from the Intelligent Key to the BCM via remote keyless entry receiver.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

OPERATION CONDITION

Remote controller operation	Operation condition
Trunk open	<ul style="list-style-type: none">• Vehicle speed is less than 5 km/h (3 MPH)• Press and hold the trunk open button for 0.5 second or more*• Ignition switch is except the ON position• More than 3 seconds are passed since intelligent Key is removed from key slot.• Panic alarm is not activated.• Trunk lid opener cancel switch is ON

*: Pattern of trunk open button can be selected using CONSULT-III. Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM blinks hazard warning lamps as a reminder and transmits horn chirp signal to IPDM E/R. IPDM E/R sounds horn as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating Function of Hazard and Horn Reminder

	C mode			S mode		
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

	C mode			S mode		
Hazard warning lamp blinks	Twice	Once	—	Twice	—	—
Horn sound	Once	—	—	—	—	—

Hazard and horn reminder does not operate in the following condition.

- Ignition switch position is ON
- Door is open

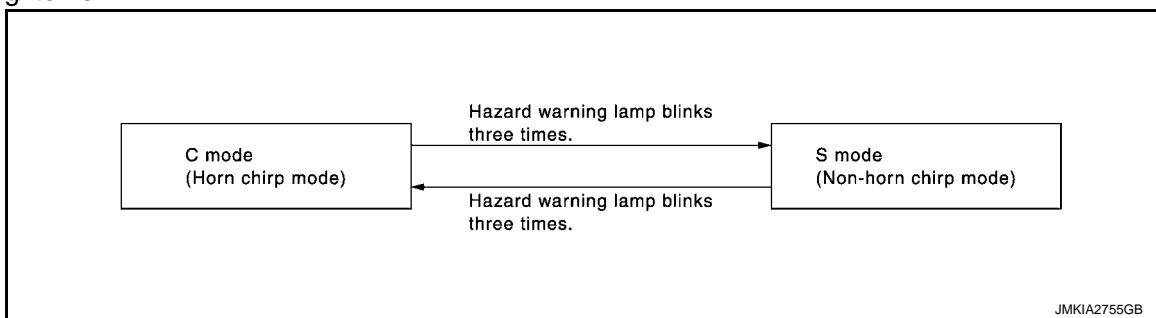
How to change hazard and horn reminder mode

With CONSULT-III

Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

Without CONSULT-III

When LOCK and UNLOCK signals are sent from the Intelligent Key for more than 2 seconds at the same time, the hazard and horn reminder mode is changed and hazard warning lamp blinks and horn sounds as per the following items:



AUTO DOOR LOCK FUNCTION

When all doors and fuel lid are locked, ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), doors and fuel lid are unlocked with Intelligent Key button. When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is open)
- Door is locked
- Ignition switch is ON
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to [DLK-405, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

PANIC ALARM FUNCTION

When Intelligent Key panic alarm button is pressed, head lamp blinks and horn sounds. For panic alarm function, refer to [SEC-18, "WITH SIREN : System Description"](#).

INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to [SEC-18, "WITH SIREN : System Description"](#).

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Remote keyless entry functions	Intelligent Key	Key slot	Door request switch (Driver, Passenger)	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Unified meter and A/C amp.	Hazard warning lamp	Horn	IPDM E/R	Trunk lid opener actuator
Door lock/unlock function	×	×		×	×		×	×						
Trunk open function	×					×	×	×		×				×
Hazard and horn reminder function	×					×	×	×	×		×	×	×	
Selective unlock function	×			×	×		×	×						
Auto door lock function	×	×		×			×	×						

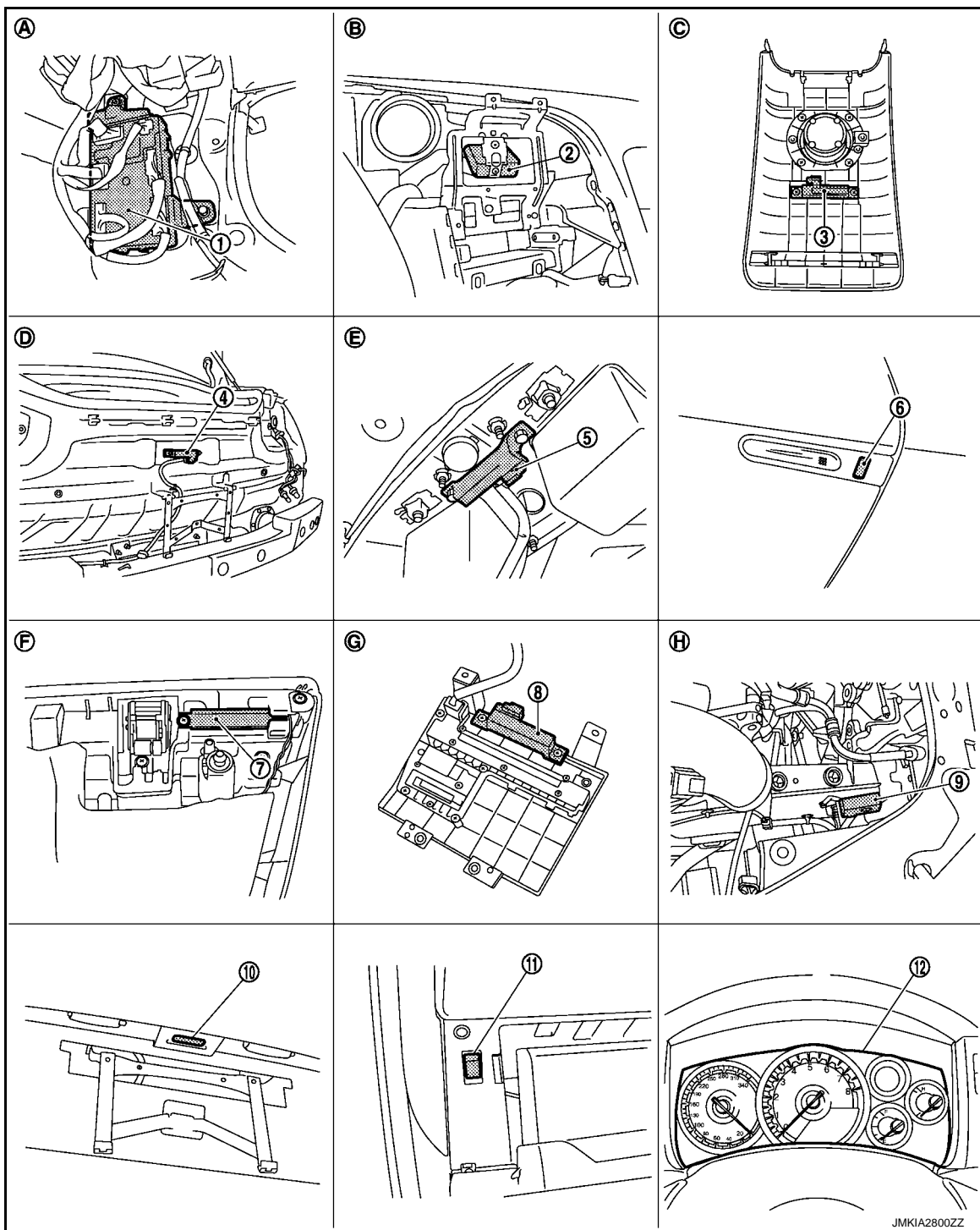
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location

INFOID:000000004992611



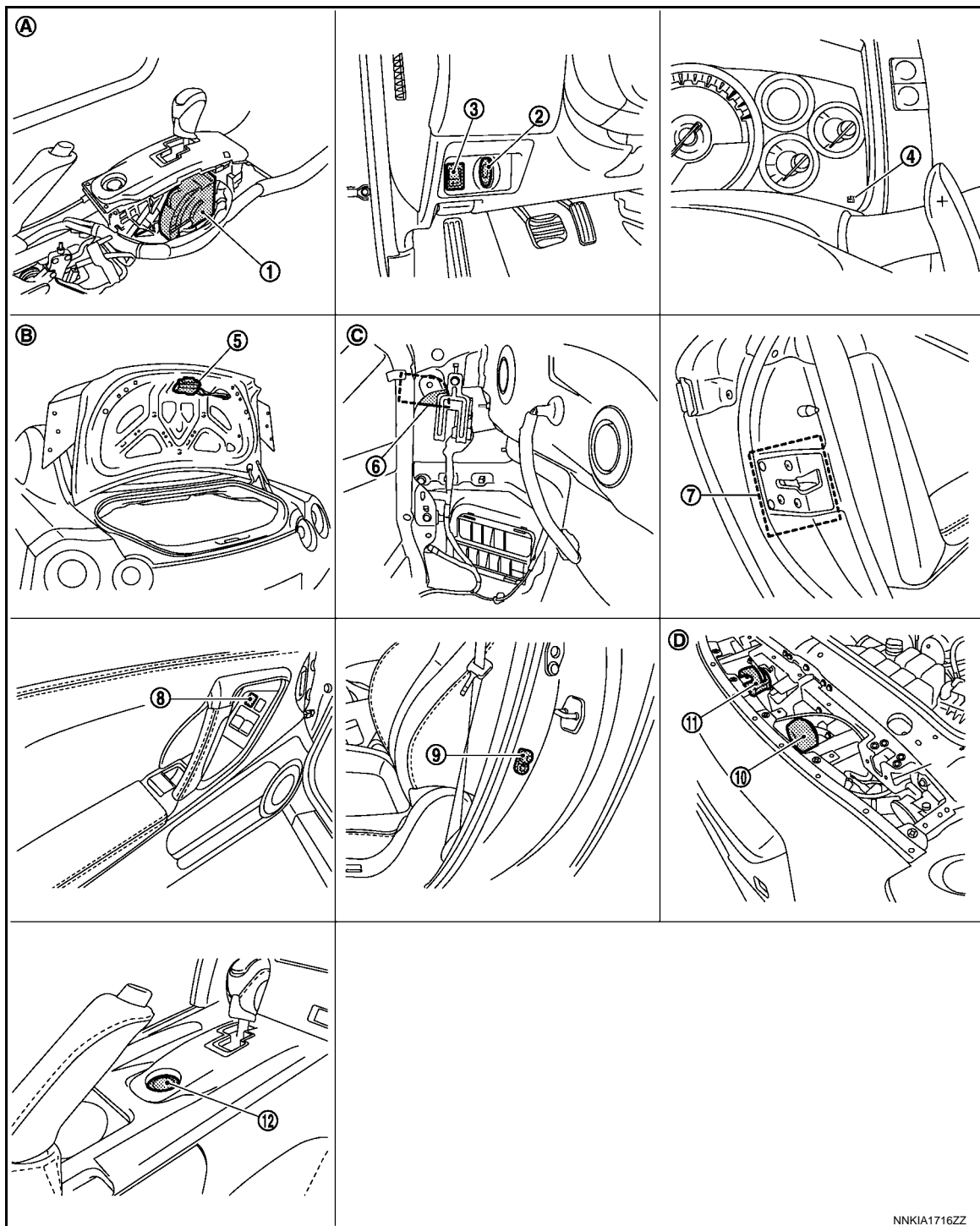
- | | | |
|--|---|---|
| 1. BCM M118, M119, M120,M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed. B. View with trunk lid finisher removed. C. View with trunk side finisher removed.
D. Behind front bumper

REMOTE KEYLESS ENTRY FUNCTION : Component Description

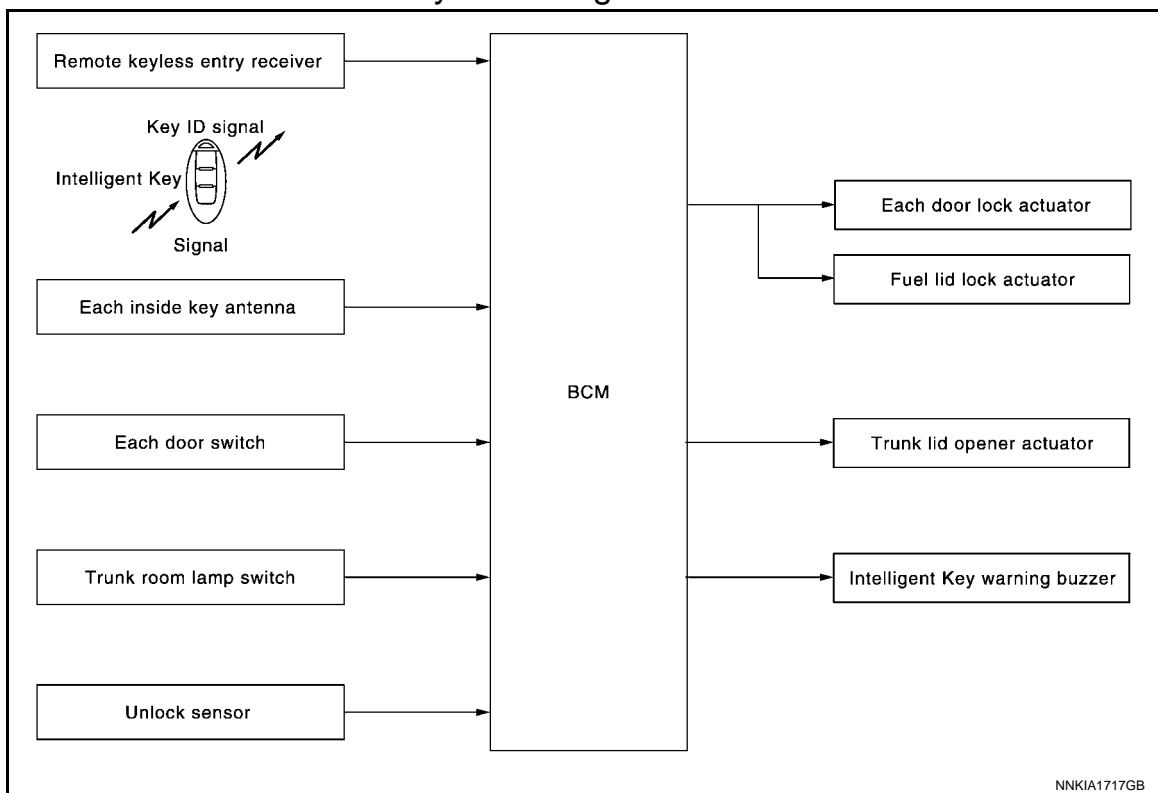
INFOID:000000004992612

Item	Function
BCM	Controls the door lock function and trunk open function.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Key slot	Inputs key insert/remove signal to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Combination meter	<ul style="list-style-type: none"> Hazard warning lamp is installed to combination meter. Transmits vehicle sleep signal to CAN communication line.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Trunk lid opener actuator	Transmits trunk lid open operation to BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.
Hazard warning lamp	Warns the user of the door lock/unlock condition and in appropriate operations with the lamps blink.

KEY REMINDER FUNCTION

KEY REMINDER FUNCTION : System Diagram

INFOID:000000004992613



INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

KEY REMINDER FUNCTION : System Description

INFOID:000000004992614

Key reminder is the function that prevents the key from being left in the vehicle.
Key reminder has the following 3 functions.

Key remainder function	Operation condition	Operation
Driver door closed*	Right after driver side door is closed under the following conditions <ul style="list-style-type: none">• Door lock operation is performed• Driver side door is open• Driver side door is in unlock state	All doors unlock
Door is open or closed	Right after all doors are closed under the following conditions <ul style="list-style-type: none">• Intelligent Key is inside the vehicle• Any door is open• All doors are locked by door lock and unlock switch or door lock knob	<ul style="list-style-type: none">• All doors unlock• Honk Intelligent Key warning buzzer
Trunk is closed	Right after trunk is closed under the following conditions <ul style="list-style-type: none">• Intelligent Key is inside trunk room• All doors are closed• All doors are locked	<ul style="list-style-type: none">• Trunk open• Honk Intelligent Key warning buzzer

*:If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation is perform in these cases.

CAUTION:

- The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function does not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.

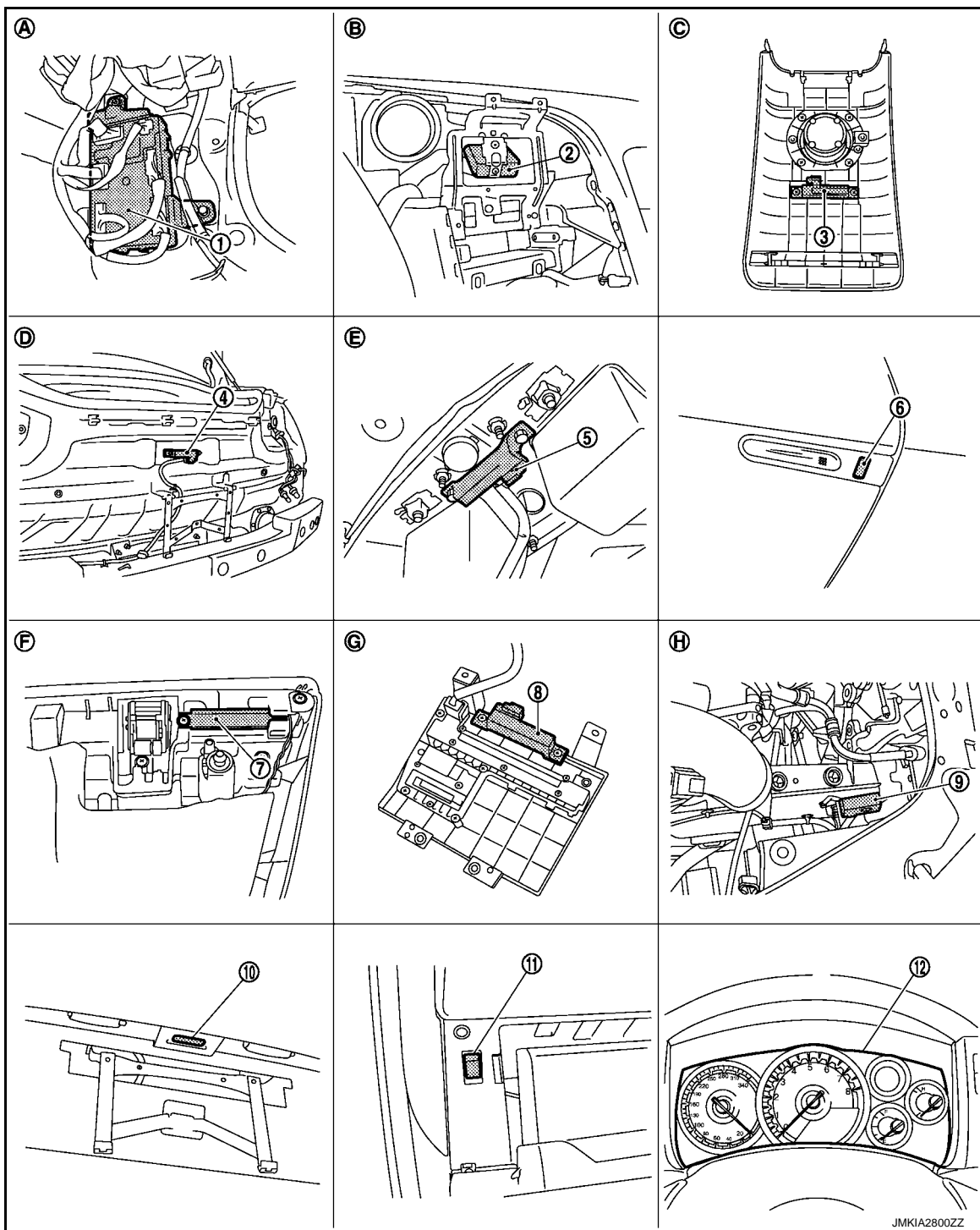
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

KEY REMINDER FUNCTION : Component Parts Location

INFOID:000000004992615



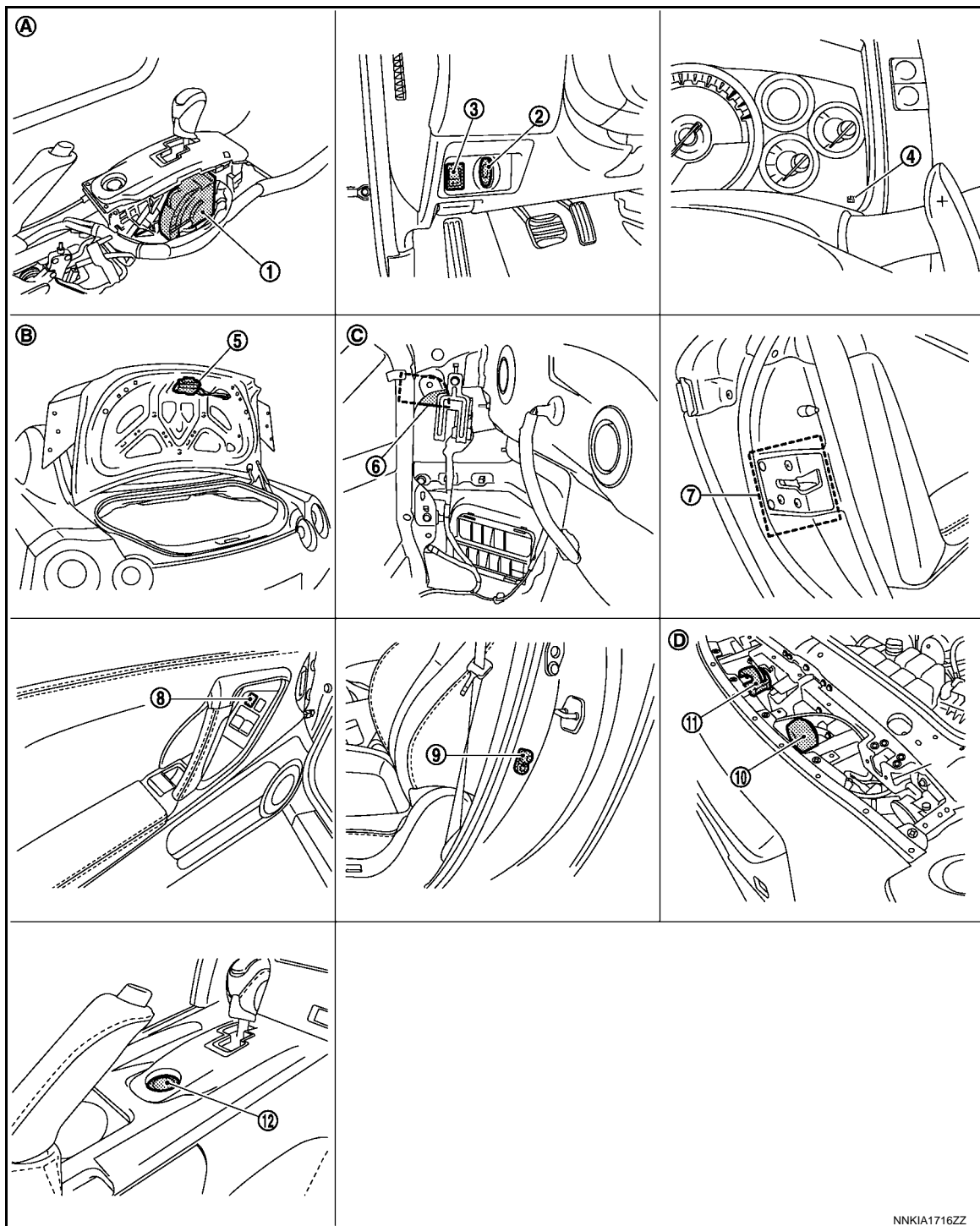
- | | | |
|--|---|---|
| 1. BCM M118, M119, M120,M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed. B. View with trunk lid finisher removed. C. View with trunk side finisher removed. D. Behind front bumper

WARNING FUNCTION

WARNING FUNCTION : System Description

INFOID:000000004992616

OPERATION DESCRIPTION

The warning function are as per the following and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, KEY warning lamp, key slot illumination and information display in combination meter.

- Intelligent Key system malfunction
- OFF position warning
- P position warning
- ACC warning
- Take away warning
- Door lock operation warning
- Key warning
- Intelligent Key insert information
- Engine start information
- Steering lock information
- Intelligent key low battery warning
- Key ID warning

OPERATION CONDITION

Once the following condition from below is established, alert or warning is executed.

Warning/Information functions		Operation procedure
Intelligent Key system malfunction		When a malfunction is detected on BCM, "KEY" warning lamp illuminates.
OFF position warning	For internal	<ul style="list-style-type: none"> • Ignition switch: ACC position. • Door switch (driver side): ON (Door is open).
	For external	OFF position warning (For internal) is in active mode, driver side door is closed. NOTE: OFF position (For external) active only when each of the sequences occurs as below: P position warning → ACC warning → OFF position warning (For internal) → OFF position warning (For internal)
P position warning	For internal	<ul style="list-style-type: none"> • Shift position: Except P position. • Engine is running to stopped (Ignition switch is ON to OFF).
	For external	Warning is activated when driver door is closed from the open position while the P position warning (for inside vehicle) is ON.
ACC warning		<ul style="list-style-type: none"> • When P position warning is in active mode, shift position changes P position. • Ignition switch: ACC position.
Take away warning	Door is open to close	<ul style="list-style-type: none"> • Ignition switch: Except LOCK position. • Door switch: ON to OFF (Door is open to close). • Intelligent Key cannot be detected inside the vehicle.
	Door is open	<ul style="list-style-type: none"> • Door switch: ON (Door is open). • Key ID verification every 5 seconds when registered Intelligent Key cannot be detected inside the vehicle.
	Push button-ignition switch operation	<ul style="list-style-type: none"> • Ignition switch: Except LOCK position. • Press push-button ignition switch. • Intelligent Key cannot be detected inside the vehicle.
	Intelligent Key is removed from key slot	<ul style="list-style-type: none"> • When Intelligent Key is removed from key slot. • Intelligent Key cannot be detected inside the vehicle. • Ignition switch: Except LOCK position. • When intelligent Key is low battery.
Door lock operation warning		When door lock operation is requested while door lock operating condition of door request switch is not satisfied.

INTELLIGENT KEY SYSTEM


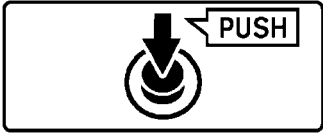
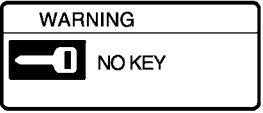
< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Warning/Information functions		Operation procedure
Key warning		<ul style="list-style-type: none"> Ignition switch is OFF position. Driver side door switch: ON (Driver side door is open). Intelligent Key is inserted in key slot.
Intelligent Key insert information		<ul style="list-style-type: none"> Door switch: ON to OFF (Door is open to close). Intelligent Key is out of key slot. Intelligent Key cannot be detected inside the vehicle.
Engine start information	Ignition switch is ON position	<ul style="list-style-type: none"> Ignition switch: ON position. Shift position: P position. Engine is stopped.
	Ignition switch is except ON position	<ul style="list-style-type: none"> Ignition switch: Except ON position. Shift position: P position. Intelligent Key is inserted in key slot or Intelligent Key can be detected inside the vehicle.
Steering lock information		When steering lock cannot be released after ignition switch is turned ON.
Intelligent Key low battery warning		When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON.
Key ID warning		When registered intelligent Key cannot be detected inside the vehicle after ignition switch is turned ON.

WARNING METHOD

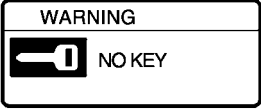



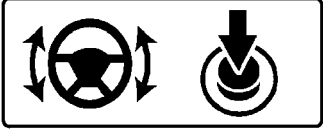

The following table shows the alarm or warning methods with chime.
Information display (combination meter), "KEY" indicator or key slot indicator when the warning conditions are met.

Warning/Information functions		"KEY" warning lamp	Information display (combination meter)	Key slot indicator	Warning chime	
					Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key system malfunction		Illuminate	—	—	—	—
OFF position warning	For internal	—	—	—	Activate	—
	For external	—	—	—	—	Activate
P position warning	For internal	—		—	Activate	—
	For external				—	Activate
ACC warning		—		—	—	—
			JMKIA2863ZZ			
Take away warning	Door is open to close	—		Blink	Activate	Activate
	Door is open	—		Blink	—	—
	Push-ignition switch operation	—		Blink	Activate	—
	Intelligent Key is removed from key slot	—		Blink	—	—
			JMKIA2864ZZ			

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Warning/Information functions		"KEY" warning lamp	Information display (combination meter)	Key slot indicator	Warning chime	
					Combination meter buzzer	Intelligent Key warning buzzer
Door lock operation warning	Request switch operation	—	—	—	—	Activate
	Intelligent Key operation	—	—	—	—	Activate
Key ID warning		—	 JMKIA2864ZZ	—	—	—
Key warning		—	 JMKIA0035GB	Blink	Activate	—
Intelligent Key insert information		—	 JMKIA0034GB	Illuminate	—	—
Engine start information		—	 JMKIA0032GB	—	—	—
Steering lock information		—	 JMKIA0033GB	—	—	—
Intelligent Key low battery warning		—	 JMKIA3049ZZ	—	—	—

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Warning function		Intelligent Key	Key slot	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter warning buzzer	CAN communication system	BCM	Combination meter display	Key slot indicator	Detention switch	"KEY" warning lamp
Intelligent Key system malfunction											×	×				×
OFF position warning	For internal				×					×	×	×				
	For external				×				×			×				
P position warning				×	×					×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
Take away warning	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
	Push-ignition switch operation	×		×			×			×	×	×	×	×		
	Intelligent Key is removed from key slot	×	×				×				×	×	×	×		
Door lock operation warning		×	×		×	×	×	×	×			×				
Key ID warning		×	×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert information		×	×	×	×		×				×	×	×	×		
Engine start information	Ignition switch is in the ON position	×	×	×			×				×	×	×		×	
	Ignition switch is in any position except the ON position	×	×	×			×				×	×	×			
Steering lock information				×							×	×	×			
Intelligent Key low battery warning		×					×				×	×	×			

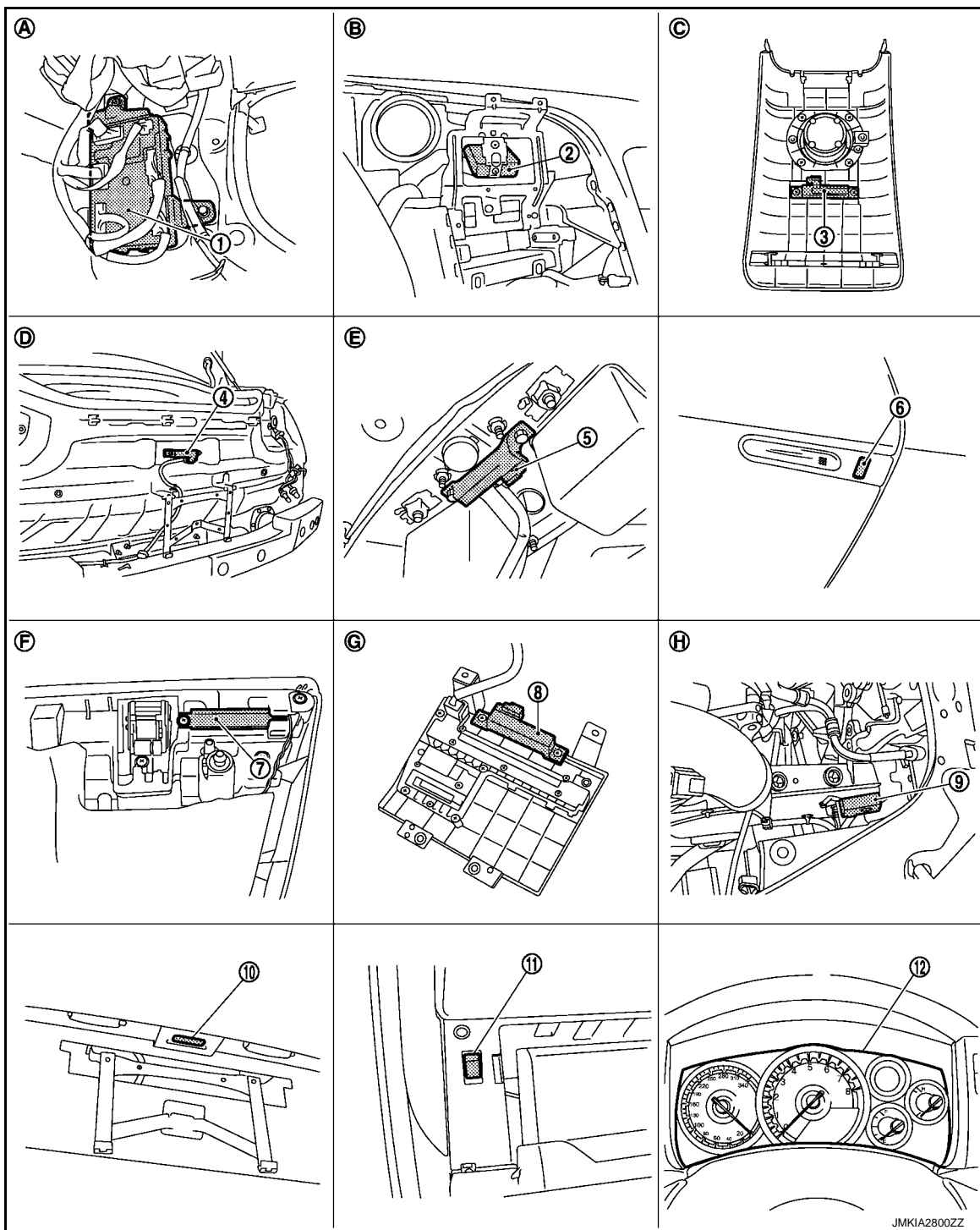
INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

WARNING FUNCTION : Component Parts Location

INFOID:000000004992617



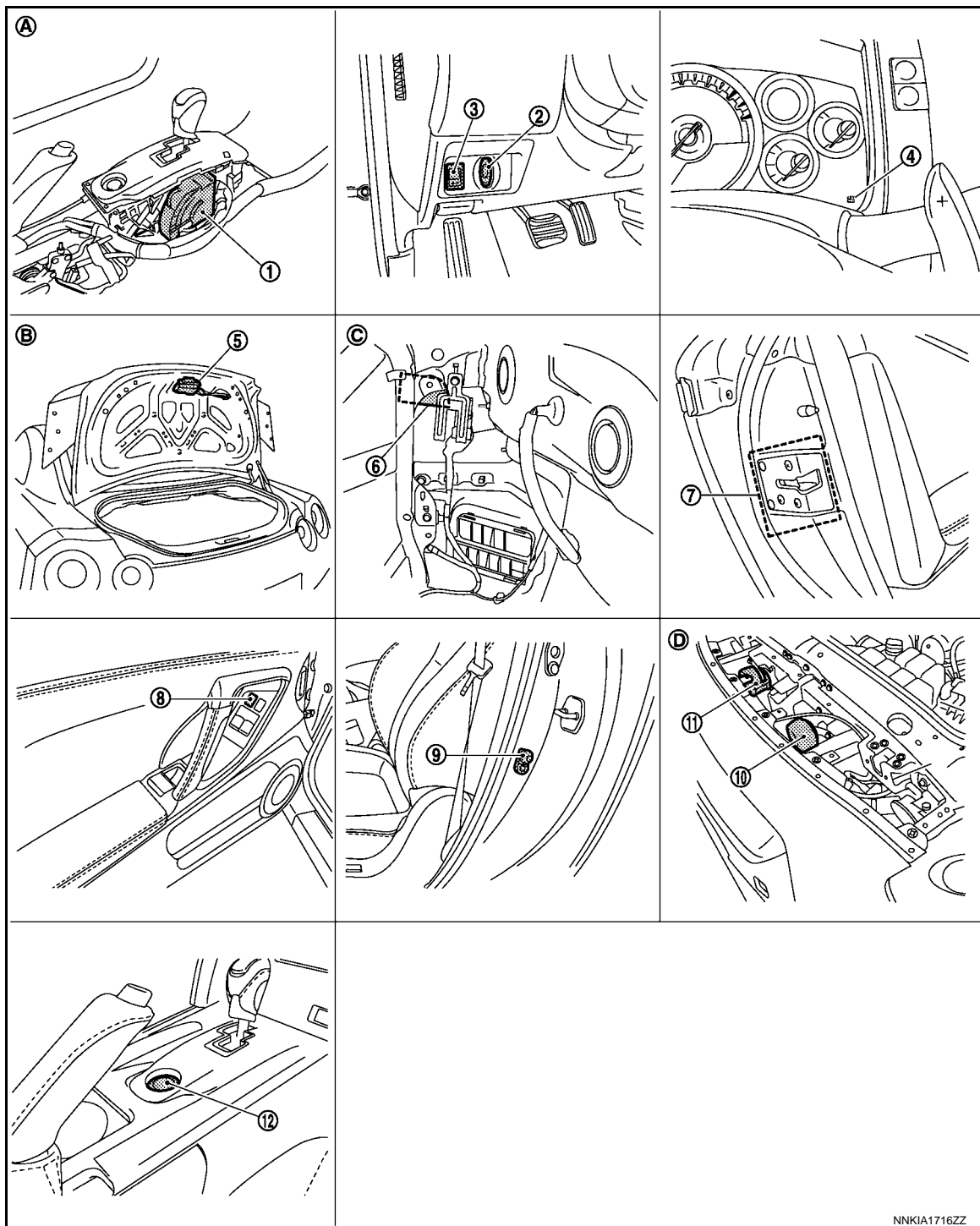
- | | | |
|---|---|---|
| 1. BCM M118, M119, M120, M121, M122, M123 | 2. Remote keyless entry receiver M134 | 3. Inside key antenna (console) M146 |
| 4. Outside key antenna (rear bumper) B60 | 5. Inside key antenna (trunk room) B41 | 6. Outside handle LH (request switch) D13 |
| 7. Outside antenna (driver side) D24 | 8. Inside key antenna (instrument center) M75 | 9. Intelligent key warning buzzer (engine room) E62 |
| 10. Trunk lid opener request switch B153 | 11. Trunk lid opener cancel switch M105 | 12. Combination meter M53 |
| A. Dash side lower (passenger side). | B. Behind display unit. | C. Back of rear console assembly. |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- | | | |
|-----------------------------------|---------------------------------|---------------------------|
| D. Behind rear bumper. | E. Behind trunk front finisher. | F. Back of door finisher. |
| G. Back of cluster lid C (lower). | H. Behind air cleaner box (RH). | |



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- | | | |
|--|--|--------------------------------------|
| 1. A/T shift selector (detention switch) B20 | 2. Key slot M60 | 3. Trunk lid opener switch M20 |
| 4. Key warning lamp | 5. Trunk lid lock assembly B352 | 6. Fuel lid lock actuator B244 |
| 7. Driver side door lock actuator D15 | 8. Power window main switch (door lock and unlock switch) D8 | 9. Driver side door switch B21 |
| 10. Horn low E81,E82 | 11. Horn high E79,E80 | 12. Push-button ignition switch M131 |

INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

- A. View with center console assembly removed.

B. View with trunk lid finisher removed.

C. View with trunk side finisher removed.

D. Behind front bumper

A

B

C

D

E

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G

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I

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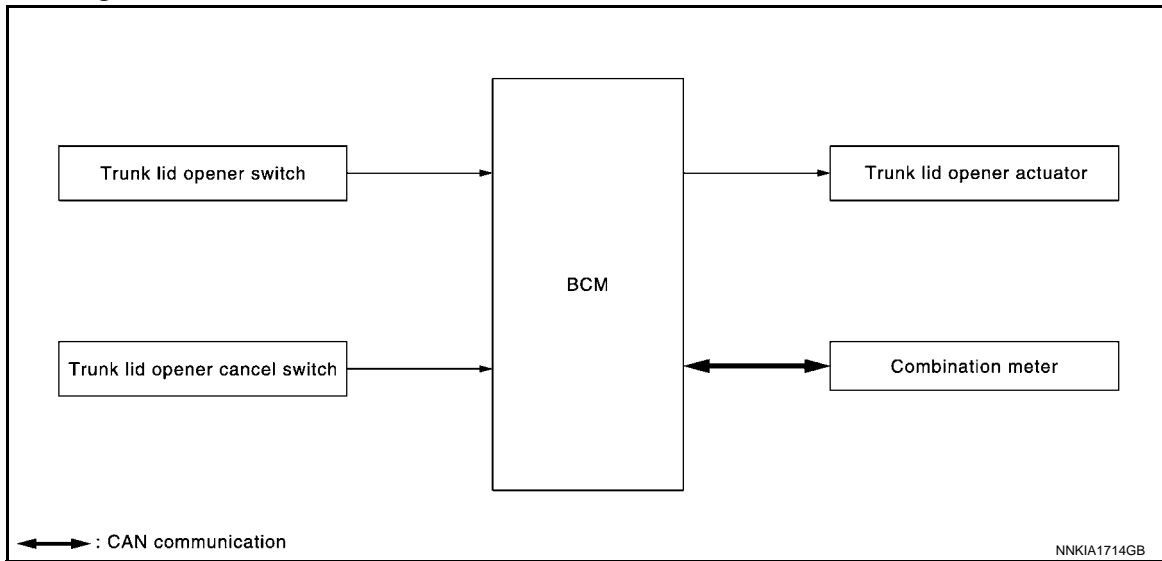
TRUNK OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

TRUNK OPEN FUNCTION

System Diagram



System Description

INFOID:000000004992619

TRUNK LID OPENER OPERATION

When trunk lid opener switch is ON, BCM opens trunk opener actuator.

BCM can open trunk lid opener actuator when

- Trunk lid opener cancel switch is ON
- Vehicle speed is less than 5 km/h (3 MPH)
- Vehicle security system is in the disarmed or pre-armed phase

BCM does not open trunk lid opener actuator when

- Vehicle speed is more than 5 km/h (3 MPH)
- Vehicle security system is in the armed or alarm phase
- Trunk lid opener cancel switch is OFF

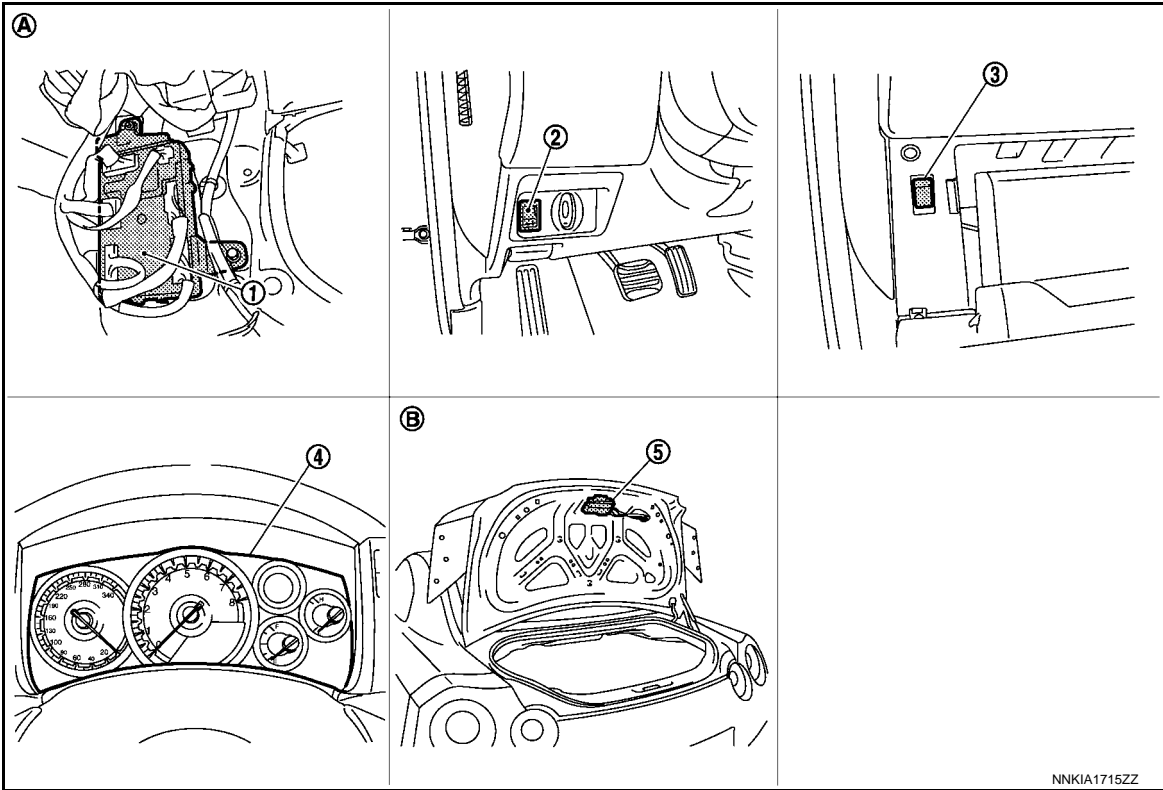
TRUNK OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Component Parts Location

INFOID:000000004992620



- 1. BCM M118, M119, M120, M121, M122, M123
- 2. Trunk lid opener switch M20
- 3. Trunk lid opener cancel switch M105
- 4. Combination meter M53
- 5. Trunk lid lock assembly (trunk lid opener actuator) B352
- A. Dash side lower (passenger side)
- B. View with trunk lid finisher removed

Component Description

INFOID:000000004992621

DLK

Item	Function
BCM	Controls trunk lid open operation.
Trunk lid opener switch	Transmits trunk open operation to BCM.
Trunk lid opener actuator	Opens the trunk after receiving the open signal from BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Combination meter	Transmits vehicle speed signal to CAN communication line.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:000000004992623

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
—	RETAINED PWR*		×	
Signal buffer system	SIGNAL BUFFER		×	×
—	TPMS (AIR PRESSURE MONITOR)*	×	×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

The BCM records the following condition at the moment a particular DTC is detected.

- Vehicle Speed
- Odo/Trip Meter
- Vehicle Condition (BCM detected condition)

CONSULT screen terms	Description
SLEEP>LOCK	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK".)
SLEEP>OFF	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
LOCK>ACC	While turning power supply position from "LOCK" to "ACC"
ACC>ON	While turning power supply position from "ACC" to "IGN"
RUN>ACC	While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
CRANK>RUN	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
RUN>URGENT	While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
ACC>OFF	While turning power supply position from "ACC" to "OFF"
OFF>LOCK	While turning power supply position from "OFF" to "LOCK"
OFF>ACC	While turning power supply position from "OFF" to "ACC"
ON>CRANK	While turning power supply position from "IGN" to "CRANKING"
OFF>SLEEP	While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
LOCK>SLEEP	While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
LOCK	Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
OFF	Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
ACC	Power supply position is "ACC" (Ignition switch ACC)
ON	Power supply position is "IGN" (Ignition switch ON with engine stopped)
ENGINE RUN	Power supply position is "RUN" (Ignition switch ON with engine running)
CRANKING	Power supply position is "CRANKING" (At engine cranking)

IGN Counter

IGN counter indicates the number of times that ignition switch is turned ON after DTC is detected.

- The number is 0 when a malfunction is detected now.
- The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

DOOR LOCK

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)

INFOID:000000004992624

BCM CONSULT-III FUNCTION

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following in this mode. <ul style="list-style-type: none"> VH SPD: All doors are locked when vehicle speed more than 24km/h(15MPH) P RANGE: All doors are locked when shifting the shift lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following in the mode. <ul style="list-style-type: none"> MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF MODE 2: All doors are unlocked when shifting the shift lever from any position other than the P to P position MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF MODE 4: Driver side door is unlocked when shifting the shift lever from any position other than the P to P position
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode. <ul style="list-style-type: none"> Off: non-operational Unlock only: door unlock operation only Lock only: door lock operation only Lock/unlock: lock/unlock operation

DATA MONITOR

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of trunk lid opener request switch.
DOOR SW-DR	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	NOTE: This item is displayed, but cannot be monitored.
DOOR SW-RL	NOTE: This item is displayed, but cannot be monitored.
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.
CDL LOCK SW	Indicated [ON/OFF] condition of lock signal from door lock unlock switch.
CDL UNLOCK SW	Indicated [ON/OFF] condition of unlock signal from door lock unlock switch.
KEY CYL LK-SW	NOTE: This item is displayed, but cannot be monitored.
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation. <ul style="list-style-type: none"> The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched. The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched. The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched. The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched. "OTR ULK" item is displayed, but cannot be monitored.

INTELLIGENT KEY

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000004992625

BCM CONSULT-III FUNCTION

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

WORK SUPPORT

Monitor item	Description
REMO CONT ID CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none">• MODE 1: 1 minute• MODE 2: 5 minutes• MODE 3: 30 seconds• MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side and passenger side) mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk lid opener request switch can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. <ul style="list-style-type: none">• MODE 1: 0.5 sec.• MODE 2: OFF: Non-operation• MODE 3: 1.5 sec.
PW DOWN SET	This item is displayed, but cannot be used.
TRUNK OPEN DELAY	Trunk button pressing on Intelligent Key button can be selected as per the following in this mode. <ul style="list-style-type: none">• MODE 1: Press and hold• MODE 2: Press twice• MODE 3: Press and hold, or press twice
LO-BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following in this mode. <ul style="list-style-type: none">• LOCK ONLY: Door lock operation only• UNLOCK ONLY: Door unlock operation only• LOCK/UNLOCK: Lock/unlock operation• OFF: Non-operational
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following in this mode. <ul style="list-style-type: none">• Horn chirp: Sound horn• Buzzer: Sound Intelligent Key warning buzzer• OFF: Non-operational
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) in this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below. <ul style="list-style-type: none">• 70 msec• 100 msec• 200 msec

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) in this mode.

SELF-DIAG RESULT

Refer to [DLK-506, "DTC Index"](#).

DATA MONITOR

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY-FB	NOTE: This item is displayed, but cannot be monitored.
CLUTCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF]* condition of brake switch power supply.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of steering lock relay.
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Monitor Item	Condition
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	NOTE: This item is displayed, but cannot be monitored.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.
REVERSE SWITCH	NOTE: This item is displayed, but cannot be monitored.

*: OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated when "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	NOTE: This item is displayed, but cannot be used.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer will be activated when "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. Key warning chime sounds when "KEY" on CONSULT-III screen is touched. P position warning chime sounds when "KNOB" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched. "KEY" Warning lamp blinks when "KEY IND" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated when "ON" on CONSULT-III screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> Engine start information displays when "BP N" on CONSULT-III screen is touched. Engine start information displays when "BP I" on CONSULT-III screen is touched. Key ID warning displays when "ID NG" on CONSULT-III screen is touched. Steering lock information displays when "ROTAT" on CONSULT-III screen is touched. P position warning displays when "SFT P" on CONSULT-III screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. Take away warning displays when "OUTKEY" on CONSULT-III screen is touched. OFF position warning displays when "LK WN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated when "RH" or "LH" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated when "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT-III screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT-III screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT SUPER LOCK]

Test item	Description
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination illuminates when "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.

TRUNK

TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000004992626

BCM CONSULT-III FUNCTION

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

DATA MONITOR

Monitor Item	Contents
PUSH SW	Indicates [ON/OFF] condition of push switch.
UNLK SEN -DR	Indicates [ON/OFF] condition of unlock sensor.
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.
TR CANCEL SW	Indicates [ON/OFF] condition of trunk lid opener cancel switch.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.
RKE-TR/BD	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote controller button.

ACTIVE TEST

Test item	Description
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.