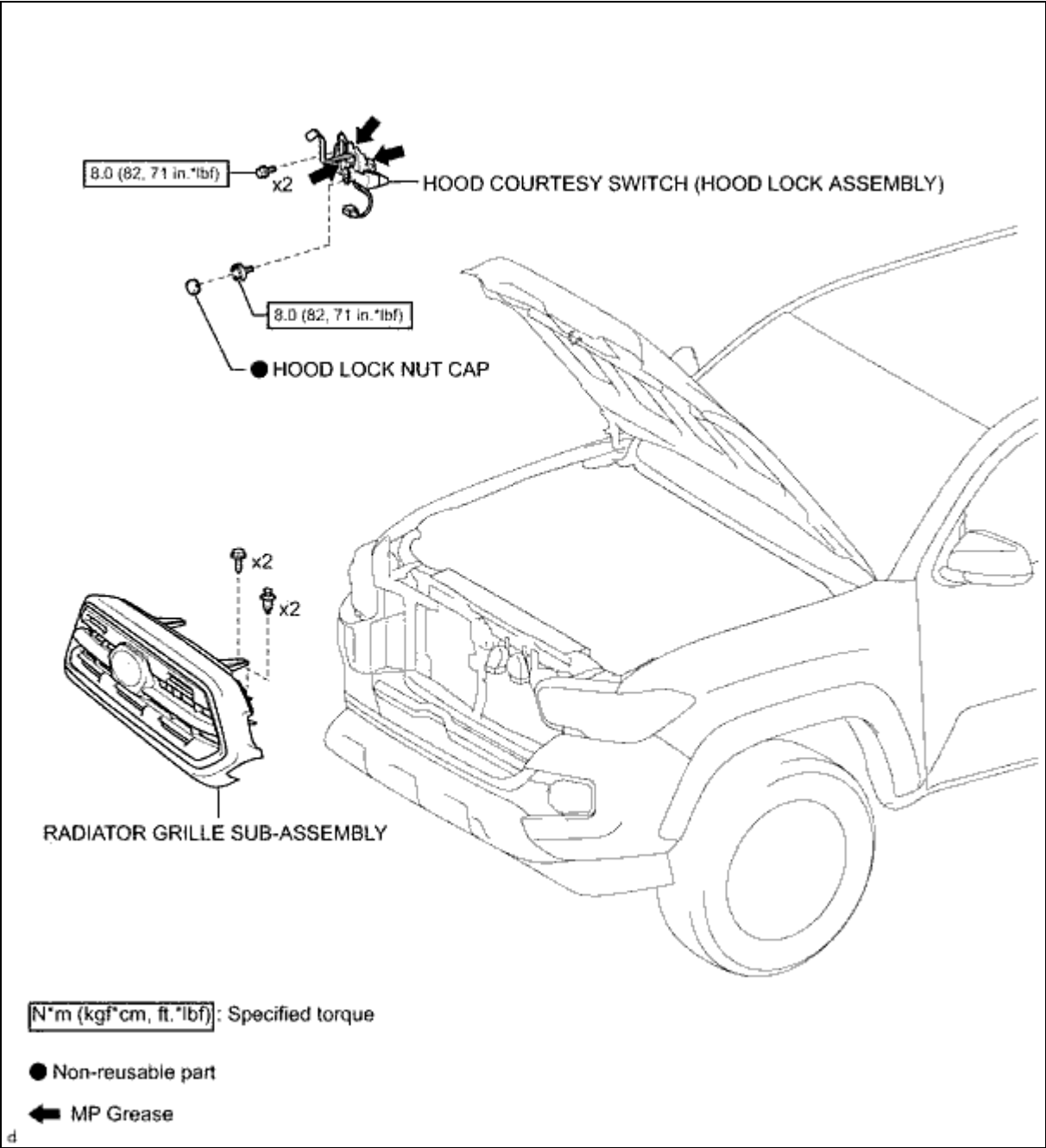


Last Modified: 11-13-2015	6.6 K	Doc ID: RM000005VLN000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: ENGINE HOOD COURTESY SWITCH: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



Last Modified: 11-13-2015	6.6 G	Doc ID: RM000005VLM000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: ENGINE HOOD COURTESY SWITCH: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

1. INSPECT HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

(a) Check the resistance.

(1) Measure the resistance according to the value(s) in the table below.

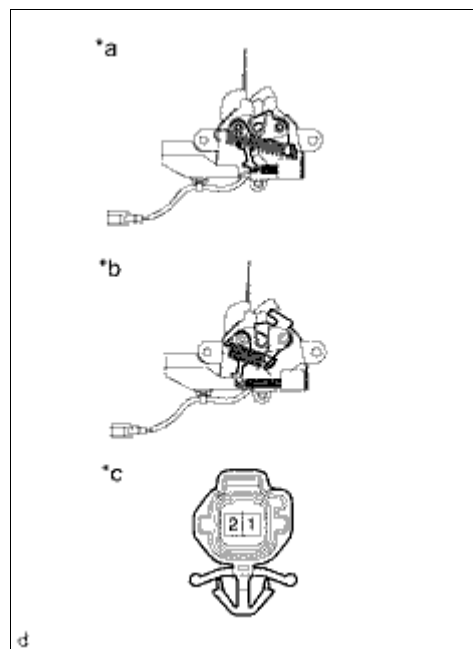
Text in Illustration

*a	Lock position
*b	Unlock position
*c	Component without harness connected (Hood Courtesy Switch (Hood Lock Assembly))

Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
1 - 2	Lock position	Below 1 Ω
1 - 2	Unlock position	10 k Ω or higher

If the results are not as specified, replace the hood courtesy switch (hood lock assembly).

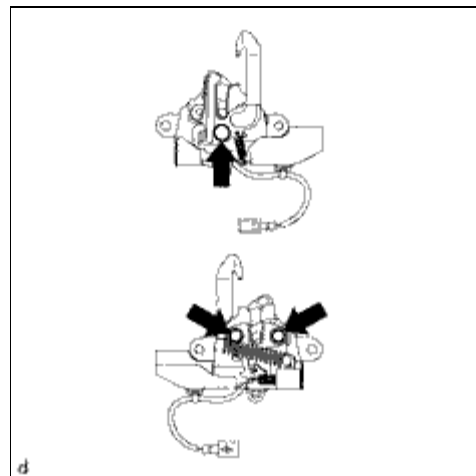


Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VLL000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: ENGINE HOOD COURTESY SWITCH: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

- (a) Apply MP grease to the sliding areas of the hood courtesy switch (hood lock assembly).



- (b) Engage the guide to connect the hood lock control cable assembly.
(c) Install the hood courtesy switch (hood lock assembly) with the 3 bolts.

Torque:

8.0 N·m {82 kgf·cm, 71in·lbf}

- (d) Install a new hood lock nut cap.
(e) Connect the connector.
(f) Engage the clamp to install the wire harness.

2. ADJUST HOOD SUB-ASSEMBLY

INFO

3. INSTALL RADIATOR GRILLE SUB-ASSEMBLY

INFO



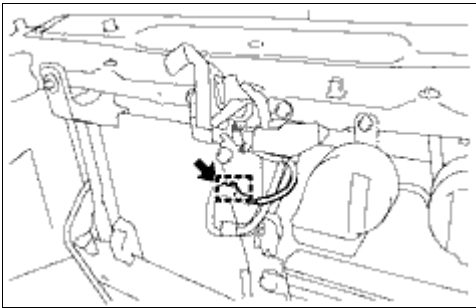
Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VLO000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: ENGINE HOOD COURTESY SWITCH: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

1. REMOVE RADIATOR GRILLE SUB-ASSEMBLY INFO

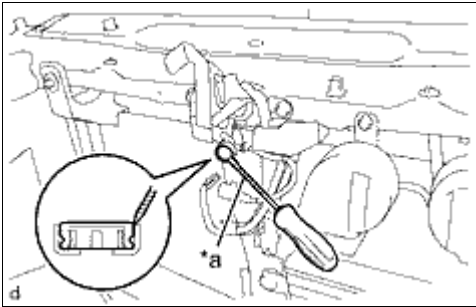
2. REMOVE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

(a) Disconnect the connector.



(b) Disengage the clamp to separate the wire harness.

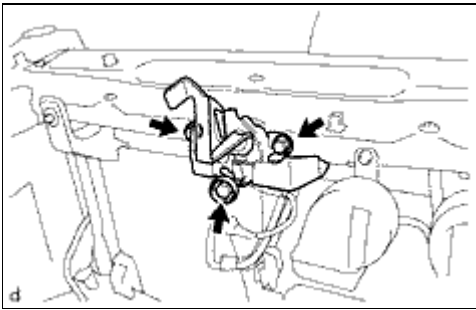
(c) Using a screwdriver with its tip wrapped in protective tape, remove the hood lock nut cap.



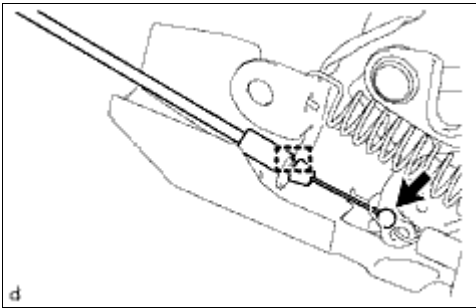
Text in Illustration

*a	Protective Tape
----	-----------------

(d) Remove the 3 bolts to separate the hood courtesy switch (hood lock assembly).



(e) Disengage the guide to disconnect the hood lock control cable assembly and remove the hood courtesy switch (hood lock assembly).

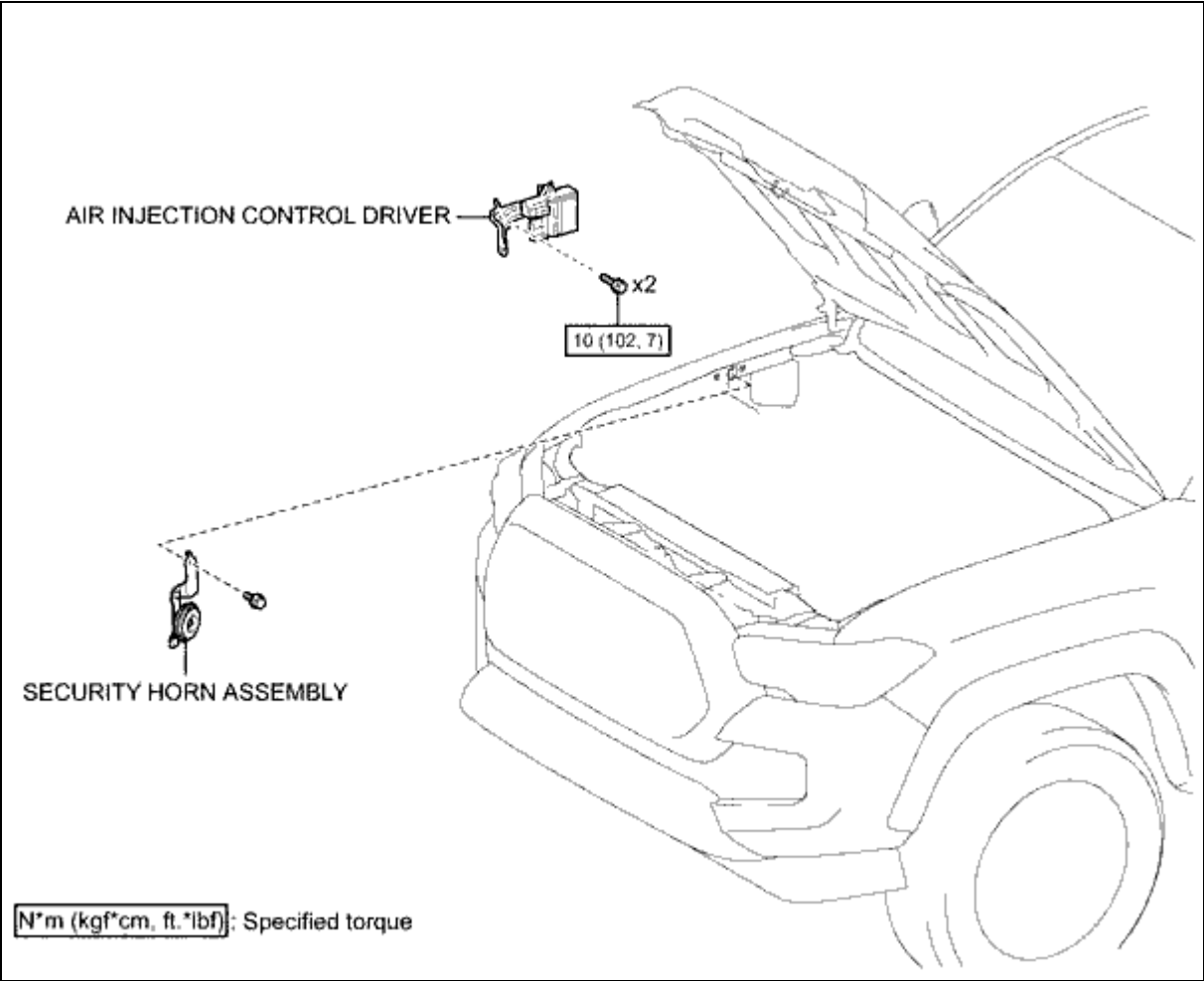




Last Modified: 11-13-2015	6.6 K	Doc ID: RM000005VLR000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: SECURITY HORN ASSEMBLY: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



Last Modified: 11-13-2015	6.6 G	Doc ID: RM000005VLQ000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: SECURITY HORN ASSEMBLY: INSPECTION; 2016 MY Tacoma [08/2015 -]		

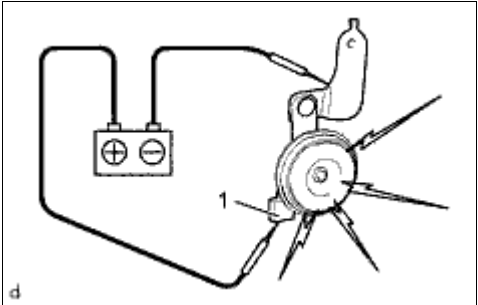
INSPECTION

1. INSPECT SECURITY HORN ASSEMBLY

- (a) Check the operation.
- (1) Apply battery voltage and check operation of the security horn assembly.
- OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 1	Horn sounds
Battery negative (-) → Horn bracket	

If the result is not as specified, replace the security horn assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VLP000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: SECURITY HORN ASSEMBLY: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL SECURITY HORN ASSEMBLY

- (a) Engage the guide to install the security horn assembly.
- (b) Install the bolt.
- (c) Connect the connector.

2. INSTALL AIR INJECTION CONTROL DRIVER (for 2TR-FE)

- (a) Install the air injection control driver with the 2 bolts.

Torque:

10 N·m {102 kgf·cm, 7ft·lbf}

- (b) Connect the 2 connectors.

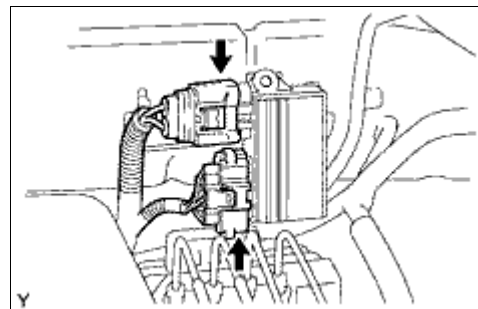


Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VLS000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: SECURITY HORN ASSEMBLY: REMOVAL; 2016 MY Tacoma [08/2015 -]		

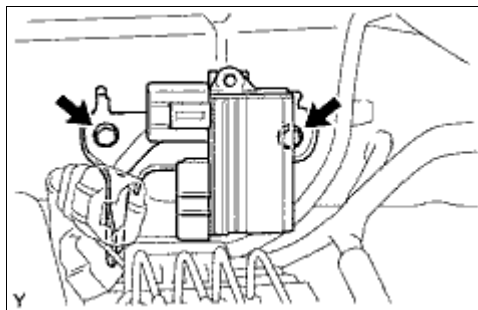
REMOVAL

1. REMOVE AIR INJECTION CONTROL DRIVER (for 2TR-FE)

(a) Disconnect the 2 connectors.

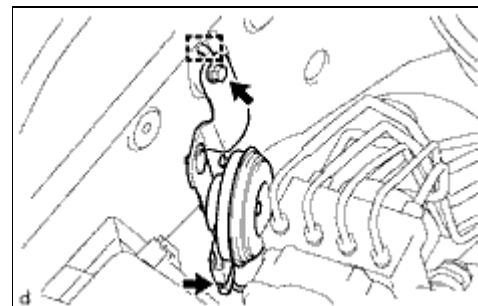


(b) Remove the 2 bolts and air injection control driver.



2. REMOVE SECURITY HORN ASSEMBLY

(a) Disconnect the connector.



(b) Remove the bolt.

(c) Disengage the guide to remove the security horn assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM000004N0Q02VX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: CUSTOMIZE PARAMETERS; 2016 MY Tacoma [08/2015 -]		

CUSTOMIZE PARAMETERS

1. CUSTOMIZE THEFT DETERRENT SYSTEM (w/ Wireless Door Lock System)

HINT:

The following items can be customized.

NOTICE:

- When the customer requests a change in a function, first make sure that the function can be customized.
- Be sure to make a note of the current settings before customizing.
- When troubleshooting a function, first make sure that the function is set to the default setting.

(a) Customizing with the Techstream

- (1) Connect the Techstream to the DLC3.
- (2) Turn the ignition switch to ON.
- (3) Turn the Techstream on.
- (4) Enter the following menus: Customize Setting / Wireless Door Lock.
- (5) Select the setting by referring to the table below.

Wireless Door Lock

DISPLAY (ITEM)	DEFAULT	CONTENT	SETTING
Panic Function*1	ON	This function operates the theft deterrent system when the panic switch is pressed and held for 0.8 seconds.	ON or OFF

*1: w/ PANIC Switch



Last Modified: 11-13-2015	6.6 U	Doc ID: RM000001PQY07DX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: DATA LIST / ACTIVE TEST; 2016 MY Tacoma [08/2015 -]		

DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

Using the Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON.
- Turn the Techstream on.
- Enter the following menus: Body Electrical / Main Body / Data List.
- According to the display on the Techstream, read the Data List.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Key Unlock Warning SW*1	Unlock warning switch/ON or OFF	ON: Key is inserted into ignition key cylinder OFF: Key is removed from ignition key cylinder	-
ACC SW	Ignition switch/ON or OFF	ON: Ignition switch ACC OFF: Ignition switch off	-
IG SW	Ignition switch/ON or OFF	ON: Ignition switch ON OFF: Ignition switch off or ACC	-
RR Door Courtesy SW	Rear door courtesy light switch RH/ON or OFF	ON: Rear door RH open OFF: Rear door RH closed	-
RL Door Courtesy SW	Rear door courtesy light switch LH/ON or OFF	ON: Rear door LH open OFF: Rear door LH closed	-
FR Door Lock Pos	Front door RH unlock detection switch/LOCK or UNLOCK	LOCK: Front door RH locked UNLOCK: Front door RH unlocked	-
FR Door Courtesy	Front door courtesy light switch RH/ON or OFF	ON: Front door RH closed OFF: Front door RH open	-

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FL Door Lock Pos	Front door LH unlock detection switch/LOCK or UNLOCK	LOCK: Front door LH locked UNLOCK: Front door LH unlocked	-
FL Door Courtesy	Front door courtesy light switch LH/ON or OFF	ON: Front door LH closed OFF: Front door LH open	-
Hood Courtesy SW	Engine hood courtesy switch/ON or OFF	ON: Engine hood closed OFF: Engine hood open	-
RR-Door Lock Pos SW*2	Rear door RH unlock detection switch/ON or OFF	ON: Rear door RH or LH unlocked OFF: Rear door RH and LH locked	-
RL-Door Lock Pos SW*2	Rear door LH unlock detection switch/ON or OFF	ON: Rear door LH or RH unlocked OFF: Rear door LH and RH locked	-

*1: w/o Smart Key System

*2: for Double Cab

2. ACTIVE TEST

HINT:

Using the Techstream to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. The Data List information can be displayed while performing Active Tests.

- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON.
- Turn the Techstream on.
- Enter the following menus: Body Electrical / Main Body or Smart Key / Active Test.
- According to the display on the Techstream, perform the Active Test.

Main Body

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Illuminated Entry System	Interior lights	OFF/ON	- No. 1 room light assembly switch in DOOR position - Roof console box assembly switch in DOOR position
Taillight Relay	Taillights	OFF/ON	-
Headlight Relay	Headlights	OFF/ON	-

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Security Indicator*1	Security indicator	OFF/ON	-
Vehicle Horn	Vehicle horns	OFF/ON	-
Security Horn	Security horn	OFF/ON	-

*1: w/o Smart Key System

Smart Key (w/ Smart Key System)

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Immobiliser Indicator	Security indicator light	OFF/ON	-



Last Modified: 11-13-2015	6.6 D	Doc ID: RM000001PQX0J2X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: DIAGNOSIS SYSTEM; 2016 MY Tacoma [08/2015 -]		

DIAGNOSIS SYSTEM

1. CHECK DLC3

(a) Check the DLC3  .

2. INSPECT BATTERY VOLTAGE

(a) Measure the battery voltage.

Standard Voltage:

11 to 14 V

If the voltage is below 11 V, replace the battery.



Last Modified: 11-13-2015	6.6 D	Doc ID: RM0000010J30RAX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING; 2016 MY Tacoma [08/2015 -]		

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use this procedure to troubleshoot the theft deterrent system.
- *: Use the Techstream.

1.	VEHICLE BROUGHT TO WORKSHOP
-----------	------------------------------------

NEXT



2.	CUSTOMER PROBLEM ANALYSIS
-----------	----------------------------------

(a) Interview the customer to confirm the trouble [INFO](#) .

NEXT



3.	SYMPTOM SIMULATION
-----------	---------------------------

NEXT



4.	INSPECT COMMUNICATION FUNCTION OF CAN COMMUNICATION SYSTEM*
-----------	--

(a) Use the Techstream to check if the CAN Communication System is functioning normally [INFO](#) .

Result

RESULT	PROCEED TO
CAN DTC is not output	A
CAN DTC is output	B

B ► GO TO CAN COMMUNICATION SYSTEM

A



5.	PROBLEM SYMPTOMS TABLE
-----------	-------------------------------

(a) Refer to Problem Symptoms Table [INFO](#) .

Result

RESULT	PROCEED TO
Fault is not listed in Problem Symptoms Table	A
Fault is listed in Problem Symptoms Table	B

B ► Go to step 7

A



6.	PERFORM TROUBLESHOOTING ACCORDING TO MALFUNCTION SYMPTOM*
-----------	--

(a) System Description [INFO](#)

(b) Terminals of ECU [INFO](#)

(c) Data List / Active Test [INFO](#)

7.	ADJUST, REPAIR OR REPLACE
-----------	----------------------------------

NEXT



8.	CONFIRMATION TEST
-----------	--------------------------

NEXT ► END



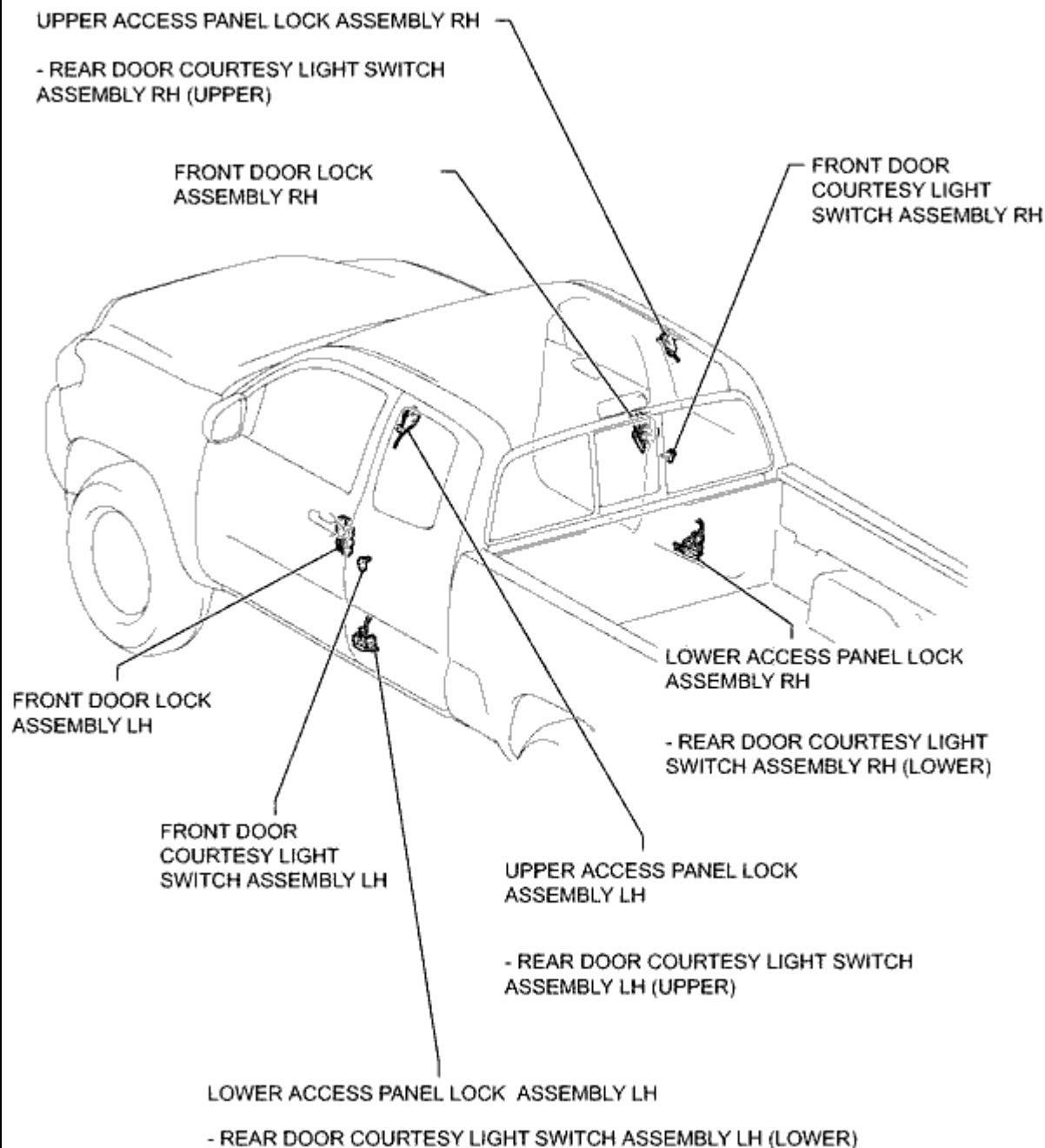


Last Modified: 11-13-2015	6.6 R	Doc ID: RM000003688034X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: PARTS LOCATION; 2016 MY Tacoma [08/2015 -]		

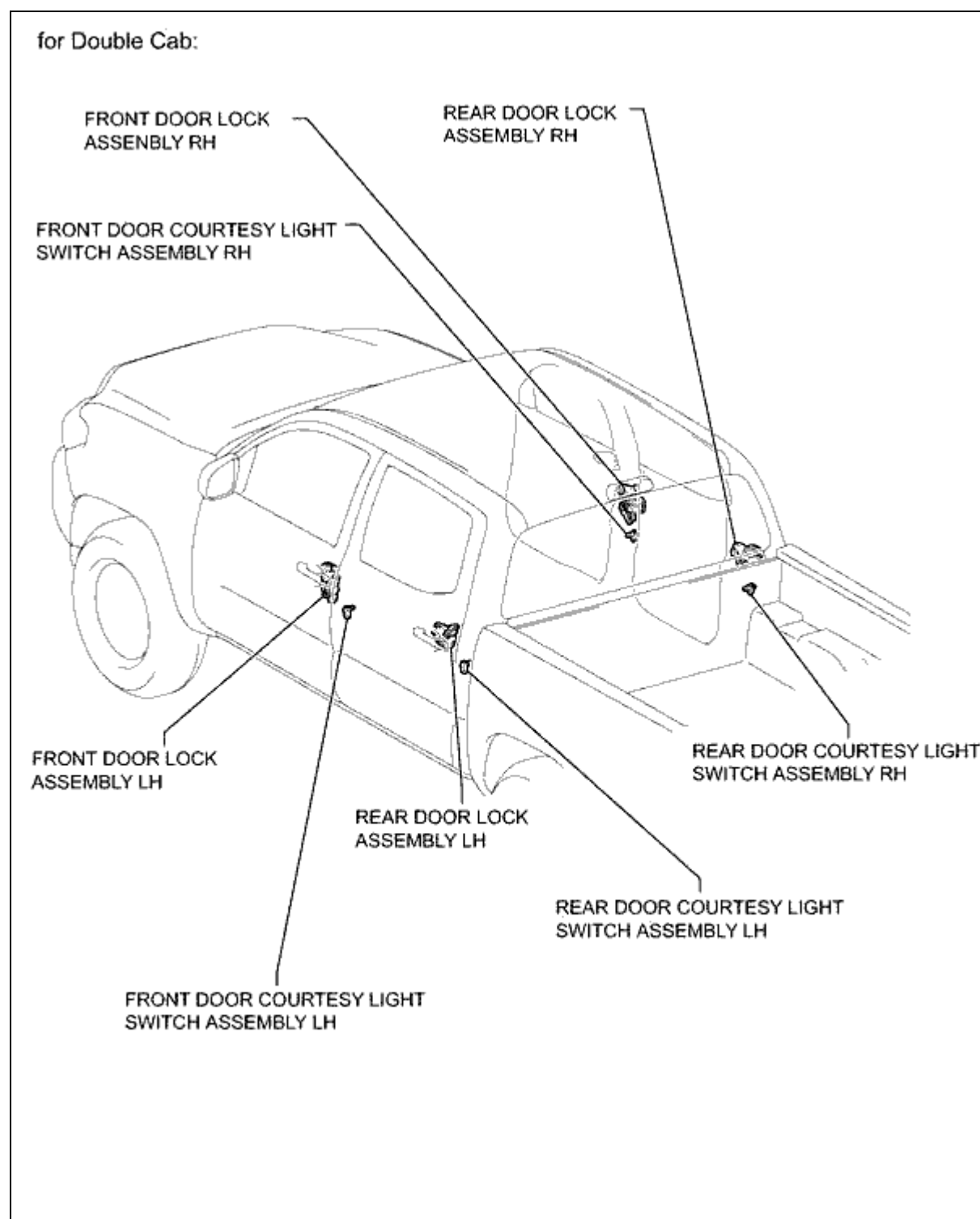
PARTS LOCATION

ILLUSTRATION

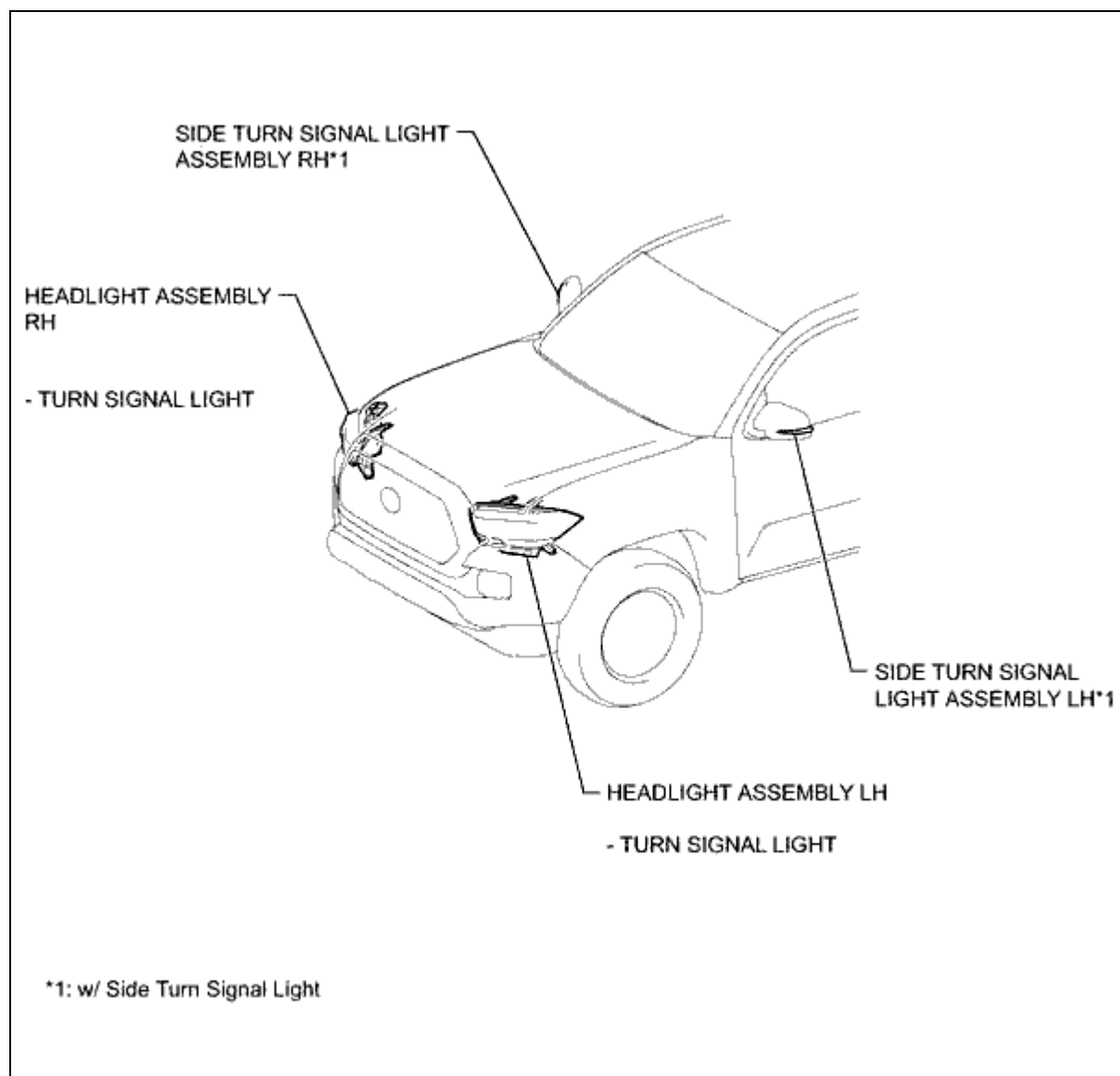
for Access Cab:



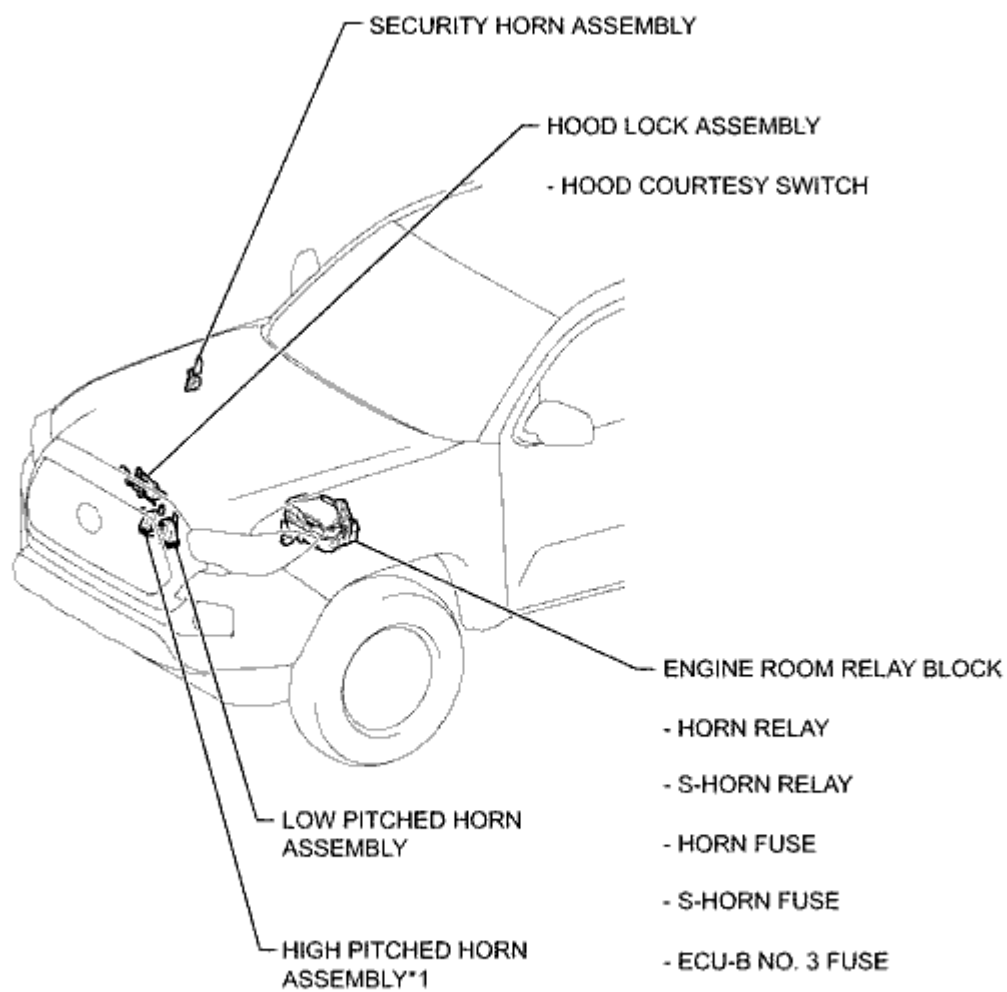
ILLUSTRATION



ILLUSTRATION



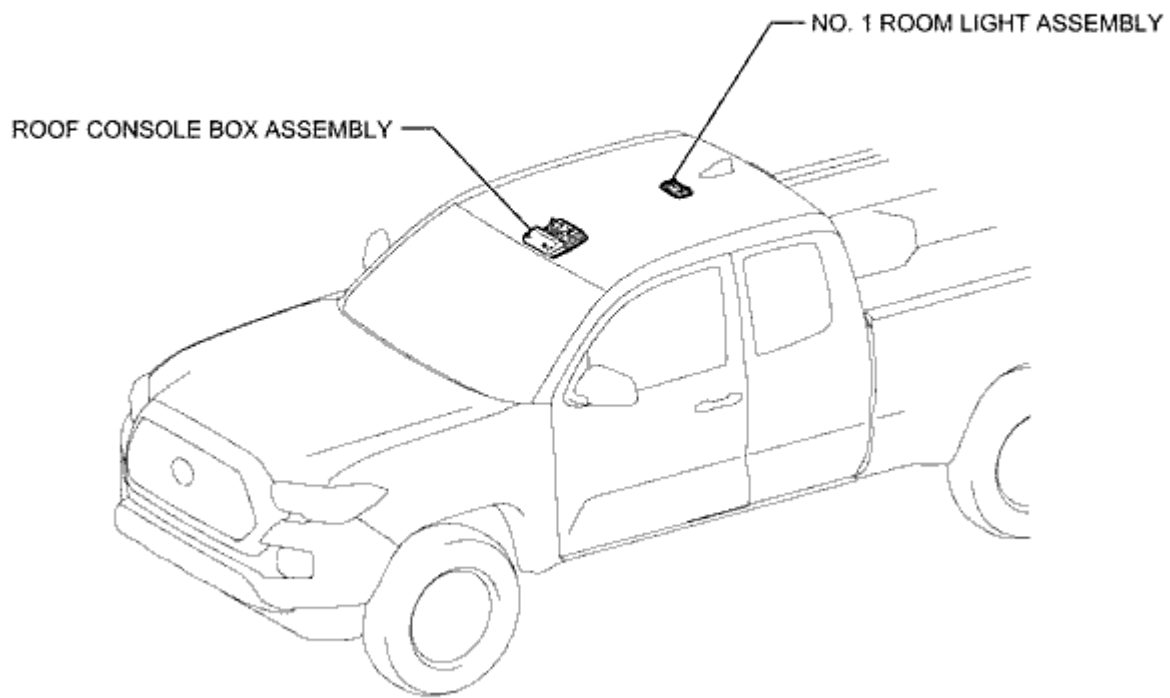
ILLUSTRATION



*1: for 2GR-FKS

ILLUSTRATION

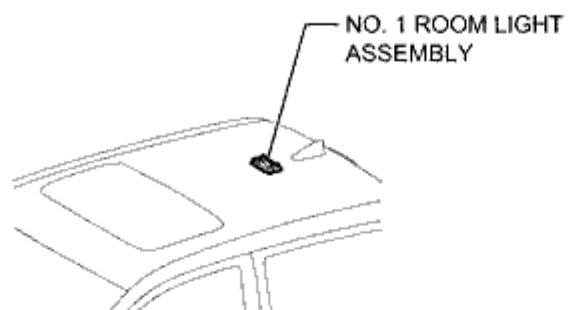
for Access Cab:



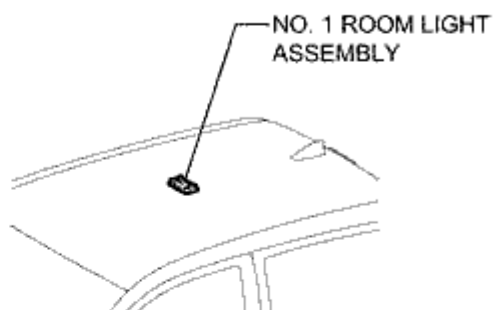
ILLUSTRATION

for Double Cab:

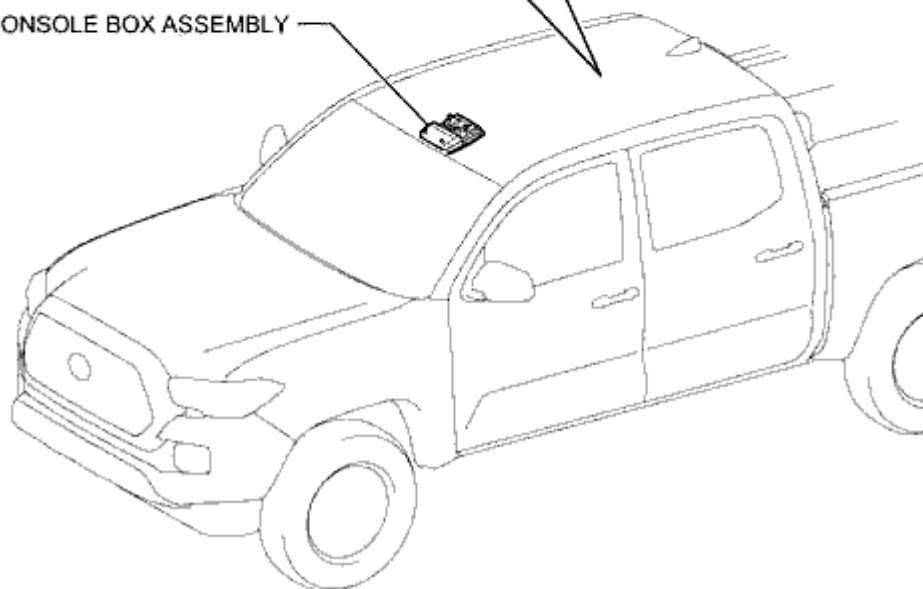
w/ Sliding Roof:



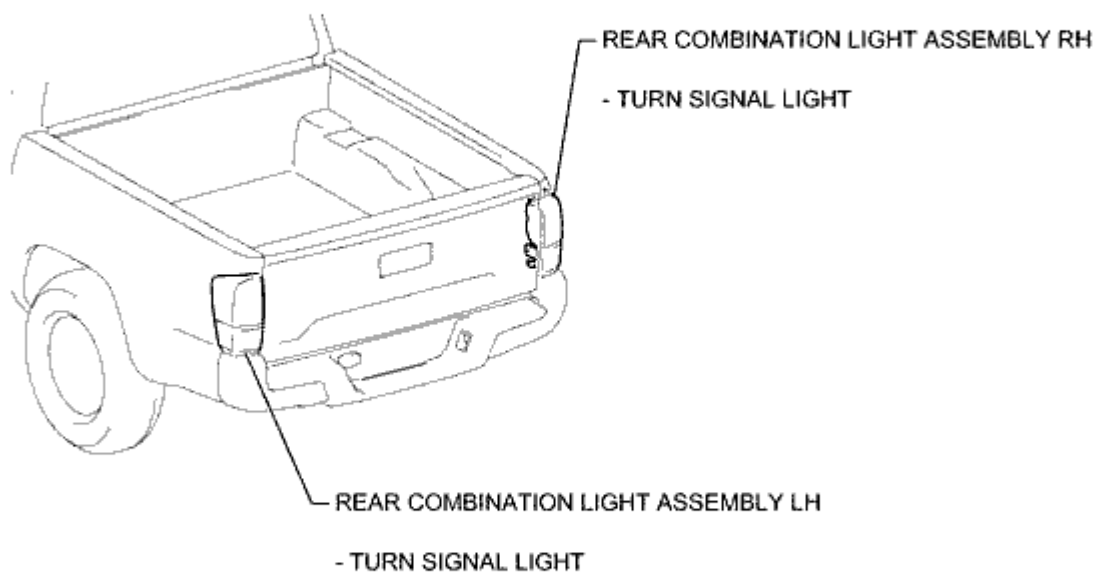
w/o Sliding Roof:



ROOF CONSOLE BOX ASSEMBLY

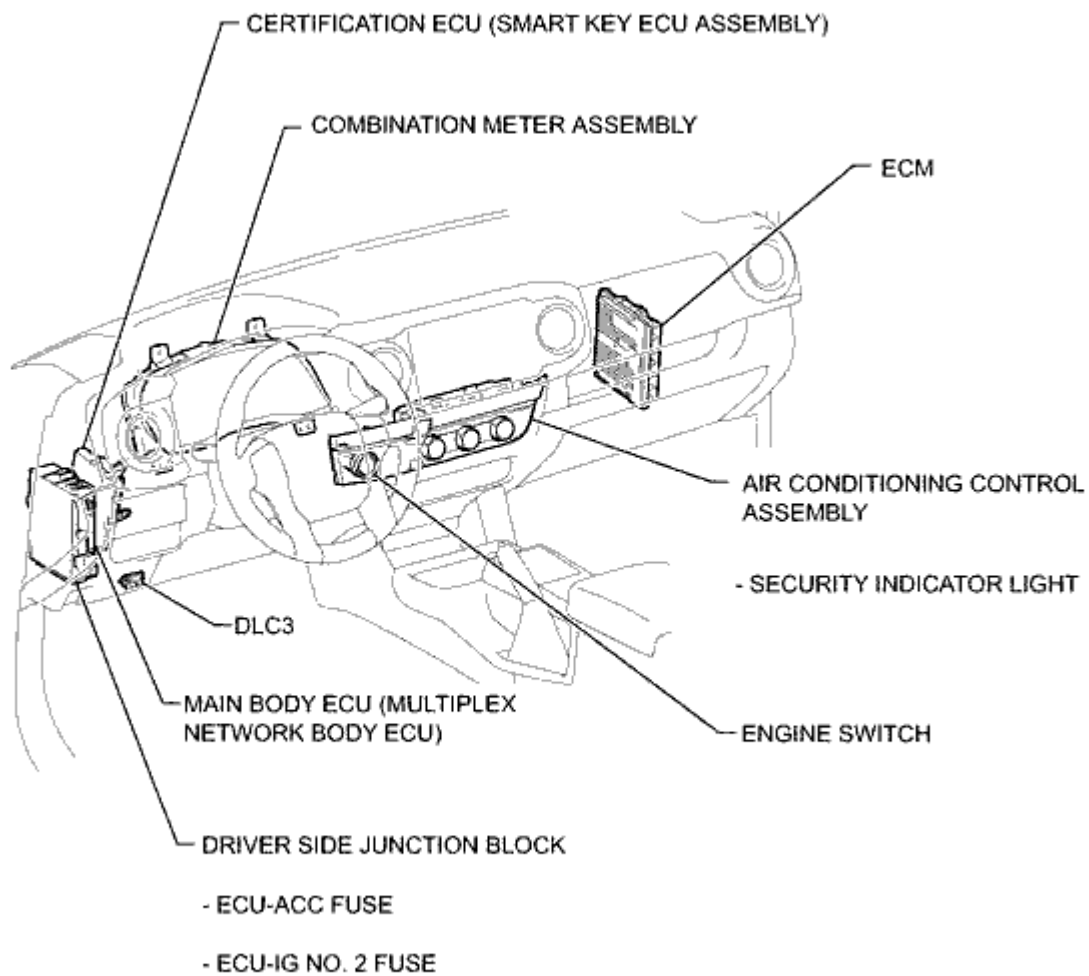


ILLUSTRATION



ILLUSTRATION

w/ Smart Key System:



ILLUSTRATION

w/o Smart Key System:

for 2GR-FKS:

for 2TR-FE:

ECM

ECM

COMBINATION
METER
ASSEMBLY

AIR CONDITIONING
CONTROL ASSEMBLY

- SECURITY INDICATOR LIGHT

DLC3

MAIN BODY ECU (MULTIPLEX
NETWORK BODY ECU)

UNLOCK WARNING SWITCH ASSEMBLY

DRIVER SIDE JUNCTION BLOCK

- ECU-ACC FUSE

- ECU-IG NO. 2 FUSE



Last Modified: 11-13-2015	6.6 L	Doc ID: RM000003AEH09OX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: PRECAUTION; 2016 MY Tacoma [08/2015 -]		

PRECAUTION

1. IGNITION SWITCH EXPRESSIONS

(a) The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	LOCK	Off
Ignition Switch ACC	ACC	On (ACC)
Ignition Switch ON	ON	On (IG)
Engine Start	START	Start



Last Modified: 11-13-2015	6.6 T	Doc ID: RM00000368904RX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: PROBLEM SYMPTOMS TABLE; 2016 MY Tacoma [08/2015 -]		

PROBLEM SYMPTOMS TABLE

HINT:

- Troubleshooting of the theft deterrent system is based on the premise that the power door lock control system, wireless door lock control system*1 and smart key system*2 are operating normally. Accordingly, before troubleshooting the theft deterrent system, first make certain that the power door lock control system, wireless door lock control system*1 and smart key system*2 are operating normally.
*1: w/ Wireless Door Lock System
*2: w/ Smart Key System
- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

Theft Deterrent System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Security indicator light does not illuminate when theft deterrent system is set by key linked operation, wireless operation*1 or entry operation*2.	Proceed to "Theft Deterrent System cannot be Set or Unset"	INFO
After doors are locked by key linked operation, wireless operation*1 or entry operation*2 while engine hood is open, theft deterrent system cannot be set by closing the engine hood.		
Theft deterrent system cannot be unset by key link unlock, wireless door unlock*1 or entry door unlock*2.		
Theft deterrent system unexpectedly sets itself.*1	Proceed to "Theft Deterrent System Unexpectedly Sets Itself"	INFO
Theft deterrent system cannot be unset by turning the engine on.	Proceed to "Theft Deterrent System is not Unset when Engine is Running"	INFO
While alarm is armed, battery is reconnected but alarm does not sound.	Proceed to "While Alarm is Armed, Battery is Reconnected but Alarm does not Sound"	INFO
While alarm is armed, engine hood opened but alarm does not sound.	Proceed to "While Alarm is Armed, Engine Hood is Opened but Alarm does not Sound"	INFO
Security indicator light does not operate.	Proceed to engine immobiliser system "Security Indicator Light Does not Blink"*2	INFO
	Proceed to engine immobiliser system "Security Indicator Light Does not Blink"*3	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
Headlights, taillights or hazard warning lights do not flash while theft deterrent system is in warning operation.	Proceed to "Some Alarm Functions do not Operate"	INFO
Interior lights do not illuminate while theft deterrent system is in warning operation.		
Vehicle horn do not sound while theft deterrent system is in warning operation.		
Security horn do not sound while theft deterrent system is in warning operation.		

*1: w/ Wireless Door Lock System

*2: w/ Smart Key System

*3: w/o Smart Key System



Last Modified: 11-13-2015	6.6 D	Doc ID: RM0000026P008KX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: SYSTEM DESCRIPTION; 2016 MY Tacoma [08/2015 -]		

SYSTEM DESCRIPTION

1. OUTLINE OF THEFT DETERRENT SYSTEM

- The theft deterrent system can be set/canceled by locking/unlocking the doors using the following operation:
 - Entry lock operation*1
 - Wireless lock operation*2
 - Key-linked lock operation
 - *1: w/ Smart Key System
 - *2: w/ Wireless Door Lock System
- The alarm function will be activated when someone attempts to forcibly unlock any of the doors or open any of the doors, engine hood while the system is in the armed state.
- In the alarm sounding state, the system illuminates the interior light and blinks the hazard warning lights, the headlights and taillights. At the same time, the system sounds the vehicle horns and security horn to deter break-in and theft as well as to warn people around the vehicle.

HINT:

The interior light is illuminated if the No. 1 room light assembly switch in DOOR position and the roof console box assembly switch DOOR position.

- The theft deterrent system has the active arming mode. There are 4 states; a disarmed state, an arming preparation state, an armed state and an alarm sounding state.

(a) Disarmed state:

- The alarm function is not operating.
- The theft deterrent system is not operating.

(b) Arming preparation state:

- The time until the system goes into the armed state.
- The theft deterrent system is not operating.

(c) Armed state:

- The theft deterrent system is operating.

(d) Alarm sounding state:

- The alarm function is operating.

Alarm time:

Approximately 57 seconds

Alarm Methods and Time

Alarm Method	Headlights	Blinking
	Taillights	Blinking
	Hazard Warning Lights	Blinking

	Interior Light	Illuminating
	Vehicle Horns	Sounding (approximately. 0.4-second cycles)
	Security Horn	Sounding (approximately. 0.4-second cycles)
Alarm Time	Approximately 57 seconds	

2. FUNCTION OF MAIN COMPONENTS

COMPONENT	FUNCTION
Security indicator light	Informs driver of theft deterrent system status.
Security horn	Sounds when attempted break-in or theft is detected.
Headlights	Blink when attempted break-in or theft is detected.
Taillights	• Blink when attempted break-in or theft is detected. • Come on when theft deterrent system has entered alarm sounding state.
Hazard warning lights	Blink when attempted break-in or theft is detected.
Interior light	Comes on when attempted break-in or theft is detected.
Vehicle horns	Sound when attempted break-in or theft is detected.
Door courtesy light switch	Detects door status (open or closed).
Door unlock detection switch	Detects door status (locked or unlocked).
Hood courtesy switch	Detects hood status (open or closed).
Certification ECU (smart key ECU assembly)*1	• Receives wireless door lock/unlock signal. • Receives entry door lock/unlock signal.
Main body ECU (multiplex network body ECU)*2	Receives wireless door lock/unlock signal.

*1: w/ Smart Key System

*2: w/ Wireless Door Lock System

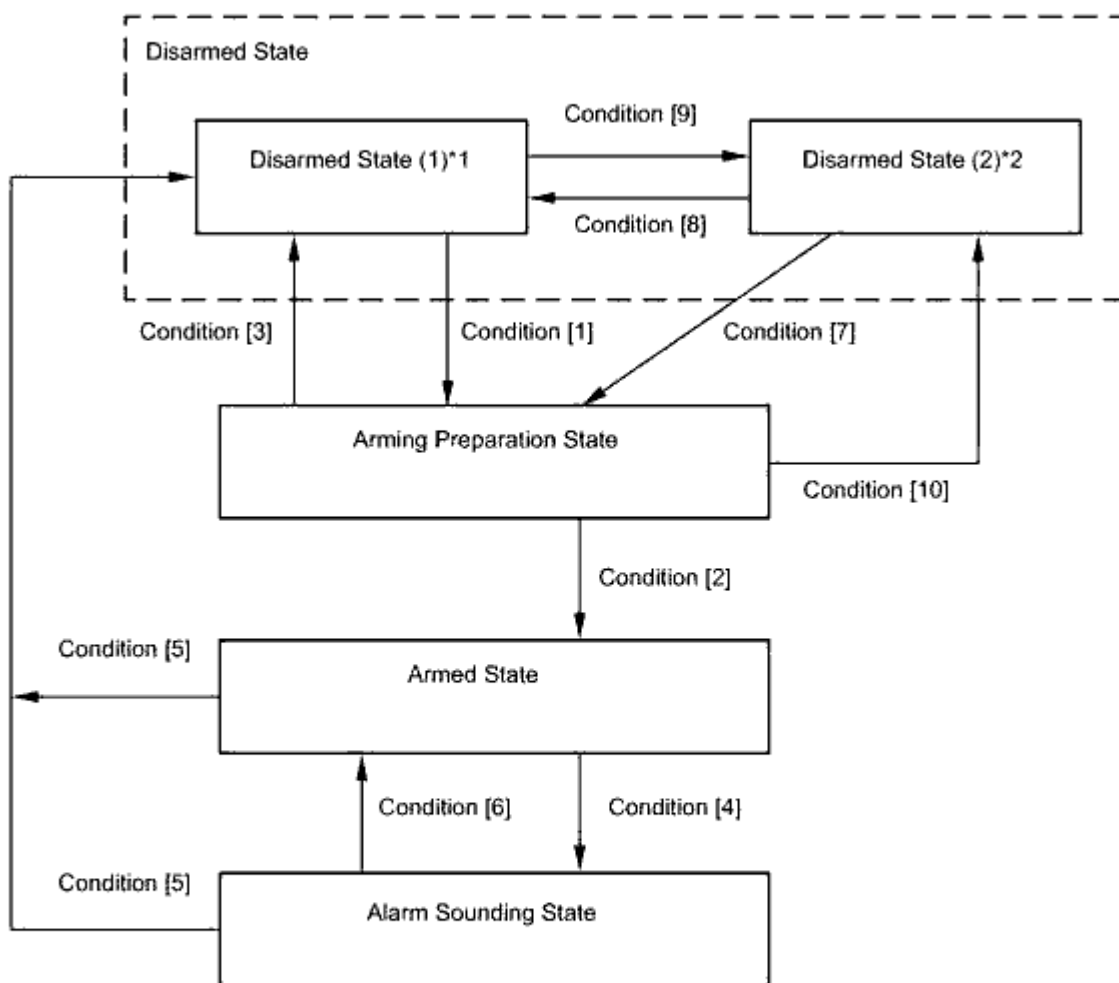
3. ACTIVE ARMING MODE

HINT:

Active arming mode starts the alarm control immediately after the doors are locked.

(a) Active arming mode:

This system operates as described in the diagram below when one of the items for each condition is met.



*1: Disarmed state 1 is the normal disarmed state

*2: Disarmed state 2 is set from either the disarmed state 1 or arming preparation state

w/ Smart Key System

CONDITION	ITEM
Condition [1]	In disarmed state 1, when the ignition switch is off, the system state is switched if the following condition is met: • With all doors and the engine hood closed, all doors are locked by wireless operation, entry operation or key linked operation. In disarmed state 1, when the ignition switch is off, the engine hood is closed, and all doors are locked, the system state is switched if the following condition is met: • All doors are closed when any door is opened.
Condition [2]	Allow approximately 30 seconds to elapse.

CONDITION	ITEM
Condition [3]	• All doors are unlocked by wireless operation, entry operation or key linked operation. • Any door is unlocked. • Any door is opened. • The ignition switch is turned to ACC or IG. • The battery is reconnected.
Condition [4]	• The engine hood is opened when the engine hood is closed. • The battery is reconnected. • Any door is opened when all doors are closed. • Any door is unlocked when all doors are locked. • When 5 seconds or more have elapsed after the ignition switch is turned off, the ignition switch is turned to ON.
Condition [5]	• The ignition switch is turned to ON and the engine is run for more than 2 seconds. • All doors are unlocked by wireless operation, entry operation or key linked operation. • Turn the ignition switch to ACC or ON within 5 seconds after the ignition switch is turned off.
Condition [6]	After approximately 57 seconds, alarm stops and system returns to armed state.
Condition [7]	The engine hood is closed
Condition [8]	• Any door is unlocked when all doors are locked. • Any door is opened. • The ignition switch is turned to ACC or IG. • The battery is reconnected. • All doors are unlocked by wireless operation, entry operation or key linked operation.
Condition [9]	In disarmed state 1, when the ignition switch is off, the system state is switched if the following condition is met: • With all doors closed, and the engine hood opened, all doors are locked by wireless operation, entry operation or key linked operation. In disarmed state 1, when the ignition switch is off, the engine hood is opened, and all doors are locked, the system state is switched if the following condition is met: • All doors are closed when any door is opened.
Condition [10]	The engine hood is opened

w/o Smart Key System

CONDITION	ITEM
Condition [1]	In disarmed state 1, when the ignition switch is off, the system state is switched if the following condition is met when the key is not in the key cylinder: • With all doors, the engine hood closed, all doors are locked by wireless operation*1 or key linked operation. In disarmed state 1, when the ignition switch is off, the engine hood is closed, and all doors are

CONDITION	ITEM
	locked, the system state is switched if the following condition is met when the key is not in the key cylinder: • All doors are closed when any door is opened.
Condition [2]	Allow approximately 30 seconds to elapse.
Condition [3]	• All doors are unlocked by wireless operation*1 or key linked operation. • Any door is unlocked. • Any door is opened. • Key is in the key cylinder. • The ignition switch is turned to ACC or ON. • The battery is reconnected.
Condition [4]	• The engine hood is opened when the engine hood is closed. • The battery is reconnected. • Any door is opened when all doors are closed. • Any door is unlocked when all doors are locked. • Turn the ignition switch to ON when the key is not in the key cylinder.
Condition [5]	• The ignition switch is turned to ON and the engine is run for more than 2 seconds. • All doors are unlocked by wireless operation*1 or key linked operation. • Turn the ignition switch to ACC or ON when the key is in the key cylinder.
Condition [6]	• After approximately 57 seconds, alarm stops and system returns to armed state.
Condition [7]	With the engine hood closed
Condition [8]	• Any door is unlocked when all doors are locked. • Any door is opened. • Key is in the key cylinder. • Turn the ignition switch to ACC or ON. • The battery is reconnected. • All doors are unlocked by wireless operation or key linked power door lock operation.
Condition [9]	In disarmed state 1, when the ignition switch is off, the system state is switched if the following condition is met when the key is not in the key cylinder: • With all doors closed, and the engine hood opened, all doors are locked by wireless operation*1 or key linked operation. In disarmed state 1, when the ignition switch is off, the engine hood is opened, and all doors are locked, the system state is switched if the following condition is met when the key is not in the key cylinder: • All doors are closed when any door is opened.
Condition [10]	The engine hood is opened.

*1: w/ Wireless Door Lock System

4. FORCED DOOR LOCK CONTROL

(a) The forced door lock control prevents the vehicle from being tampered with. Immediately after a door is unlocked (armed starts), all doors are forced to lock by a forced door lock signal.

(1) If the following conditions are met, the forced door lock control is operated.

- The key is not in the key cylinder.*
- The theft deterrent system is in the armed state.
- Any door is unlocked.

*: w/o Smart Key System

5. ALARM MEMORY FUNCTION

(a) If the alarm is set off (tampering is detected) while the theft deterrent system is armed, it will be stored by the alarm memory function. Whenever the theft deterrent system is canceled, the alarm memory function causes the taillights to light up for 2 seconds in order to inform you that the alarm has been set off.

(1) Conditions that cause the taillights to light up for 2 seconds:

The theft deterrent system has entered the alarm sounding state (tampering has been detected) at least once.

HINT:

Active arming mode: See Active Arming Mode.

6. PANIC ALARM CONTROL (w/ PANIC Switch)

HINT:

Security horn does not sound when the panic alarm control is operated.

(a) The panic alarm control makes it possible to voluntarily set off the panic alarm by pressing the panic switch on the wireless transmitter.

(1) Conditions that cause the panic alarm control to set off the panic alarm:

The panic switch on the wireless transmitter is pressed under the following conditions:

- The ignition switch is off.
- The theft deterrent system is not in the alarm sounding state.

(2) Conditions that cause the panic alarm control to shut off the alarm:

Any of the following conditions is met during panic alarm operation:

- The ignition switch is turned to ON.
- The panic switch is pressed again.
- Any of the switches on the wireless transmitter (lock/unlock) is pressed.
- The panic alarm ends (approximately 57 seconds have elapsed).
- The theft deterrent system switches to the alarm sounding state. Under this condition, the theft deterrent system is controlling the alarm rather than the panic alarm control. In order to cancel this alarm, refer to the theft deterrent system alarm sounding state cancellation procedure.

7. SECURITY INDICATOR LIGHT OUTPUT

(a) According to the state of the theft deterrent system, the main body ECU (multiplex network body ECU) outputs a signal to turn the security indicator light on. However, some of the actual lighting conditions of the security indicator light are different from the output signals of the main body ECU (multiplex network

body ECU).

Output

STATE OF THEFT DETERRENT SYSTEM	SECURITY INDICATOR LIGHT	
	OUTPUT SIGNAL FROM MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)	ACTUAL LIGHTING CONDITION
Disarmed state (1), (2)	OFF	OFF (Engine immobiliser system unset) BLINKING (Engine immobiliser system set)
Arming preparation state	ON	ON
Armed state	OFF	BLINKING
Alarm sounding state	ON	ON

Blinking Cycle

TIME	SECURITY INDICATOR LIGHT
0.125 seconds	ON
1.875 seconds	OFF

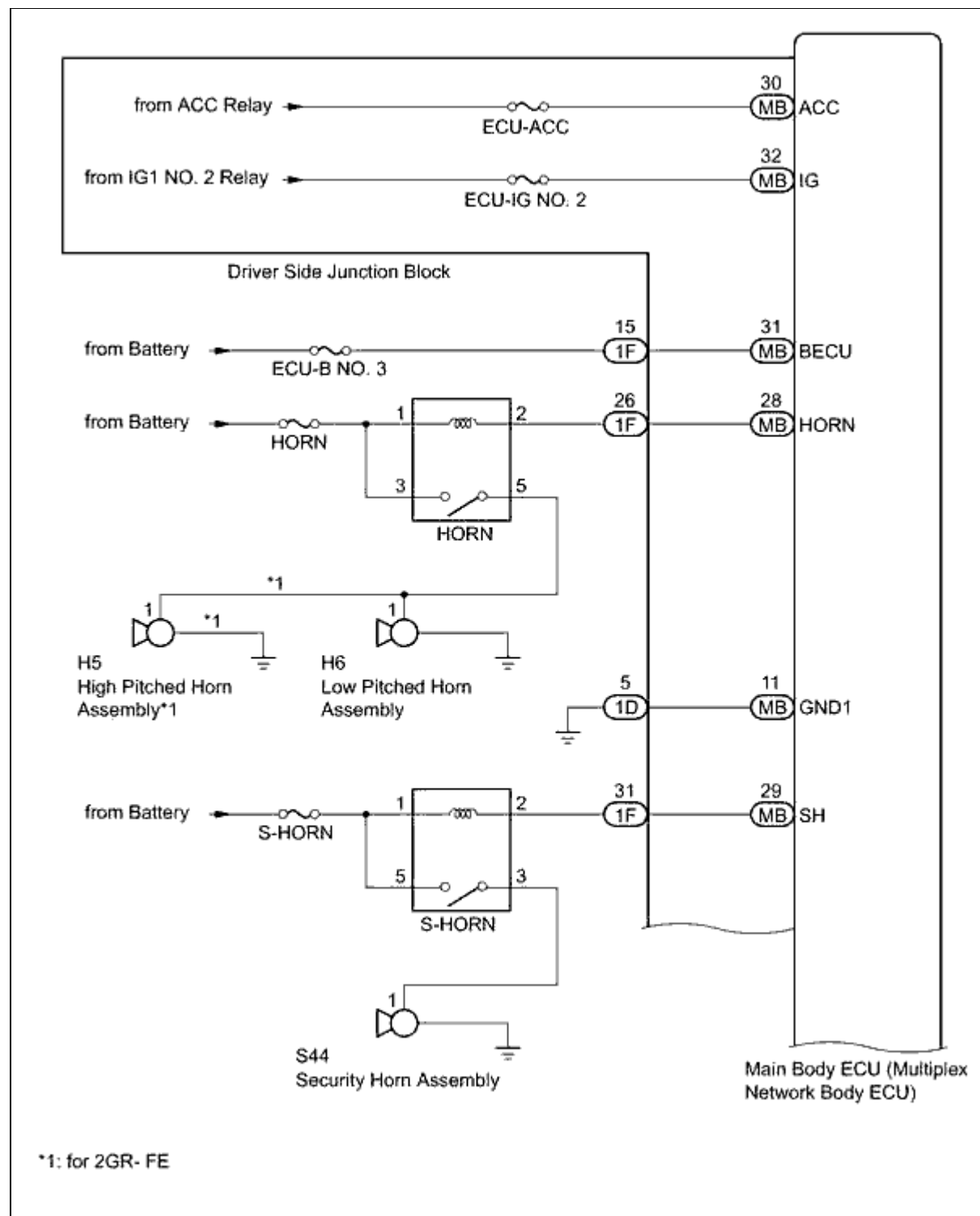
HINT:

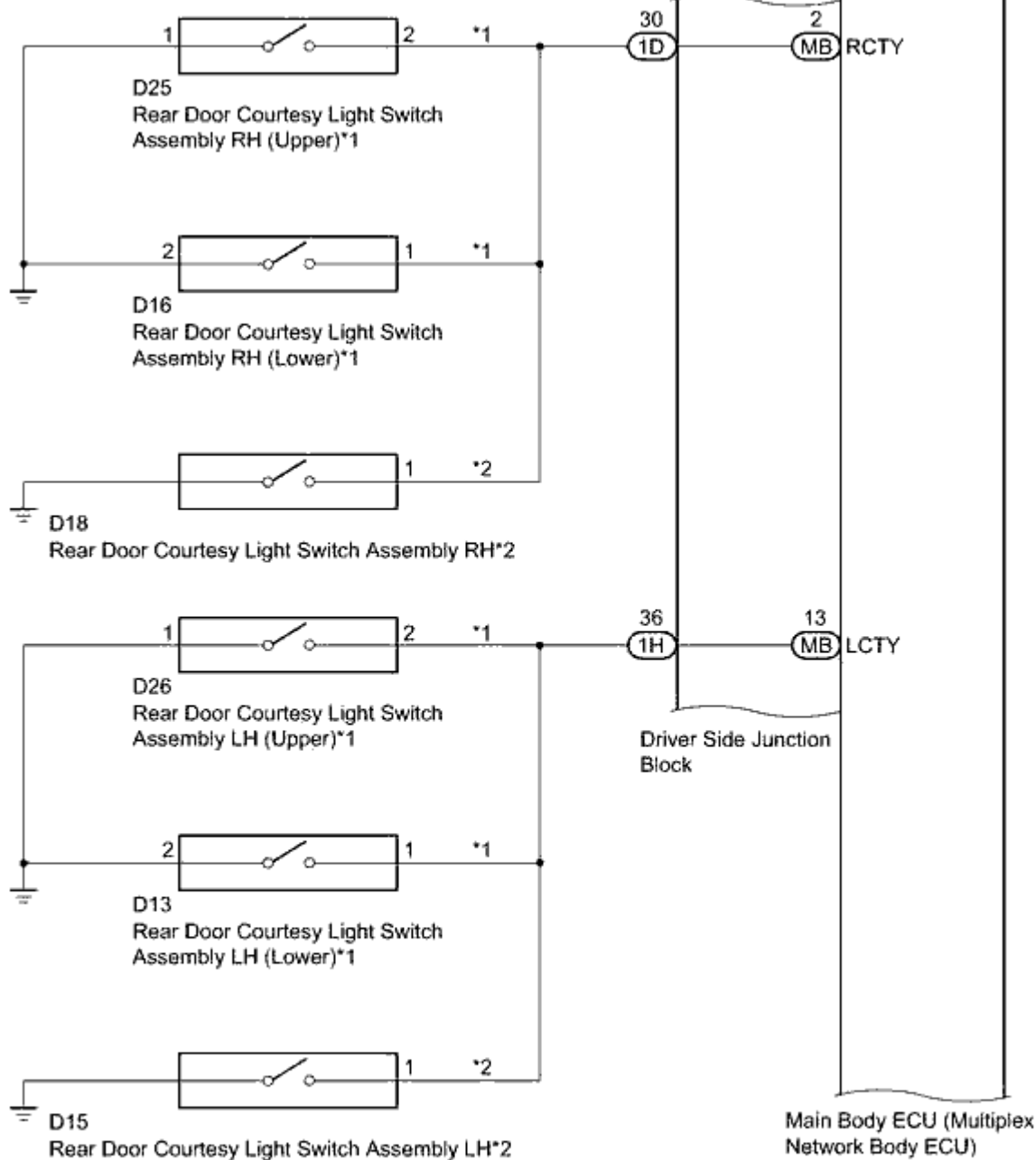
When the engine immobiliser system is set, the security indicator light blinks during both the disarmed state and the armed state, due to output signals from the engine immobiliser system.



Last Modified: 11-13-2015	6.6 U	Doc ID: RM00000368A04BX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: SYSTEM DIAGRAM; 2016 MY Tacoma [08/2015 -]		

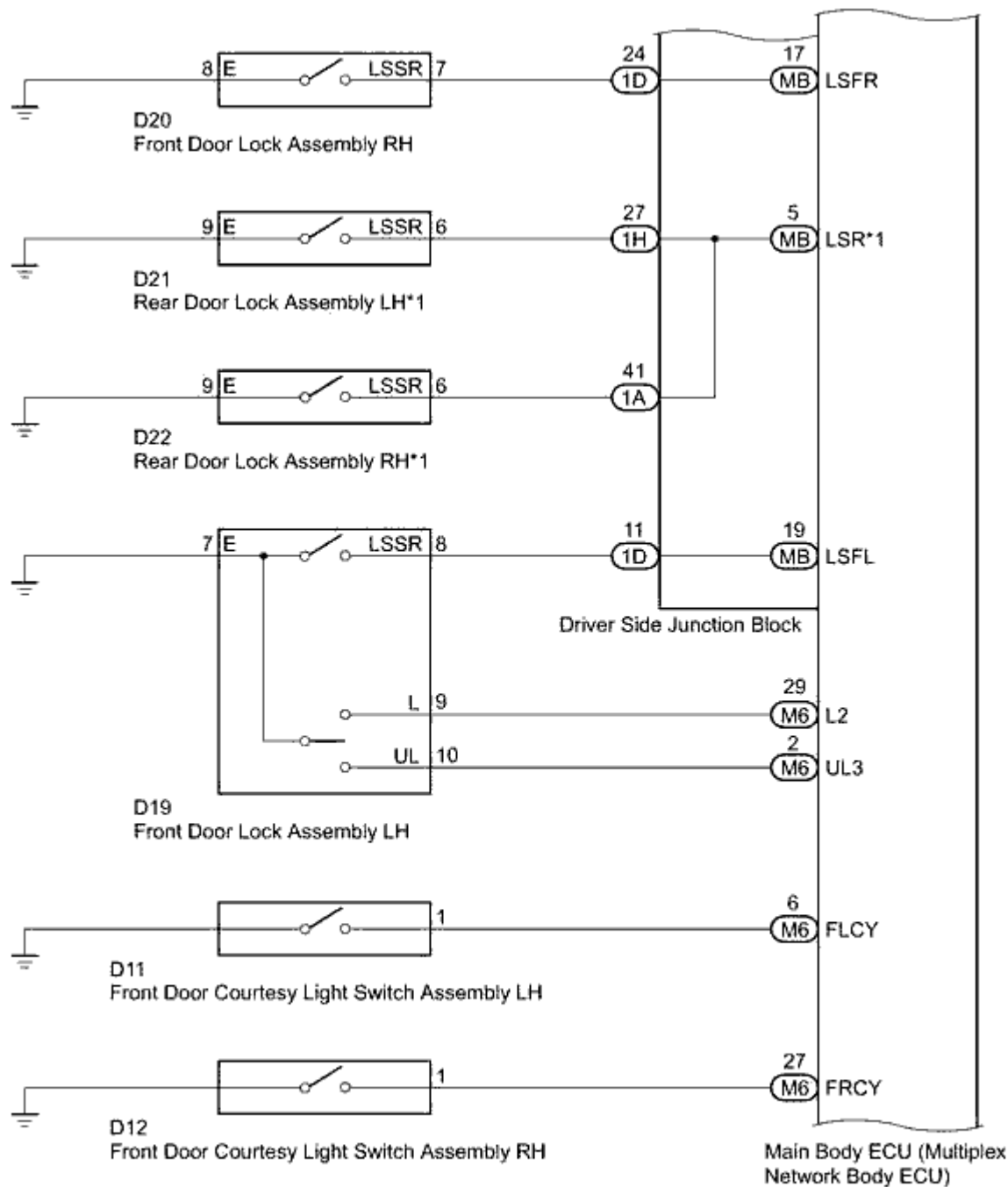
SYSTEM DIAGRAM



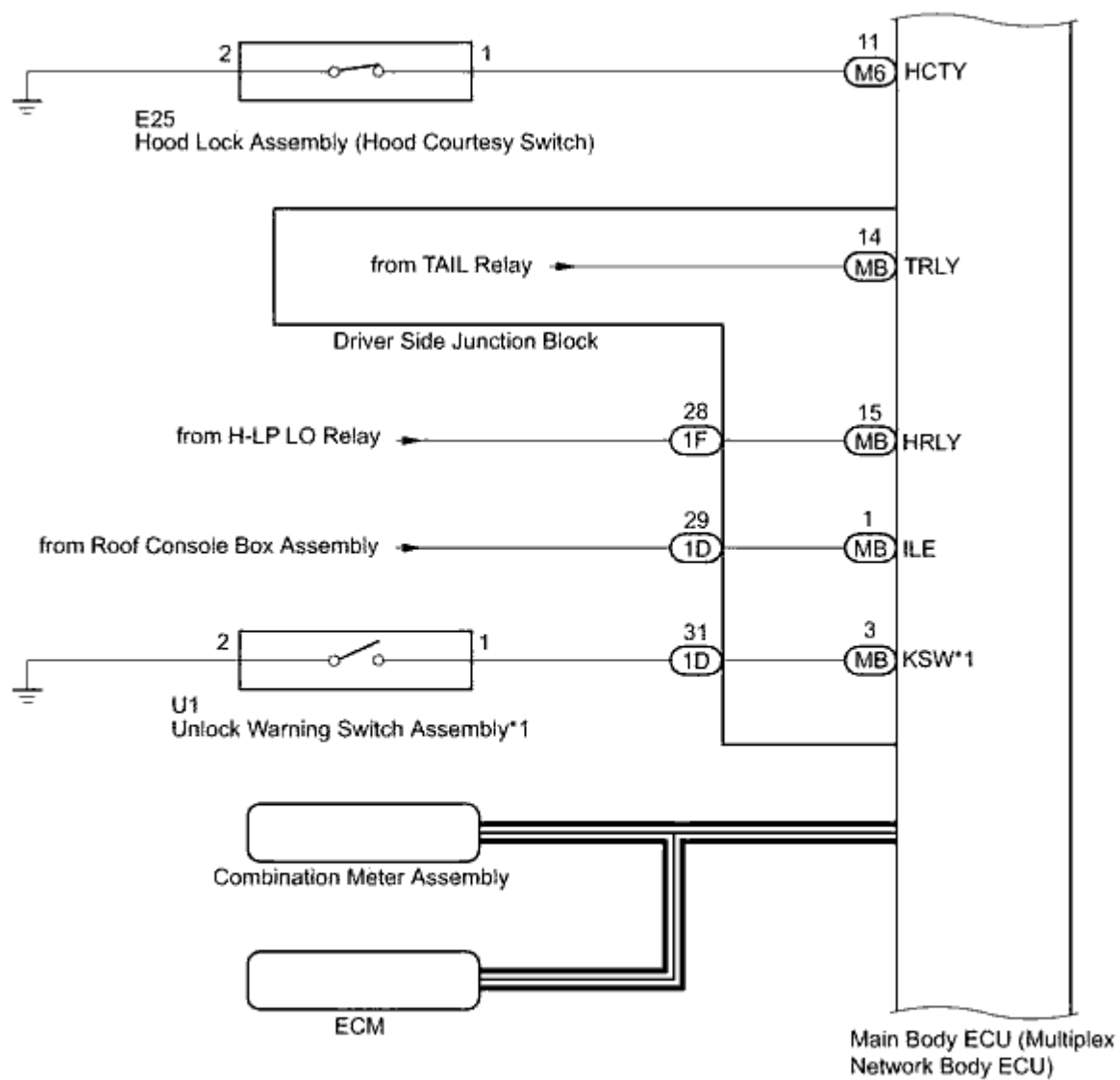


*1: for Access Cab

*2: for Double Cab

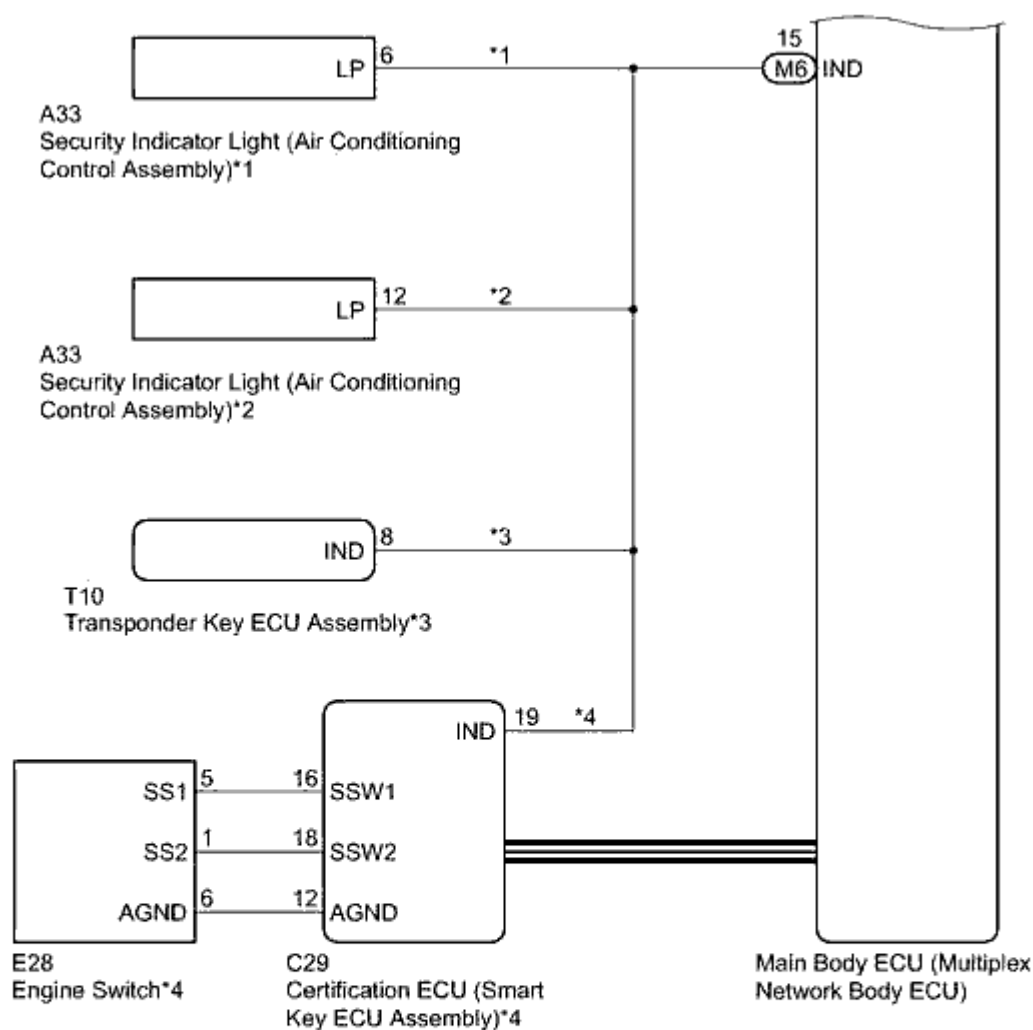


*1: for Double Cab



*1: w/o Smart Key System

≡ : CAN Communication Line



≡ : CAN Communication Line

*1: for Automatic Air Conditioning System

*2: for Manual Air Conditioning System

*3: w/o Smart Key System

*4: w/ Smart Key System



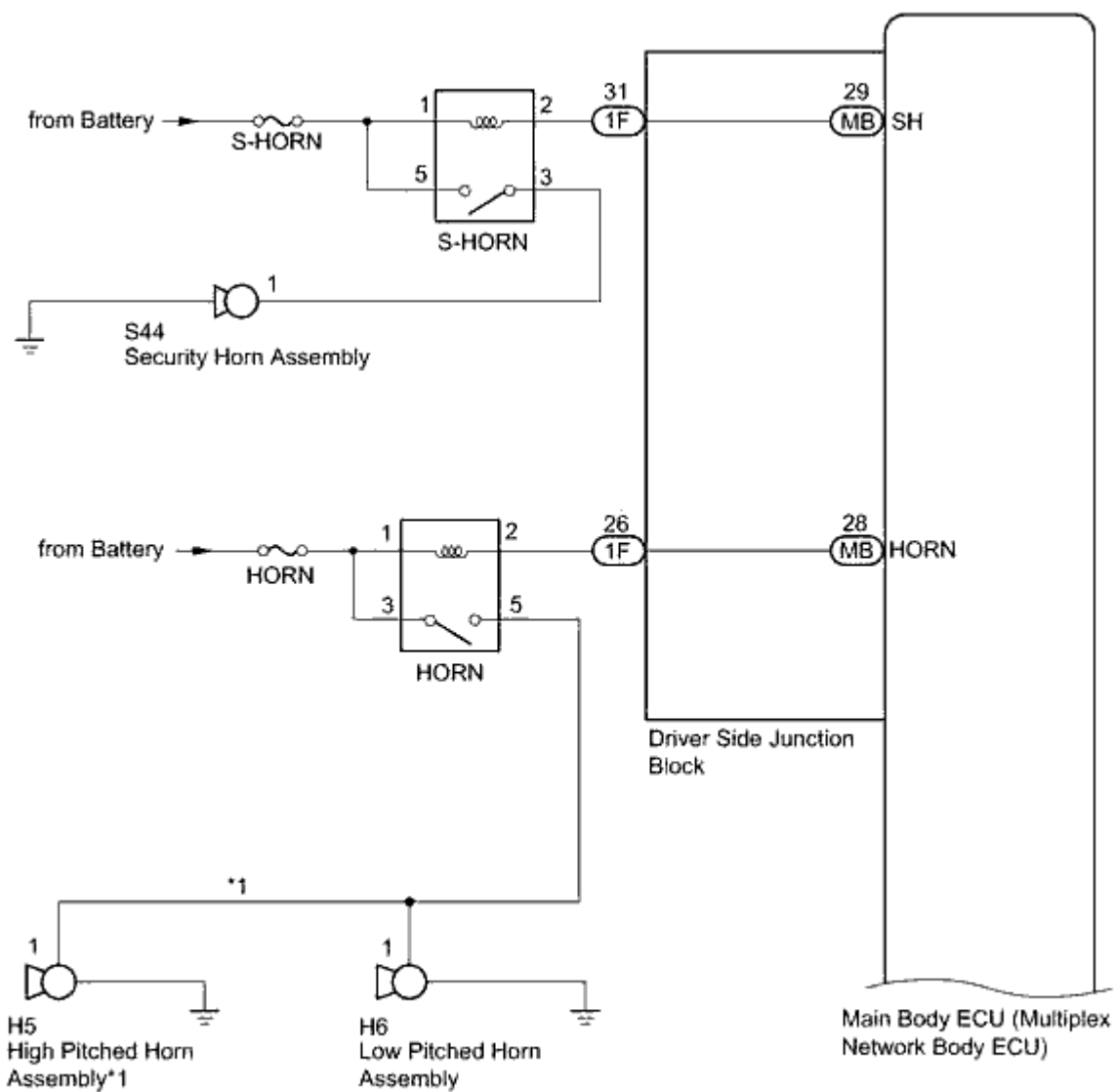
Last Modified: 11-13-2015	6.6 J	Doc ID: RM000005V24000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: Some Alarm Functions do not Operate; 2016 MY Tacoma [08/2015 -]		

Some Alarm Functions do not Operate

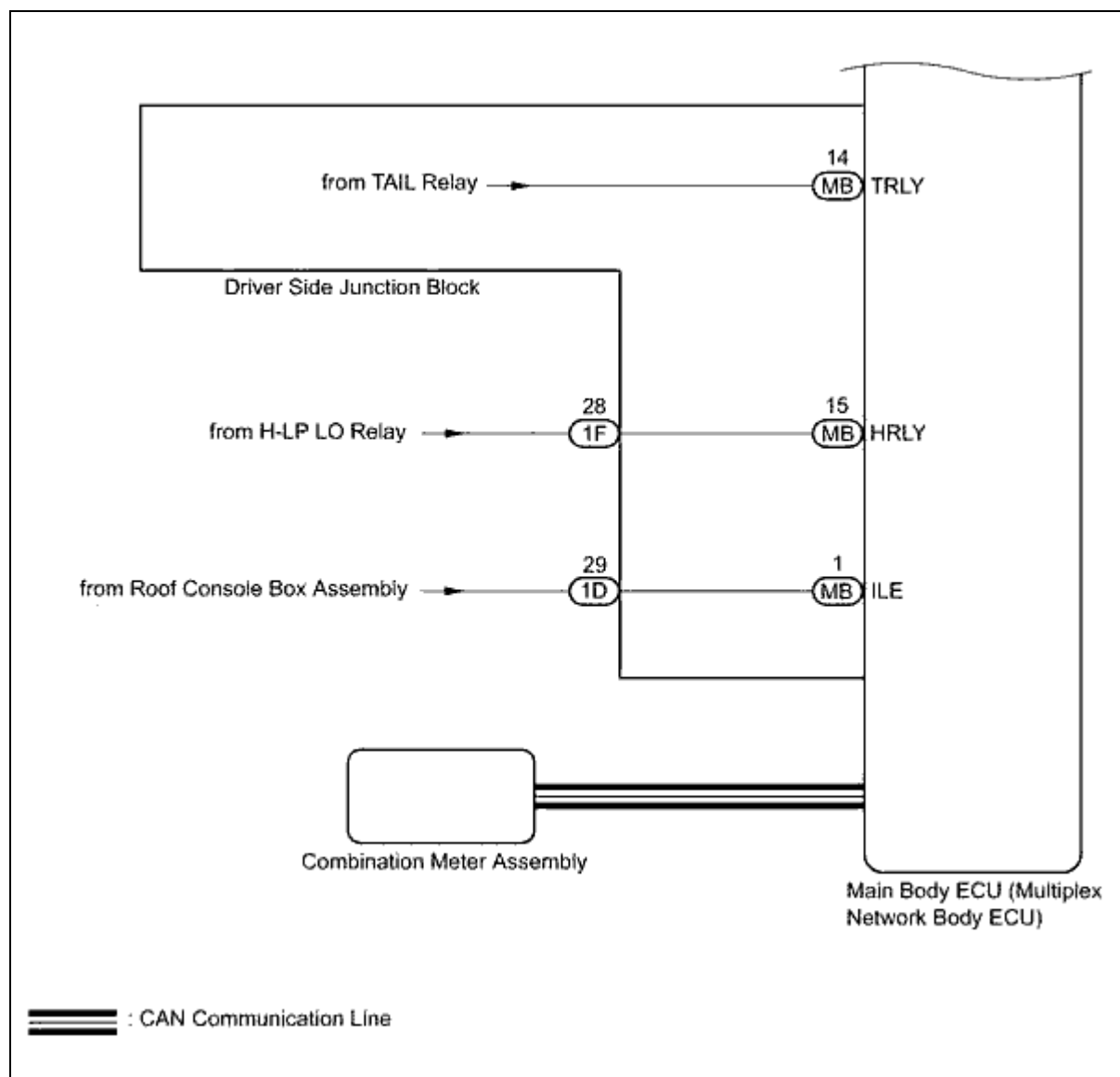
DESCRIPTION

When the alarm sounds, the following alarm functions operate: the roof console box assembly and No. 1 room light assembly illuminates, and the headlights, taillights and hazard lights flash, and the security horn and vehicle horn sound intermittently.

WIRING DIAGRAM



*1: for 2GR-FKS



INSPECTION PROCEDURE

NOTICE:

- Before replacing the main body ECU (multiplex network body ECU), refer to Registration INFO .*1
- *1: w/ Smart Key System
- Inspect the fuses for circuits related to this system before performing the following procedure.

PROCEDURE

1.	CHECK THEFT DETERRENT SYSTEM OPERATION
-----------	---

- (a) Open the driver side window.
- (b) Set the theft deterrent system.
 - (1) Close all doors and the hood.
 - (2) Lock the doors using wireless operation*1, key linked operation or entry operation*2.

*1: w/ Wireless Door Lock System

*2: w/ Smart Key System

(3) Wait for 30 seconds or more.

(c) After 30 seconds have elapsed, check that the security indicator light changes from illuminated to flashing.

(d) Unlock the driver door using the door lock knob.

(e) Check that each alarm component operates correctly.

Result

RESULT	PROCEED TO
Security horn is not activated	A
Vehicle horn is not activated	B
Headlights, taillights or hazard lights are not activated	C
Interior lights are not activated	D

B ► GO TO STEP 9

C ► GO TO LIGHTING SYSTEM

D ► GO TO LIGHTING SYSTEM

A



2.	PERFORM ACTIVE TEST USING TECHSTREAM (SECURITY HORN)
-----------	---

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Turn the Techstream on.

(d) Enter the following menus: Body Electrical / Main Body / Active Test.

(e) Perform the Active Test according to the display on the Techstream.

Main Body

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Security Horn	Security horn assembly	OFF/ON	-

OK:

The security horn assembly sounds and stops correctly when operated through the Techstream.

NG ► GO TO STEP 3

OK ► REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

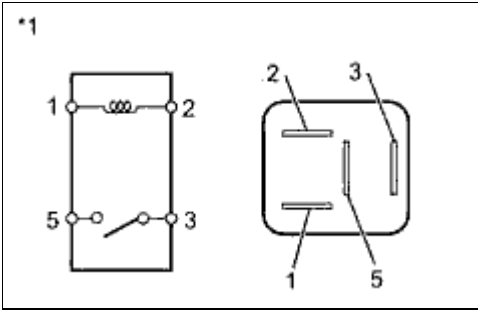
3.	INSPECT S-HORN RELAY
----	----------------------

(a) Remove the S-HORN relay from the engine room relay block.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
3 - 5	When battery voltage is not applied between terminals 1 and 2	10 kΩ or higher
3 - 5	When battery voltage is applied between terminals 1 and 2	Below 1 Ω



Text in Illustration

*1	S-HORN Relay
----	--------------

NG ► REPLACE S-HORN RELAY

OK
▼

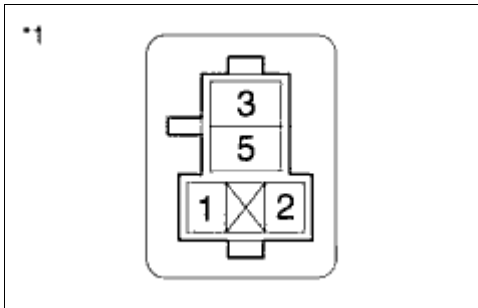
4.	CHECK HARNESS AND CONNECTOR (BATTERY - S-HORN RELAY)
----	--

(a) Remove the S-HORN relay from the engine room relay block assembly.

(b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 (S-HORN relay holder) - Body	Always	11 to 14 V



TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
ground		
5 (S-HORN relay holder) - Body ground	Always	11 to 14 V

Text in Illustration

*1	Engine Room Relay Block
----	-------------------------

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



5.	INSPECT SECURITY HORN ASSEMBLY
-----------	---------------------------------------

(a) Remove the security horn assembly  .

(b) Inspect the security horn assembly  .

NG  **REPLACE SECURITY HORN ASSEMBLY**

OK



6.	CHECK HARNESS AND CONNECTOR (S-HORN RELAY - SECURITY HORN ASSEMBLY)
-----------	--

(a) Remove the S-HORN relay from the engine room relay block assembly.

(b) Disconnect the S44 security horn assembly connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
3 (S-HORN relay holder) - S44-1	Always	Below 1 Ω
3 (S-HORN relay holder) or S44-1 - Body ground	Always	10 k Ω or higher

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK
▼

7.

CHECK HARNESS AND CONNECTOR (S-HORN RELAY - DRIVER SIDE JUNCTION BLOCK)

- (a) Remove the S-HORN relay from the engine room relay block assembly.
- (b) Disconnect the 1F driver side junction block connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
2 (S-HORN relay holder) - 1F-31	Always	Below 1 Ω
2 (S-HORN relay holder) or 1F-31 - Body ground	Always	10 kΩ or higher

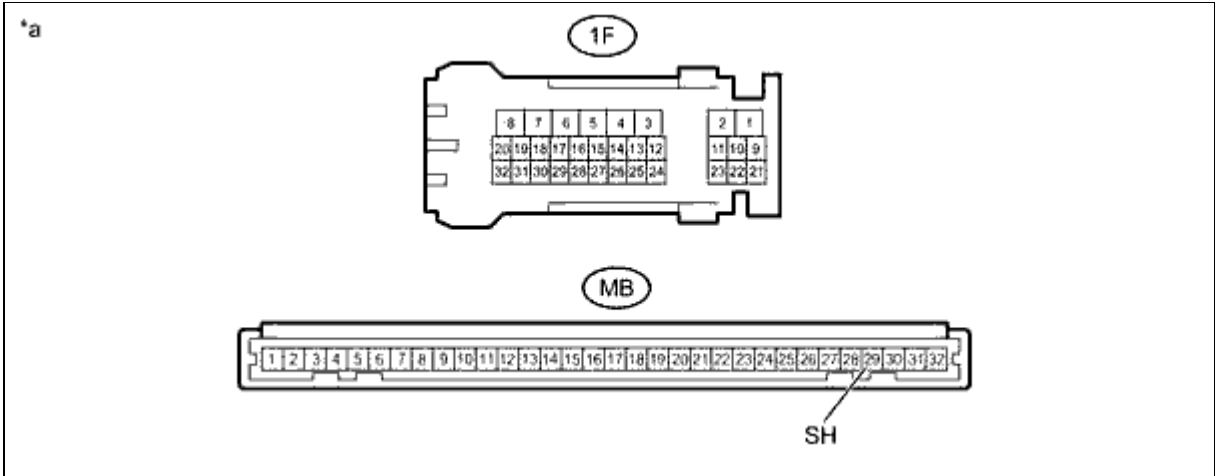
NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
▼

8.

INSPECT DRIVER SIDE JUNCTION BLOCK

- (a) Remove the main body ECU (multiplex network body ECU) INFO .
- (b) Disconnect the driver side junction block connector.
- (c) Measure the resistance according to the value(s) in the table below.



Text in Illustration

*a	Component without harness connected (Driver Side Junction Block)	-	-
----	--	---	---

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1F-31 - MB-29 (SH)	Always	Below 1 Ω

NG  **REPLACE DRIVER SIDE JUNCTION BLOCK**

OK  **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

9.	CHECK HORN OPERATION
-----------	-----------------------------

(a) Press the horn switch and check if the horn sounds.

OK:

Horn sounds

NG  **GO TO HORN SYSTEM**

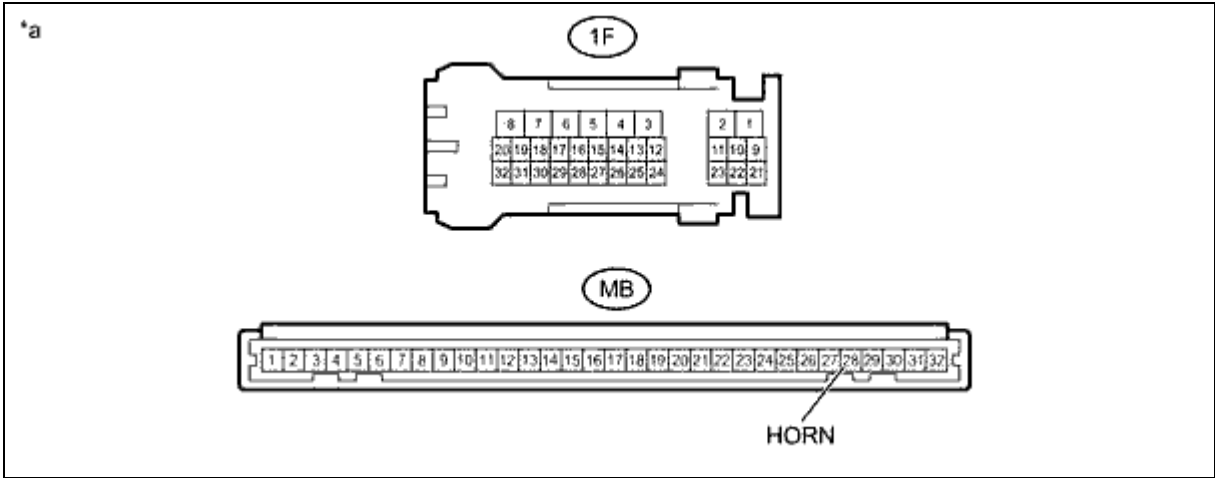
OK


10.	INSPECT DRIVER SIDE JUNCTION BLOCK
------------	---

(a) Remove the main body ECU (multiplex network body ECU)  .

(b) Disconnect the driver side junction block connector.

(c) Measure the resistance according to the value(s) in the table below.



Text in Illustration

*a	Component without harness connected (Driver Side Junction Block)	-	-
----	---	---	---

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1F-26 - MB-28 (HORN)	Always	Below 1 Ω

NG ► REPLACE DRIVER SIDE JUNCTION BLOCK

OK ► REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

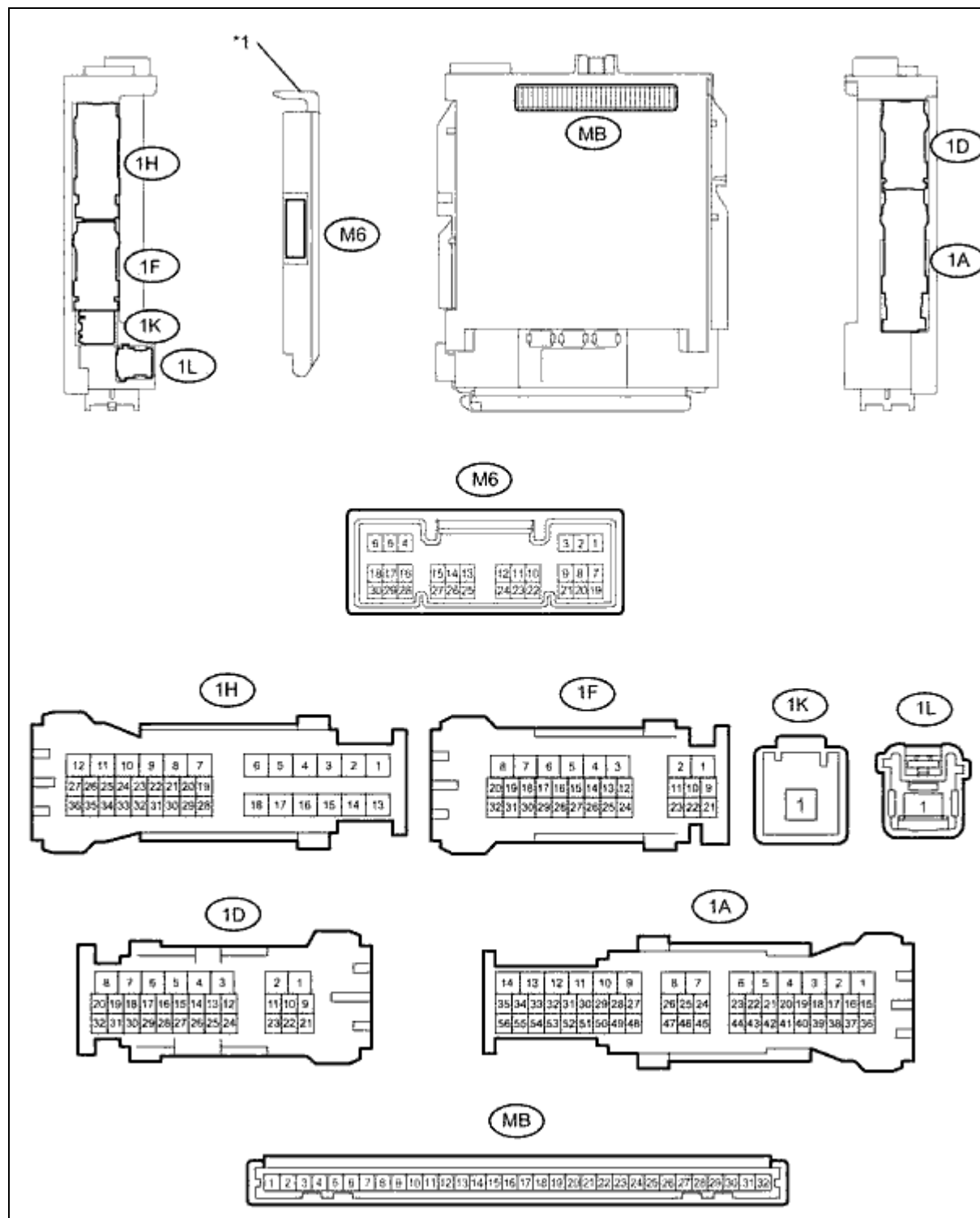


Last Modified: 11-13-2015	6.6 U	Doc ID: RM000001PQV06UX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: TERMINALS OF ECU; 2016 MY Tacoma [08/2015 -]		

TERMINALS OF ECU

1. CHECK MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) AND DRIVER SIDE JUNCTION BLOCK

(a) Disconnect the main body ECU (multiplex network body ECU) connectors.



Text in Illustration

*1	Main Body ECU (Multiplex Network Body ECU)	-	-
----	--	---	---

(b) Measure the voltage and resistance according to the value(s) in the table below.

HINT:

Measure the values on the wire harness side with the connectors disconnected.

TESTER CONNECTION	WIRING	TERMINAL DESCRIPTION	CONDITION	SPECIFIED
-------------------	--------	----------------------	-----------	-----------

	COLOR			CONDITION
MB-11(GND1) - Body ground	-	Ground	Always	Below 1 Ω
MB-31 (BECU) - Body ground	-	Battery power supply	Always	11 to 14 V
MB-30 (ACC) - Body ground	-	ACC power supply	Ignition switch ACC	11 to 14 V
MB-30 (ACC) - Body ground	-	ACC power supply	Ignition switch off	Below 1 V
MB-32 (IG) - Body ground	-	IG power supply	Ignition switch ON	11 to 14 V
MB-32 (IG) - Body ground	-	IG power supply	Ignition switch off	Below 1 V
MB-14 (TRLY) - Body ground	-	Supply battery to taillight relay drive	Always	11 to 14 V

If the result is not as specified, there may be a malfunction in the wire harness.

(c) Reconnect the main body ECU (multiplex network body ECU) connectors.

(d) Measure the voltage and check for pulses according to the value(s) in the table below.

TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
M6-27 (FRCY) - Body ground	LG - Body ground	Front door courtesy light switch RH input	Front door RH open	Below 1 V
M6-27 (FRCY) - Body ground	LG - Body ground	Front door courtesy light switch RH input	Front door RH open	11 to 14 V
M6-6 (FLCY) - Body ground	Y - Body ground	Front door courtesy light switch LH input	Front door LH open	Below 1 V
M6-6 (FLCY) - Body ground	Y - Body ground	Front door courtesy light switch LH input	Front door LH closed	11 to 14 V
1H-36 (LCTY) - Body ground	P - Body ground	Rear door courtesy light switch LH input*1 Upper access panel lock assembly LH input*2 Lower access panel lock assembly LH input*2	Rear door LH open	Below 1 V
1H-36 (LCTY) - Body ground	P - Body ground	Rear door courtesy light switch LH input*1 Upper access panel lock assembly LH input*2 Lower access panel lock assembly LH input*2	Rear door LH closed	Pulse generation
1D-30 (RCTY) - Body ground	V - Body ground	Rear door courtesy light switch RH input*1 Upper access panel lock	Rear door RH open	Below 1 V

TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
		assembly RH input*2 Lower access panel lock assembly RH input*2		
1D-30 (RCTY) - Body ground	V - Body ground	Rear door courtesy light switch RH input*1 Upper access panel lock assembly RH input*2 Lower access panel lock assembly RH input*2	Rear door RH closed	Pulse generation
1D-11 (LSFL) - Body ground	P - Body ground	Front door LH unlock detection switch input	Front door LH unlocked	Below 1 V
1D-11 (LSFL) - Body ground	P - Body ground	Front door LH unlock detection switch input	Ignition switch off, all doors closed and front door LH locked	Pulse generation
1D-24 (LSFR) - Body ground	GR - Body ground	Front door RH unlock detection switch input	Front door RH unlocked	Below 1 V
1D-24 (LSFR) - Body ground	GR - Body ground	Front door RH unlock detection switch input	Ignition switch off, all doors closed and front door RH locked	Pulse generation
1A-41 (LSR) - Body ground*1	Y - Body ground	Rear door RH unlock detection switch input	Rear door RH or LH unlocked	Below 1 V
1A-41 (LSR) - Body ground*1	Y - Body ground	Rear door RH unlock detection switch input	Ignition switch off, all doors closed and rear door RH and LH locked	Pulse generation
1H-27 (LSR) - Body ground*1	L - Body ground	Rear door LH unlock detection switch input	Rear door LH or RH unlocked	Below 1 V
1H-27 (LSR) - Body ground*1	L - Body ground	Rear door LH unlock detection switch input	Ignition switch off, all doors closed and rear door LH and RH locked	Pulse generation
1D-31 (KSW) - Body ground*3	G - Body ground	Key unlock warning switch input	Key in ignition key cylinder	Below 1 V
			No key in ignition key cylinder	11 to 14 V or Pulse generation
M6-15 (IND) - Body ground*3	V - Body ground	Security indicator illumination	Security indicator light illuminates (It illuminates only for 57 seconds in alarm sounding state.)	3 to 10 V
1F-31 (SH) - Body ground	L - Body ground	Security horn drive	Security horn sounding (Theft deterrent system is in alarm sounding state)	Pulse generation (Below 1 V ← → 11 to 14 V)
1F-26 (HORN) - Body ground	L - Body ground	Vehicle horn drive	Vehicle horns sounding (Theft deterrent system is in alarm sounding state)	Pulse generation (Below 1 V ← → 11 to 14 V)

TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
1F-28 (HRLY) - Body ground	W - Body ground	Headlight relay driver output	Headlight blinks (Theft deterrent system is in alarm sounding state)	Pulse generation (Below 1 V ← → 11 to 14 V)
1D-29 (ILE) - Body ground	BE - Body ground	Interior light driver output	Interior light illuminates (Theft deterrent system is in alarm sounding state)	11 to 14 V
M6-2 (UL3) - Body ground	G - Body ground	Driver door key-linked unlock input	Driver door key cylinder turned to neutral position → on (unlock)	Pulse generation → Below 1 V
M6-29 (L2) - Body ground	SB - Body ground	Driver door key-linked lock input	Driver door key cylinder turned to neutral position → on (lock)	Pulse generation → Below 1 V

*1: for Double Cab

*2: for Access Cab

*3: w/o Smart Key System

If the result is not as specified, the main body ECU (multiplex network body ECU) may have a malfunction.



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Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: Theft Deterrent System Unexpectedly Sets Itself; 2016 MY Tacoma [08/2015 -]		

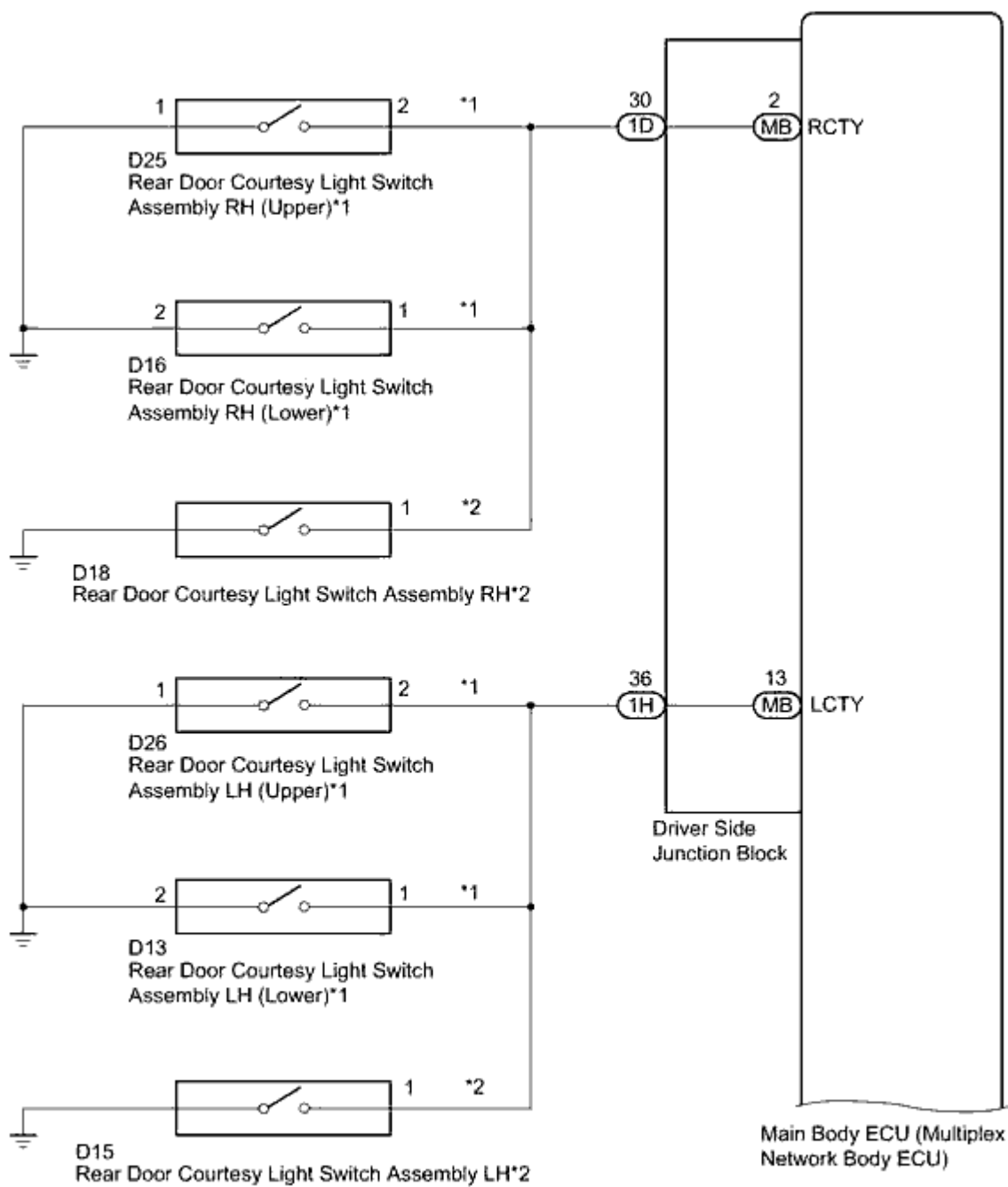
Theft Deterrent System Unexpectedly Sets Itself

DESCRIPTION

A situation in which the theft deterrent system unexpectedly sets itself can be caused when the main body ECU (multiplex network body ECU) cannot detect whether a door is open or closed.

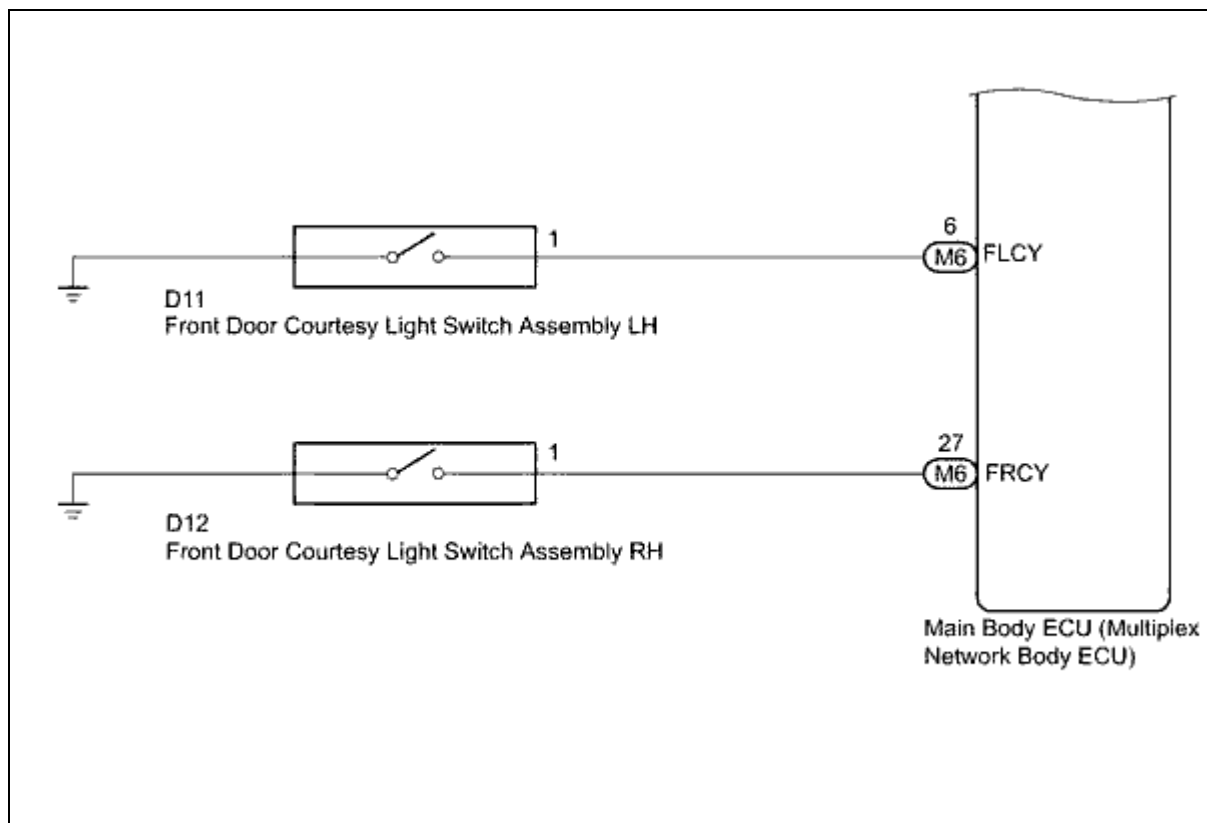
If the theft deterrent system unexpectedly sets itself, there may be a malfunction in a courtesy switch, the main body ECU (multiplex network body ECU) or a wire harness.

WIRING DIAGRAM



*1: for Access Cab

*2: for Double Cab



INSPECTION PROCEDURE

NOTICE:

- Before replacing the main body ECU (multiplex network body ECU), refer to Registration INFO .*1
- *1: w/ Smart Key System
- The theft deterrent system is also set when doors are locked by the auto lock function of the wireless door lock system.

PROCEDURE

1.	CHECK WIRELESS DOOR LOCK SYSTEM OPERATION
-----------	--

(a) Check that the auto lock function of the wireless door lock system can be canceled.

- (1) Unlock the doors using wireless operation or entry operation.
- (2) Within 60 seconds, open and close one of the doors.

Result

RESULT	PROCEED TO
Door locks are locked	A
Door locks are not locked	B

B ▶ **END (SYSTEM NORMAL)**

A

2.	READ VALUE USING TECHSTREAM (RR DOOR COURTESY SW, RL DOOR COURTESY SW, BACK DOOR COURTESY SW, FR DOOR COURTESY SW AND FL DOOR COURTESY SW)
----	---

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RR Door Courtesy SW	Rear door courtesy light switch assembly RH signal / ON or OFF	OFF: Rear door RH closed ON: Rear door RH open	-
RL Door Courtesy SW	Rear door courtesy light switch assembly LH signal / ON or OFF	OFF: Rear door LH closed ON: Rear door LH open	-
FR Door Courtesy SW	Front door courtesy light switch assembly RH signal / ON or OFF	OFF: Front door RH closed ON: Front door RH open	-
FL Door Courtesy SW	Front door courtesy light switch assembly LH signal / ON or OFF	OFF: Front door LH closed ON: Front door LH open	-

OK:

Normal conditions listed above are displayed.

NG **GO TO LIGHTING SYSTEM**

OK **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**



Last Modified: 11-13-2015	6.6 J	Doc ID: RM000005V20000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: Theft Deterrent System cannot be Set or Unset; 2016 MY Tacoma [08/2015 -]		

Theft Deterrent System cannot be Set or Unset

DESCRIPTION

When the ignition switch is turned off and all doors and the engine hood are closed, the theft deterrent system is set when doors are locked by wireless operation*1, key linked operation or entry operation*2. If all doors are closed but engine hood is open when doors are locked by wireless operation*1, key linked operation or the entry operation*2, the theft deterrent system will be set when engine hood is closed. Also, when the ignition switch is turned ON and the engine is run continuously for 2 seconds or more, or when the doors are unlocked by wireless operation*1, key linked operation or entry operation*2, the theft deterrent system is unset.

*1: w/ Wireless Door Lock System

*2: w/ Smart Key System

WIRING DIAGRAM

Refer to "System Diagram" [INFO](#).

INSPECTION PROCEDURE

NOTICE:

- Before replacing the main body ECU (multiplex network body ECU), refer to Registration [INFO](#).*1
- *1: w/ Smart Key System
- Inspect the fuses for circuits related to this system before performing the following procedure.

PROCEDURE

1.	CHECK POWER DOOR LOCK OPERATION
-----------	--

(a) Check the power door lock control operation [INFO](#).

Result

RESULT	PROCEED TO
OK (w/ Wireless Door Lock System)	A
OK (w/o Wireless Door Lock System)	B
NG	C

B  **GO TO STEP 8**

C  **GO TO POWER DOOR LOCK CONTROL SYSTEM**

A**2. CHECK WIRELESS DOOR LOCK OPERATION**

(a) Check the wireless door lock control operation using the door control transmitter module set sub-assembly *1 or electrical key transmitter sub-assembly*2.

*1: w/o Smart Key System

*2: w/ Smart Key System

Result

RESULT	PROCEED TO
OK (w/ Smart Key System)	A
OK (w/o Smart Key System)	B
NG (w/ Smart Key System)	C
NG (w/o Smart Key System)	D

B ► **GO TO STEP 8**

C ► **GO TO WIRELESS DOOR LOCK CONTROL SYSTEM (w/ Smart Key System)**

D ► **GO TO WIRELESS DOOR LOCK CONTROL SYSTEM (w/o Smart Key System)**

A**3. PERFORM ACTIVE TEST USING TECHSTREAM (IMMOBILISER INDICATOR)**

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Turn the Techstream on.

(d) Enter the following menus: Body Electrical / Smart Key / Active Test.

(e) Perform the Active Test according to the display on the Techstream.

Smart Key

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Immobiliser Indicator	Security indicator	OFF/ON	-

OK:

The security indicator light operates normally.

NG  **GO TO IMMOBILISER SYSTEM (w/ Smart Key System)**

OK



4.	READ VALUE USING TECHSTREAM (ACC SW AND IG SW)
-----------	---

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
ACC SW	Ignition switch / ON or OFF	ON: Ignition switch ACC OFF: Ignition switch off	-
IG SW	Ignition switch / ON or OFF	ON: Ignition switch ON OFF: Ignition switch off or ACC	-

OK:

ON or OFF appears on the screen according to whether the ignition switch is in ON or is in off or ACC.

NG  **GO TO LIGHTING SYSTEM**

OK



5.	READ VALUE USING TECHSTREAM (FR DOOR LOCK POS, FL DOOR LOCK POS, RR-DOOR LOCK POS SW AND RL-DOOR LOCK POS SW)
-----------	--

- (a) Connect the Techstream to the DLC3.

- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FR Door Lock Pos	Front door RH unlock detection switch / LOCK or UNLOCK	LOCK: Front door RH locked UNLOCK: Front door RH unlocked	-
FL Door Lock Pos	Front door LH unlock detection switch / LOCK or UNLOCK	LOCK: Front door LH locked UNLOCK: Front door LH unlocked	-
RR-Door Lock Pos SW*1	Rear door RH unlock detection switch / ON or OFF	ON: Rear door RH unlocked OFF: Rear door RH locked	-
RL-Door Lock Pos SW*1	Rear door LH unlock detection switch / ON or OFF	ON: Rear door LH unlocked OFF: Rear door LH locked	-

*1: for Double Cab

OK:

The Techstream display changes correctly in response to the lock/unlock operation.

NG  **GO TO LIGHTING SYSTEM**

OK



6.	READ VALUE USING TECHSTREAM (RR DOOR COURTESY SW, RL DOOR COURTESY SW, FR DOOR COURTESY SW AND FL DOOR COURTESY SW)
-----------	--

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RR Door Courtesy SW	Rear door courtesy light switch assembly RH signal / ON or OFF	OFF: Rear door RH closed ON: Rear door RH open	-
RL Door Courtesy SW	Rear door courtesy light switch assembly LH signal / ON or OFF	OFF: Rear door LH closed ON: Rear door LH open	-
FR Door Courtesy SW	Front door courtesy light switch assembly RH signal / ON or OFF	OFF: Front door RH closed ON: Front door RH open	-
FL Door Courtesy SW	Front door courtesy light switch assembly LH signal / ON or OFF	OFF: Front door LH closed ON: Front door LH open	-

OK:

Normal conditions listed above are displayed.

NG  **GO TO LIGHTING SYSTEM**

OK



7.	READ VALUE USING TECHSTREAM (HOOD COURTESY SW)
-----------	---

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Hood Courtesy SW	Hood courtesy switch / ON or OFF	ON: Hood open OFF: Hood closed	-

OK:

The Techstream display changes correctly in response to the hood courtesy switch (hood lock assembly) status.

NG  **GO TO STEP 13**

OK  **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

8.	PERFORM ACTIVE TEST USING TECHSTREAM (SECURITY INDICATOR)
-----------	--

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Smart Key / Active Test.
- (e) Perform the Active Test according to the display on the Techstream.

Main Body

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Security Indicator	Security indicator	OFF/ON	-

OK:

The security indicator light operates normally.

NG  **GO TO IMMOBILISER SYSTEM (w/o Smart Key System)**

OK



9.	READ VALUE USING TECHSTREAM (ACC SW AND IG SW)
-----------	---

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
ACC SW	Ignition switch / ON or OFF	ON: Ignition switch ACC OFF: Ignition switch off	-
IG SW	Ignition switch / ON or OFF	ON: Ignition switch ON OFF: Ignition switch off or ACC	-

OK:

ON or OFF appears on the screen according to whether the ignition switch is in ON or is in off or ACC.

NG  **GO TO LIGHTING SYSTEM**

OK



10.	READ VALUE USING TECHSTREAM (FR DOOR LOCK POS, FL DOOR LOCK POS, RR-DOOR LOCK POS SW AND RL-DOOR LOCK POS SW)
------------	--

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FR Door Lock Pos	Front door RH unlock detection switch / LOCK or UNLOCK	LOCK: Front door RH locked UNLOCK: Front door RH unlocked	-
FL Door Lock Pos	Front door LH unlock detection switch / LOCK or UNLOCK	LOCK: Front door LH locked UNLOCK: Front door LH unlocked	-
RR-Door Lock Pos SW*1	Rear door RH unlock detection switch / ON or OFF	ON: Rear door RH unlocked OFF: Rear door RH locked	-
RL-Door Lock Pos SW*1	Rear door LH unlock detection switch / ON or OFF	ON: Rear door LH unlocked OFF: Rear door LH locked	-

*1: for Double Cab

OK:

The Techstream display changes correctly in response to the lock/unlock operation.

NG  **GO TO LIGHTING SYSTEM**

OK



11.	READ VALUE USING TECHSTREAM (RR DOOR COURTESY SW, RL DOOR COURTESY SW, FR DOOR COURTESY SW AND FL DOOR COURTESY SW)
------------	--

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RR Door Courtesy SW	Rear door courtesy light switch assembly RH signal / ON or OFF	OFF: Rear door RH closed ON: Rear door RH open	-
RL Door Courtesy SW	Rear door courtesy light switch assembly LH signal / ON or OFF	OFF: Rear door LH closed ON: Rear door LH open	-
FR Door Courtesy SW	Front door courtesy light switch assembly RH signal / ON or OFF	OFF: Front door RH closed ON: Front door RH open	-
FL Door Courtesy SW	Front door courtesy light switch assembly LH signal / ON or OFF	OFF: Front door LH closed ON: Front door LH open	-

OK:

Normal conditions listed above are displayed.

NG  **GO TO LIGHTING SYSTEM**

OK



12.	READ VALUE USING TECHSTREAM (HOOD COURTESY SW)
------------	---

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Main Body / Data List.
- (e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Hood Courtesy SW	Hood courtesy switch / ON or OFF	ON: Hood open OFF: Hood closed	-

OK:

The Techstream display changes correctly in response to the hood courtesy switch (hood lock assembly) status.

NG ► **GO TO STEP 13**

OK ► **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

13.	INSPECT HOOD LOCK ASSEMBLY
------------	-----------------------------------

- (a) Remove the hood lock assembly  .
- (b) Inspect the hood lock assembly  .

NG ► **REPLACE HOOD LOCK ASSEMBLY**

OK



14.	CHECK HARNESS AND CONNECTOR (HOOD LOCK ASSEMBLY - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))
------------	--

- (a) Disconnect the E25 hood lock assembly connector.
- (b) Disconnect the M6 main body ECU (multiplex network body ECU) connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E25-1 - M6-11 (HCTY)	Always	Below 1 Ω
E25-2 - Body ground	Always	Below 1 Ω
E25-1 or M6-11 (HCTY) - Body ground	Always	10 k Ω or higher

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK  **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**



Last Modified: 11-13-2015	6.6 J	Doc ID: RM000005V22000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: Theft Deterrent System is not Unset when Engine is Running; 2016 MY Tacoma [08/2015 -]		

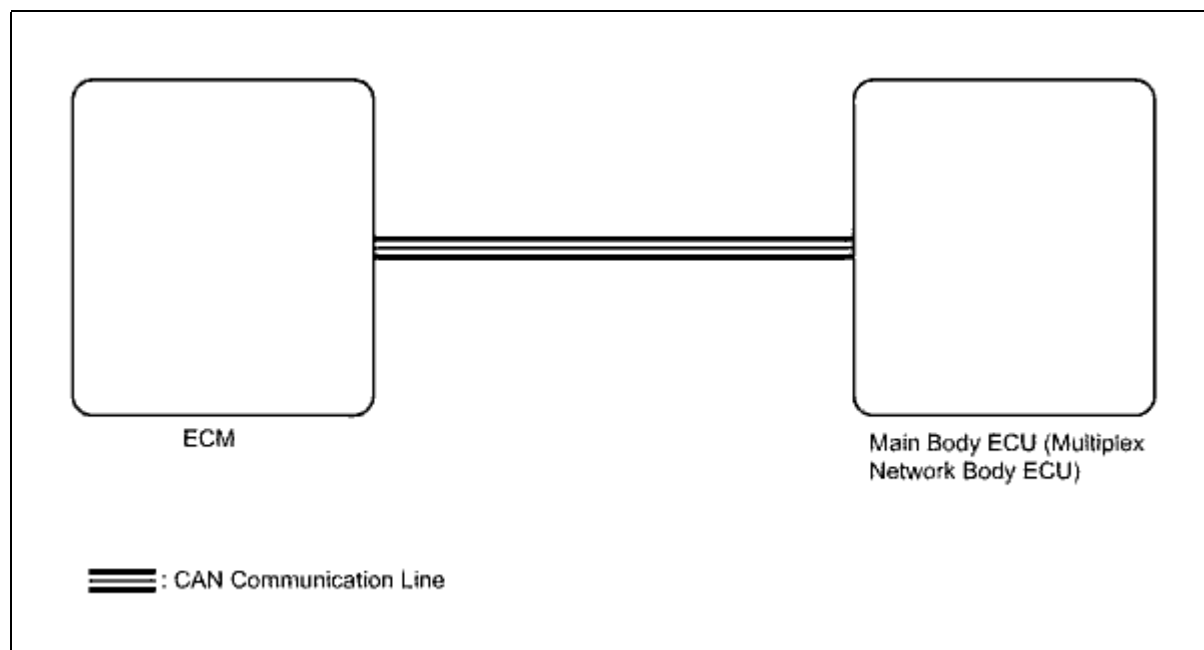
Theft Deterrent System is not Unset when Engine is Running

DESCRIPTION

The theft deterrent system is unset when the IG signal and engine speed signal are input to the main body ECU (multiplex network body ECU) for 2 seconds or more continuously.

The engine speed signal is sent from the ECM to the main body ECU (multiplex network body ECU). For this reason, if there is an abnormality in an ECU or wire harness, the system may not function correctly.

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

- Before replacing the main body ECU (multiplex network body ECU), refer to Registration INFO .*1
- *1: w/ Smart Key System
- Inspect the fuses for circuits related to this system before performing the following procedure.

PROCEDURE

1.	REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)
-----------	---

(a) Replace the main body ECU (multiplex network body ECU) with a new one INFO .



Last Modified: 11-13-2015	6.6 J	Doc ID: RM000005V23000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: While Alarm is Armed, Battery is Reconnected but Alarm does not Sound; 2016 MY Tacoma [08/2015 -]		

While Alarm is Armed, Battery is Reconnected but Alarm does not Sound

DESCRIPTION

While the alarm is armed, the EEPROM inside the main body ECU (multiplex network body ECU) will remember the armed state even if the battery is disconnected, and the alarm will sound when the battery is reconnected.

If the alarm does not sound when the battery is reconnected, the alarm may not have been set, or there may be a malfunction in the main body ECU (multiplex network body ECU).

INSPECTION PROCEDURE

NOTICE:

Before replacing the main body ECU (multiplex network body ECU), refer to Registration .*1

*1: w/ Smart Key System

PROCEDURE

1. CHECK SECURITY INDICATOR LIGHT OPERATION

(a) Close all doors and the engine hood.

(b) Lock the doors using wireless operation*1, key linked operation or entry operation*2.

*1: w/ Wireless Door Lock System

*2: w/ Smart Key System

(c) Check that the security indicator light illuminates.

(d) After 30 seconds have elapsed, check that the security indicator light changes from illuminated to flashing.

HINT:

The illumination status of the security indicator light can be used to determine whether the theft deterrent system is set or unset.

NG ► **GO TO THEFT DETERRENT SYSTEM CANNOT BE SET OR UNSET**

OK ► **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**



Last Modified: 11-13-2015	6.6 J	Doc ID: RM000005V25000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: THEFT DETERRENT: THEFT DETERRENT SYSTEM: While Alarm is Armed, Engine Hood is opened but Alarm does not Sound; 2016 MY Tacoma [08/2015 -]		

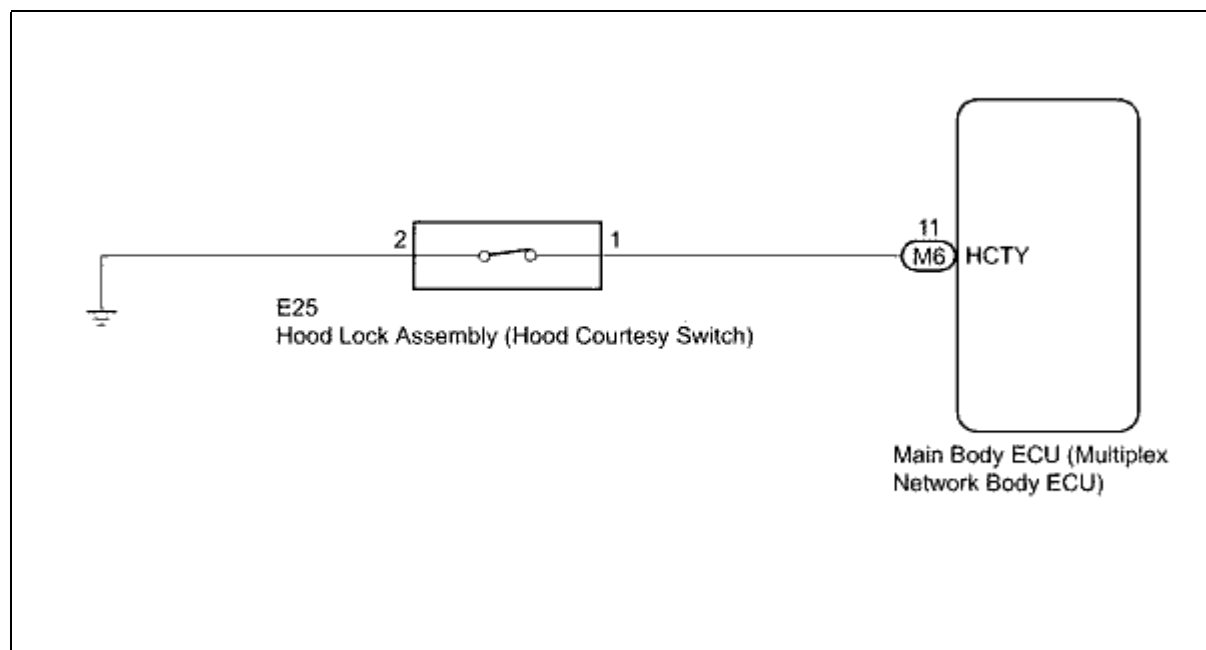
While Alarm is Armed, Engine Hood is opened but Alarm does not Sound

DESCRIPTION

A situation in which the alarm is armed but does not sound when the hood is opened can be caused when the main body ECU (multiplex network body ECU) cannot detect whether the hood courtesy switch is open or closed.

If the alarm does not sound, there may be a malfunction in the hood courtesy switch, main body ECU (multiplex network body ECU) or a wire harness.

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

Before replacing the main body ECU (multiplex network body ECU), refer to Registration INFO .*1

*1: w/ Smart Key System

PROCEDURE

1.	CHECK SECURITY INDICATOR LIGHT OPERATION
-----------	---

(a) Close all doors and the hood.

(b) Lock the doors using the wireless operation*1, key linked operation or entry operation*2.

*1: w/ Wireless Door Lock System

*2: w/ Smart Key System

(c) Check that the security indicator light illuminates.

(d) After 30 seconds have elapsed, check that the security indicator light changes from illuminated to flashing.

HINT:

The illumination status of the security indicator light can be used to determine whether the theft deterrent system is set or unset.

NG ► **GO TO THEFT DETERRENT SYSTEM CANNOT BE SET OR UNSET**

OK



2.	READ VALUE USING TECHSTREAM (HOOD COURTESY SW)
-----------	---

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Turn the Techstream on.

(d) Enter the following menus: Body Electrical / Main Body / Data List.

(e) Read the Data List according to the display on the Techstream.

Main Body

TESTER DISPLAY	MEASUREMENT ITEM / RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Hood Courtesy SW	Hood courtesy switch / ON or OFF	ON: Hood open OFF: Hood closed	-

OK:

The Techstream display changes correctly in response to the hood courtesy switch (hood lock assembly) status.

NG ► **GO TO STEP 3**

OK ► **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

3.	INSPECT HOOD LOCK ASSEMBLY
-----------	-----------------------------------

(a) Remove the hood lock assembly  .

(b) Inspect the hood lock assembly  .

NG  **REPLACE HOOD LOCK ASSEMBLY**

OK



4.

CHECK HARNESS AND CONNECTOR (HOOD LOCK ASSEMBLY - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))

(a) Disconnect the E25 hood lock assembly connector.

(b) Disconnect the M6 main body ECU (multiplex network body ECU) connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E25-1 - M6-11 (HCTY)	Always	Below 1 Ω
E25-2 - Body ground	Always	Below 1 Ω
E25-1 or M6-11 (HCTY) - Body ground	Always	10 k Ω or higher

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK  **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

