05HXE–01

SYSTEM DESCRIPTION

1. GENERAL

- The theft deterrent system uses the door lock control system, wireless remote control system, and smart key system parts. The theft deterrent system will operate when an individual attempts to forcibly enter the vehicle, open the engine hood or trunk lid, unlock any door or trunk lid without a key, or when the battery terminals are removed and reconnected.
- The theft warning ECU controls this system.
- An alarm memory function that informs the user that a warning was issued (while the vehicle was parked) is available except for Europe models. A front interior light illumination control is used on all models so that the interior of the vehicle is visible while a warning is being is issued. The theft warning siren is used only on the models for Europe.
- An intrusion sensor is standard equipment on the RHD model for Europe and optional on the LHD model. This sensor improves system performance in case an attempt is made to enter the vehicle by breaking a window glass.
- The warning specifications of this system are listed below.

Destination		Europe	Other
Warning Method	Room Lamp	Illuminated	Illuminating
	Warning Lamp	Flashing	Flashing
	Headlamp	–	Flashing
	Taillamp	–	Flashing
	Vehicle Horn	Sounding (at approx. 0.25 second cycles)	Sounding (at approx. 0.4 second cycles)
	Security Horn	–	Sounding (at approx. 0.4 second cycles)
	Theft Warning Siren	Sounding	–
	Door Lock Motor	Locked	Locked
Warning Time		30 sec.	30 sec.

2. FUNCTION OF COMPONENT

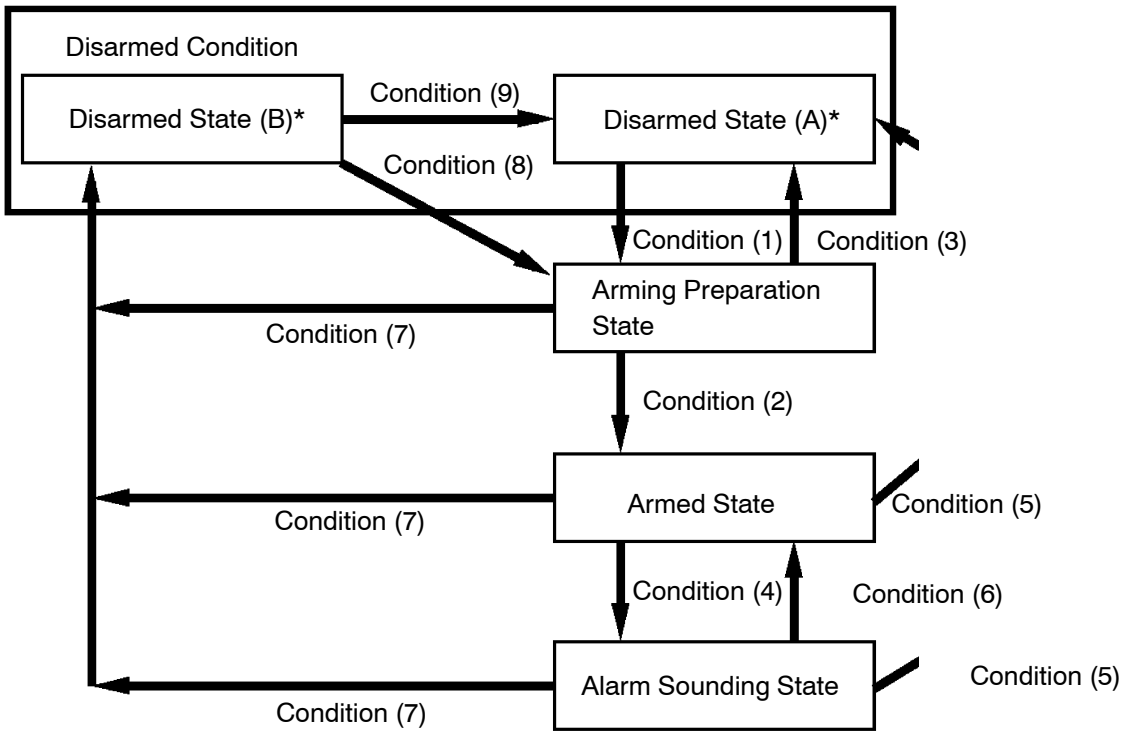
Function of component	Outline
Theft warning siren*1	Sound for warning.
Security horn*2	Controlled by theft warning ECU. Sounds intermittently during warning operation.
Security indicator	Controlled by theft warning ECU. LED illuminates or is flashing.
Intrusion sensor*1	Sends alarm signal door glass is broken and inturder is detected inside vehicle.
Intrusion sensor OFF switch*1	Detects intrusion sensor's status (ON or OFF) and communicates result to theft warning ECU.
Door courtesy switch	Detects door status (open or closed) and communicates results to door ECU.
Door lock motor assy	Detects door status (locked or unlocked) and communicates results to door ECU.
Unlock warning switch*3	Detects if key is/isn't in ignition key cylinder and communicates results to steering lock ECU.
Unlock warning switch*4	Detects if key is/isn't in ignition key cylinder and communicates results to transponder key ECU.
Engine hood courtesy switch	Detects engine hood (open or closed) and communicates results to driver side J/B ECU.
Turn signal	Controlled by theft warning ECU. Is flaching during alarm operation.
Headlamp*2	Controlled by theft warning ECU. Is flaching during alarm operation.
Taillamp*2	Controlled by theft warning ECU. Is flaching during alarm operation.
Luggage compartment door courtesy switch	Detects luggage compartment door status (open or closed) and communicates results to luggage room J/B ECU.
Luggage compartment door key lock and unlock switch	Detects luggage compartment door status (open or closed) and communicates results to luggage room J/B ECU.
Room lamp	Controlled by theft warning ECU. Illuminates during alarm operation.

HINT:
*1: Only Europe models
*2: Except Europe models
*3: w/ Smart key system
*4: w/o Smart key system

3. SYSTEM OPERATION

(a) Basic Operation

When one of the items listed in each condition's column occurs (see the table below), the theft deterrent system activates as describe in the diagram below.



*: Disarmed state (A) is different than disarmed state (B) in the conditions that activate the theft deterrent system.

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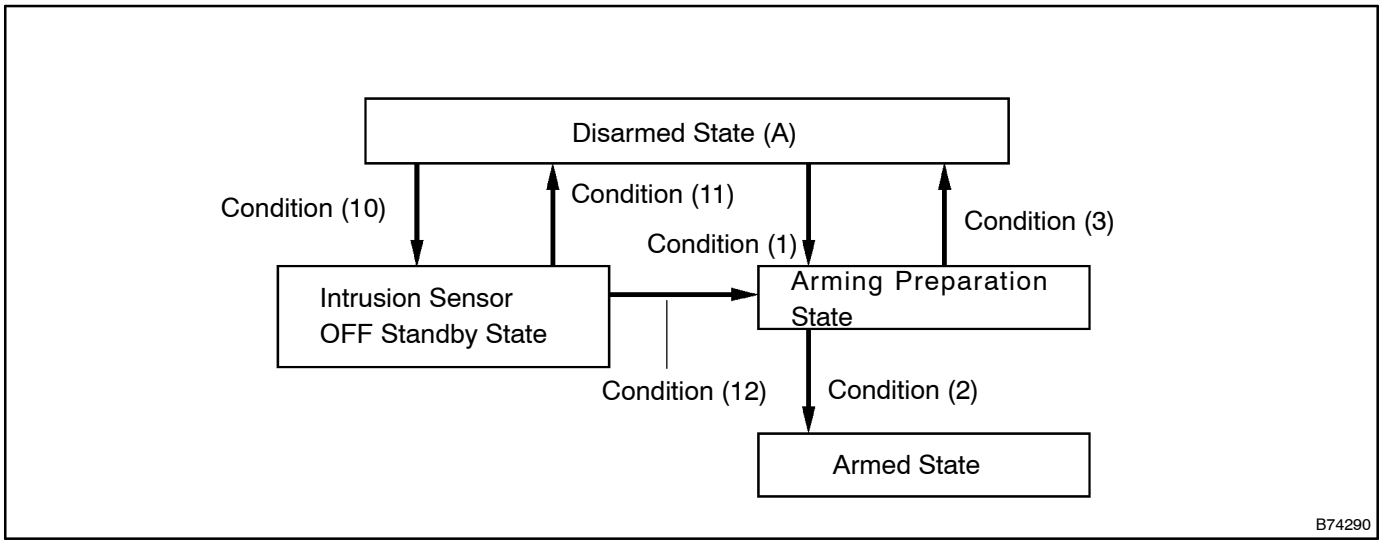
Condition	Item
Condition (1)	• When doors, engine hood and luggage compartment door are all closed, all doors are locked by the wireless operation or smart operation. • When doors, engine hood, and luggage compartment door are all closed, all doors are locked by key operation (except models for Europe). • With any door, engine hood,or luggage compartment door open, all doors are locked and closed (except models for Europe).
Condition (2)	After doors, engine hood, and luggage compartment door are all closed and locked, 30 seconds have elapsed.
Condition (3)	• When any door or engine hood is changed from ”close” to ”open”. • When luggage compartment door is changed from ”close” to ”open”. • When any door is changed from ”lock” to ”unlock”. • When ignition key is inserted in the ignition key cylinder or ignition switch (smart key system) is pressed. • When the ignition switch is changed from OFF to ON. • When terminal is disconnected from battery and reconnected.

Condition	Item
Condition (4)	• All doors are closed and door is subsequently opened. • Any door is unlocked without using ignition key (except models for Europe), transmitter or smart key system. • Luggage compartment door is opened without using ignition key or transmitter. • Luggage compartment door key unlock signal has been input (on models for Europe). • Engine hood is opened. • Terminal is disconnected from battery and reconnected. • There is no key, the ignition switch is OFF and intrusion sensor has detected intrusion. • Directly connect ignition switch without key (or turn ignition switch ON without key).
Condition (5)	• Transmitter or smart key system is used to unlock doors. • Ignition key is used to unlock doors (except models for Europe). • Key is inserted in ignition key cylinder and ignition switch is turned ON. Or driver carries smart key and turns ON ignition switch (except models for Europe). • Engine operates at speed of 550 rpm for 10 seconds or longer.
Condition (6)	When warning time has elapsed.
Condition (7)	• Luggage compartment door open signal is input by wireless operation or smart operation. • Luggage compartment door key unlock switch signal is input (except models for Europe).
Condition (8)	Luggage compartment door is closed.
Condition (9)	• Any door is unlocked. • Any door or engine hood is opened. • Key is inserted in ignition key cylinder or ignition switch (smart key system) is pressed. • Terminal is disconnected from battery and reconnected. • When ignition switch is changed from OFF to ON.

(b) Intrusion Sensor Operation (only Europe models)

When one of the items listed in each condition's column occurs (see the table below), the intrusion sensor activates as described in the diagram below. When the intrusion sensor OFF standby state switches to the arming preparation state, the intrusion sensor does not activate.



Condition	Item
Condition (10)	There is no key in ignition key cylinder, ignition switch is OFF, and intrusion sensor OFF switch signal has been input one or more times.
Condition (11)	• Ignition key is inserted in ignition key cylinder or ignition switch is pushed. • Ignition switch is turned ON. • Operation system has not been transferred to the arming preparation state even if 5 minutes have elapsed after intrusion sensor OFF switch signal has been input.
Condition (12)	All doors, engine hood and luggage compartment door are closed, and doors are subsequently locked with key or transmitter.

(c) Forced Door Lock Operation

During alarm sounding state, if one of the doors is unlocked, the forced door lock operation outputs a door lock signal to prevent intrusion into the vehicle. This operation becomes activated when all the starting conditions listed below have been met, and stops when one of the stopping conditions occurs.

Condition	Item
Starting Condition	Theft deterrent system is in alarm sounding state.
	There is no key inserted in ignition key cylinder.
	One of doors is unlocked.
Stopping Condition	All doors are locked.
	Warning ends.
	Key is inserted in ignition key cylinder.

(d) Alarm Memory Function

When the driver returns to the vehicle and cancels the theft deterrent system, this function illuminates the taillights for 2 seconds to in from the driver that theft deterrent system had been tripped and was in the alarm state.