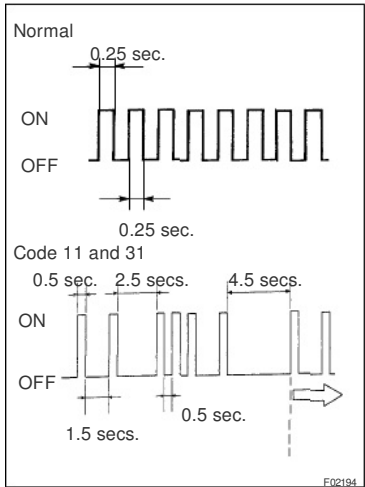
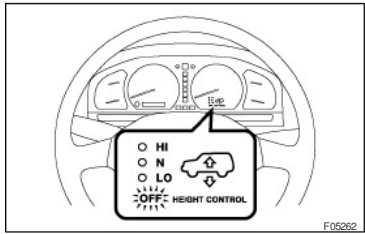
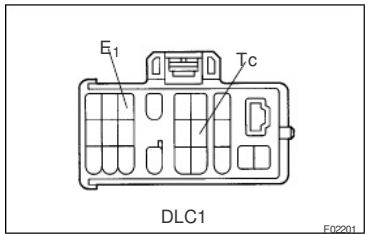
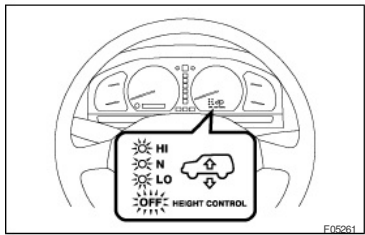


2003 Lexus LX470

Submodel: | Engine Type: V8 | Liters: 4.7
Fuel Delivery: FI | Fuel: GAS



PRE-CHECK

1. DIAGNOSIS SYSTEM

- (a) Check the indicator light.
 - (1) Turn ignition switch ON.
 - (2) Check that height control indicator light and height control OFF indicator light go on for 2 seconds.

If the indicator does not light, inspect the height control OFF indicator light circuit and height control indicator light circuit (See page [DI-419](#) and [DI-422](#)).

- (b) In case of not using LEXUS hand-held tester:
 - Check the DTC.
 - (1) Check the battery positive voltage.
 - (2) Check that the generator is generating electricity when engine running.
 - (3) Check that other system is normal.
 - (4) Using SST, connect terminals between Tc and E₁ of DLC1.
 - SST 09843-18020
 - (5) Turn ignition switch ON.
 - (6) Read the DTC output by height control OFF indicator light on the combination meter.

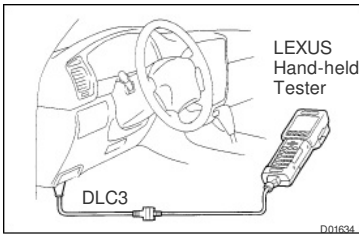
HINT:

- If no code appears, inspect the Tc terminal circuit or height control OFF indicator light circuit (See page [DI-424](#) or [DI-419](#)).

- As an example, the blinking patterns for normal code, 11 and 31 are as shown on the illustration.
 - (7) Codes are explained in the code table on page [DI-342](#) .
 - (8) After completing the check, disconnect terminals Tc and E₁, and turn off the display.

HINT:

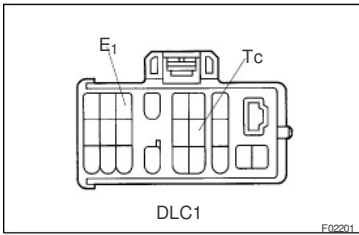
In the event of 2 or more malfunction codes, indication will begin from the smaller numbered code and continue in order to the larger.



- (c) In case of using LEXUS hand-held tester:
Check the DTC.
- (1) Hook up the LEXUS hand-held tester to the DLC3.
 - (2) Turn the ignition switch ON.
 - (3) Read the DTCs by following the prompts on the tester screen.

HINT:

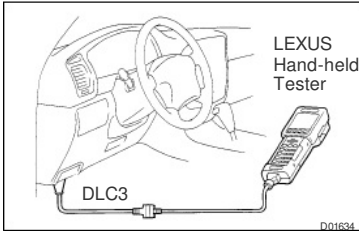
Please refer to the LEXUS hand-held tester operator's manual for further details.



- (d) In case of not using the LEXUS hand-held tester:
Clear the DTC.
- (1) Using SST, connect terminals T_c and E₁ of DLC1.
SST 09843-18020
 - (2) Turn the ignition switch ON.
 - (3) Depress the brake pedal 8 or more times within 3 seconds.

HINT:

By completing the above operation, the DTC of the ABS will be cancelled out.



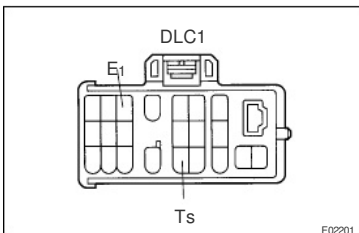
- (e) In case of using the LEXUS hand-held tester:
Clear the DTC.
- (1) Hook up the LEXUS hand-held tester to the DLC3.
 - (2) Turn the ignition switch ON.
 - (3) Operating the LEXUS hand-held tester to erase the codes. (See LEXUS hand-held tester operator's manual.)

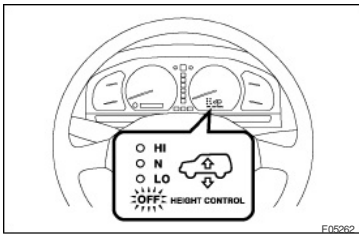
2. INPUT SIGNAL CHECK (TEST MODE CHECK)

HINT:

This function check if signals from the steering sensor, stop light switch, etc. are being input normally to the ECU.

- (a) Incase of not using LEXUS hand-held tester:
Check the input signal.
- (1) Turn the ignition switch OFF.
 - (2) Set each of the check items in the table below to the condition in Operation (A).
 - (3) Using SST, connect terminals T_s and E₁ of DLC1.
SST 09843-18020
 - (4) Turn ignition switch ON.





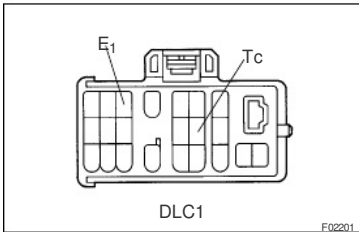
HINT:

- At this time the height control OFF indicator light come on 2 seconds. After, this light flashes at 0.25 seconds intervals.
 - When the height control OFF indicator is not flashes, check the Ts terminal circuit on page [DI-426](#).
- (5) Each of the check items is set to the condition in Operation (B).

HINT:

When operation of the check items, the height control OFF indicator light come on 1 second.

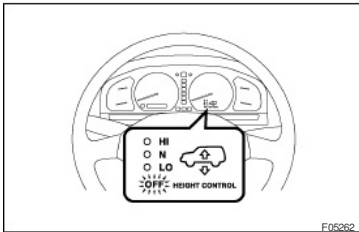
Check Item	Operation (A)	Operation (B)
Steering angle sensor signal	Steering wheel straight ahead	Turn the steering wheel 36° degrees or more
Stop light switch signal	OFF (Brake pedal not depressed)	ON (Brake pedal depressed)
Door courtesy switch signal	ON (Each door opened)	OFF (All doors closed)
Height control switch signal	Vehicle height is in "NORM" position	Vehicle height is in HIGH and LOW position
Damping mode select switch signal	Damping mode select switch is in "NORMAL" position	Turn the damping mode select switch "COMFORT" ↔ "SPORT 2" both way once
Height control switch signal	OFF (Height control switch not pushed in)	ON ↔ OFF (Height control switch pushed in and released)
L4 position switch signal	Transfer shift lever is in "H4" position	Shift the transfer shift lever to L4 position
Center DIFF. lock position switch signal	Center diff. lock switch OFF (Not pushed in)	Center diff. lock switch ON ↔ OFF (Pushed in and released)
Vehicle speed sensor signal	Vehicle in the stationary condition	Vehicle speed 20 km/h (12 mph) or higher



- (6) Using SST, connect terminal Tc and E₁ of DLC1.
SST 09843-18020

HINT:

This should be done while you connect terminals Ts and E₁.

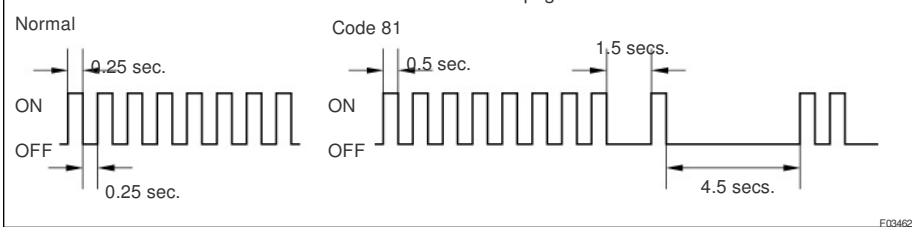


- (7) Read the test DTC output by height control OFF indicator light.

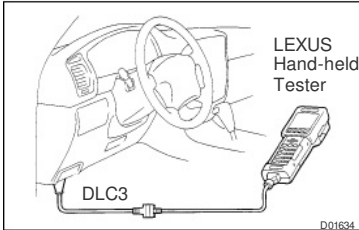
HINT:

- As an example, the blinking patterns for codes normal and 81 are as shown on the illustration.
- If 2 or more malfunction are indicated at the same time, the lowest numbered code will be displayed first.
- When the DTC is not output, check the Tc terminal circuit on page [DI-424](#).

- (8) Check the malfunction using the code table on the next page.



- (9) Desert from the input signal check mode.
With the ignition switch OFF, disconnect the SST from DLC1 and then turn ignition switch ON.
SST 09843-18020



- (b) In case of using the LEXUS hand-held tester:
Check the input signal.
- (1) Turn the ignition switch OFF.
 - (2) Set each of the check items in the table below to the condition in Operation (A) on the previous page.
 - (3) Hook up the LEXUS hand-held tester to the DLC3.
 - (4) Turn the ignition switch ON.
 - (5) Select the SIGNAL CHECK mode on the LEXUS hand-held tester.
 - (6) Each of the check items is set to the condition in Operation (B) on the previous page.

HINT:

Individual checking of each signal in step (5) can be performed.

- (7) Read the DTC by following prompts on the tester screen.

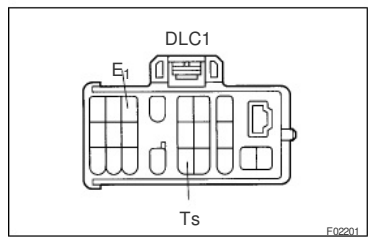
HINT:

Please refer to the LEXUS hand-held tester operator's manual for further details.

3. DTC OF INPUT SIGNAL CHECK

If a malfunction code is displayed during the test DTC check, check the circuit listed for that code. For details of each code, turn to the page referred to under the "See page" for respective "DTC No." in the DTC chart.

DTC No. (See Page)	Detection Item	Trouble Area
C1781 / 81 (DI-390)	Steering angle sensor circuit malfunction	<ul style="list-style-type: none"> Steering angle sensor Steering angle sensor circuit ECU
C1782 / 82 (DI-394)	Stop light switch circuit malfunction	<ul style="list-style-type: none"> Stop light switch Stop light switch circuit ECU
C1783 / 83 (DI-396)	Door courtesy switch circuit malfunction	<ul style="list-style-type: none"> Door courtesy switch Door courtesy switch circuit Instrument ECU ECU
C1786 / 86 (DI-398)	Height select switch circuit malfunction	<ul style="list-style-type: none"> Height select switch Height select switch circuit ECU
C1787 / 87 (DI-401)	Damping mode select switch circuit malfunction	<ul style="list-style-type: none"> Damping mode select switch Damping mode select switch circuit ECU
C1788 / 88 (DI-405)	Height control switch circuit malfunction	<ul style="list-style-type: none"> Height control switch Height control switch circuit ECU
C1789 / 89 (DI-408)	L4 position switch circuit malfunction	<ul style="list-style-type: none"> L4 position switch L4 position switch circuit ECU
C1794 / 94 (DI-411)	Right front speed sensor circuit malfunction	<ul style="list-style-type: none"> Right front speed sensor Right front speed sensor circuit ABS & BA & TRAC & VSC ECU ECU
C1795 / 95 (DI-411)	Left front speed sensor circuit malfunction	<ul style="list-style-type: none"> Left front speed sensor Left front speed sensor circuit ABS & BA & TRAC & VSC ECU ECU
C1796 / 96 (DI-413)	Center diff. lock position switch circuit malfunction	<ul style="list-style-type: none"> Center diff. lock position switch Center diff. lock position switch circuit ECU



4. DAMPING FORCE CONTROLLING CONDITION CHECK

- Using SST, connect terminals Ts and E₁ of DLC1.
SST 09843-18020
- Turn the ignition switch ON.

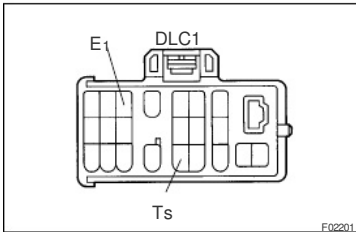
HINT:

In this condition, the damping force control actuator position becomes 1 position.

- (c) Starting from the above mentioned position, as the brake pedal is depressed, the damping force control actuator position increases (1 → 2 → 3 → ... 15 → 16). At this time, bounce the vehicle and check that the shock absorber is becoming harder.

HINT:

- To hold the damping force control actuator at a specific position, adjust it to the position using the above mentioned procedure then increase the vehicle speed to over 5 km/h (3 mph).
- After that the damping force control actuator position does not change until the ignition switch is turned OFF.
- If the damping force control actuator does not operate, inspect the damping force control actuator circuit and suspension control ECU.



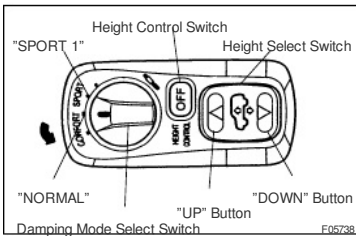
5. HEIGHT CONTROL OPERATION TEST (ACTIVE TEST)

- (a) Using SST, connect terminals Ts and E₁ of DLC1.
SST 09843-18020
- (b) Push the "DOWN" button of the height select switch 5 times or more within 5 seconds after starting the engine.

HINT:

At this time the height control OFF indicator light flashes at 0.25 second intervals.

- (c) By operating each switch in the following table, check the operation of the height control of each wheel.



	Damping mode select switch	Height control switch	Height select switch
Front wheels up	"COMFORT" mode	-	Push "UP" button
Rear wheels up	"COMFORT" mode	Push and hold	Push "UP" button
Front wheels down	"COMFORT" mode	-	Push "DOWN" button
Rear wheels down	"COMFORT" mode	Push and hold	Push "DOWN" button

NOTICE:

Do not raise the vehicle height higher than the "HI" position when raising it with the active test.