DTC C1248/48 Open Circuit in Rear Differential Lock

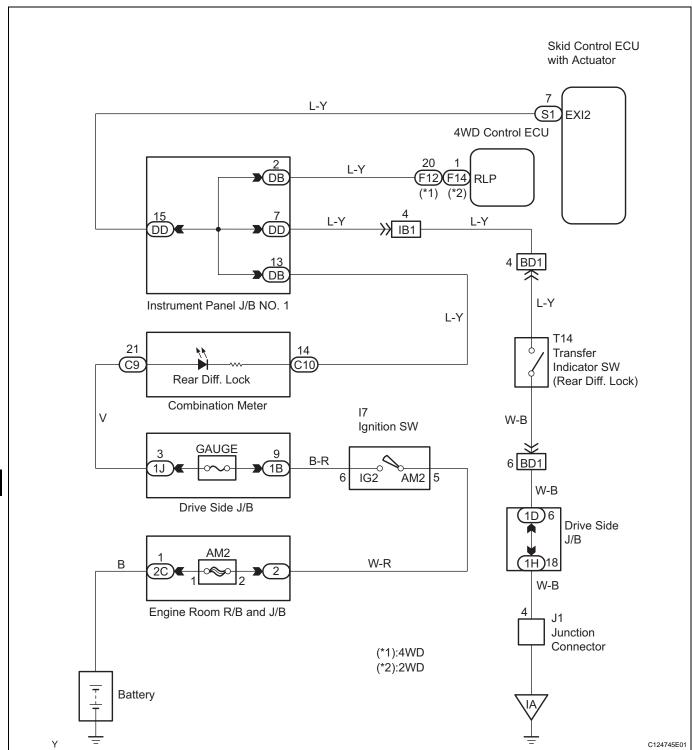
## **DESCRIPTION**

The 4WD control ECU stimulates the actuator to lock the rear differential in accordance with the rear diff. lock switch. The skid control ECU monitors the transfer indicator switch (rear diff. lock ) and if the rear differential is locked, at which time the rear diff. lock indicator light is illuminated, prohibits ABS control. At the same time, the skid control ECU illuminates the ABS warning light.

DTC No.	DTC Detecting Condition	Trouble Areas
C1248/48	At vehicle speed of 31 mph (50 km/h) or more, 3 seconds or more elapse after rear differential changes from free to lock.	<ul> <li>Transfer indicator switch (rear diff. lock)</li> <li>Rear differential lock circuit</li> <li>Brake actuator (skid control ECU)</li> <li>4WD control ECU</li> </ul>



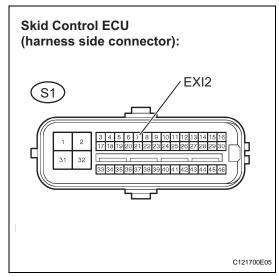
### **WIRING DIAGRAM**



BC

# BC

# 1 INSPECT SKID CONTROL ECU (EXI2 TERMINAL VOLTAGE)



- (a) Disconnect the skid control ECU connector.
- (b) Turn the ignition switch to the ON position.
- (c) Measure the voltage.
- (d) Check the rear diff. lock indicator light.

### Standard

Terminal Connection	Vehicle Condition	Specified Condition	Rear Diff. Indicator Light
S1-7 (EXI2) - Body ground	Rear Differential free	8 to 14 V	OFF
S1-7 (EXI2) - Body ground	Rear Differential locked	1.5 V	ON

- (e) Turn the ignition switch to OFF.
- (f) Reconnect the skid control ECU connector.

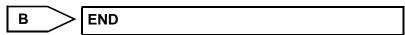




# 2 RECONFIRM DTC

- (a) Clear the DTCs (See page BC-16).
- (b) Drive the vehicle at a speed of 31 mph (50 km/h) or more for 3 seconds or more with the rear differential free.
- (c) Check if the same DTCs are detected.

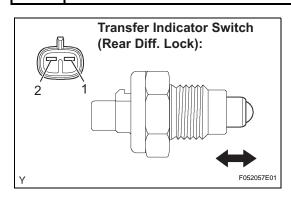
Result	Proceed to
DTC output	A
DTC not output	В





### **REPLACE BRAKE ACTUATOR**

# 3 INSPECT TRANSFER INDICATOR SWITCH (REAR DIFF. LOCK)



- (a) Disconnect the transfer indicator switch connector.
- (b) Remove the transfer indicator switch.
- (c) Measure the resistance.

#### Standard Resistance

Tester Connection	Switch Position	Specified Condition
1 - 2	Push	Below 1 Ω
1 - 2	Free	10 k $\Omega$ or higher

- (d) Reinstall the transfer indicator switch.
- (e) Reconnect the transfer indicator switch connector.



### REPLACE TRANSFER INDICATOR SWITCH



## 4 CHECK HARNESS AND CONNECTOR

Transfer Indicator Switch (Rear Diff. Lock) (harness side connector)

- (a) Disconnect the skid control ECU connector.
- (b) Disconnect the 4WD control ECU connector.
- (c) Disconnect the transfer indicator switch connector.
- (d) Turn the ignition switch to the ON position.
- (e) Measure the voltage.

#### Standard Voltage

Tester Connection	Specified Condition
T14-2 - Body ground	8 to 14 V

- (f) Turn the ignition switch to OFF.
- (g) Reconnect the transfer indicator switch connector.
- (h) Reconnect the 4WD control ECU connector.
- (i) Reconnect the skid control ECU connector.



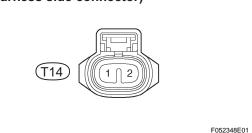
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### **REPLACE 4WD CONTROL ECU**



## 5 CHECK HARNESS AND CONNECTOR

Transfer Indicator Switch (Rear Diff. Lock) (harness side connector)



- (a) Disconnect the skid control ECU connector.
- (b) Disconnect the 4WD control ECU connector.
- (c) Disconnect the transfer indicator switch connector.
- (d) Disconnect the combination meter connector.
- (e) Measure the resistance.

#### Standard Resistance

Tester Connection	Specified Condition
T14-2 - Body ground	10 kΩ or higher

- (f) Reconnect the combination meter connector.
- (g) Reconnect the transfer indicator switch connector.
- (h) Reconnect the 4WD control ECU connector.
- (i) Reconnect the skid control ECU connector.



NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

**REPLACE COMBINATION METER** 

BC