

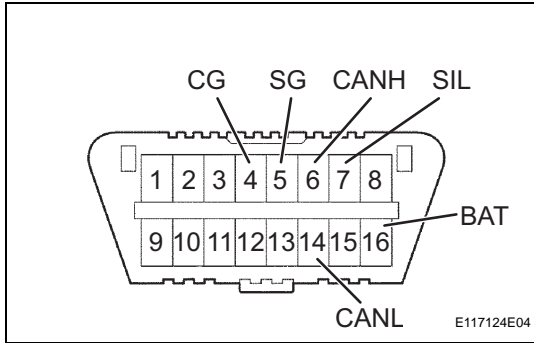
## DIAGNOSIS SYSTEM

### 1. DESCRIPTION

- (a) Air conditioning system data and the Diagnostic Trouble Codes (DTCs) can be read through the Data Link Connector 3 (DLC3) of the vehicle. When the system seems to be malfunctioning, use the intelligent tester to check for malfunctions and perform troubleshooting.

### 2. CHECK DLC3

The vehicle's ECM uses the ISO 15765-4 for communication protocol. The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 15765-4 format.



Symbols (Terminal No.)	Terminal Description	Condition	Specified Condition
SIL (7) - SG(5)	Bus "+" line	During transmission	Pulse generation
CG (4) - Body ground	Chassis ground	Always	Below 1 $\Omega$
SG (5) - Body ground	Signal ground	Always	Below 1 $\Omega$
BAT (16) - Body ground	Battery positive	Always	10 to 14 V
CANH (6) - CANL (14)	HIGH-level CAN bus line	Ignition switch LOCK*	54 to 69 $\Omega$
CANH (6) - CG (4)	HIGH-level CAN bus line	Ignition switch LOCK*	200 $\Omega$ or higher
CANH (6) - BAT (16)	HIGH-level CAN bus line	Ignition switch LOCK*	1 M $\Omega$ or higher
CANL (14) - CG (4)	LOW-level CAN bus line	Ignition switch LOCK*	200 $\Omega$ or higher
CANL (14) - BAT (16)	LOW-level CAN bus line	Ignition switch LOCK*	1 M $\Omega$ or higher

If the result is not as specified, the DLC3 may have a malfunction. Repair or replace the harness and connector.

#### NOTICE:

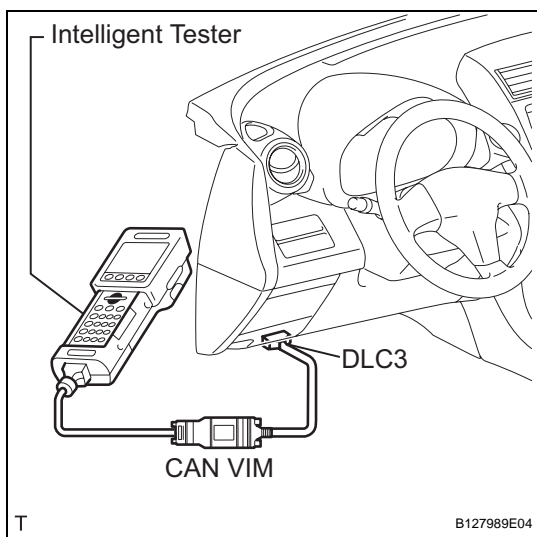
\*: **Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the ignition switch, other switches or doors.**

#### HINT:

Connect the cable of the intelligent tester (with CAN VIM) to the DLC3, turn the ignition switch ON and attempt to use the tester. If the display indicates that a communication error has occurred, there is a problem either with the vehicle or with the tester.

If communication is normal when the tester is connected to another vehicle, inspect the DLC3 of the original vehicle.

If communication is still not possible when the tester is connected to another vehicle, the problem may be in the tester itself. Consult the Service Department listed in the tester's instruction manual.



## DTC CHECK / CLEAR

### 1. CHECK DTC

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
- (b) Turn the ignition switch ON and turn the intelligent tester ON.
- (c) Read the DTC by following the prompts on the tester screen.

HINT:

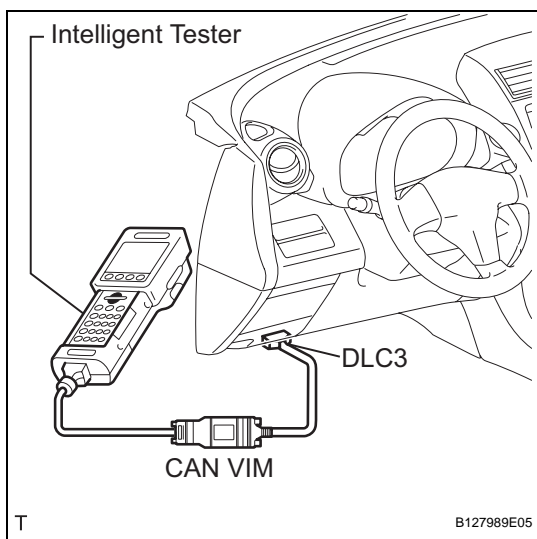
Refer to the intelligent tester operator's manual for further details.

### 2. CLEAR DTC

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
- (b) Turn the ignition switch ON and turn the intelligent tester ON.
- (c) Clear the DTC by following the prompts on the tester screen.

HINT:

Refer to the intelligent tester operator's manual for further details.



## DATA LIST / ACTIVE TEST

(2005/11-2006/01)

### 1. READ DATA LIST

HINT:

Using the intelligent tester's DATA LIST allows switch, sensor, actuator and other item values to be read without removing any parts. Reading the DATA LIST early in troubleshooting is one way to save time.

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
- (b) Turn the ignition switch ON and turn the intelligent tester ON.
- (c) Read the DATA LIST by following the prompts on the tester.

**AC**

### Air conditioning amplifier

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
AMBI TEMP SENS	Ambient temperature sensor / Min.: -23.3°C (-9.94°F) Max.: 65.95°C (150.71°F)	Actual ambient temperature is displayed	Open circuit: -23.3°C (-9.94°F) Short circuit: 65.95°C (150.71°F)
COOLANT TEMP	Engine coolant temperature / Min.: 1.3°C (34.34°F) Max.: 90.55°C (194.99°F)	Actual engine coolant temperature is displayed after engine warmed up	-
AMBI TEMP	Adjusted ambient temperature / Min.: -30.8°C (-23.44°F) Max.: 50.8°C (123.44°F)	-	-
EVAP FIN TEMP	Evaporator temperature sensor / Min.: -29.7°C (-21.46°F) Max.: 59.6°C (139.28°F)	Actual evaporator temperature is displayed	Open circuit: -29.7°C (-21.46°F) Short circuit: 59.6°C (139.28°F)
REG PRESS SENS	Regulator pressure sensor / Min.: 0 MPaG Max.: 3.187 MPaG	Actual regulator pressure is displayed	-