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2001 NISSAN Almera Tino OEM Service and Repair Workshop Manual

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- 3. Connect 12V battery negative terminal.
- 4. Erase self-diagnosis result for "ABS".
- 5. Power switch OFF (Auto ACC function ON).
- 6. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

- 7. Set the vehicle to READY.
- 8. Select "ABS" and "Data monitor", check "Front left wheel speed", "Front right wheel speed", "Rear left wheel speed", and "Rear right wheel speed".



Set the "Data monitor" recording speed to "10 msec".

9. Read a value (wheel speed) of all wheel sensor.



Vehicle must be driven after repair or replacement to erase the previous DTCs.

Note the difference at 50 km/h (31 MPH) between the each wheel sensor and the maximum/minimum wheel speed detected by the each wheel sensor, is the difference within 5%, respectively?

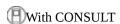
YES>>

GO TO 15.

NO>>

GO TO 16.

15. PERFORM SELF-DIAGNOSIS (4)



- 1. Stop the vehicle.
- 2. Power switch OFF (Auto ACC function ON).
- 3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

4. Power switch ON without depressing the brake pedal.

CAUTION:

Never set the vehicle to READY.

5. Perform self-diagnosis for "ABS".

Is DTC "C106A-55" detected?

NO>>

INSPECTION END

16. CHECK WHEEL SENSOR HARNESS

- 1. Disconnect 12V battery negative terminal.
- 2. Disconnect ABS actuator and electric unit (control unit) harness connector.
- 3. Disconnect wheel sensor harness connector.
- 4. Check the continuity between ABS actuator and electric unit (control unit) harness connector and wheel sensor harness connector.
 - Measurement connector and terminal for power supply circuit

ABS actuator and electric unit (control unit)		Wheel sensor			Continuity
Connector	Terminal	Connector Terminal		Continuity	
B2	24	B177	(Front left)	1	Existed
	21	E109	(Front right)		
	39	B178	(Rear left)		
	22	B180	(Rear right)		

• Measurement connector and terminal for signal circuit

ABS actuator and electric unit (control unit)			Wheel sensor			Continuity
Connector		Terminal	Connector		Terminal	Continuity
B2		7	B177	(Front left)	- 2	Existed
		26	E109	(Front right)		
		23	B178	(Rear left)		
		37	B180	(Rear right)		

5. Check the continuity between ABS actuator and electric unit (control unit) harness connector and the ground.

ABS actuator and electric unit (control un		Continuity	
Connector	Terminal	_	Continuity
	24, 7		Not existed
B2	21, 26	- Ground N	
D2	39, 23		
	22, 37		

Is the inspection result normal?

YES>>

GO TO 17.

NO>>

Repair / replace harness or connector. GO TO 17.

17. CHECK DATA MONITOR (4)

(H)With CONSULT

- 1. Connect ABS actuator and electric unit (control unit) harness connector.
- 2. Connect wheel sensor harness connector.
- 3. Connect 12V battery negative terminal.
- 4. Erase self-diagnosis result for "ABS".
- 5. Power switch OFF (Auto ACC function ON).
- 6. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

- 7. Set the vehicle to READY.
- 8. Select "ABS" and "Data monitor", check "Front left wheel speed", "Front right wheel speed", "Rear left wheel speed", and "Rear right wheel speed".



Set the "Data monitor" recording speed to "10 msec".

9. Read a value (wheel speed) of all wheel sensor.



Vehicle must be driven after repair or replacement to erase the previous DTCs.

Note the difference at 50 km/h (31 MPH) between the each wheel sensor and the maximum/minimum wheel speed detected by the each wheel sensor, is the difference within 5%, respectively?

YES>>

GO TO 18.

NO>>

GO TO 19.

18. PERFORM SELF-DIAGNOSIS (5)

With CONSULT

- 1. Stop the vehicle.
- 2. Power switch OFF (Auto ACC function ON).
- 3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

4. Power switch ON without depressing the brake pedal.

CAUTION:

Never set the vehicle to READY.

5. Perform self-diagnosis for "ABS".

Is DTC "C106A-55" detected?

YES>>

GO TO 19.

NO>>

INSPECTION END

19. REPLACE WHEEL SENSOR (2)

(H)With CONSULT

- 1. Replace the wheel sensor.
 - Front: Refer to FRONT WHEEL SENSOR : Removal & Installation.
 - Rear: Refer to REAR WHEEL SENSOR: Removal & Installation.
- 2. Erase self-diagnosis result for "ABS".
- 3. Power switch OFF (Auto ACC function ON).
- 4. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

- 5. Set the vehicle to READY.
- 6. Select "ABS" and "Data monitor", check "Front left wheel speed", "Front right wheel speed", "Rear left wheel speed", and "Rear right wheel speed".



Set the "Data monitor" recording speed to "10 msec".

7. Read a value (wheel speed) of all wheel sensor.



Vehicle must be driven after repair or replacement to erase the previous DTCs.

Note the difference at 50 km/h (31 MPH) between the each wheel sensor and the maximum/minimum wheel speed detected by the each wheel sensor, is the difference within 5%, respectively?

YES>>

GO TO 20.

NO>>

GO TO 21.

20. PERFORM SELF-DIAGNOSIS (6)

- **With CONSULT**
 - 1. Stop the vehicle.
 - 2. Power switch OFF (Auto ACC function ON).
 - 3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

4. Power switch ON without depressing the brake pedal.

CAUTION:

Never set the vehicle to READY.

5. Perform self-diagnosis for "ABS".

Is DTC "C106A-55" detected?

YES>>

GO TO 21.

NO>>

INSPECTION END

21. REPLACE SENSOR ROTOR

(II)With CONSULT

- 1. Replace the sensor rotor.
 - Front: Refer to FRONT SENSOR ROTOR: Removal & Installation.
 - Rear: Refer to REAR SENSOR ROTOR: Removal & Installation.
- 2. Erase self-diagnosis result for "ABS".
- 3. Power switch OFF (Auto ACC function ON).
- 4. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

- 5. Set the vehicle to READY.
- 6. Drive the vehicle at approximately 50 km/h (31 MPH) or more for approximately 2 minutes.



Vehicle must be driven after repair or replacement to erase the previous DTCs.

- 7. Stop the vehicle.
- 8. Power switch OFF (Auto ACC function ON).
- 9. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION: Never operate the vehicle.

10. Power switch ON without depressing the brake pedal.

CAUTION:

Never set the vehicle to READY.

11. Perform self-diagnosis for "ABS".

Is DTC "C106A-55" detected?

YES>>

Replace the ABS actuator and electric unit (control unit). Refer to <u>ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)</u>: <u>Removal & Installation</u>.

NO>>

INSPECTION END



DTC DETECTION LOGIC

DTC No	CONSULT screen terms	DTC detection condition	
C106A 6	62 Wheel sensor	Diagnosis condition	 Power switch is ON. When front left wheel sensor power supply voltage is normal. When the vehicle speed is 10 km/h (6.2 MPH) – 60 km/h (37 MPH).
		Signal (terminal)	Front left wheel sensor signal
		Threshold	When a malfunction is detected in front left wheel sensor.
		Diagnosis delay time	1 second or less
		Diagnosis condition	 Power switch is ON. When front right wheel sensor power supply voltage is normal. When the vehicle speed is 10 km/h (6.2 MPH) – 60 km/h (37 MPH).
		Signal (terminal)	Front right wheel sensor signal
		Threshold	When a malfunction is detected in front right wheel sensor.
		Diagnosis delay time	1 second or less
		Diagnosis condition	 Power switch is ON. When rear left wheel sensor power supply voltage is normal. When the vehicle speed is 10 km/h (6.2 MPH) – 60 km/h (37 MPH).
		Signal (terminal)	Rear left wheel sensor signal
		Threshold	When a malfunction is detected in rear left wheel sensor.
		Diagnosis delay time	1 second or less
		Diagnosis condition	 Power switch is ON. When rear right wheel sensor power supply voltage is normal. When the vehicle speed is 10 km/h (6.2 MPH) – 60 km/h (37 MPH).
		Signal (terminal)	Rear right wheel sensor signal
		Threshold	When a malfunction is detected in rear right wheel sensor.
		Diagnosis delay	1 second or less

DTC No.	CONSULT screen terms	DTC detection condition	
		time	

POSSIBLE CAUSE



Confirm if DTC is PAST or CRNT. If DTC is CRNT, proceed with Diagnosis Procedure. If DTC is PAST, clear DTC. Do not replace the ABS actuator and electric unit (control unit) for a PAST DTC.

PAST DTC	CRNT DTC
	Vehicle was not driven after previous repair
Harness or connector	Harness or connector
	Front left wheel sensor
Front left wheel sensor	Front left wheel sensor
Front left sensor rotor	Front left sensor rotor
Front left tire size	Front left tire size
Front right wheel sensor	Front right wheel sensor
Front right sensor rotor	Front right sensor rotor
Front right tire size	Front right tire size
Rear left wheel sensor	Rear left wheel sensor
Rear left sensor rotor	Rear left sensor rotor
Rear left tire size	Rear left tire size
Rear right wheel sensor	Rear right wheel sensor
Rear right sensor rotor	Rear right sensor rotor
Rear right tire size	Rear right tire size
ABS actuator and electric unit (control unit) power outputs exectors	ABS actuator and electric unit (control unit)
• Fuse	ABS actuator and electric unit (control unit) power supply system
Fusible link	• Fuse
• 12V battery	Fusible link
	• 12V battery

FAIL-SAFE

The following functions are suspended.

- VDC function
- TCS function
- ABS function
- EBD function

- hill start assist function
- Brake limited slip differential (BLSD) function
- Brake assist function
- Brake force distribution function
- Cooperative regenerative brake function
- Electric parking brake function

