Nissan Diagnostic Software User Guide

CONTENT

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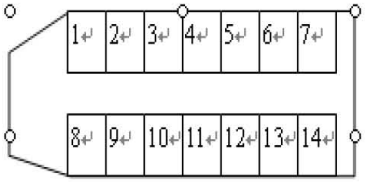
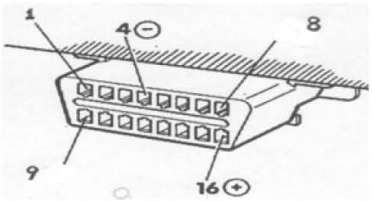
1. Nissan Protocol and Diagnostic Socket

14PIN Diagnostic Socket: 14PIN, DDL1 Protocol. In Japan, it appears from 1990 to 2000 and in America, it appears from 1990 to 1995.



Front View of Diagnostic Socket

16PIN Diagnostic Socket: 16PIN, CANBUS, KWP and ISO Protocols.



1.1 Connector Selection and Attention

First of all, select corresponding connector according to the diagnostic tool and car diagnostic socket.

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1.1.1 X-431

1). For 14PIN Diagnostic Socket, select 14PIN Connector from NISSAN 14+16 Connector.
   A). For 16PIN Diagnostic Socket:
      a). CANBUS protocol requires CANBUS II or SUPER 16 Connector.
      b). KWP protocol requires OBD II – 16C Connector or SUPER 16 Connector (do not use SMART OBD 16 Connector).
      c). DLL1 protocol: When there's CANBUS protocol, it requires OBD II -16C or SUPER 16 Connector. When there's no CANBUS protocol, it is recommended to use 16PIN Connector from NISSAN 14+16 Connector.

1.1.2 X-431 GX3/MASTER/NCP/3G/GDS/X-431 IV

1). For 14PIN Diagnostic Socket, select 14PIN Connector from NISSAN 14+16 Connector.
2). For 16PIN Diagnostic Socket:
   A). CANBUS protocol requires OBD II -16E Connector.
   B). KWP protocol requires OBD II -16E Connector.
   C). DLL1 protocol: When there's CANBUS protocol, it requires OBD II -16E

Connector. When there's no CANBUS protocol, it is recommended to use 16PIN Connector from NISSAN 14+16 Connector.

Figure: X431 IV

1.1.3 X-431 DIAGUN

1). For 14PIN Diagnostic Socket, select 14PIN Connector from NISSAN 14+16 Connector.
2). For 16PIN Diagnostic Socket:
A). CANBUS protocol requires X-431 DIAGUN Connector.
B). KWP protocol requires X-431 DIAGUN Connector.
C). DLL1 protocol: When there's CANBUS protocol, it requires X-431 DIAGUN Connector. When there's no CANBUS protocol, it is recommended to use 16PIN Connector from NISSAN 14+16 Connector.

1.1.4 X-431 TOP

1). For 14PIN Diagnostic Socket, select 14PIN Connector from NISSAN 14+16 Connector.
2). For 16PIN Diagnostic Socket:
A). CANBUS protocol requires universal OBD Connector.
B). KWP protocol requires universal OBD Connector.
C). DLL1 protocol: When there's CANBUS protocol, it requires universal OBD Connector. When there's no CANBUS protocol, it is recommended to use 16PIN Connector from NISSAN 14+16 Connector.

1.1.5 X-431 DIAGUN III/X-431 PAD

1). For 14PIN Diagnostic Socket, select 14PIN Connector from NISSAN 14+16 Connector and DBSCar Connector (use a diagnostic extension cable to connect).
2). For 16PIN Diagnostic Socket:
A). CANBUS protocol requires DBSCar Connector.
B). KWP protocol requires DBSCar Connector.

C). DLL1 protocol: When there's CANBUS protocol, it requires DBSCar Connector. When there's no CANBUS protocol, it is recommended to use 16PIN Connector from NISSAN 14+16 Connector and DBSCar Connector (use a diagnostic extension cable to connect).

NOTE: For the car with CANBUS, using NISSAN 14+16 Connector or SMART OBD-16 Connector may cause Anti-theft System and Instrument lights lighting up and ignition failure due to the 14# conflict. Solution: Perform DTC clearance to all diagnostic systems.

Figure: X-431 DIAGUN III

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2. Menu Selection

First of all, select corresponding connector according to the diagnostic tool and car diagnostic socket. Then access the diagnostic software to do the test. After accessing the diagnostic software, it displays following 3 menus:

- Manually Select
- Automatically Search
- NATS (Nissan Anti-theft System)

Tip: It's suggested to select "Automatically Search" for old car models before 2006.

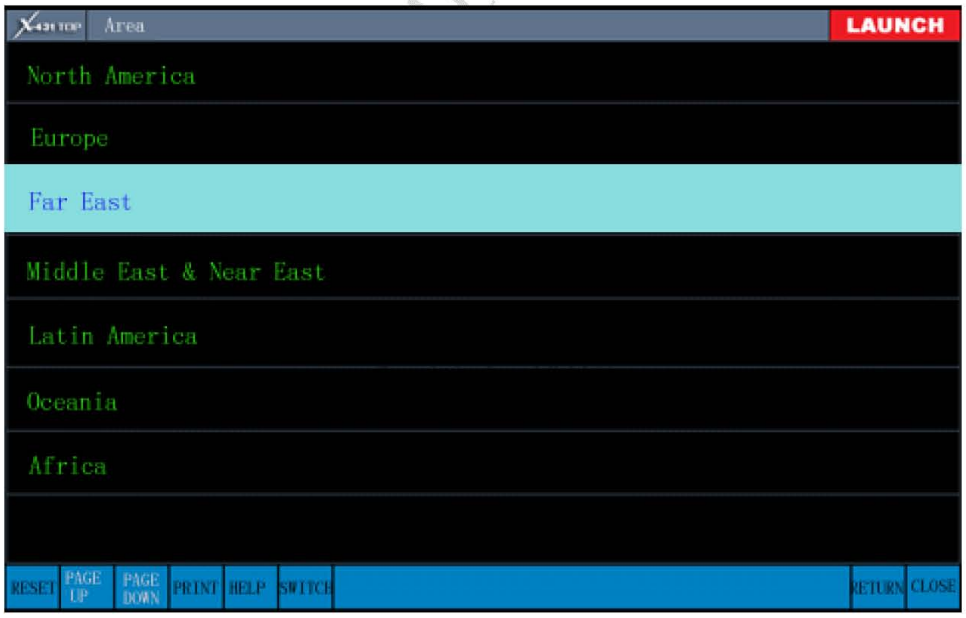
When using NISSAN 14+16 Connector to test 14PIN car or 16PIN car, user must select "Automatically Search -> 14PIN Car".

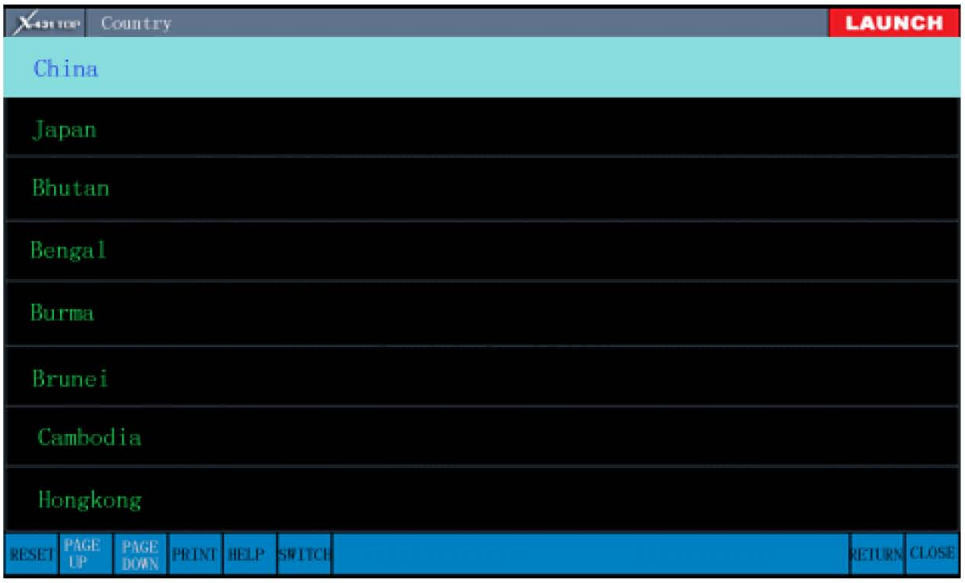
Meanwhile, if using CANBUS II, OBD II-6C, SUPER 16, X-431 DIAGUN, Universal OBD or OBD II-16E Connector, user shall not select "Automatically Search -> 14PIN Car".

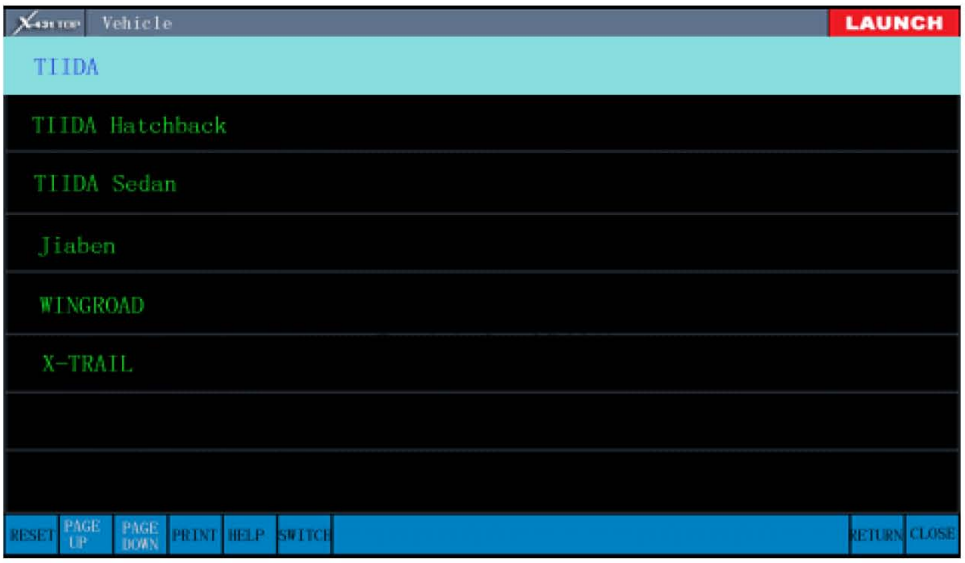
2.1 Manually Select

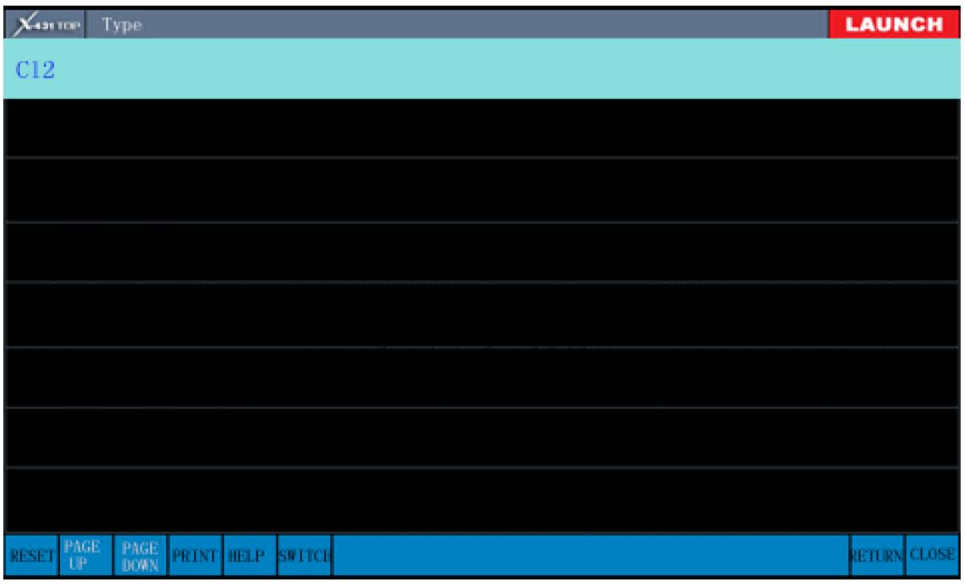
Please note this menu does not support NISSAN 14+16 Connector.

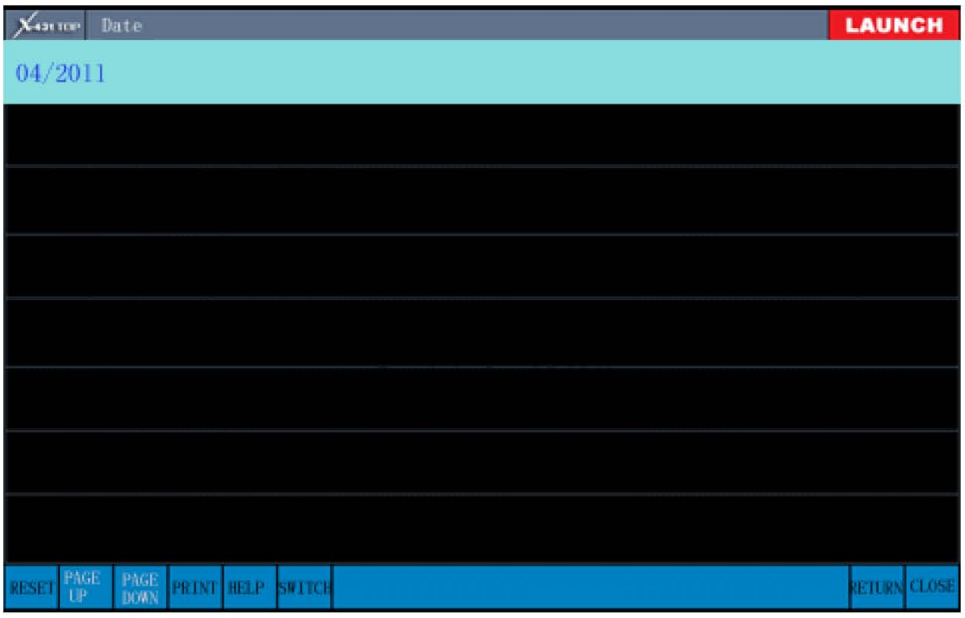
Under "Manually Select", select "Area->Country->Car Model->Sub-model ->Model Year" in sequence based on the car information. Take 2011 TIIDA China car for example. The test path is as below:



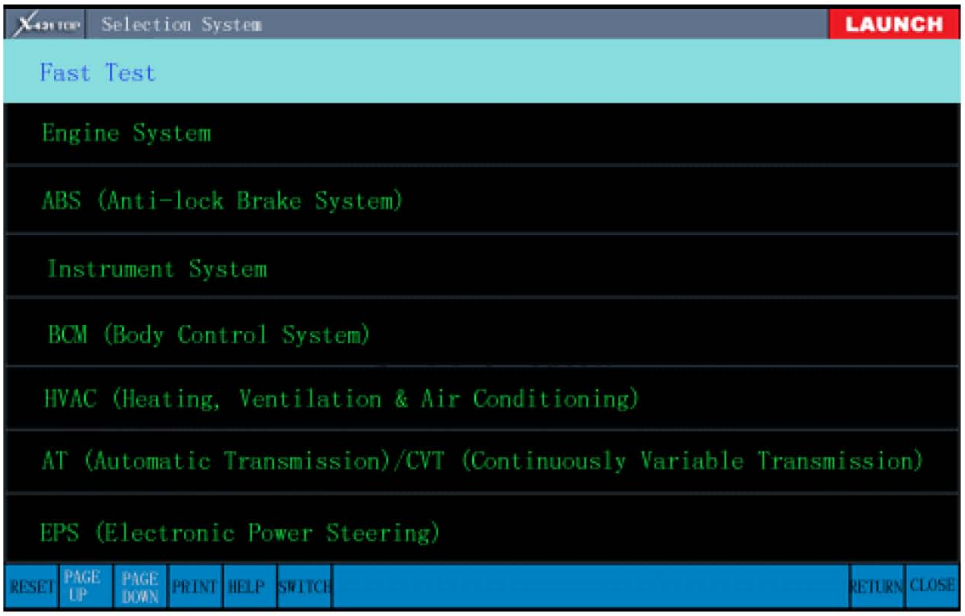

Country
LAUNCH
China
Japan
Bhutan
Bengal
Burma
Brunei
Cambodia
Hongkong
RESET
PAGE UP
PAGE DOWN
PRINT
HELP
SWITCH
RETURN
CLOSE


Vehicle
LAUNCH
TIIDA
TIIDA Hatchback
TIIDA Sedan
Jiaben
WINGROAD
X-TRAIL
RESET
PAGE UP
PAGE DOWN
PRINT
HELP
SWITCH
RETURN
CLOSE


Type
LAUNCH
C12
RESET
PAGE UP
PAGE DOWN
PRINT
HELP
SWITCH
RETURN
CLOSE



After selecting "Model Year", perform "System Scan", it will list the existing systems.



User can now test single system when it lists car existing systems. "Fast Test" scans fault codes of all systems by one click. If it's YES, click to display current fault information. If it's NO, it means there's no fault with this system. If it shows "communication error or not support", it means communication failed. Please apply specific system to test.

2.2 Automatically Search

Under "Automatically Search", there are two submenus. Functions are completely the same but for different connectors.

Car with 16PIN, when it uses NISSAN 14+16 Connector, select this menu.

Car with 14PIN, when it uses NISSAN 14+16 Connector, select this menu.

There are six items in Submenu:

- Search All System: This item takes long time. After scanning, it lists all existing systems.
- Search by System: It lists the main system. User can directly select specific system to test. It's easy and fast.
- Search by Protocol: This function is applicable for multi-protocol mode of single system. For example, one ECU has two protocols. With "Search by System", it stops scanning other protocol (KWP) when one protocol (CANBUS) has been detected. In this case, through "Search by Protocol", it can scan both protocols separately.
- NATS: Nissan Anti-theft System
- Diagnostic Socket Position.
- Nissan Oil Lamp Reset: Please refer to Japanese/Korean Car under Datums from www.x431.com .

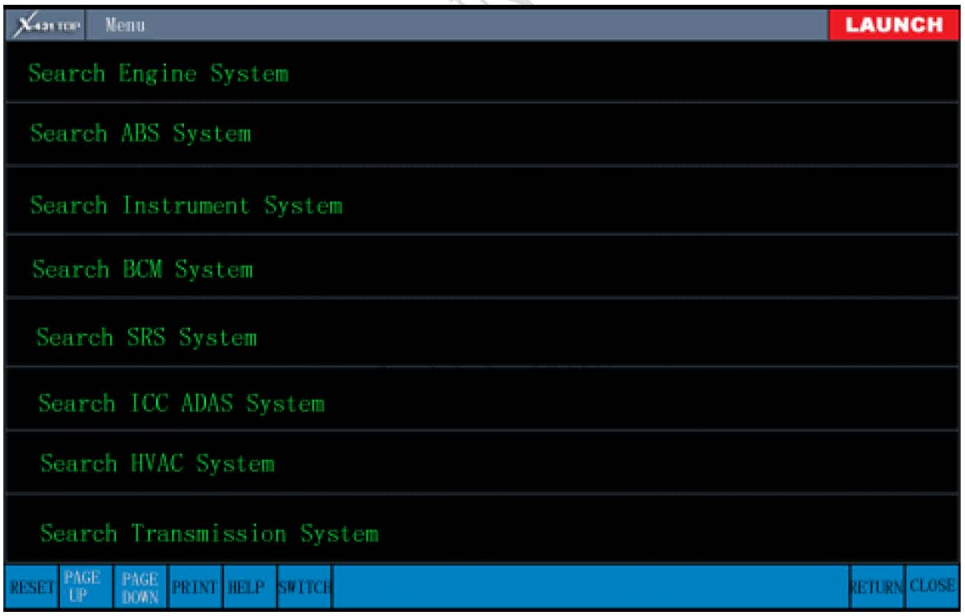


Figure: Search by System

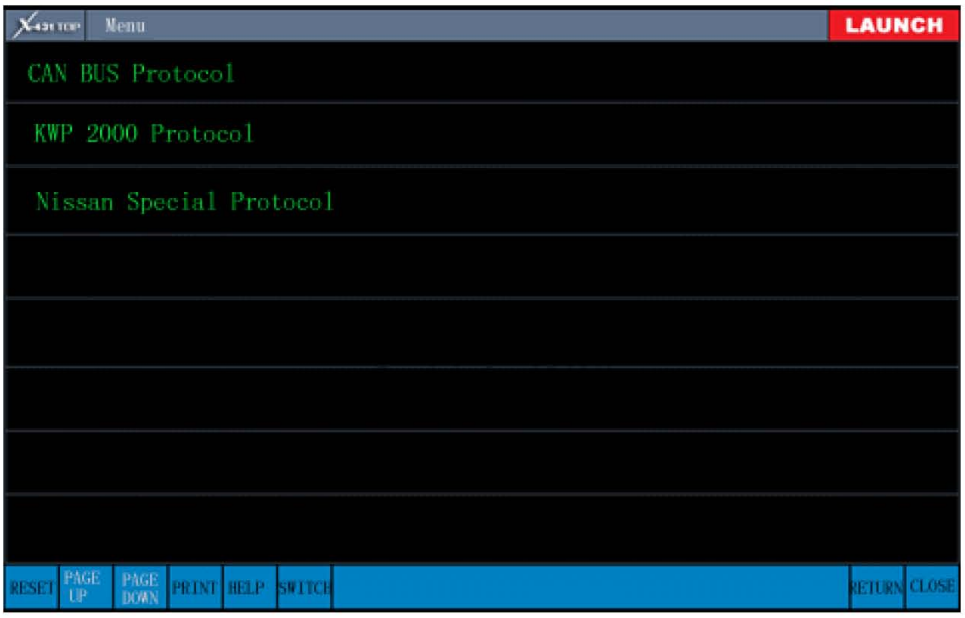


Figure: Search by Protocol

2.3 Nissan Anti-theft System (NATS)

This menu is for Anti-theft System. For details, please refer to "Nissan Decoder Matching Ignition and Key Operation " and "Nissan Anti-theft Key Matching Method".

3. System Test

In Nissan diagnostic software, systems have following basic functions:

- Read DTCs;
- Clear DTCs;
- Read Data Stream;
- ECU Part Number: 5-byte ECU information;
- Some systems have following special functions:
- Actuation Test
- Read Freeze Frame Data
- Work Support
- Function Test

During the test, one ID will be provided before entering the system. For example, Scan Instrument System.

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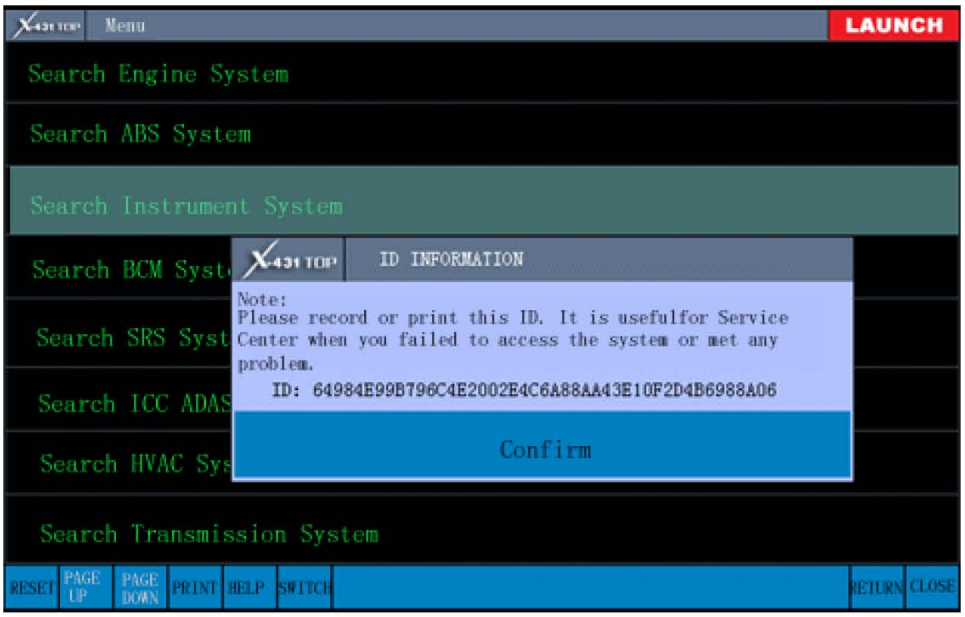

Figure: ID Display

If any problem found, please notice us the problem as well as following information:

SYSTEM	ID
Engine	
AT	
ABS	
Airbag	
…	

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