

Jaltest Coverage on Allison Transmissions: Clutch Test

Allison is one of the most common makes that we can find in Heavy Duty, Medium Duty and Light Duty Commercial Vehicles. For example, Allison 1000 and 2000 Transmission are very frequent in GMC pickups. Among many other bidirectional actions, Jaltest Diagnostics can perform Clutches Tests in these transmissions. These systems checks provide us information about how is the state of our automatic transmission.

clicking on Calibration...

Among many other helpful features, Jaltest Diagnostic allows you to work on other systems like the engine or the brakes; bringing you access to Wiring Diagrams, OEM technical information, component locations, Trouble shooting by fault and by symptom, etc.

Jaltest will save your money and your time!

The following Jaltest screenshots show an Allison Clutch Test in a Chevrolet Silverado 2014 though very simple steps.

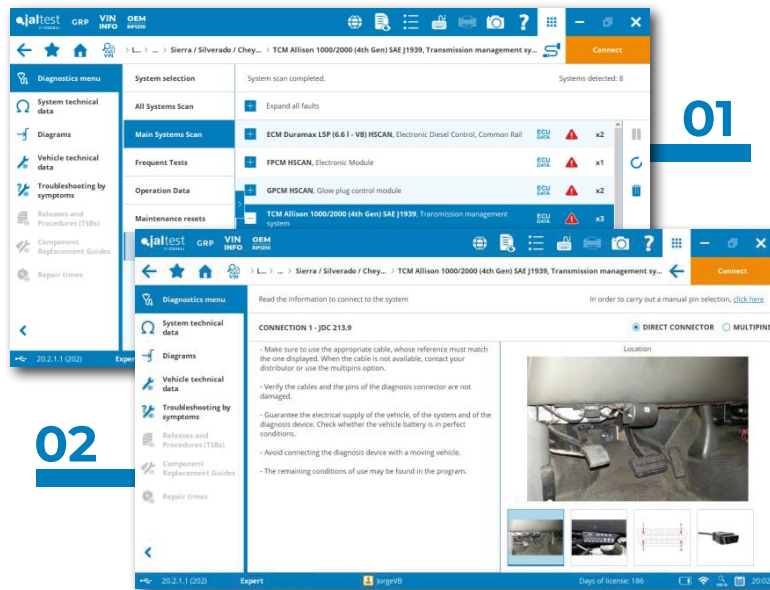
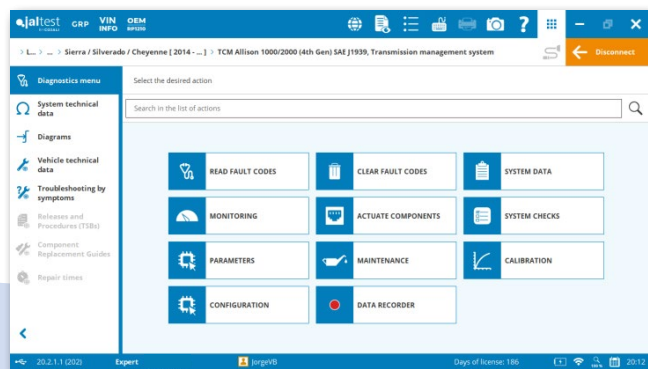
First of all, you have to select the ECU that you want to connect with (pic1), in this case it is TCM Allison 1000 / 2000. Jaltest helps you with this connection, showing you how to hook up and the cables needed (pic 2). If you would rather connect directly to an specific action, you can access also through the shortcut Frequent Tests.

Once we have connected to the Central Computer, you will see the main Jaltest Diagnostics Menu. There you can check and clear faults, monitoring live data, perform calibrations, etc. In order to start the Clutch Test you have to click on System Checks (pic 3).

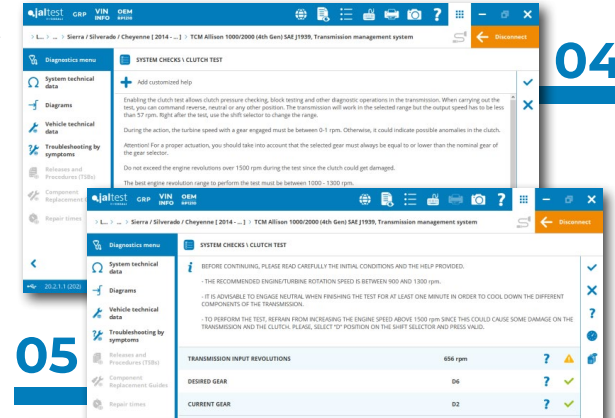
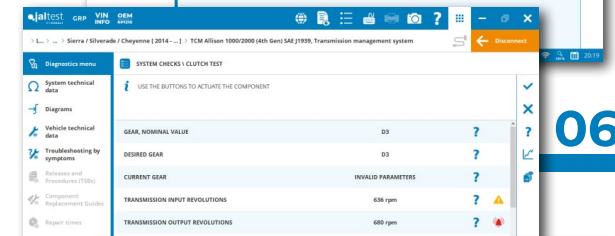
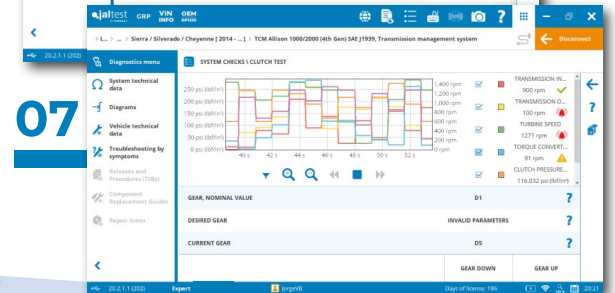
Selecting the option: Clutch Test, Jaltest will guide you during the whole process in **three easy steps**:

1. Explanation of what is a Clutch Test. (pic 4)
2. Initial conditions required before performing the action, showing data in live. (pic 5)
3. The performance supported by information and graphics. (pic 6 and 7)

Once you have concluded the Clutch Test, Jaltest will ask you for saving the results and the graphics in a Diagnostics Report You can keep this report in Jaltest GRP linking it to a customer account and a vehicle. Moreover, you can provide this report to your customers so they can know what is wrong with their Transmission and all the actions you have performed. For example, for this Allison Transmission, you can click on Parameters and modify the power take off control; you can click on Maintenance to perform resets or transmissions oil changes; or calibrating the accelerator pedal by



03



07

For more information visit:
cojaliusa.com

click on images to enlarge

jaltest
DIAGNOSTICS

cv COMMERCIAL



01



GRP

VIN
INFO

OEM
RP1210





> L... > ... > Sierra / Silverado / Chey...

TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system



Connect



Diagnostics menu



System technical data



Diagrams



Vehicle technical data



Troubleshooting by symptoms



Releases and Procedures (TSBs)



Component Replacement Guides



Repair times



System selection

All Systems Scan

Main Systems Scan

Frequent Tests

Operation Data

Maintenance resets

Manual diagnosis

Types

ALL

Electronic module

Engine

Hybrid systems

Instrument cluster

Power take-off

Steering

Suspension

Transmission

Select a system from the list and click on Connect button (Options: 3/27)

Search by system name



☒ Name

☐ Actions

TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system

TCM HEV HSCAN, Transmission

TCM HSCAN, Transmission Electronic Control Unit

20.3.1.1 (303)

Expert

Days of license: 350



02:03

For more information visit:
cojaliusa.com



02

GRP**VIN INFO****OEM RP1210**

Diagnostics menu

Read the information to connect to the system

In order to carry out a manual pin selection, [click here](#)

System technical data

Diagrams

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

CONNECTION 1 - JDC 213.9

☒ **DIRECT CONNECTOR** ☐ MULTIPINS

Location

- Make sure to use the appropriate cable, whose reference must match the one displayed. When the cable is not available, contact your distributor or use the multipins option.
- Verify the cables and the pins of the diagnosis connector are not damaged.
- Guarantee the electrical supply of the vehicle, of the system and of the diagnosis device. Check whether the vehicle battery is in perfect conditions.
- Avoid connecting the diagnosis device with a moving vehicle.
- The remaining conditions of use may be found in the program.

 20.3.1.1 (303) **Expert** Days of license: 350 100 % 02:04

For more information visit:
cojaliusa.com

GRP
VIN
INFO
OEM
RP1210

> L... > ... > Sierra / Silverado / Cheyenne [2014 - ...] > TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system

Disconnect

Diagnostics menu

System technical data

Diagrams

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

Select the desired action

READ FAULT CODES

CLEAR FAULT CODES

SYSTEM DATA

MONITORING

ACTUATE COMPONENTS

SYSTEM CHECKS

PARAMETERS

MAINTENANCE

CALIBRATION

CONFIGURATION

DATA RECORDER

20.3.1.1 (303)
Expert
Days of license: 350

100 %

02:05

For more information visit:
cojaliusa.com

GRP
VIN INFO
OEM RP1210

L... > ... > Sierra / Silverado / Cheyenne [2014 - ...] > TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system

Diagnostics menu

System technical data

Diagrams

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

SYSTEM CHECKS \ CLUTCH TEST

Add customized help

Enabling the clutch test allows clutch pressure checking, block testing and other diagnostic operations in the transmission. When carrying out the test, you can command reverse, neutral or any other position. The transmission will work in the selected range but the output speed has to be less than 57 rpm. Right after the test, use the shift selector to change the range.

During the action, the turbine speed with a gear engaged must be between 0-1 rpm. Otherwise, it could indicate possible anomalies in the clutch.

Attention! For a proper actuation, you should take into account that the selected gear must always be equal to or lower than the nominal gear of the gear selector.

Do not exceed the engine revolutions over 1500 rpm during the test since the clutch could get damaged.

The best engine revolution range to perform the test must be between 1000 - 1300 rpm.

Important note:

The engine must be running and must be at a normal operating temperature.

Due to a rise in the transmission oil temperature and to the movement generated by the activation of the components, the system is globally overheated during the test. Therefore, it is advisable to engage neutral for at least a minute after the test.

20.3.1.1 (303)
Expert

Days of license: 350

100 %

02:05

For more information visit:
cojaliusa.com

GRP
VIN INFO
OEM RPT210

L... > ... > Sierra / Silverado / Cheyenne [2014 - ...] > TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system

Disconnect

Diagnostics menu

System technical data

Diagrams

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

SYSTEM CHECKS \ CLUTCH TEST

BEFORE CONTINUING, PLEASE READ CAREFULLY THE INITIAL CONDITIONS AND THE HELP PROVIDED.

- THE RECOMMENDED ENGINE/TURBINE ROTATION SPEED IS BETWEEN 900 AND 1300 rpm.
- IT IS ADVISABLE TO ENGAGE NEUTRAL WHEN FINISHING THE TEST FOR AT LEAST ONE MINUTE IN ORDER TO COOL DOWN THE DIFFERENT COMPONENTS OF THE TRANSMISSION.
- TO PERFORM THE TEST, REFRAIN FROM INCREASING THE ENGINE SPEED ABOVE 1500 rpm SINCE THIS COULD CAUSE SOME DAMAGE ON THE TRANSMISSION AND THE CLUTCH. PLEASE, SELECT "D" POSITION ON THE SHIFT SELECTOR AND PRESS VALID.

TRANSMISSION INPUT REVOLUTIONS	807 rpm	?	
DESIRED GEAR	D1	?	
CURRENT GEAR	D3	?	

20.3.1.1 (303)
Expert
Days of license: 350

100 %

02:06

For more information visit:
cojaliusa.com

GRP

VIN INFO

OEM RP1210

> L...

> ...

> Sierra / Silverado / Cheyenne [2014 - ...]

> TCM Allison 1000/2000 (4th Gen) SAE J1939, Transmission management system

Disconnect

Diagnostics menu

System technical data

Diagrams

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

SYSTEM CHECKS \ CLUTCH TEST

USE THE BUTTONS TO ACTUATE THE COMPONENT

GEAR, NOMINAL VALUE	D4	?	
DESIRED GEAR	N	?	
CURRENT GEAR	D5	?	
TRANSMISSION INPUT REVOLUTIONS	575 rpm	?	
TRANSMISSION OUTPUT REVOLUTIONS	222 rpm	?	
TURBINE SPEED	1377 rpm	?	

GEAR DOWN

GEAR UP

20.3.1.1 (303)

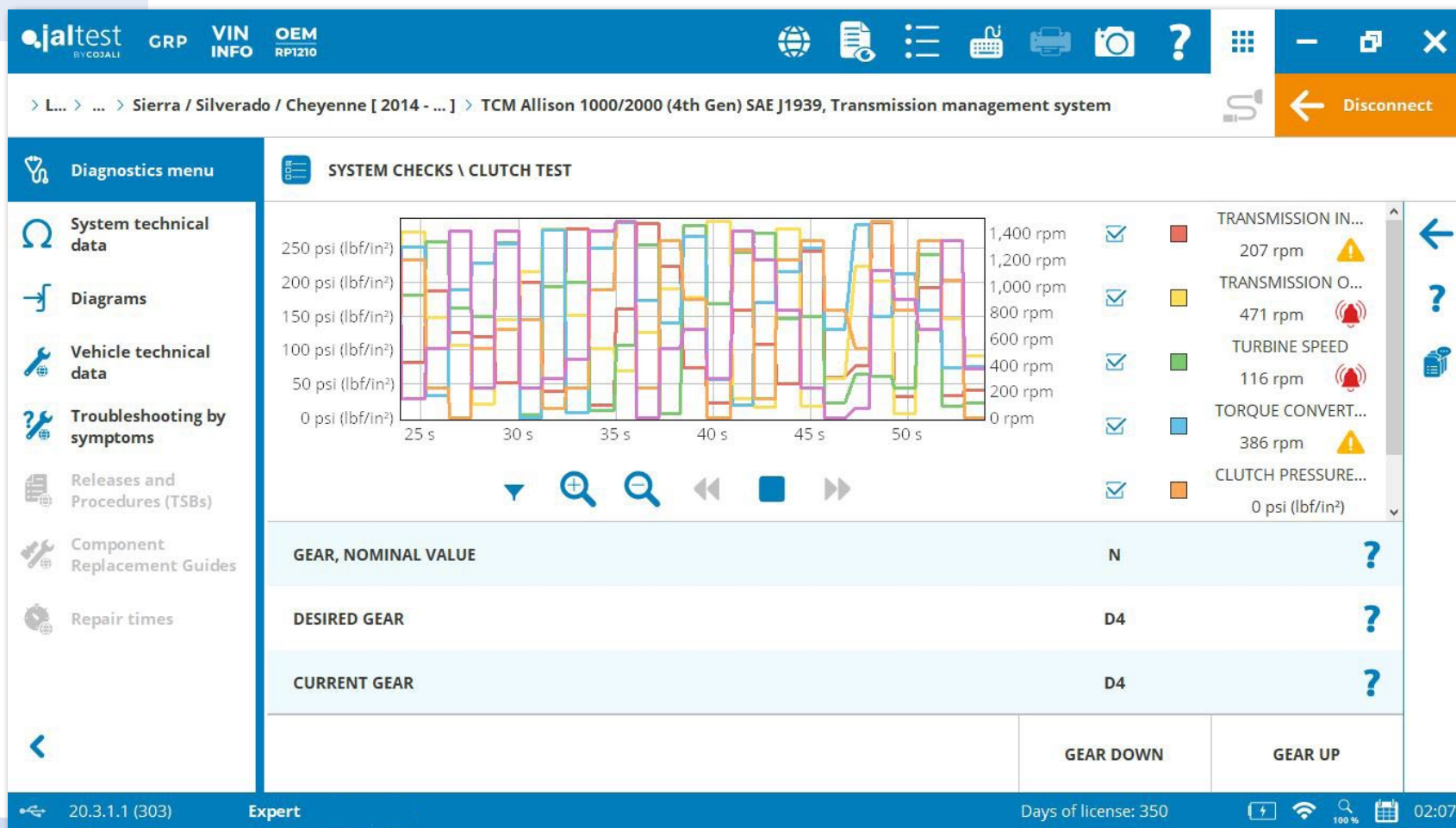
Expert

Days of license: 350

100 %

02:07

For more information visit:
cojaliusa.com



For more information visit:
cojaliusa.com