

Tecalemit

DE9419/DE9719

User Manual

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CE Regulation Compliance

The product complies with all applicable CE directives (see “Declaration of conformity to CE directives" on page 48).

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Chapter 1 About this manual

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Audience

This user manual is intended for persons who operate the DE9419/DE9719 brake tester. Tecalemit Garage Equipment requires that these operators:

- Have sufficient technical knowledge and experience to do the assigned tasks.
- Can recognize and prevent hazards.
- Have read and understand this manual.
- Have been correctly trained.
- Follow the procedures in this manual.

Scope

The purpose of this manual is to:

- Describe the operation of the system.
- Describe its operating principles and general construction.
- Explain safety features and safety precautions.
- Highlight possible hazards.
- Describe procedures to operate the system.
- Describe solutions to system problems.

Organisation

This user manual contains the following chapters:

- Introduction (on page 7): contains a short description of the system.
- Safety (on page 8): describes safety features on the DE9419/DE9719 brake tester and safety precautions to obey when you operate or do work on the system. Read this section before installation, operation and maintenance.
- Specifications (on page 10): contains specification of the DE9419/DE9719 brake tester.
- Functional description (on page 12): contains a functional description of the DE9419/DE9719 brake tester.
- Vehicle/customer data (on page 20): contains all procedures necessary to operate the vehicle/customer section of the DE9419/DE9719 brake tester program.
- Operating instructions (chapters 7, 8 and 9): contains all procedures necessary to operate the DE9419/DE9719 brake tester safely.
- Chapter 10 describes how to analyse, print, save and review test results.
- General settings (on page 44): describes general settings for the test lane.
- Troubleshooting (on page 46): contains procedures to solve problems encountered operating the DE9419/DE9719 brake tester and lists error messages.
- Preventive maintenance (on page 47): contains maintenance procedures that can be done by the operator.

Availability of this manual

Tecalemit Garage Equipment expects a copy of this manual to be available to the user.

Chapter 2 Introduction

In This Chapter

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Introduction

This manual describes how to safely use the **DE9419/DE9719 brake tester.**

The **DE9419-MOT, DE9419-ATL** are **Class 4 roller brake testers** for statutory Vehicle Inspection of commercially available class 3, 4 and M1 vehicles (herein refer to as MOT class 3 & 4 & M1).

The **DE9719-MOT, DE9719-ATL** are **Class 7 roller brake testers** for statutory Vehicle Inspection of commercially available class 7 and 5L vehicles (herein refer to as MOT class 7 & 5L).

This manual gives the instructions how to carry out a brake test according to the UK Department of Transport compulsory schemes. The manual provides the MOT braking measurement requirements and describes the complete test procedures for both automatic and manual testing as set out in the MOT inspection manuals current at the time this user manual was written. Please refer to the latest MOT inspection manual to check for any changes.

The customer should ensure that the installation for testing vehicles under any of the Department of Transport compulsory schemes, is according to the details mentioned in the Department of Transport‘s requirements.

The brake testers are designed in such a way that these can be used in a MANUAL testing mode as well as an Automatic testing mode (herein refer to as MAN and ATL). The configuration installed, determines the functionality of the product and if it can be used in ATL and MANUAL mode, or in MANUAL mode only:

Model / **Vehicle**	DE9419-MOT	DE9419-ATL	DE9719-MOT	DE9719-ATL
Class 3	MAN	MAN	MAN	MAN
Class 4, Class M1	MAN	MAN/ATL	MAN	MAN/ATL
Class 5L	-	-	MAN	MAN/ATL
Class 7 (2 axles)	-	-	MAN	MAN/ATL
Class 7 (3 axles)	-	-	MAN	MAN/ATL
Class 1 & 2 c/w adapter plate	-	MAN	-	MAN

The ATL weighing system is integrated in the brake tester.

Chapter 3 Safety

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General safety instructions

- In order to comply with your responsibilities under the Health and Safety at Work Act 1974, it is essential that only properly trained and authorized personnel install, operate and maintain the brake tester and any optional accessories.
- Always follow the instructions in this manual to prevent damage to the machine and vehicle, and injuries to personnel.
- Only properly trained and authorized personnel are allowed to operate and service the test lane.
- Lock the mains switch when the test lane is not in use.
- Before you start a test, make sure the safety limit switches on the wheel detection rollers function correctly. Turn the wheel detection roller and make sure the lights of the proximity switches come on.
- Do not adjust the vehicle brakes or examine tyres when the vehicle is in the rollers.
- During the test, make sure nobody stands close to the mechanical units. If necessary, block accesses or provide a color marking.
- Do not remove or short-cut the safety features.
- Provide sufficient ventilation or a suitable exhaust suction device when testing with a vehicle.
- The operator is only permitted to do maintenance as described in “Chapter 13 Preventive maintenance” on page 47.
- Do not park a vehicle on any part of the test lane.
- Do not stand on, or walk over the rollers at any time.
- Do not leave the brake tester switched on and unattended.
- Do not test a vehicle when there is insufficient light.
- Keep the operating environment clean and free of oil; don’t leave loose objects around the brake testers.
- When the brake tester is not working correctly, switch off the brake tester and refer to the user manual operations instructions or contact your supplier.
- Make sure the remote control is stored safely when not in use.
- The equipment may be operated only within its rated capacity.
  See “Chapter 4 Specifications” on page 10.

Note
The motor and control gear of the RBT are not flameproof and it is the responsibility of the operator to make sure that the proposed site and the aspects of the installation comply with the Petroleum Regulations and that they satisfy the local Petroleum (consolidation) Regulations 2014.

System safety features

The test lane has the following safety features:

- Mains switch. The isolator at a dedicated location switches the mains power to the entire unit off.
- Emergency stop button.
- The Power button  or OK button on the remote control: stops the current test immediately.
- The Enter key on the keyboard: stops the current test immediately.
- Roller cover plates to close the roller brake tester when not in use.

Chapter 4 Specifications

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The roller brake testers **DE9419-MOT and DE9419-ATL** are designed for testing commercially available class 3 & 4 & M1 vehicles for road use (including 3-wheel vehicles and 4-wheel driven vehicles).

The roller brake testers **DE9719-MOT and DE9719-ATL** are designed for testing commercially available class 7 & 5L vehicles for road use. It is also designed for class 3 & 4 & M1 vehicles (including 3-wheel vehicles and 4-wheel driven vehicles).

DE9419-MOT

- Measuring range brake force: 0-800 kgf
- Axle load: maximum 3000 kg
- Roller speed: 2.9 km/h
- Roller dimensions: 700 x 206 mm
- Friction roller surface: 0.9 µ dry, > 0,6 µ wet
- Roller distance: 420 mm
- Motors: 2 x 3 kW, 3PH 400V / 50 Hz
- Track: 806 – 2206 mm
- Chassis dimensions: 234 x 66 x 30 cm (LxWxH)

DE9419-ATL with weighing system

- Measuring range brake force: 0-800 kgf
- Weighing range: 0-1500 kg/wheel
- Axle load: maximum 3000 kg
- Roller speed: 2.9 km/h
- Roller dimensions: 700 x 206 mm
- Friction roller surface: 0.9 µ dry, > 0,6 µ wet
- Roller distance: 420 mm
- Motors: 2 x 3 kW, 3PH 400V / 50 Hz / 32A
- Track: 806 – 2206 mm
- Chassis dimensions: 234 x 66 x 31 cm (LxWxH)

DE9719-MOT

- Measuring range brake force: 0-1250 kgf
- Axle load: maximum 4000 kg
- Roller speed: 2.9 km/h
- Roller dimensions: 900 x 206 mm
- Friction roller surface: 0.9 µ dry, > 0,6 µ wet
- Roller distance: 420 mm
- Motors: 2 x 4 kW, 3PH 400V / 50 Hz
- Track: 880 – 2680 mm
- Chassis dimensions: 281 x 71 x 32 cm (LxWxH)

DE9719-ATL

- Measuring range brake force: 0-1250 kgf
- Weighing range: 0-2000 kg/wheel
- Axle load: maximum 4000 kg
- Roller speed: 2.9 km/h
- Roller dimensions: 900 x 206 mm
- Friction roller surface: 0.9 µ dry, > 0,6 µ wet
- Roller distance: 420 mm
- Motors: 2 x 4 kW, 3PH 400V / 50 Hz
- Track: 880 – 2680 mm
- Chassis dimensions: 281 x 71 x 33 cm (LxWxH)

Tecalemit Garage Equipment reserves the right to amend the specifications without notice.

Chapter 5 Functional description

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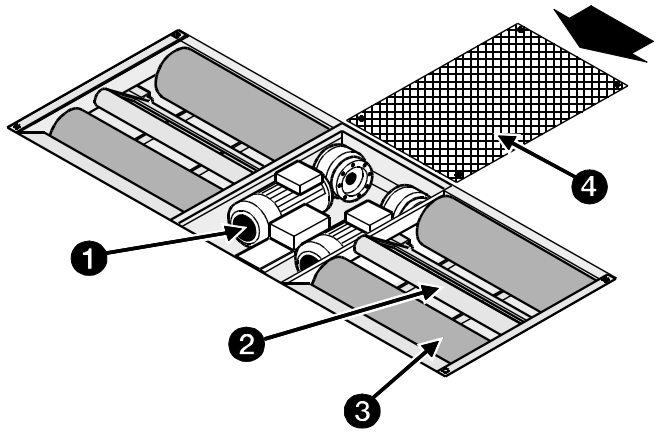
The main parts of the system are:

- Roller brake tester class 4 with roller cover plates.
- Roller brake tester class 7 with roller cover plates.
- Weighing system brake tester.
- Console.
- Remote control.
- Software.

This chapter describes the individual parts of the system.

Floor modules

DE9419/DE9719 brake tester



1. motor
2. wheel detection roller
3. roller for brake test
4. center cover plate

The roller brake tester analyses the efficiency of the braking system of a vehicle. From the test the efficiency value is calculated.

The brake of each wheel is tested with a pair of rollers (3), driven by an electric motor (1). The brake force induces a reaction force on the electric motor. An electronic transducer with strain gauges measures these reaction forces.

A third, small roller (❷) between the wheel supporting rollers detects if a vehicle is present and if slippage (lock) occurs. If slippage occurs the rollers are stopped to prevent damage to the tyres.

The electronics of the brake tester (relays rails, power supply, CPU board) are located inside the roller brake tester and connected by means of an Ethernet cable to the console.

For safety purposes, the motors will **not start** if the left and right small rollers are not pushed down within **one second** after each other (except for 3-wheel mode or class 1 & 2 mode for motorcycles/scooters (optional)). The second function is to detect if tyre slippage on the rollers does not exceed the maximum value.
If the tester is not used, it must be closed with the standard supplied roller bed cover plates.

Note
For testing Class 1 & 2 vehicles on the DE9419/DE9719 brake tester the adapter plate OA/62415 (class 4) or OA/62719 (class 7) is required.

Weighing system

When installed as a NON-ATL class 4 roller brake tester, a weighing system is not integrated. The ATL function is switched off. The operator can only use the brake tester in manual mode.

When installed as an ATL class 4 roller brake tester, the roller bed is standard equipped with an integrated 4-point weighing system. During installation the ATL function is switched on. The operator can test in both ATL and MANUAL mode.
The software supresses the weighing system during a MANUAL test.

When installed as a NON-ATL class 7 roller brake tester, a weighing system is not integrated. The ATL function is switched off. The operator can only use the brake tester in manual mode.

When installed as an ATL class 7 roller brake tester and also used for ATL class 4 testing, the roller bed is standard equipped with an integrated 4-point weighing system. During installation the ATL function is switched on. The operator can test in both ATL and MANUAL mode.
The software supresses the weighing system during a MANUAL test Class 4.
The software supresses the weighing system during an ATL & MANUAL test Class 7 & 5L.

Console

The console contains the PC that runs the DE9419/DE9719 brake tester software.

Console

Models:
DE9419-MOT
DE9419-ATL
DE9719-MOT
DE9719-ATL

Contains:

PC

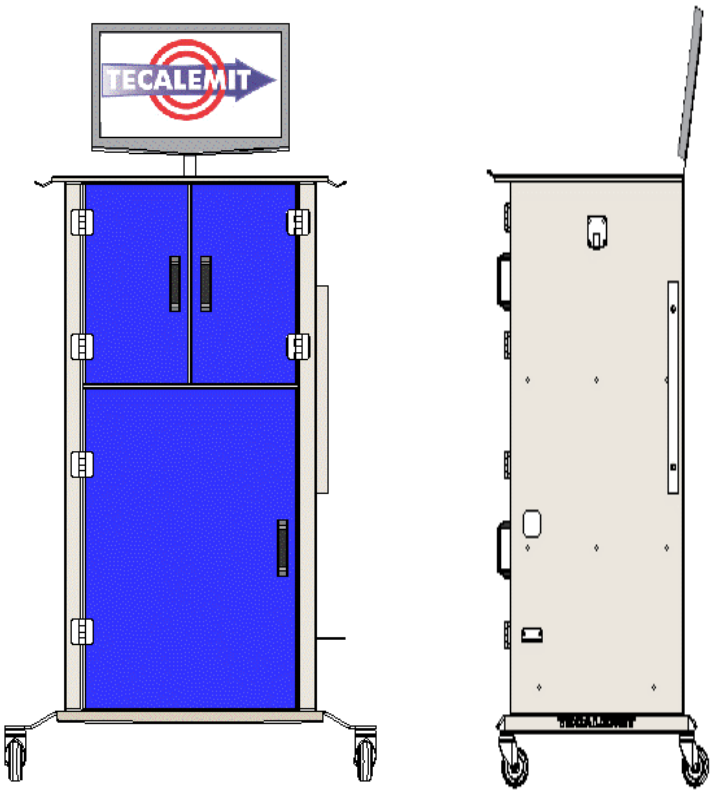
- PC + monitor + keyboard + mouse
- Software

Infra red remote control hand set

- Remote control
- Remote control receiver

Console

- For storage of PC package



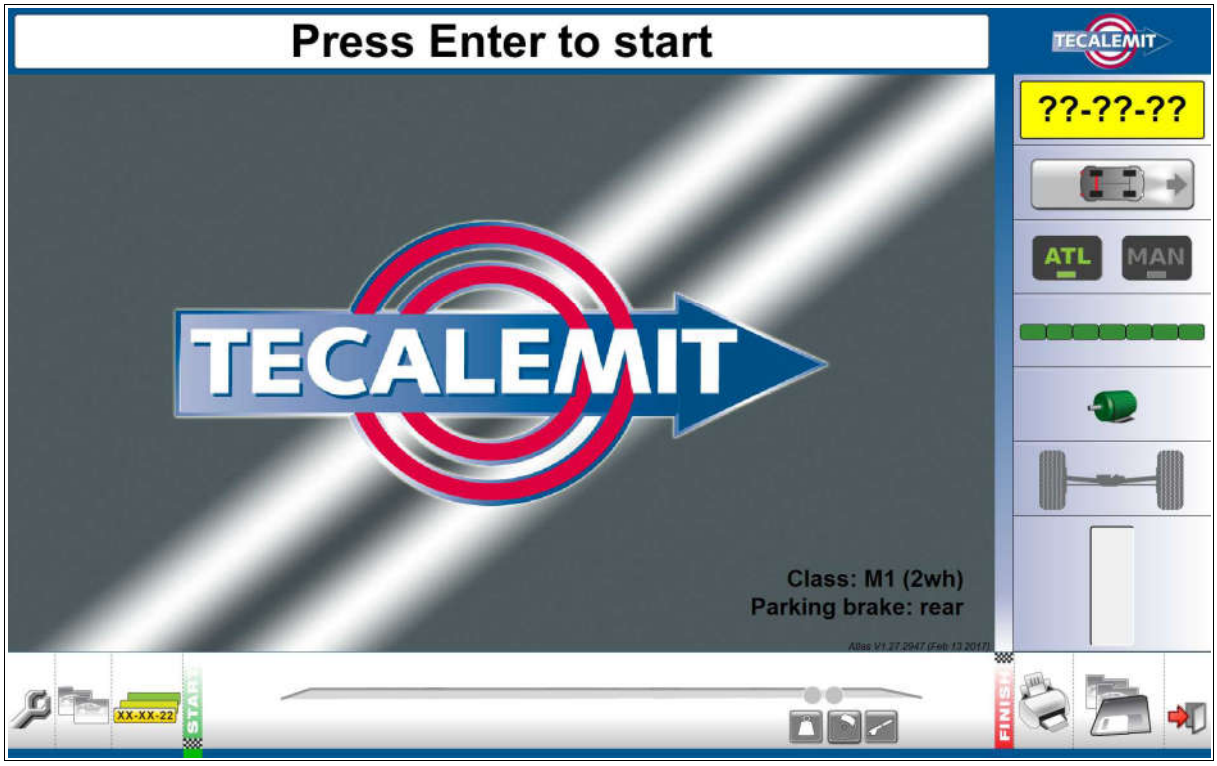
Front view *Side view*

Software

There are separate programs for the following tasks:

- Test lane program.
  This program runs the tests, analyses and shows the test results on the console.
- Report (see “Review test results from earlier tests (Report) " on page 43)
  This program shows the test results from earlier tests.
- Service
  This program allows you to set up and calibrate the test lane. This program is described in the calibration and service manual.

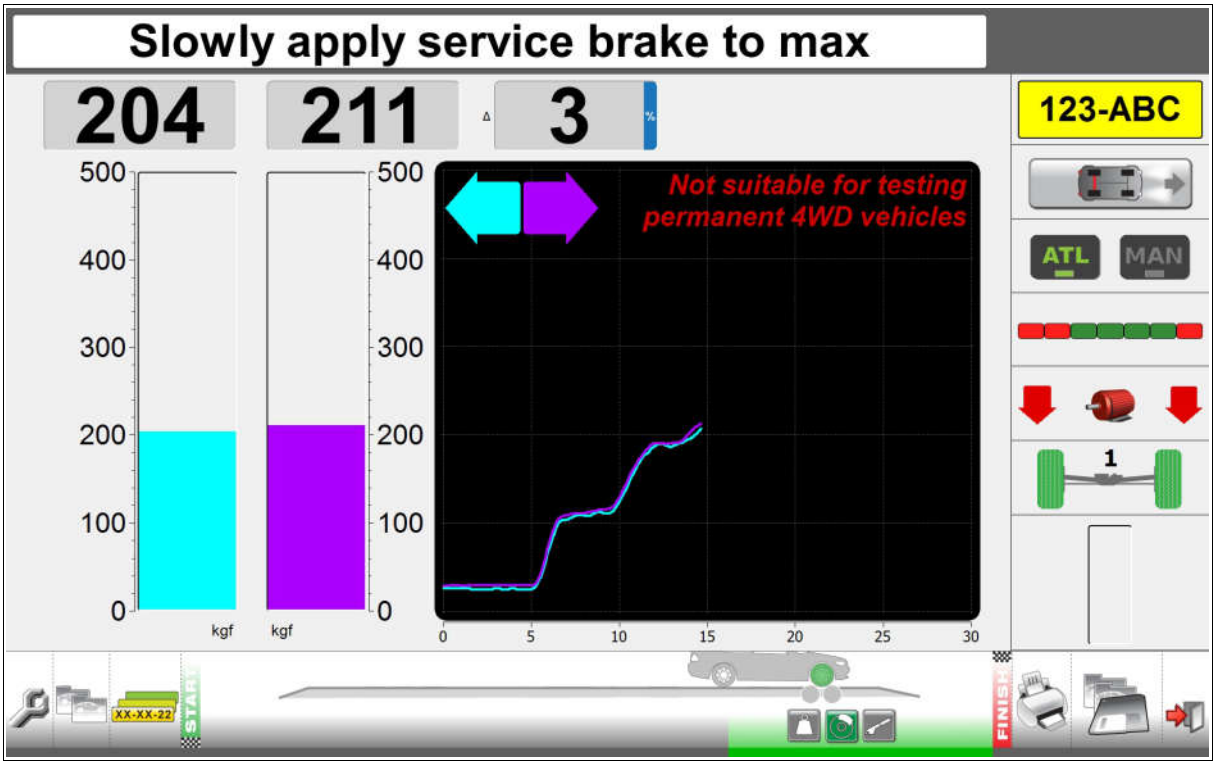
General layout of the start screen



General layout of the test lane screens

You can control the test lane program with:

- Computer keyboard and mouse.
- Remote control.

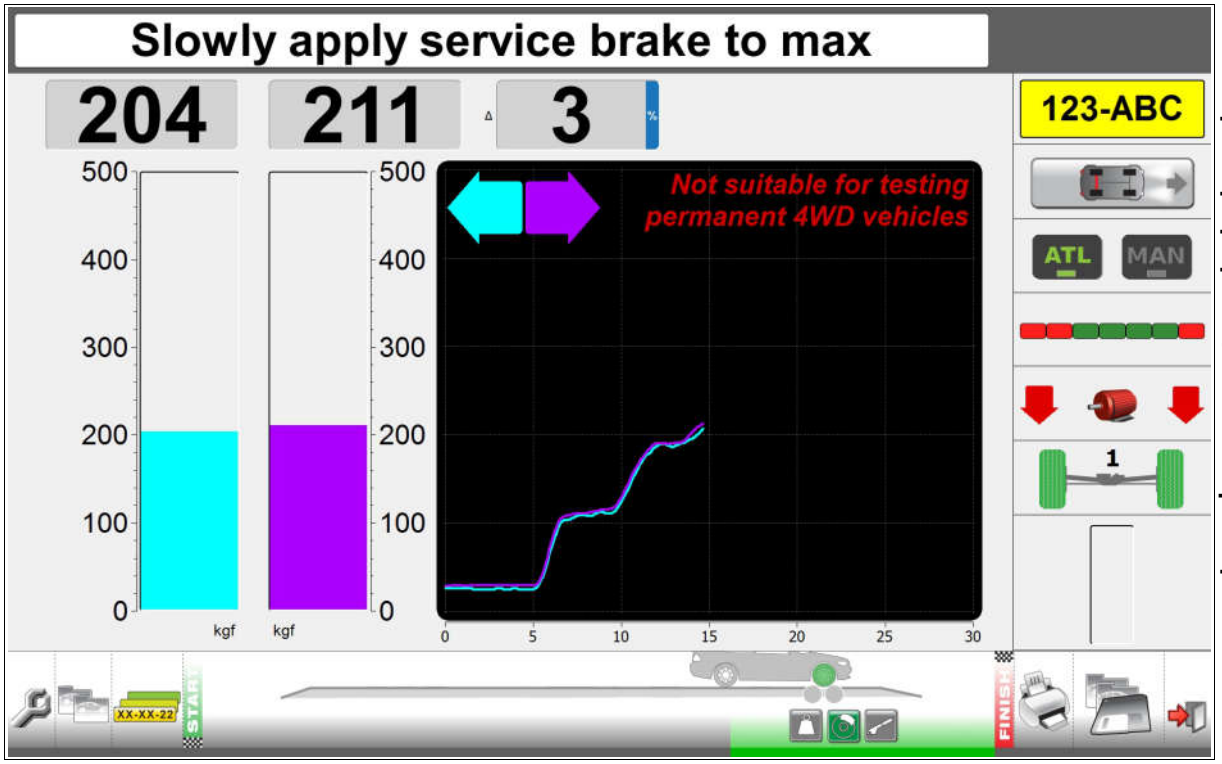


❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

The icons along the bottom show which screen is active.

AREA	SCREEN
❶	General Settings
❷	Customer/Vehicle
❸	Select Test Vehicle
❹	Drive to start position (start of the tests)
❺	Stage of the test. Indicates (in green) what axle is tested; the front or rear in combination with one of the following tests: the service brake, parking brake or weighing.
❻	Results Overview
❼	Print Results
❽	Save Results
❾	Exit

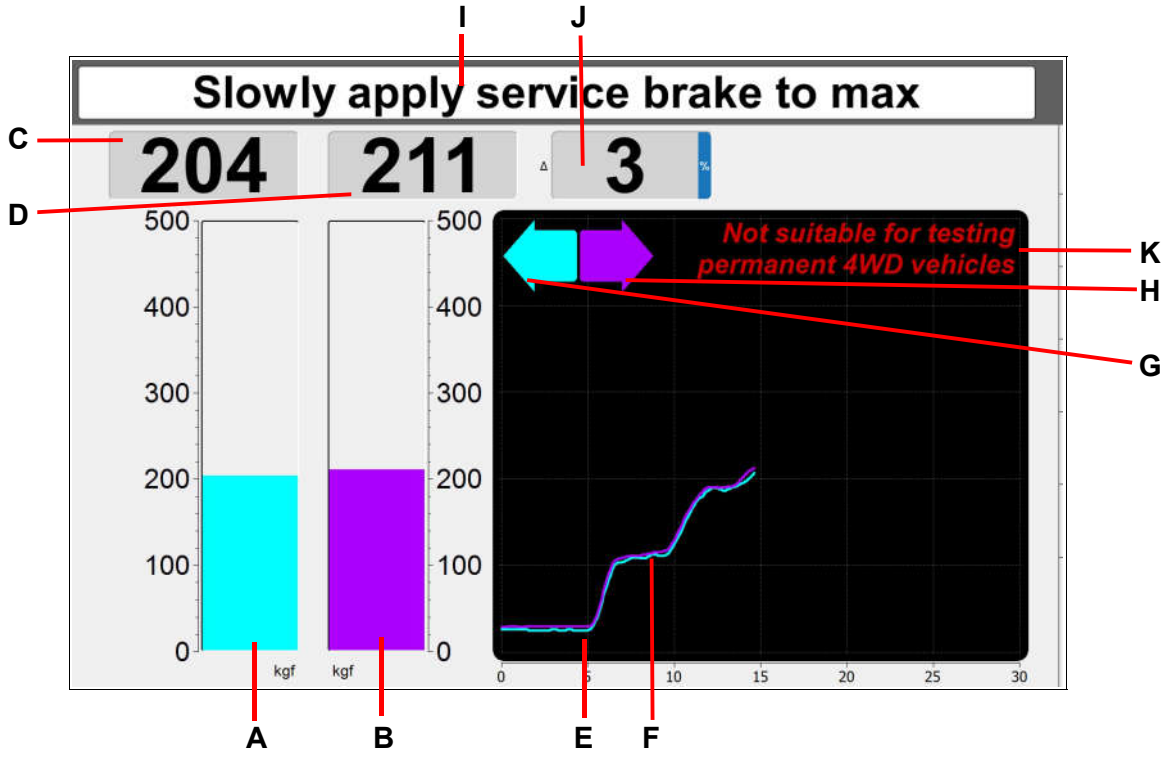
You can click on these icons to go directly to a screen.
Use the ← and → buttons on the remote control or keyboard to move between screens.



The icons and buttons along the right side of the test screens allow you to control and monitor the tests.

AREA	FUNCTION
A	Registration number of the vehicle being tested or **??-??-??** in quick test mode.
B	Vehicle type: passenger car.
	If applicable it shows 4x4.
	If applicable it shows the parking brake axle in red.
C	Manual button: The system stops at the end of each test, and you must manually select the next test.
	Manual mode is enforced for class 1 & 2, class 3, class 4 (4x4 selectable).
D	ATL: All tests automatically.
	Automatic mode is disabled for class 1 & 2, class 3, class 4 (4x4 selectable).
E	Progress bar: the bar is red/green when a test is in progress and green when the test is stopped.
F	Motor icon: the motor is red when any motor in the test lane is running and green when all motors are stopped.
	The left arrow indicates when the left brake tester motor is running.
	The right arrow indicates when the right brake tester motor is running.
G	Axle: the number above the axle shows which axle of the vehicle is being tested: 1= front axle, 2 = rear axle, 3 = rear axle (class 7 only). When the floor unit detects that the wheels are in position, the wheels are shown in green.
H	Pause bar: the bar fills up when the system is pausing between tests. In automatic mode only.

Test screen overview



AREA	FUNCTION
A	Vertical bar diagram for brake force in KGF for the LEFT wheel of an axle.
B	Vertical bar diagram for brake force in KGF for the RIGHT wheel of an axle.
C	Brake force in numerical values in KGF for the LEFT wheel of an axle.
D	Brake force in numerical values in KGF for the RIGHT wheel of an axle.
E	Brake force graph for the LEFT wheel of an axle.
F	Brake force graph for the RIGHT wheel of an axle.
G	Indicates wheel lock LEFT (slip). When lock occurs, the arrow turns RED.
H	Indicates wheel lock RIGHT (slip). When lock occurs, the arrow turns RED.
I	Displays the prompts/user instructions.
J	Displays the imbalance LEFT/RIGHT in numerical values in % for of an axle.
K	Message (fixed): 'Not suitable for testing permanent 4WD vehicles'.

Note
Brake forces are indicated in ***kgf.***
Weight is indicated in ***kg.***
Imbalance is indicated in ***%.***
Brake efficiencies are indicated in ***%.***

Remote control

Navigate using the remote control or keyboard

You can control the test lane program using the remote control (RC) or keyboard (KB).
The following shortcuts are available.



Image shown for illustration purposes only.

KEY RC	FUNCTION	KB
	General:	
F11	Switch full screen mode on or off	F11
F2	Switch basic screen mode on or off. In basic screen mode the icons at the bottom and the right are hidden. This allows for more room for the test results.	F2 or F10
9	Increase the character size on test screens. Disabled during test.	+ (plus key) or 9
7	Decrease the character size on test screens. Disabled during test.	– (minus key) or 7
	On the start screen:	
1-8	Select vehicle type for quick test mode. On Start screen only. See chapter *Quick manual test mode Class M1, 4, 5L, 7.*	1-8
	Increase the character size on the screen.	+ (plus key)
	Decrease the character size on the screen.	– (minus key)
↑ and ↓	Switch between ATL and MANUAL mode.	↑ and ↓
	On the test screens:	
F3	Go to the start screen	Home or F3
F4	Go to Results Overview screen	End or F4
←	Go to the previous test	←
→	Go to the next test	→
OK	▸ Start the test if not running ▸ Abort the test if running	Enter
1 2 3 5 8 0	Commands in MANUAL test screens: 1 = start left 2 = start both 3 = start right 5 = start both to centralize 8 = start both to drive out 0 = end of test	1 2 3 5 8 0
	On the test queue screen	
↑ and ↓	Move the selection in the test queue	↑ and ↓
OK	Test the selected vehicle	Enter

Other keys on the RC are not used.

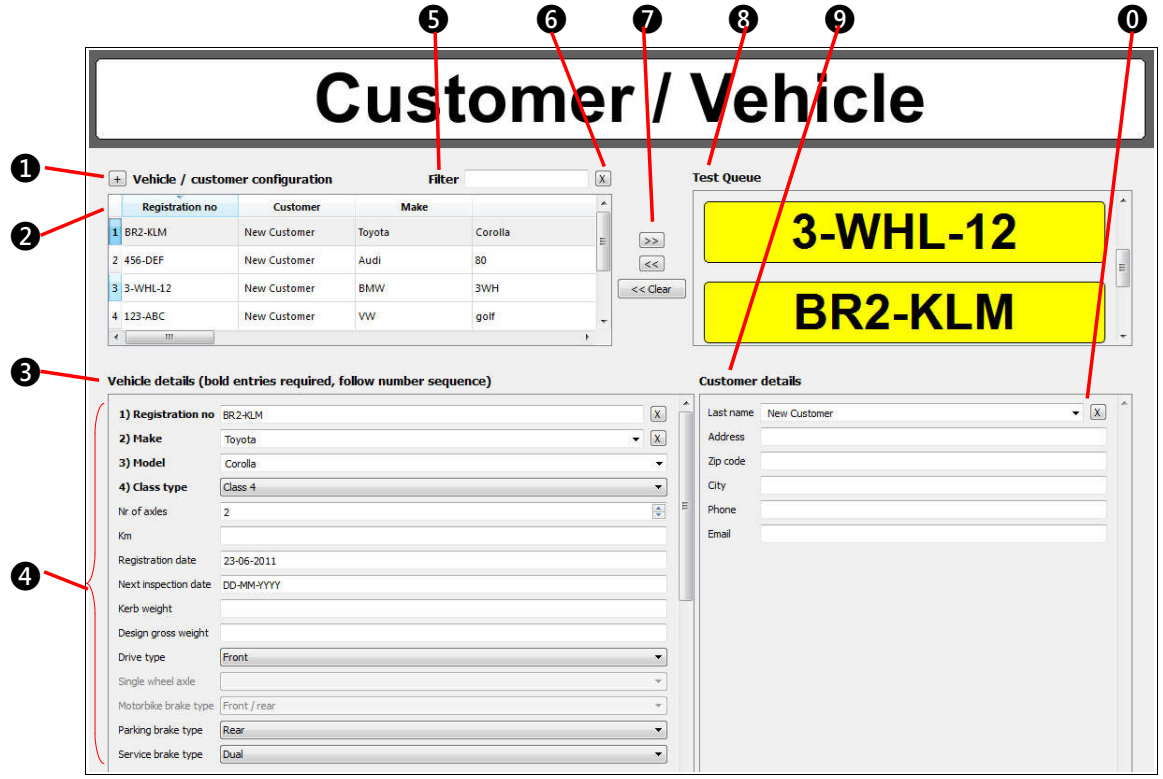
Note
In MOT stations equipped with two or more brake testers, it is necessary that each test lane is operated by one dedicated remote control only.
Please contact your supplier if two or more remote control sets are required.

Chapter 6 Vehicle/customer data

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Add a new vehicle to the database



❶ **+** button: Add a new vehicle to the vehicle list
❷ Vehicle list
❸ Details of the vehicle you selected in the vehicle list
❹ Required fields
❺ Filter box
❻ **X** button: remove the filter and show all vehicles in the list
❼ **>>** and **<<** buttons: add or remove the selected vehicle to or from the Test Queue. **<< Clear**: remove all vehicles from the Test Queue
❽ Test Queue
❾ Details of the customer selected in the Customer list
❿ Customer list

The system uses fixed limits to determine if a vehicle passes or fails the tests. The limits are automatically linked to the selected vehicle. See “General settings Limits Tab” on page 45.

The following information ❹ is mandatory for all vehicle classes:

- Registration no. (number plate/license plate)
- Make
- Model

The following information for each vehicle class is required:

Specific Class 4

- Kerb weight.
  Not required for ATL testing (automatic weighing).
  In Manual testing, required for automatic efficiency calculation.
- Drive type (front, rear, 4x4 selectable).
- Class type.
  Select Class M1 for Class 4-M1 first used on or after 01/09/2010.
  Select Class 4 for any Class 4 and Class 4-M1 first used before 01/09/2010.
- Parking brake type (rear, front, transmission, other).
  'Transmission' and 'other' will not allow you to perform a parking brake test.
- Service brake type (dual or single).

Specific Class 7

- Design Gross Weight (DGW).
  Required for ATL and Manual testing. No automatic weighing for Class 7.
- Drive type (front, rear of 4x4 selectable).
- Class type.
- Parking brake type (rear, front, transmission, other).
  'Transmission' and 'other' will not allow you to perform a parking brake test.
- Number of axles (2 or 3).
- Service brake type (dual or single).

Specific Class 5L

- Design Gross Weight (DGW/MAM).
  Required for ATL and Manual testing. No automatic weighing for Class 5L.
- Drive type (front, rear of 4x4 selectable).
- Class type.
- Parking brake type (rear, front, transmission, other).
  'Transmission' and 'other' will not allow you to perform a parking brake test.
- Service brake type (dual or single).

Specific Class 3

- Registration date.
  Registration date before or after January 1st, 1968 is relevant for service brake efficiency.
- Kerb weight.
  In Manual testing only. Required for automatic efficiency calculation.
- Drive type (front, rear of 4x4 selectable).
- Class type.
- Single wheel axle (front or rear).
  Relevant for the test sequence.
- Parking brake type (rear, front, transmission, other).
  Transmission and other will not allow you to perform a parking brake test.
- Service brake type (dual or single).

Note
When you do not enter all required fields, you cannot add the vehicle to the queue. The registration plate shows grey characters instead of black to indicate an incomplete entry.

The registration plate shows red characters to indicate an invalid entry. For example: a Class 7 vehicle is selected on a Class 4 brake tester.

Note
Entry of other fields is optional. These do not influence the test. From the context menu (right mouse button) at the fields of the vehicle details, you can switch fields on or off.

To add a new vehicle to the vehicle list:

1) Select the **+** button ❶.
   A new vehicle is added to the vehicle list ❷. Its registration number is "New Vehicle".
2) In the Vehicle details area ❸, enter the details of the vehicle.
   Enter at least the required information ❹.
   The data is saved automatically. The vehicle list is updated when you click in the list.

Add a new customer

To add a new Customer:

1) Go to the **Customer/Vehicle screen**.
2) In the **Customer Details** area ❾, go to the Last Name field. This is a drop-down box.
   From the drop-down box, select "New Customer".
3) Replace the text "New Customer" with the last name of the customer.
4) Enter the customer data (address, phone numbers etc.).

The data is saved automatically.

Assign a customer to a vehicle

If you want to assign a customer to a vehicle:

1) Go to the **Customer/Vehicle** screen.
2) In the **Vehicle list**, select the **Customer field**. This is a drop-down box.
3) From the drop-down box, select the last name of the customer.

Add a vehicle to the test queue

To add a vehicle to the test queue:

1) Go to the **Customer/Vehicle** screen.
2) In the list of vehicles ❷, select the vehicle you want to add to the queue.
3) Select the **>>** button ❼ to add the vehicle to the end of the queue ❽.
   You can use filter ❺ to find a vehicle in the list ❷. This filter filters on registration number, fleet number and last name of the customer.

1) Start typing the registration number, fleet number or last name in the field ❺. Only the vehicles matching what you type will be shown.
2) Select the **X** button ❻ to clear the field and show all vehicles.

Remove vehicle or customer data

To remove a vehicle from the list:

1) In the vehicle list ❷, select the vehicle you want to remove.
2) In the **Vehicle Details** area ❸, select the **X** button next to the **Registration field**.

To remove a customer from the list:

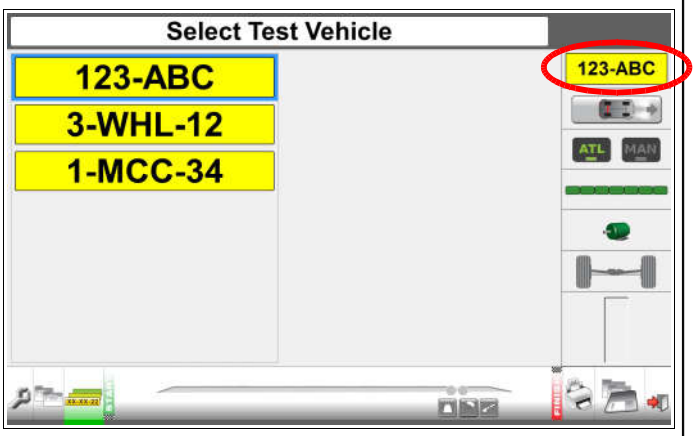
1) In the **Customer Details** area ❾, go to the Last Name field ❿. From this drop-down box, select the customer you want to delete.
2) Select the **X** button next to the Last Name field.

Note
When test results are stored for the vehicle or customer, these can not be deleted.

Select a vehicle from the test queue

How to select the vehicle you are going to test:

1) Go to the **Select Test Vehicle** screen.
2) Select the registration plate from the list.
3) Press **Enter** or **OK**.
   The test data and limits for this vehicle will be loaded.
4) Go to the **start screen**.
5) Press **Enter** or **OK** to start the test sequence. See chapters 8 and 9 for instructions.

Select a vehicle from the queue	
	The registration plate icon shows the registration number (123-ABC) of the selected vehicle. Press → to go to the start page *"Service brake test axle 1 (= front axle)'.*

Chapter 7 Operating instructions; preparations

In This Chapter

Operator safety	24
Start up the test lane/shut down the test lane	24
Emergency stop	25
Start up after an emergency stop	25
Preparations before starting a brake test	25

Operator safety

Operators and technical service should be familiar with all safety aspects. To ensure your safety, you must carefully read the chapter on safety (on page 8) before performing any tasks on the test lane.

Start up the test lane/shut down the test lane

To start up the test lane:

1) Verify that there is no vehicle on the brake tester.
2) Turn on the PC.
3) Turn on the mains power to the DE9419/DE9719 brake tester.
4) Select the brake tester program on the desktop of the PC.
5) The program performs a self test and shows the following prompts:
   "*Connecting...*"
   "Initialising..."
   "Offset measurement"
   "Warming up"

   You can abort the warm-up phase. If you abort the warm-up phase, the calibration of the system can not be guaranteed. Press **Enter** to abort the warm-up phase.

6) "*Press Enter to start*"
   The brake tester is ready for testing.

To shut down the test lane:

1) Press → until you enter the **Exit screen**.
2) Choose between **Exit brake tester** (exits test lane program) or **Shutdown Computer** (shuts down the computer immediately without a warning).
3) Turn off the mains power to the DE9419/DE9719 brake tester to switch off the unit.

Emergency stop

If an emergency situation occurs during a test, press the emergency button, the  power button on the remote control, the **OK** button on the remote control, or press **Enter** on the keyboard. This stops the current test immediately.

Caution
Restart the test only if you are sure it is safe to do this.

If you are sure it is safe to restart the test: press **OK** on the remote control or **Enter** on the keyboard to restart the test. If you are not sure: reset the system (see next paragraph).

Start up after an emergency stop

To start up after an emergency stop:

1) Turn off the mains power to the DE9419/DE9719 brake tester to switch off the unit.
2) Check and cancel/solve the reason for using the emergency stop.
3) Continue with the start-up procedure (see "Start up the test lane" on page 24).

Preparations before starting a brake test

In both manual and ATL test mode, before the vehicle enters the test lane, make sure that:

- The tyre pressures are at the specified value.
- Examine the tyres to ensure that the tyre pattern is in good condition and that the tyres are free from mud and stones.
- Determine whether the vehicle has a single brake control system or a split (dual) brake control system. This is important for the operator to check a PASS or FAIL on the brake efficiency.
- Remove the covers of the roller tester.
- The vehicle under test contains no load except the weight of the operator.
- During each individual test the car is in neutral.

Warning
Stay inside the car and do not move during any measurement. Nobody should touch the car during the test. Any movement in or on the car causes weight shift and influences the measurement.

Chapter 8 Operating instructions; manual mode

This chapter explains the operation of a complete MOT manual test. See the latest MOT inspection manual for any recent changes.

In This Chapter

Quick manual test mode Class M1, 4, 5L, 7	26
Manual test mode Class M1, 4, 5L, 7	31
Manual test mode class 3 (tested as Class 4)	32
Manual test mode 4WD selectable	33
Manual mode class 1 & 2	35

There are two ways to execute a test:

1) The quick manual test mode: select vehicle type and start the test.
2) The normal manual test mode: select a vehicle from the test queue and start the test.

Quick manual test mode Class M1, 4, 5L, 7

The quick test mode allows you to execute a complete vehicle test without entering vehicle and customer details (there is no vehicle selected from the test queue).

On the Start screen select 1 - 8 on the remote control/keyboard to start the quick test mode and select one of the following vehicle types:

KEY	CLASS	2X2 OR 4X4 (SELECTABLE)	SERVICE BRAKE TYPE	PARKING BRAKE ON REAR OR FRONT AXLE
1	M1	2x2	Dual line	Rear
2	M1	4x4	Dual line	Rear
3	4	2x2	Dual line	Rear
4	4	4x4	Dual line	Rear
5	5L	2x2	Dual line	Rear
6	5L	2x2	Dual line	Front
7	7	2x2	Dual line	Rear
8	7	2x2	Dual line	Front

Depends on the configuration of the test lane. When configured as a class 4 brake tester, KEYS 5 until 8 are disabled.

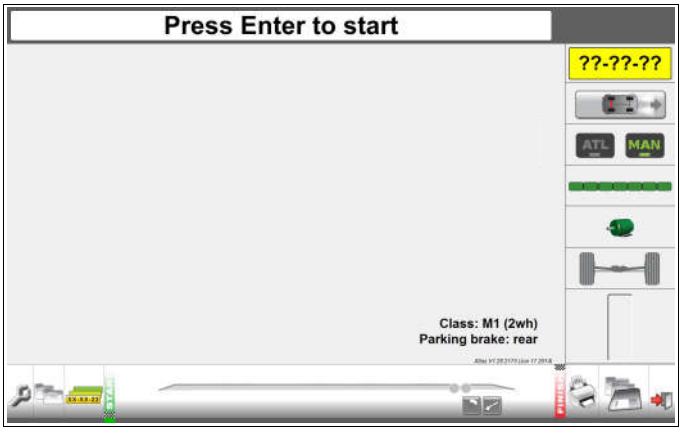
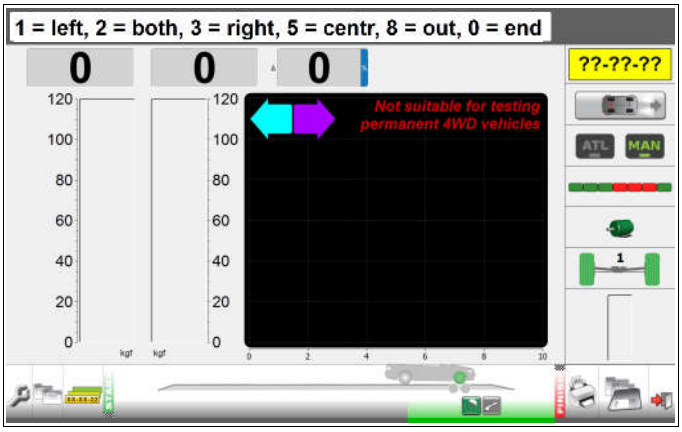
For combinations not listed under these short keys, go to the customer/vehicle screen and select the correct vehicle. See “Manual test mode Class M1, 4, 5L, 7” on page 31.

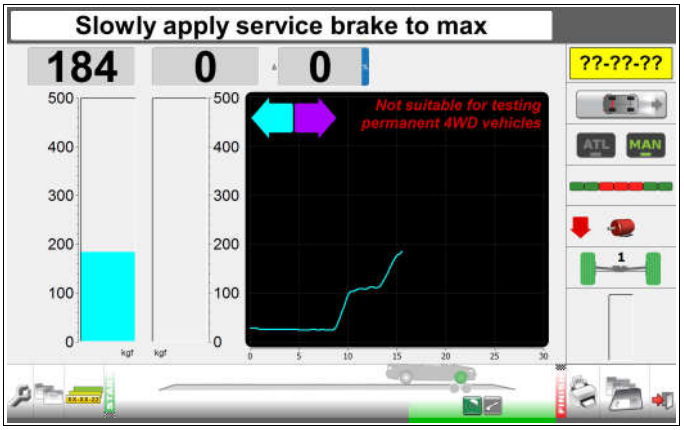
Limits are linked to vehicle types 1 to 8 and will be used to judge PASS or FAIL at the end of the test.

Note
Always see the car manufacturer’s instructions before testing 4x4 vehicles.

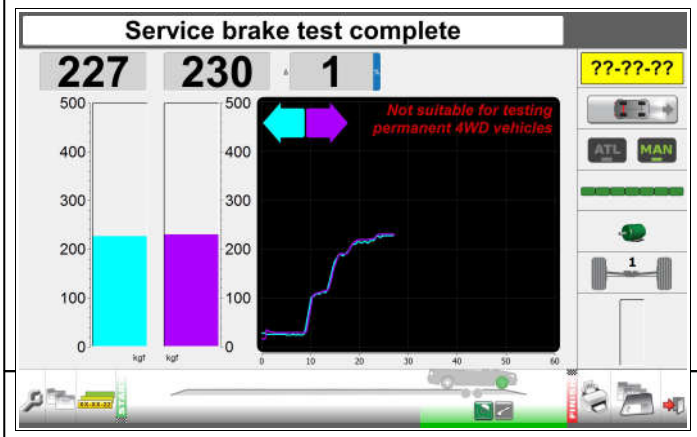
Perform a test

- See “Preparations before starting a brake test” on page 25 .
- KEY 1: Class M1, 2x2, parking brake on rear axle, dual line brake system is the default setting after start-up. The registration plate icon shows ??-??-??. Quick test no. 1 is described below.
- In the Quick MANUAL testing mode, the weighing function is switched off.
- The axle imbalance is measured automatically at maximum force.
- When presented in “*Italic*”, this indicates a prompt on the screen.
- *Press Enter to start* clears all previous results.
- For an accurate measurement, the brake force has to be built up slowly.
- In manual mode, rollers can run idenpendently or simultaneously.
- In manual mode, press → on the remote control to move to the next test.

Step 1. Select the correct vehicle type.	
	From the start screen: Select **MAN** for manual test. Select the vehicle type: Key 1. Class M1 (2wh) PB rear, DL Key 2. Class M1 (4x4) PB rear, DL Key 3. Class 4 (2wh) PB rear, DL Key 4. Class 4 (4x4) PB rear, DL Key 5. Class 5L (2wh) PB rear, DL Key 6. Class 5L (2wh) PB front, DL Key 7. Class 7 (2wh) PB rear, DL Key 8. Class 7 (2wh) PB front, DL Press **OK** to start the first test.
Test 1. Maximum brake force & imbalance service brake front axle left & right wheel.	“*Drive into brake tester*”
	Options: 1 = start left 2 = start both 3 = start right 5 = start both to centralise 8 = start both to drive out 0 = end of test Select **5** to start both rollers to centralise the wheels: *“Centralising vehicle”.* Select **2** to start both and run left and right simultaneously. During the test, the operator has to check for Bind, Rate of Increase, Fluctuation and Rate of Decrease. For measuring maximum brake force, the rollers can be driven **independently** or **simultaneously**. Described is the independent test left and right.

<table>
<tr>
<td>
</td>
<td>Select 1 to start the left roller:
“Slowly apply service brake to max.”

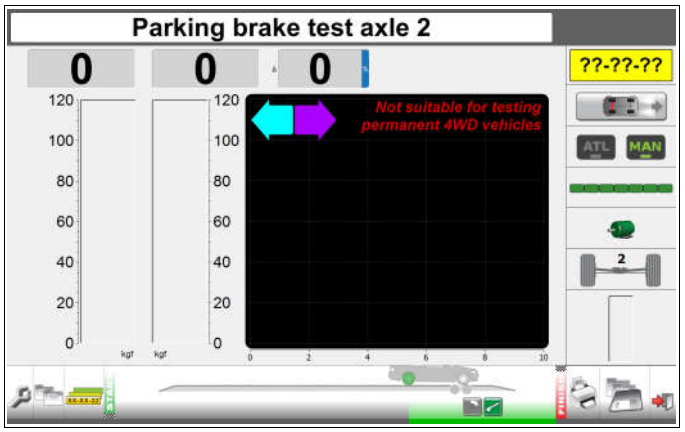
Rollers stop at:
-Lock;
-Maximum force stable for 3 seconds;
-Brake release;
-The brake force pushes the vehicle wheels out of the rollers;
-Abort test (press OK on the remote). (valid for all tests).

The maximum force left is stored.
Stay in the rollers.</td>
</tr>
<tr>
<td>
</td>
<td>Repeat for the right side.

Select 3 to start the right roller.
“Slowly apply service brake to max.”

The maximum force right is stored.
The imbalance left-right is stored.

Exit the rollers. Select 8. Out.

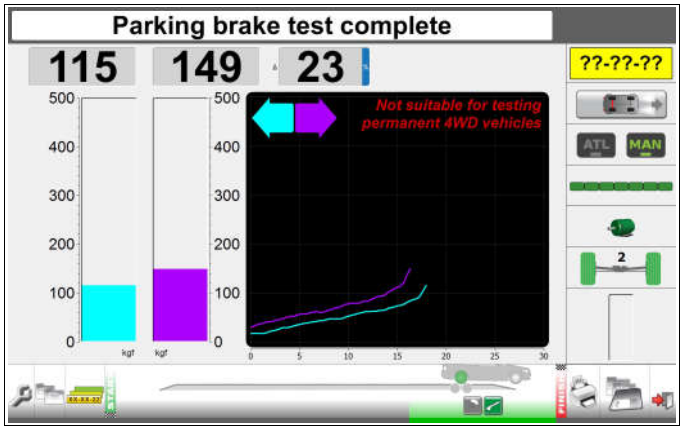
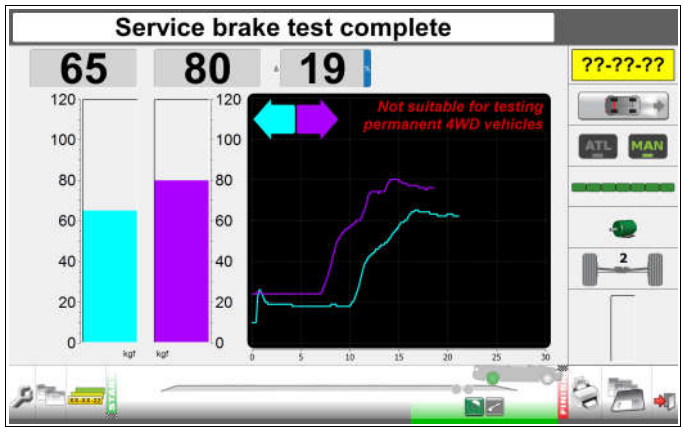
“Wait for drive out help”
“Drive out the brake tester”
“Service brake test Complete”</td>
</tr>
<tr>
<td></td>
<td><u>Remark:</u> When maximum brake force is measured running both rollers simultaneously (by selecting 2 start both), the imbalance is automatically calculated.</td>
</tr>
<tr>
<td>Test 2. Maximum brake force & imbalance parking brake rear axle left & right wheel.</td>
<td>Press → for “Parking brake test axle 2”</td>
</tr>
<tr>
<td>
</td>
<td>Press OK to start the test.
“Drive into brake tester”

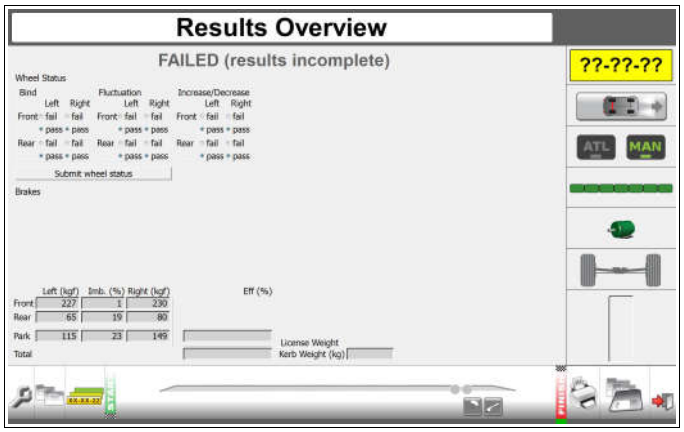
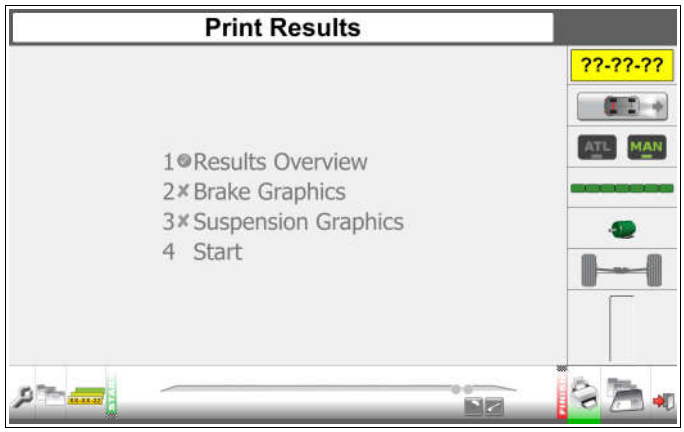
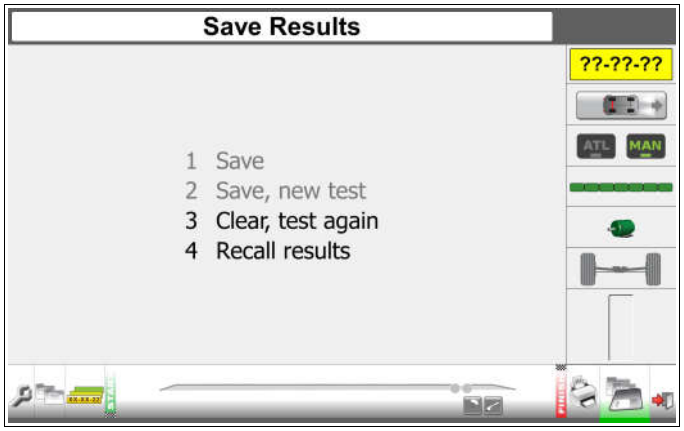
Options:
1 = start <u>left</u>
2 = start <u>both</u>
3 = start <u>right</u>
5 = start both to <u>centralise</u>
8 = start to drive <u>out</u>
0 = <u>end</u> of test

Select 5 to start both rollers to centralise the wheels: “Centralising vehicle”.

Select 2 to start both and run left and right simultaneously.

During the test, the operator can check for grab. Grabbing is only relevant for the parking brake when a single line braking system is fitted.</td>
</tr>
</table>

	Select **1** to start the left roller: *"Slowly apply parking brake to max."* For single line braking system only: *"Slowly apply parking brake to max, check grab".* The maximum force left is stored. Repeat for the right roller. The maximum force right is stored. The imbalance left-right is stored. Select **0** end of test. *"Parking brake test complete"* Stay in the rollers.
	<u>Remark:</u> When maximum brake force is measured running both rollers simultaneously (by selecting **2** start both), the imbalance is automatically calculated.
Test 3. Maximum brake force & imbalance service brake rear axle left & right wheel.	Press → for *"Service brake test axle 2"*
	Press **OK** to start the test. Select **5** to start both rollers to centralise the wheels: *"Centralising vehicle".* Select **2** to start both and run left and right simultaneously. During the test, the operator has to check for Bind, Rate of Increase, Fluctuation and Rate of Decrease. Select **1** to start the left roller: *"Slowly apply service brake to max."* The maximum force left is stored. Repeat for the right roller. The maximum force right is stored. The imbalance left-right is stored. Exit the rollers. Select **8** Out. *"Wait for drive out help"* *"Drive out the brake tester"* *"Service brake test complete"*
	<u>Remark:</u> When maximum brake force is measured running both rollers simultaneously (by selecting **2** start both), the imbalance is automatically calculated.
Next step: Results overview.	Press → for *"Results overview"*
	Enter wheel status for all wheels for the service brake: Bind, Fluctuation, Increase/Decrease.

	Enter wheel status for all wheels for the parking brake (only relevant when a single line braking system is fitted): Grab. Select: **Submit wheel status**. Conclusion is presented: *FAILED (results incomplete)* In manual Quick test, no vehicle weight is measured or entered. The operator has to judge pass or fail, or perform a test with vehicle data. See “Manual test mode Class M1, 4, 5L, 7” on page 31.
Next step: Quick print.	Make Quick print out (press **4**).
Next step: Print results screen.	Press → for *“Print Results”*
	Options: 1. Results overview 2. Brake graphics 3. Suspension graphics 4. Start All are disabled. Printing is only possible when a vehicle is selected. See “Manual test mode Class M1, 4, 5L, 7” on page 31. Or press **4** on the Results Overview screen for a quick print.
Next step: Save results screen.	Press → for *"Save Results”*
	Options: 1. Save 2. Save, new test 3. Clear, test again 4. Recall results 1 and 2 are disabled. Saving is only possible when a vehicle is selected. See “Manual test mode Class M1, 4, 5L, 7” on page 31.
Next step: Enter Customer/vehicle data or **Next step: Perform new test.**	

Note
It is only possible to make a quick print in a quick manual test mode. The print will not judge PASS or FAIL and will not present the limits.

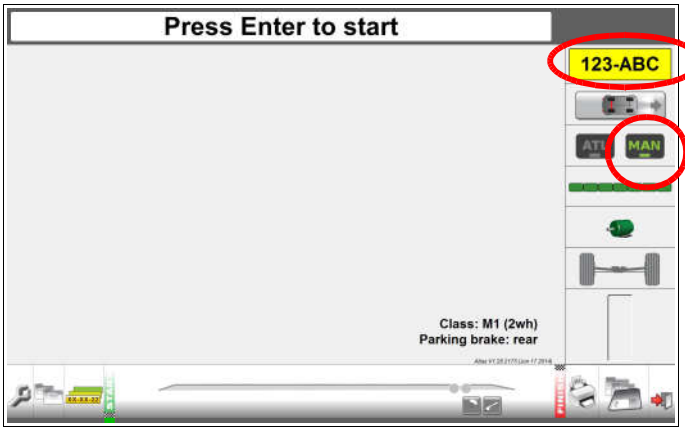
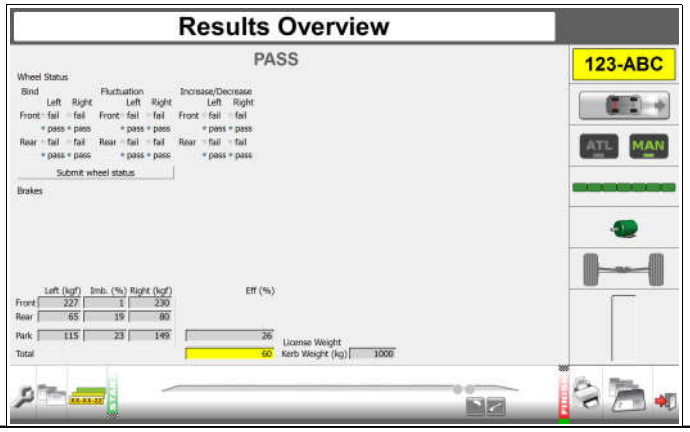
Manual test mode Class M1, 4, 5L, 7

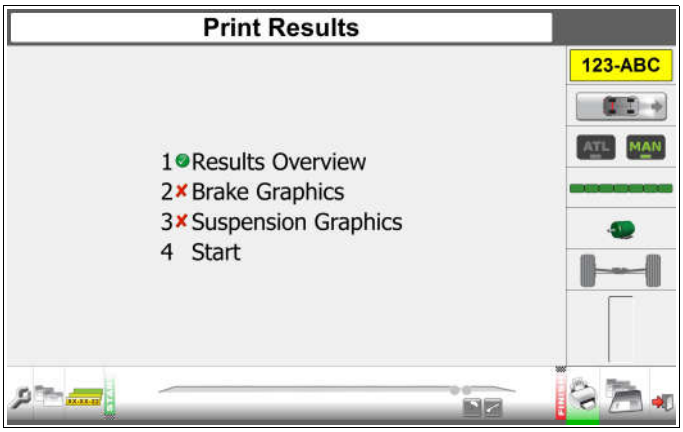
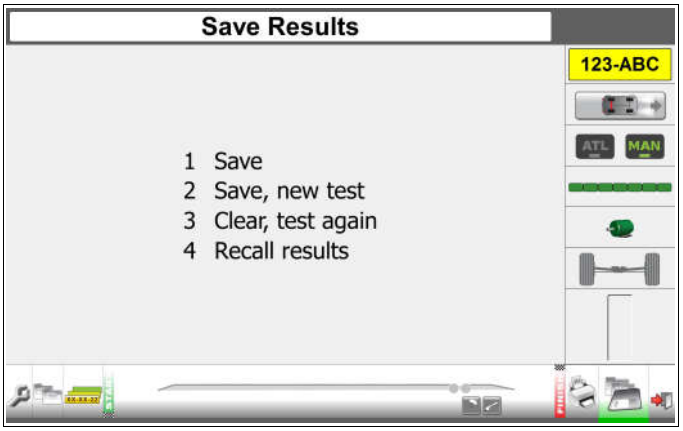
Not all vehicle types can be selected in the quick test mode. The extensive manual test mode allows you to execute a complete vehicle test with entering vehicle and customer details in the customer/vehicle screen. See “Chapter 6 Vehicle/customer data” on page 20.

If preferred, the vehicle tested under the Quick test mode can also be completed with vehicle data. This is required for Printing and Saving test results.

Perform a test

- See “Preparations before starting a brake test” on page 25 .
- In the MANUAL testing mode, the weighing function is switched off.
- The axle imbalance is measured automatically at maximum force.
- When presented in “*Italic”*, this indicates a prompt on the screen.
- For an accurate measurement, the brake force has to be built up slowly.
- *Press Enter to start* clears all previous results.
- In manual mode, rollers can run idenpendently or simultaneously.
- In manual mode, press → on the remote control to move to the next test.

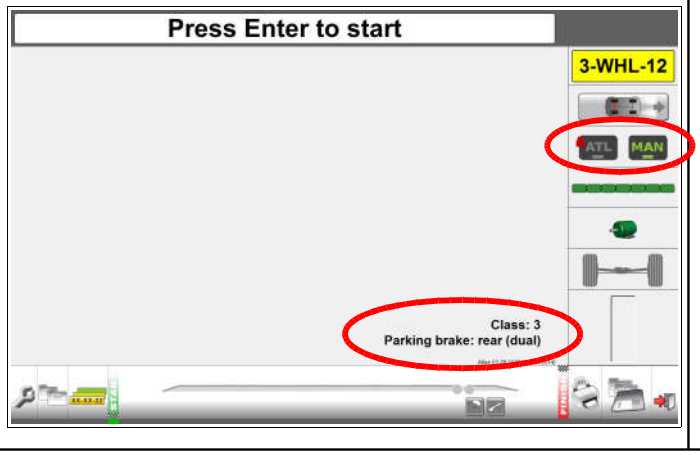
Step 1: Select a vehicle from the queue.	See “Add a vehicle to the test queue” on page 22 for instructions.
	The registration plate icon shows the registration plate of the selected vehicle. From the start screen: Select **MAN** for manual test. Press **OK** to start the first test. This manual test is the same as described for the Quick test with the following manual test sequence:
Test 1. Maximum brake force & imbalance service brake front axle left & right wheel.	
Test 2. Maximum brake force & imbalance parking brake rear axle left & right wheel.	Press → for *"Parking brake test axle 2"*
Test 3. Maximum brake force & imbalance service brake rear axle left & right wheel.	Press → for *“Service brake test axle 2”*
Next step: Results overview.	Press → for *“Results overview”*
	Select: **Submit wheel status.** The vehicle weight (kerb weight or DGW) has been entered in the vehicle data. Therefore a conclusion can be presented: PASS or FAILED.

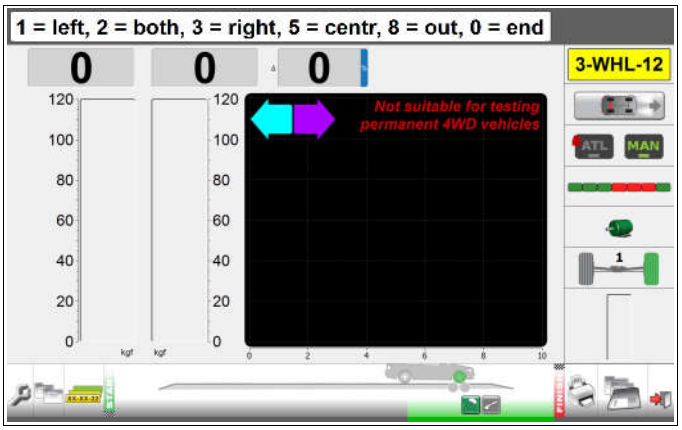
Next step: Print results screen.	Press → for *"Print Results"*
	Options: 1. Results overview 2. Brake graphics 3. Suspension graphics 4. Start All are enabled. A vehicle has been selected. Printing is possible. See "Chapter 10 Analyse, print, save and review results" for instructions.
Next step: Save results screen.	Press → for *"Save Results"*
	Options: 1. Save 2. Save, new test 3. Clear, test again 4. Recall results All are enabled. A vehicle has been selected. Saving is possible. See "Chapter 10 Analyse, print, save and review results" for instructions.
Next step: Perform new test.	

Manual test mode class 3 (tested as Class 4)

Special attention is required for a Class 3 vehicle (which is tested as a Class 4). Class 3 vehicles can only be tested in MANUAL mode after entering the vehicle details.

The 3 wheel mode allows the operator to start the right side of the roller bed, if the middle roller of this side only is pressed. If testing on the left side of the roller bed is required, please contact your supplier.

Step 1: Select a vehicle from the queue.	See "Add a vehicle to the test queue" on page 22 for instructions.
	The registration plate icon shows the registration plate of the selected vehicle. A lock on ATL indicates you can only test in MANUAL mode. *"Class: 3, Parking brake: rear (dual)"* is presented. The single wheel axle is entered in the vehicle data. From the start screen: Press **OK** to start the first test.

	The single wheel can only be tested on the right side of the brake tester. Function 1 or 2 will not respond. The axle icon shows the tyre in green on the right side only. This manual test is the same as described for the Quick test with the following manual test sequence:
Test 1. Maximum brake force service brake front wheel.	During the test, the operator can check for Bind, Rate of Increase, Fluctuation and Rate of Decrease.
Test 2. Maximum brake force & imbalance parking brake rear axle left & right wheel.	Press → for *"Parking brake test axle 2"*
Test 3. Maximum brake force & imbalance service brake rear axle left & right wheel.	Press → for *"Service brake test axle 2"*
Next step: Results overview.	Press → for *"Results overview"*
Next step: Print results screen.	Press → for *"Print Results"*
Next step: Save results screen.	Press → for *"Save Results"*
Next step: Perform new test.	

Manual test mode 4WD selectable

Special attention is required for a Class M1,4,5L,7 vehicles with selectable 4WD.
There are 2 Quick test short keys available. These can only be tested in MANUAL mode.

KEY	CLASS	2X2 OR 4X4 (SELECTABLE)	SERVICE BRAKE TYPE	PARKING BRAKE ON REAR OR FRONT AXLE
2	M1	4x4	Dual line	Rear
4	4	4x4	Dual line	Rear

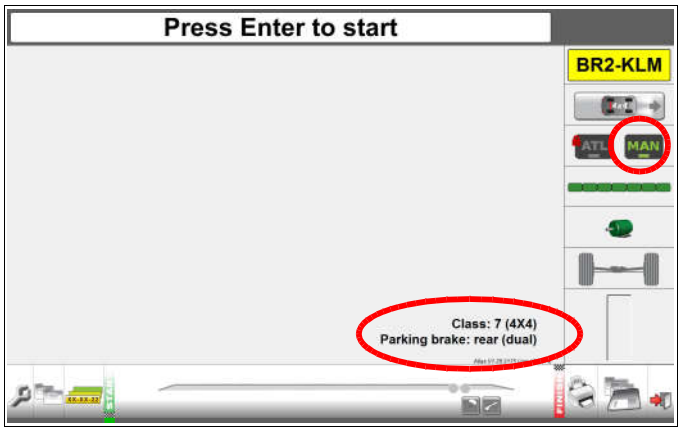
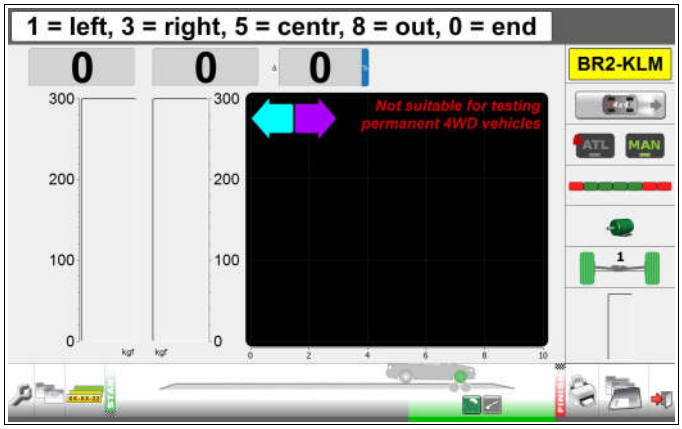
For all other combinations, vehicle details have to be entered.
The 4WD mode allows the operator to test 4x4 vehicles. The brakes of each wheel are tested separately one after the other. On one side the rollers turn in normal direction, while the other side the rollers turn in reverse direction.

Notes

Not suitable for testing permanent 4WD vehicles.

The axle imbalance is measured automatically at maximum force when starting the right wheel of the axle.

Always refer to the car manufacturer's instructions before testing these types of vehicles.

Step 1. Select the correct vehicle type (quick test) **<u>OR</u>**	
Step 1: Select a vehicle from the queue.	See “Add a vehicle to the test queue” on page 22 for instructions
	The registration plate icon shows the registration plate of the selected vehicle. The vehicle icon presents *“4x4”* A lock on ATL indicates you can only test is MANUAL mode. *“Class: 7 (4x4), Parking brake: rear (dual)”* is presented. From the start screen: Press **OK** to start the first test.
	This manual test is the same as described for the Quick test with the following differences: When testing one side, the other side runs in opposite direction. During the test, the operator can check for Bind, Rate of Increase, Fluctuation and Rate of Decrease. The following manual test sequence applies:
Test 1. Maximum brake force & imbalance service brake front axle left & right wheel.	
Test 2. Maximum brake force & imbalance parking brake rear axle left & right wheel.	Press → for *"Parking brake test axle 2"*
Test 3. Maximum brake force & imbalance service brake rear axle left & right wheel.	Press → for *“Service brake test axle 2”*
Next step: Results overview.	Press → for *“Results overview”*
Next step: Print results screen.	Press → for *“Print Results”*
Next step: Save results screen.	Press → for *"Save Results”*
Next step: Perform new test.	

Manual mode class 1 & 2

Special attention is required for a Class 1 & 2 vehicle. Class 1 & 2 vehicles can only be tested in MANUAL mode after entering the vehicle details. The rollers will not start automatically when the vehicle enters the roller brake tester. Weighing sensors are required for Class1 & 2 testing.

The 2wheel mode allows the operator to start the right side of the roller bed, if the middle roller of this side only is pressed. If testing on the left side of the roller bed is required, please contact your supplier.

See “add a new vehicle” on page 22 for instructions.

Specific Class 1 & 2

The following information is required for all vehicle classes:

- Registration no. (number plate/license plate)
- Make
- Model
- Drive type (front or rear have to be selected)
- Class type (Class 1, Class 2 or Class 2 with sidecar)
- Motorbike brake type (brake system: Front/Rear, Semi Linked or Fully Linked)

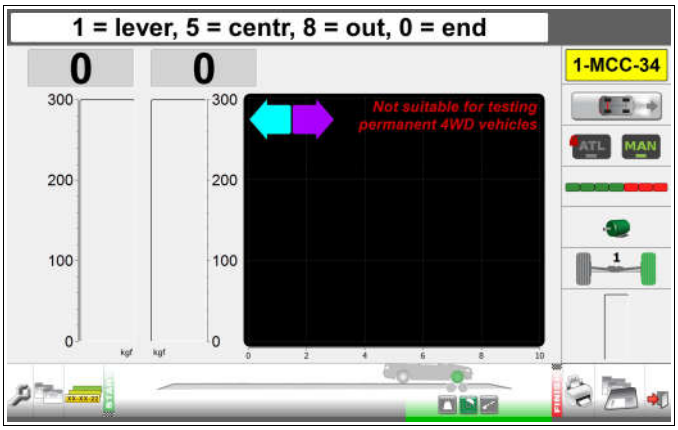
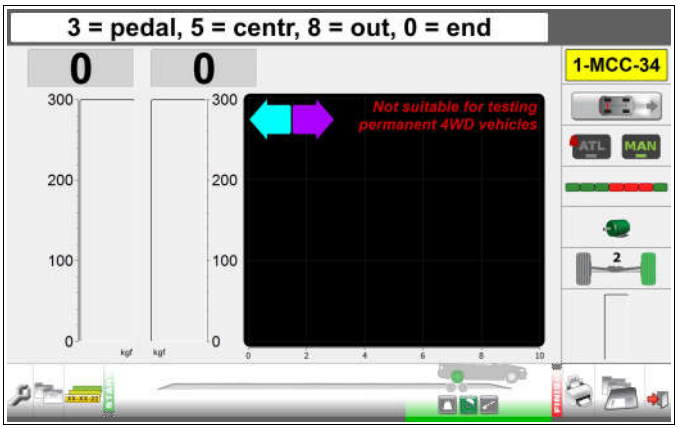
Notes
When you do not enter all required fields, you cannot add the vehicle to the queue. The registration plate shows grey characters instead of black to indicate an incomplete entry.

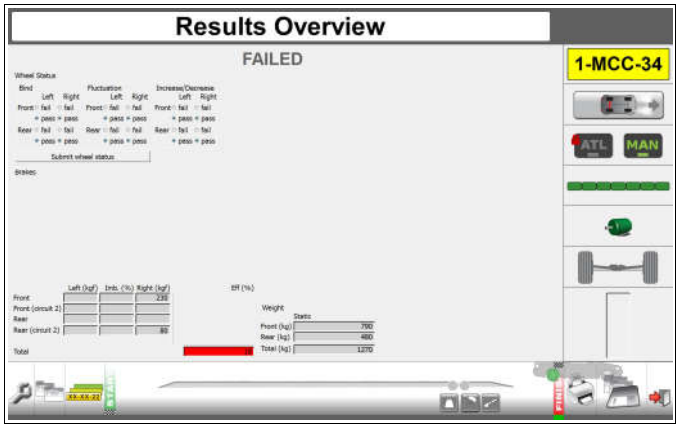
The registration plate shows red characters to indicate an invalid entry. For example: a Class 7 vehicle is selected on a Class 4 brake tester.

Note
For testing Class 1 & 2 vehicles on the DE9419-ATL the adapter plate OA/62415 is required.
For testing Class 1 & 2 vehicles on the DE9719-ATL the adapter plate OA/62719 is required.

Perform a test

- See “Preparations before starting a brake test” on page 25 .
- Weighing is mandatory when testing class 1 & 2.
- In this specific MANUAL testing mode, the weighing function is switched on.
- When presented in “*Italic*”, this indicates a prompt on the screen.
- For an accurate measurement, the brake force has to be built up slowly.
- *Press Enter to start* clears all previous results.
- The described test is for a common brake control system. Brake control 1 (lever) operates the front wheel. Brake control 2 (pedal) operates the rear wheel. This is the Front/Rear brake type.
- In manual mode, press → on the remote control to move to the next test.

Step 1: Select a vehicle from the queue.	See “Add a vehicle to the test queue” on page 22 for instructions.
	The registration plate icon shows the registration plate of the selected vehicle. A lock on ATL indicates you can only test in MANUAL mode. *“Class: 1 or 2, Parking brake: none”* is presented. From the start screen: Press **OK** to start the first test.
Test 1. Weight measurement front wheel.	Press → for *“Service brake test axle 1”*
Test 2. Maximum brake force service brake front wheel	
	The single wheel can only be tested on the right side of the brake tester. The axle icon shows the tyre in green on the right side only. Select **5** to start to centralise the wheel: *“Centralising vehicle”.* Select **1**=Lever. The *prompt “Apply service brake to max (lever)”* appears. During the test, the operator can check for Grab, Bind, Rate of Increase, Fluctuation and Rate of Decrease. Select **8** Out. *“Service brake test complete”*
Test 3. Weight measurement rear wheel.	Press → for *"Weight measurement axle 2"*
Test 4. Maximum brake force service brake rear wheel.	Press → for *"Service brake test axle 2"*
	Select **5** to start to centralise the wheel: *“Centralising vehicle”.* Select **3**=Pedal. The *prompt “Apply service brake to max (pedal)”* appears. During the test, the operator can check for Grab, Bind, Rate of Increase, Fluctuation and Rate of Decrease. Select **8** Out. *“Service brake test complete”*

Next step: Results overview.	Press → for *"Results overview"*
	Select: **Submit wheel status.** A conclusion can be presented: PASS or FAILED.
The overall analysis is based on the following criteria:	1. Brake efficiency brake control 1 2. Brake efficiency brake control 2 3. Wheel analysis 4. Wheel lock analysis
Next step: Print results screen.	Press → for *"Print Results"*
Next step: Save results screen.	Press → for *"Save Results"*
Next step: Perform new test.	

Chapter 9 Operating instructions; ATL mode

This chapter explains the operation of a complete MOT ATL test. See the latest MOT inspection manual for any recent changes.

In This Chapter

ATL mode 38

ATL mode

BRAKE TESTER	TEST VEHICLE	WEIGHT MEASUREMENT
DE9419-ATL	Class 4, M1	Weighing automatic by means of weighing system. *Entered kerb weight is not used for efficiency calculation.*
DE9719-ATL	Class 4, M1	Weighing automatic by means of weighing system. *Entered kerb weight is not used for efficiency calculation.*
DE9719-ATL	Class 5L	Enter DGW/MAM. Weighing system is switched off.
DE9719-ATL	Class 7 with 2 axles	Enter DGW. Weighing system is switched off.
DE9719-ATL	Class 7 with 3 axles	Enter DGW. Weighing system is switched off.

Weight measurement

The static weight measurement is done on the brake tester.

To perform the weight measurement:

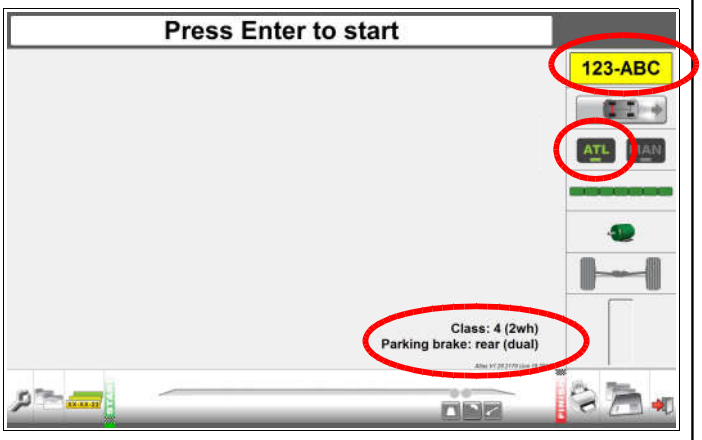
1) Drive the car into the rollers of the brake tester.
2) Ensure that the wheels are placed properly on the rollers.
3) Disengage the gearbox (if applicable).

Note
Do not apply any brakes.

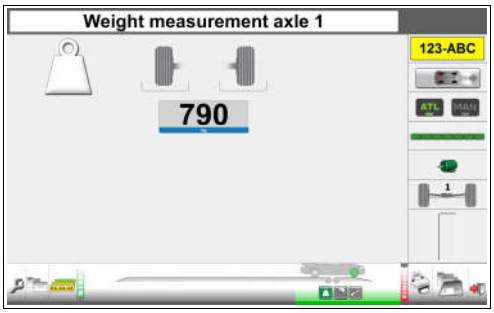
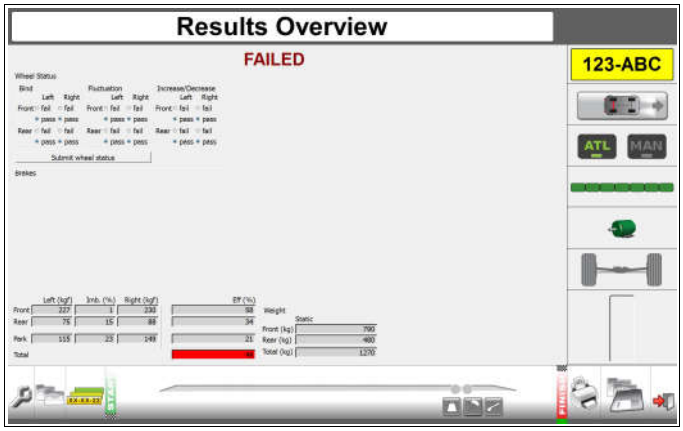
The weight measurement starts automatically.
The weighing results are displayed on the screen.

Perform a test

- See “Preparations before starting a brake test” on page 25 .
- When presented in *“Italic”*, this indicates a prompt on the screen.
- The imbalance is measured automatically at maximum force during the brake force test of an axle.
- For an accurate measurement, the brake force has to be built up slowly.
- *Press Enter to start* clears all previous results.
- In ATL mode, the operator is guided through the test by means of prompts on the screen.

Step 1: Select a vehicle from the queue.	See “Add a vehicle to the test queue” on page 22 for instructions. Mandatory fields for a correct ATL test: ▸ Make ▸ Model ▸ Registration number ▸ Class type: M1, 4, 7, 5L ▸ Parking brake type: front or rear ▸ Service brake type: Dual line or single line. The limits are automatically linked.
	The registration plate icon shows the registration plate of the selected vehicle. Select **ATL** for automatic test. *“Class: 4 (2wh), Parking brake: rear (dual)”* is presented. From the start screen: Press **OK** to start the first test. Follow the instructions on the screen. Prompts for Bind, Rate of Increase, Fluctuation and Rate of Decrease appear during the service brake test front axle and service brake rear axle. The prompt for Grab appears during the parking brake test (single line braking system only). **Attention:** Rollers start automatically without interference of the remote control or keyboard.

SPECIFIC TEST (PARKING BRAKE ON FRONT AXLE)	CLASS M1, 4 TEST SEQUENCE #	CLASS 5L, 7 TEST SEQUENCE #
Weighing front axle	1	-
Service brake/imbalance test front axle	2	1
Parking brake/imbalance test front axle	3	2
Weighing rear axle	4	-
Service brake/imbalance test rear axle	5	3

<table>
<tr><th>SPECIFIC TEST
(PARKING BRAKE ON REAR AXLE)</th><th>CLASS M1, 4 TEST SEQUENCE #</th><th>CLASS 5L, 7 TESTSEQUENCE #</th></tr>
<tr><td>Weighing front axle
Service brake/imbalance test front axle
Weighing rear axle
Parking brake/imbalance test rear axle
Service brake/imbalance test rear axle</td><td>1
2
3
4
5</td><td>-
1
-
2
3</td></tr>
<tr><td>Example screen for Weighing Front axle (axle 1)</td><td colspan="2">
</td><td>After the last test service brake rear axle, the 'Results overview" screen appears.</td></tr>
<tr><td colspan="2">Next step: Results overview.</td><td></td></tr>
<tr><td colspan="2">
</td><td>Enter wheel status for all wheels for the service brake:
Bind, Fluctuation, Increase/Decrease.

Enter wheel status for all wheels for the parking brake (only relevant when a single line braking system is fitted):
Grab.

Select: Submit wheel status.
The overall conclusion PASS/FAILED is presented.

PASS in Green
FAILED in Red

A conclusion can not be generated if the wheel status has not been submitted.

If a vehicle passes on wheel lock (for service brake or parking brake efficiency), this will be included in the conclusion.
See the latest MOT inspection manual for pass on wheel lock regulations for efficiency and imbalance.

<u>Example:</u>
PASS (service brake lock)</td></tr>
<tr><td colspan="2">The overall analysis is based on the following criteria:</td><td>1. Brake efficiency service brake
2. Imbalance service brake front axle
3. Imbalance service brake rear axle
4. Brake efficiency parking brake
5. Imbalance parking brake
6. Wheel analysis
7. Wheel lock analysis</td></tr>
<tr><td colspan="2">Next step: Print results screen.</td><td>Press → for “Print Results”</td></tr>
<tr><td colspan="2">Next step: Save results screen.</td><td>Press → for "Save Results”</td></tr>
<tr><td colspan="2">Next step: Perform new test.</td><td></td></tr>
</table>

Chapter 10 Analyse, print, save and review results

In This Chapter

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Print test results	42
Save test results	42
eview test results from earlier tests (Report)	43

Analyse the test results

To analyse the detailed results for each test, including graphics, use the ← and → keys to navigate through the test screens. For both MANUAL and ATL mode.

In the **Test Screens** and **Results Overview** screen, colors are used to indicate whether the test results are within the limits:

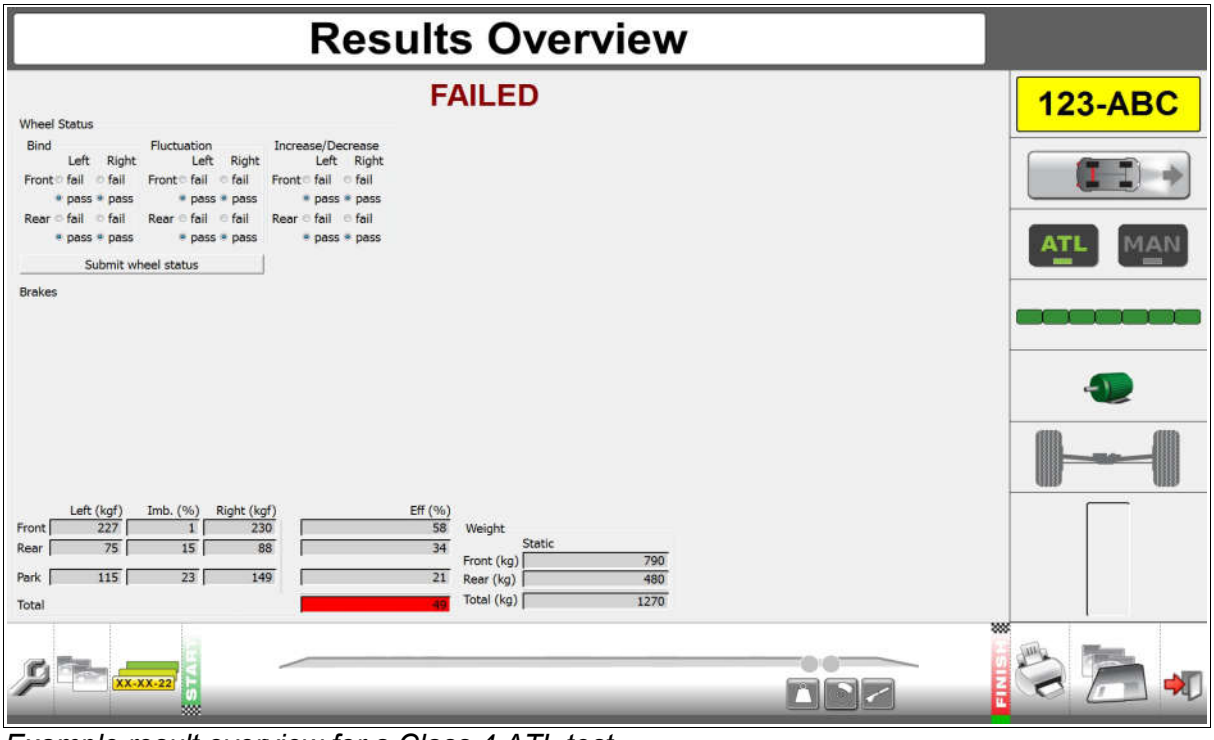
- White background: normal, the test result is within the limit.
- Yellow background: warning, the test result is near the limit.
- Red background: the test result has exceeded the limit.

Overall end result indication after ATL test:

- Pass: all test results are within legal limits (green text)
- Failed: one or more test results have exceeded the legal limit (red text)

Overall end result indication after MANUAL test:

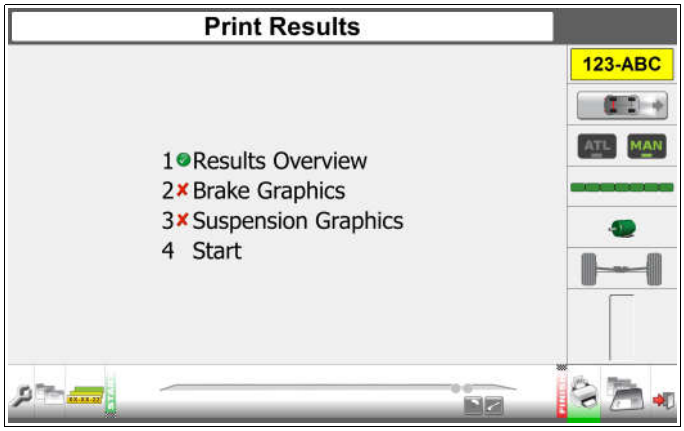
- Pass: all test results are within legal limits (grey text)
- Failed: one or more test results have exceeded the legal limit (grey text)



Example result overview for a Class 4 ATL test.

Print test results

On the **Print Results** screen, you can print the test results direct from the test lane program.



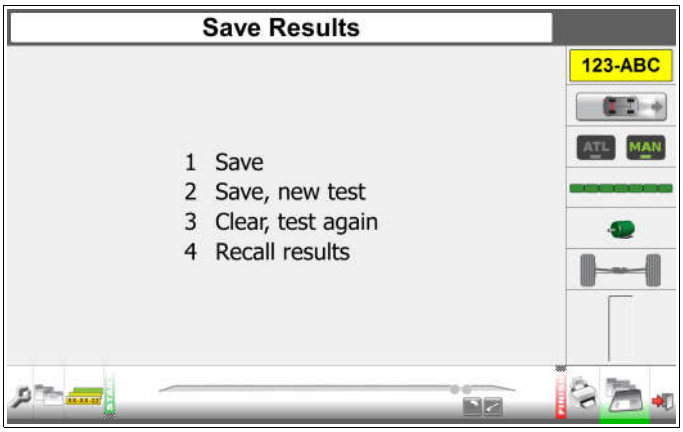
KEY	FUNCTION
1	Select the results overview
2	Select the graphics for the brake tests
3	Select the graphics for the suspension tests (when installed)
4	Start printing

To print the test results:

1) Press **1-3** to select one or more results to print. To de-select a result, press **1-3** again.
2) Press **4** to print the selected results.

Save test results

On the **Save Results** screen, you can save the test results for later review.



KEY	FUNCTION
1	Save the test results (not available in quick test mode (on page 26)). The results are stored.
2	Save the test results and go to the Select Test Vehicle screen for a new test (not available in quick test mode). The results are stored in **Report.** The vehicle will be removed from the test queue.
3	Clear, test again: the results are not saved. The program returns to the start screen to test the same vehicle again.
4	If you select **4**, Recall results, the program is minimized and Report starts up. Click the **Back to Atlas** button in Report to return to the test lane program.

Review test results from earlier tests (Report)

To review test results from earlier tests, use Report. You can start Report from the Test lane program:

1) Press → until you enter the **Save Results** screen.
2) Select **4, Recall results**, the Test lane program is minimized and Report starts up.
3) In Report double click the vehicle's registration number from the list.

   When you select a registration number, all tests for this vehicle appear, listed by date and time.

   You can use the Filter box to find a vehicle in the list (see “Add a vehicle to the test queue” on page 22). The filter of Report only filters on registration number, not on name.
4) Select the date and time you want to review.
5) Use the tabs to view details of the test.
6) Click the **Back to Atlas** button to return to the Test lane program.

If you press the **Refresh** button in Report, the program retrieves the latest results from the Test lane program.

Chapter 11 General settings

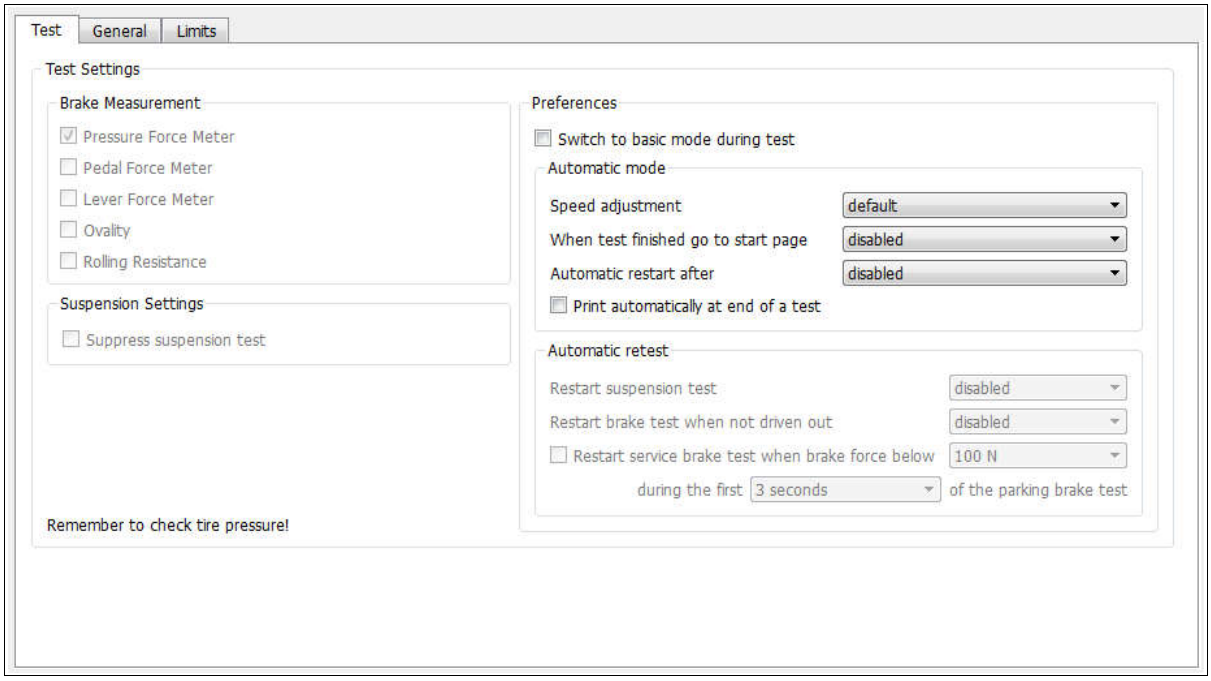
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When you select the button with the tool icon in the lower left corner of the screen, the **General settings** appear. This screen has three tabs.

General settings Test tab

On the Test tab you can change settings that are used in the test run.

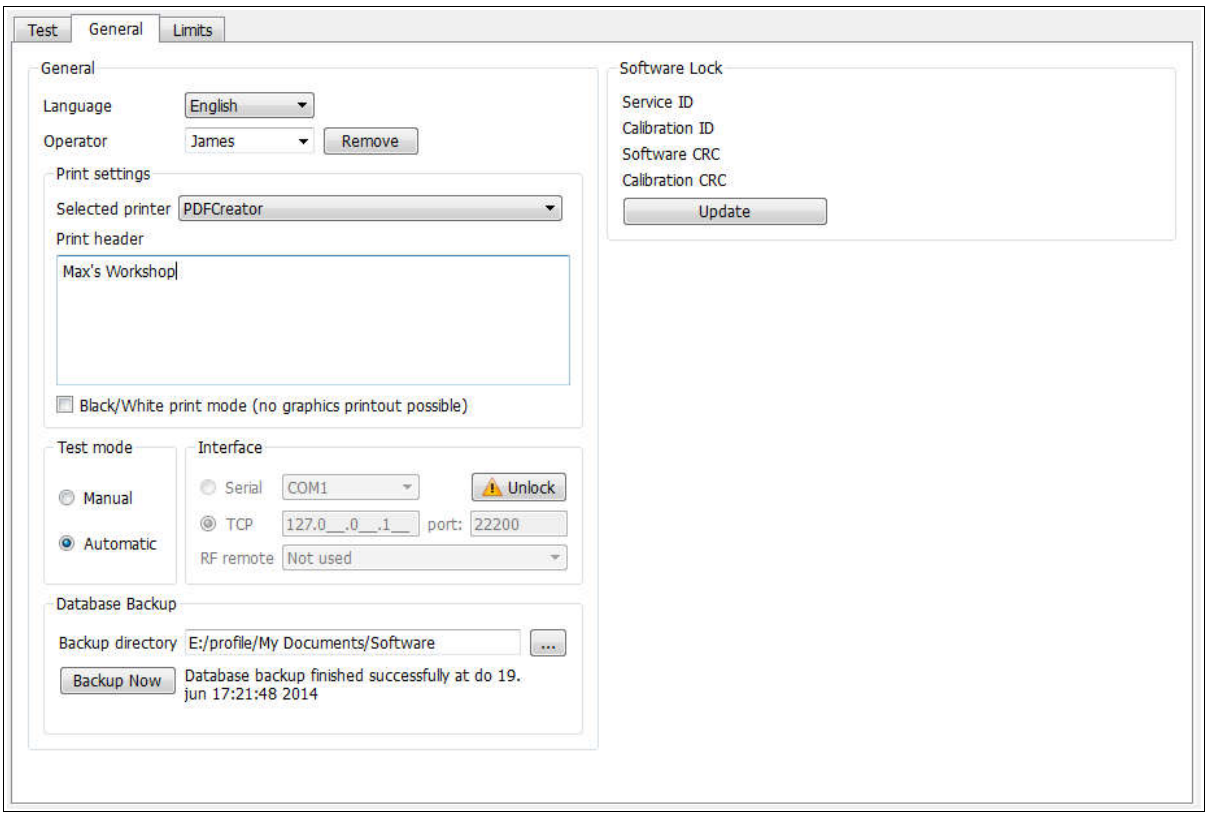


The Brake Measurements. Disabled. Not supported for the UK.
The Suspension Settings. Disabled. Not supported for the UK.

In the **Preferences** part you can select the following:

- Switch to basic screen mode during test: in basic screen mode the icons at the bottom and the right side of the screen are hidden. This allows for more room for the test results.
- Automatic mode (all tests run automatically), Speed adjustment: if you set Speed adjustment to for example 10%, the delay between two tests is extended with 10%. The default value results in a delay that is long enough for an experienced user.
- When test finished go to start page: set the time the program shows the Results Overview until it returns to the start page. If disabled, the program does not return to the start page at the end of the test.
- Automatic restart after: set the time the program waits until it restarts the test. If disabled, it does not restart the test. Automatic restart clears the last results.
- Automatic retest: Disabled. Not supported for the UK.

General settings General tab

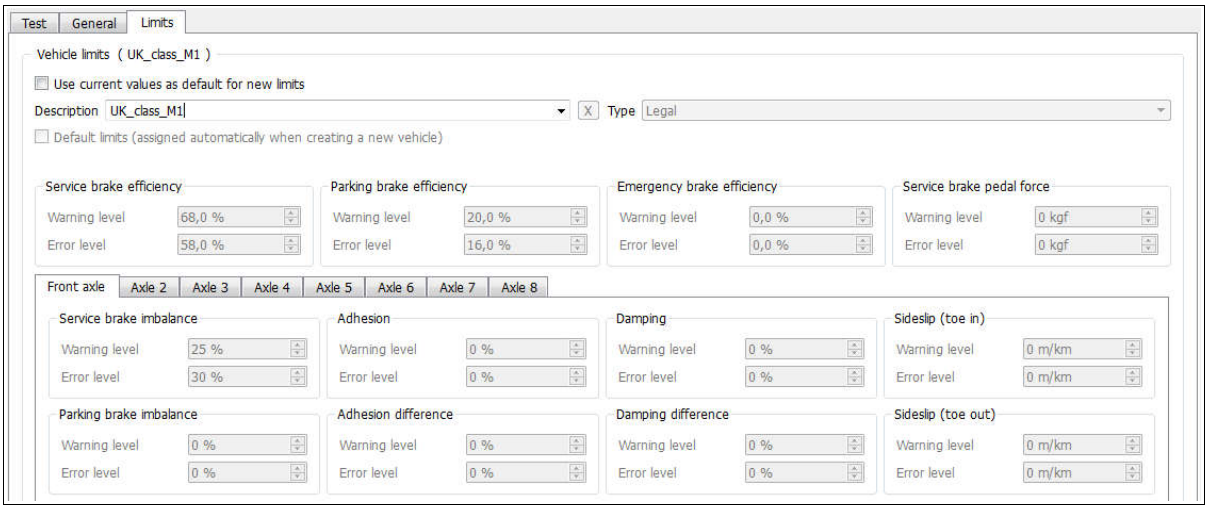


On the **General** tab you can select a printer, define the printer header and add or remove an operator. Test mode: select the default test mode: Manual or Automatic (ATL).

- Interface: TCP connection to the test lane. Do not change!
- Database Backup: there is no automatic backup of the database, you have to do this manually. Press the **Backup Now** button to start the backup to for example a removable disk.
- Software Lock: presents date and time of the last configuration or calibration change.

General settings Limits Tab

On the **Limits** tab you can check the test limits for the various vehicle types. The system uses test limits to decide if a vehicle passes or fails the tests.



- From the drop-down box Description select your predefined set of limits. These limits can not be changed.

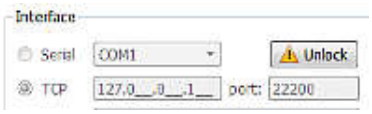
Chapter 12 Troubleshooting

This chapter helps to find solutions for problems that can occur when you use the test lane.

In This Chapter

Troubleshooting tables 46

Troubleshooting tables

SYMPTOM	POSSIBLE CAUSE	ACTION
Roller brake tester does not start.	The emergency stop button or main switch was pressed.	Release the emergency stop button or main switch button and restart.
Roller brake tester does not connect (“Connecting...”)	Incorrect interface settings.	Check that interface settings In the General settings/tab screen are set as follows: 
Roller brake tester does not connect (“Connecting...”)	Incorrect network card settings.	Contact a service engineer.
PC monitor does not show anything	Main power failure. Disturbance from cables. Defect in console.	Verify that all three phases are present. Verify that there are no loose cables near the display. Contact a service engineer.
The roller brake tester shows no results.	The warm-up was not finished yet.	Remove the car from the tester and wait until the warm-up is finished.
Noisy motor and brake forces too low.	Main power problems.	Verify that all three phases are present.
Brake force/weighing always too low or too high	Incorrect calibration.	Contact a service engineer to perform a calibration.
Test results are not accurate.	Incorrect tyre pressure. Car is not in neutral. Load was not steady during test. Vehicle not centralised Test procedure not correctly followed.	Verify if the tyre pressure equals the value for 'lightly loaded vehicles'. Redo the test and set the gear to neutral before the test starts. Do not move during the test. Centralise vehicle before the test starts. See the test procedure.
Can not add a vehicle to the test queue.	Incomplete or invalid entry of vehicle details.	Follow correct procedure. See page 20 how to add a vehicle to the test queue.

Chapter 13 Preventive maintenance

This chapter describes the maintenance the operator is responsible for.

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Maintenance safety	47
Maintenance schedule	47

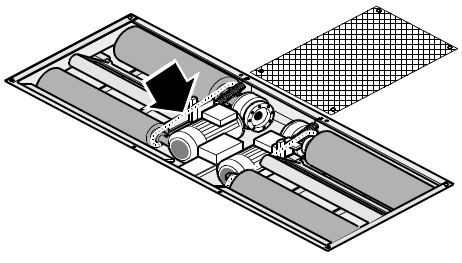
Maintenance safety

- You are not allowed to calibrate or adjust the test lane. Only trained service engineers are allowed to calibrate or adjust.
- Shut down the test lane before you perform any maintenance on the test lane.

Danger
Remove or switch off the fuses from the main electrical supply before you start the maintenance.

Maintenance schedule

Most of the parts of the test lane are free of any maintenance. The bearings and gear boxes are greased for life.

PART	ACTION
During operation Test lane	Verify that there are no abnormal noises and other unusual signs during operation.
Daily Test lane	Before you start the test, verify if the safety limit switches at the slippage detection rollers function correctly: Turn the slippage detection roller. The lights of the proximity switches light up.
Weekly Test lane	Clean the parts of the test lane. Keep the test lane clean and dust free. Clean the sheet metal with a lukewarm soap solution. ***Caution*** ***Do not use aggressive or abrasive detergents.*** ***Do not use a high pressure cleaner.***
Every three months Transmission chains roller brake tester	Verify that the chains are in good condition. Check for wear. Grease the chains: Open the center cover of the roller brake tester. Grease the chains with a chain lubricant. Use a lubricant like Iwis VP6 Kombi Superplus or comparable. 

Chapter 14 Declaration of conformity to CE directives

Manufacturer:	Altus-Escon-Company B.V. (Altesco)
Address:	Drachmeweg 26 2153 PA Nieuw Vennep The Netherlands
Equipment:	Modules for testing class 1, 2, 3, 4, 5L, 7 vehicles for brake and/or suspension and/or sideslip.
Equipment modules:	DE9419/DE9719 brake tester series
Year of declaration:	2019

Altus-Escon-Company B.V. declares under his own responsibility that the above identified products are conform to the international standards described in the Low Voltage Directive 2006/95/EC, the Machinery Directive 2006/42/EC and in the EMC Directive 2014/30/EU.

It is pointed out that it is not allowed to take modules into operation as part of a compounded installation before the latter has been declared to comply with the Machinery Directive. Any alteration to the equipment, improper use or installation voids this Declaration.

Most of the Altesco equipment modules conform to the national Dutch standard “Regeling Voertuigen 2009” and are certified, possibly under a different model designation by Nederlands Meetinstituut (NMi).

The Altesco equipment is provided with the CE-mark:

CE

Nieuw Vennep, The Netherlands
Altus-Escon-Company B.V., Victor C. Stuyts, President