GE7

MOT Class 7 & 5L roller brake tester

USER MANUAL

ATL & Manual testing

Please read the user manual before starting the test procedure!

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1 Introduction

This manual describes how to safely use the ***GE7 roller brake tester*** (further to be called GE7) for statutory Vehicle Inspection test class 7 and 5L vehicles (further to be called MOT class 7&5L). The manual is intended for users of this equipment. Another manual for installation, service and calibration is available.

We refer to the latest MOT Inspection Manual for the definition of the various vehicle classes.

The GE7 is designed for testing commercially available class 7 & 5L vehicles for road use. The RBT is also designed for M1-class 4 and class 4 vehicles (including 3-wheel vehicles and 4-wheel driven vehicles). The maximum axle load is 4000 kg. The test speed is 2.9 km/h. The GE7 can be operated by one person.

This manual describes how to carry out a brake test according to the GB Department of Transport compulsory schemes. The manual provides the MOT braking measurement requirements and describes a complete test procedure.

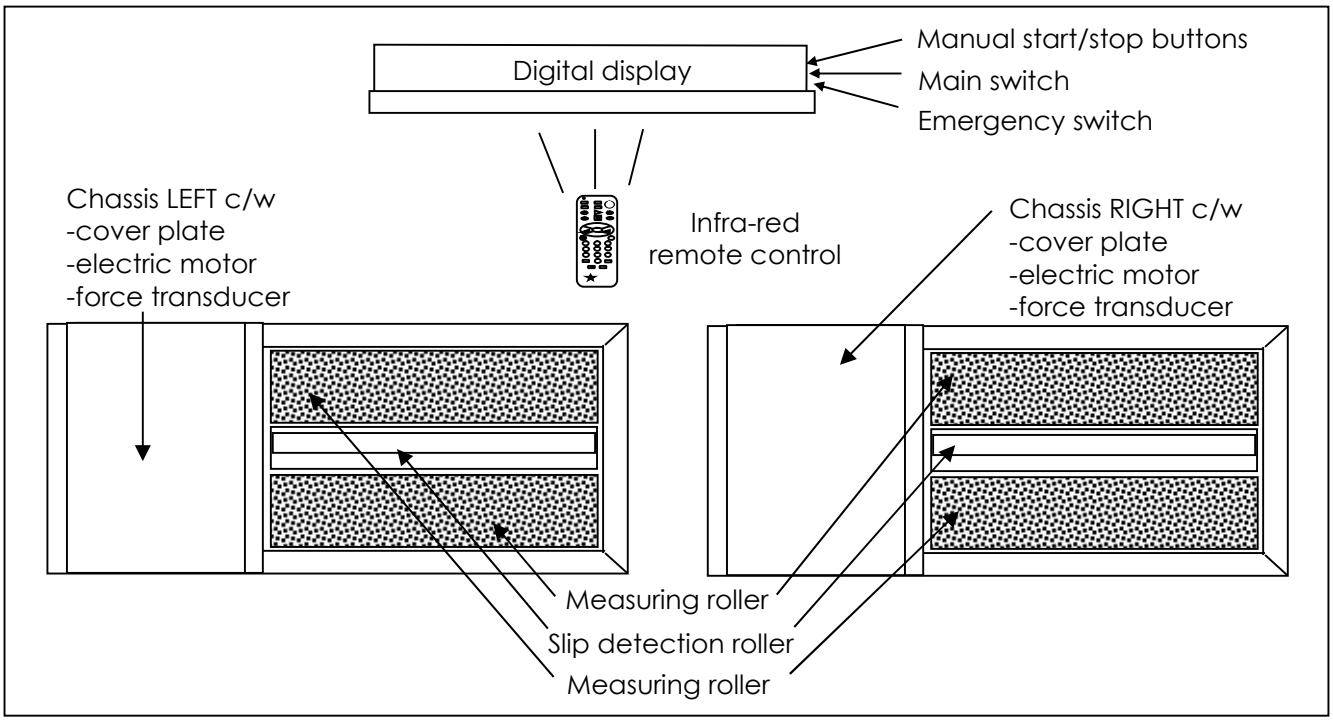
The customer should ensure that the installation for testing vehicles under any of the Department of Transport compulsory schemes, is according to the details mentioned in the Department of Transport's requirements.

The motor and control gear of the brake tester 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 Officer's requirements.

The GE7 is designed in such a way that it can be used in a MANUAL testing mode as well as an Automatic testing mode. This Automatic Test Lane herein refers to as ATL.

2 General product description GE7

The GE7 consists of a mechanical floor unit, roller cover plates, a digital display, an additional digital ATL display (ATL only) and an infra-red remote-control transmitter and receiver.



Each mechanical unit contains an electrical motor, a set of three measuring rollers, a brake force transducer and additional safety sensors.

The brake forces induce reaction forces on the electric motor. An electric transducer with strain gauges measures these reaction forces. The roller diameter is sufficiently large to keep the tyre flexing to a minimum. The special coating of the rollers is very wear resistant and provides good friction values, both wet and dry. The third smaller roller on each side between the wheel supporting rollers has two functions: The first is to detect if a vehicle is present in the roller bed (a build in safety device to prevent the motor to start up without a vehicle in place). 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 when 3-wheel mode is selected). The second function is to detect if tyre slippage on the rollers does not exceed the maximum value.

If the tester is not being used, it must be closed with the roller bed cover plates.

When installed as an ATL class 7 or 5L roller brake tester, the roller bed is standard equipped with an integrated 8-point weighing facility. During installation the ATL- and MANUAL mode are switched on. The operator can decide whether he requires an ATL or MANUAL test by means of the remote control.

When installed as an ATL class 7 roller brake tester and NOT used for ATL class 4 testing, the weighing facility is not mandatory.

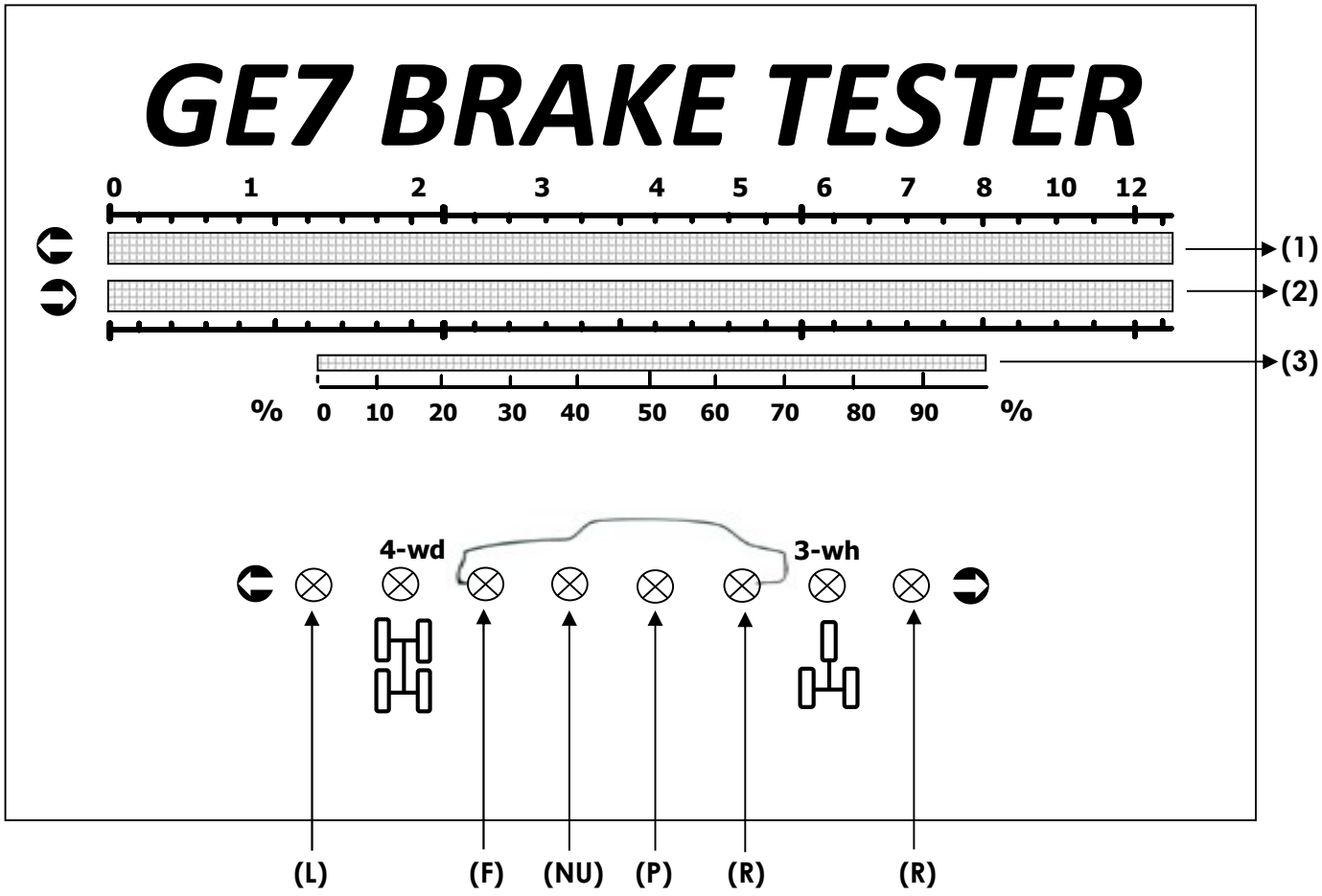
2.1 The digital display

The digital display contains a horizontal LED display (for analogue presentation of brake forces left, right, imbalance and brake efficiency), seven indication lamps, a mains switch, three manual start/stop buttons and an emergency stop switch.

Digital LED display (1) -Displays the brake force in bar diagram in KGF for the left wheel of an axle (front axle, rear axle, parking brake).

Digital LED display (2) -Displays the brake force in bar diagram in KGF for the right wheel of an axle (front axle, rear axle, parking brake).

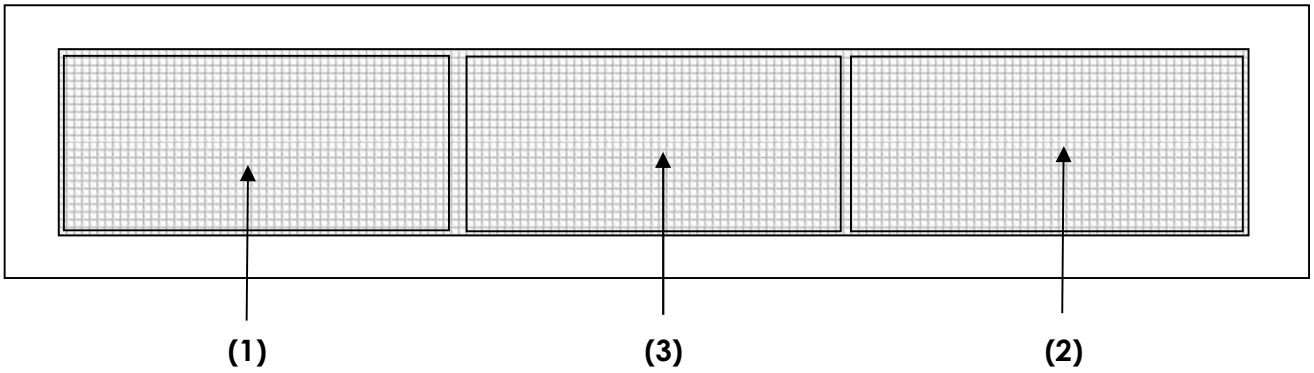
Digital LED display (3) -Displays the imbalance left/right of an axle in bar diagram in % (front axle, rear axle, parking brake).
-Displays the service brake efficiency and parking brake efficiency in bar diagram in %.
-Indicator for manual weight input (manual test only).



Seven lamps -3x to indicate the assigned axle: front **(F)**, rear **(R)**, parking brake **(P)**.
-2x to indicate motor running and wheel lock (slip) for the left **(L)** and right **(R)** wheel.
-1x to indicate when the 3-wheel mode is selected.
-1x to indicate when the 4 x 4 mode is selected.
(-1x indicator is not used **(NU)**)

2.2 The digital ATL display

The ATL display contains a horizontal LED display for numerical presentation of brake forces left, right, imbalance, weight, brake efficiencies and ATL prompts. The ATL display is connected to the GE7 display.



Section (1) -Displays the brake force in numerical values in KGF for the left wheel of an axle (front axle, rear axle, parking brake).

Section (2) -Displays the brake force in numerical values in KGF for the right wheel of an axle (front axle, rear axle, parking brake).

Section (3) -Displays the imbalance left/right of an axle in %
(front axle, rear axle, parking brake).

All sections -Displays the measured weight.
-Display ATL prompts.
-Displays the service brake efficiency and parking brake efficiency in %.

3 Safety

In order to comply with your responsibilities under the Health and Safety at Work Act 1974, it is essential that this brake tester and any optional accessories are sited, installed, operated, and maintained by:

- A competent person with a minimum of 18 years of age and have a minimum qualification of NVQ 3 (or an equivalent qualification) and / or experience within their own field of responsibility, E.g. installation engineering, automobile engineering etc.

3.1 Important safety rules

- All persons installing, operating or maintaining this brake tester and any optional accessories must be familiar with the layout of the equipment, the safety precautions, the emergency shutdown procedures and vehicle braking systems.
- Appropriate training is required, prior to installing, using or maintaining this roller brake tester.
- In case of an emergency, all electric power can be disconnected by pushing the emergency button on the side of the display, or turn the main power switch off.
- The instructions in this manual have to be strictly adhered to, to avoid injuries to personnel and damage to machine and vehicle.
- The equipment may be operated only within its rated capacity. The equipment is designed for MOT class 7, 5L, 3, 4, M1 vehicles.
- During the test nobody is to stand close to the mechanical units.
- The danger zone should be clear of personnel, tools and equipment before starting each stage of the test.
- Do not stand on, or walk over the rollers at any time.
- The unit should be placed inside a rigid, flat and clean surface, protected against water, humidity and weather influences.
- Only a qualified technician should carry out any work on the electrical system, if necessary.
- He should follow procedures pre-described by national standards and the regulations of the local Power Company.
- It is not allowed to make the safety features inoperative or to remove them.
- Do not park a vehicle on any part of the tester.
- It should only be used where the operator has a good view of the whole machine.
- Don't leave the GE7 switched on and unattended.
- Keep the operating environment clean and free of oil; don't leave loose objects around the GE7.
- When the GE7 is not working correctly, switch off the RBT immediately and refer to the user manual or contact GETECH.
- Isolate the GE7 from the power supply before starting a reparation or maintenance, by switching off the main power and to secure it with a lock.
- Make sure the remote control is stored safely when not in use.
- Always use the original tools to adjust the GE7.
- Follow the maintenance specifications accurately.
- Avoid the entangling from clothes (e.g. ties) and/or limbs between the rollers or chains.
- Avoid any direct- or indirect electrical contact.

Important safety rules (continued)

- Avoid any electrostatic influences.
- Do not test a vehicle when there is insufficient light.
- Take precautions to extract exhaust in the workplace properly while testing.

- **Special attention is required for testing 3-wheel and 4WD-vehicles!**

3.2 Safety devices

With the design of the RBT the following safety devices have been installed, to reduce risks as much as possible.

- The GE7 display is provided with an emergency stop button, by which the machine can be stopped immediately in case of an emergency.
  The GE7 can only be switched on if the centre rotating measuring rollers are pressed down, i.e. when there is a vehicle axle in the roller brake tester (except when 3-wheel mode is selected).
- By applying the brake force and locking any wheels under test, the rollers will stop immediately.
- Closed covers for the chain and electrical components.
- The electrical circuits are built in the display cabinet, to reduce any direct danger.
- The roller brake tester is ground wired to earth.
- Roller cover plates are provided to close the mechanical unit when the brake tester is not in use.
- The controlling software has been tested extensively.
- A list of safety rules is included in this user manual.

3.3 Misuse

The GE7 is designed for use as a brake tester for statutory testing of MOT class 7, 5L, 3 & 4 & M1 vehicles and for brake diagnostic purposes only.

It must **NOT** be used for any other purpose e.g.

- 'Running in' of brake linings.
- Brake adjustments.
- Diagnosis of vehicle faults e.g., tyre examination etc.
- Any purpose requiring the operator to be in the danger zone, other than to conduct a brake test and/or maintenance and calibration purposes (authorised personnel only).

4 MOT regulations

4.1 Brake efficiency

Class 7 & 5L vehicles

- The brake efficiency of each system is calculated from the total brake force and expressed as a percentage of the *DGW or MAM*.
- Total up the braking effort from all wheels of the vehicle when the service brake is applied.
- Total up the braking effort from the appropriate wheels when the parking brake is applied.
- The *DGW/MAM* of the vehicle can be obtained from the *Manufacturer's Plate or Ministry Plate* fitted to the vehicle.
- **MANUAL mode**: The DGW/MAM can be entered manually by means of the infra red remote control (see chapter 6.3).
- ATL mode: The DGW/MAM must to be entered with the infra red remote control.

- *Efficiency calculation:*

$$\text{Efficiency \%} = \frac{\text{Total brake effort all wheels}}{\text{DGW/MAM}} \times 100$$

- **MANUAL mode**: If the individual brake force measurements are assigned properly and the vehicle weight is entered with the remote control, the system is able to calculate and show the efficiency for both the service brake as well as the parking brake.
- **ATL mode**: Efficiencies for service- and parking brake are calculated and presented automatically.
- For efficiency requirements we refer to the latest MOT Inspection Manual.

Class 4 vehicles

- The brake efficiency of each system is calculated from the total brake force and expressed as a percentage of the vehicle weight.
- Total up the braking effort from all wheels of the vehicle when the service brake is applied.
- Total up the braking effort recorded from the appropriate wheels when the parking brake is applied.
- **MANUAL mode**: The weight of the vehicle can be determined from the *Brake Data Chart*. This total weight on the *Brake Data Chart* includes 140 kg for the weight of the driver. The vehicle weight can also be entered manually by means of the infra red remote control (see chapter 6.3).
- **ATL mode:** The front- and rear axle weight of the vehicle are measured automatically.

➲ *Efficiency calculation:*

$$\text{Efficiency \%} = \frac{\text{Total brake effort all wheels}}{\text{Vehicle weight}} \times 100$$

➲ **MANUAL mode**: If the individual brake force measurements are assigned properly and the vehicle weight is entered with the remote control, the system is able to calculate and show the efficiency for both the service brake as well as the parking brake.
➲ **ATL mode**: Efficiencies for service- and parking brake are calculated and presented automatically.
➲ For efficiency requirements we refer to the latest MOT Inspection Manual.

4.2 Brake imbalance

➲ The imbalance of the braking effort across an axle is obtained by comparing the maximum brake efforts at each wheel. .

➲ Imbalance calculation:

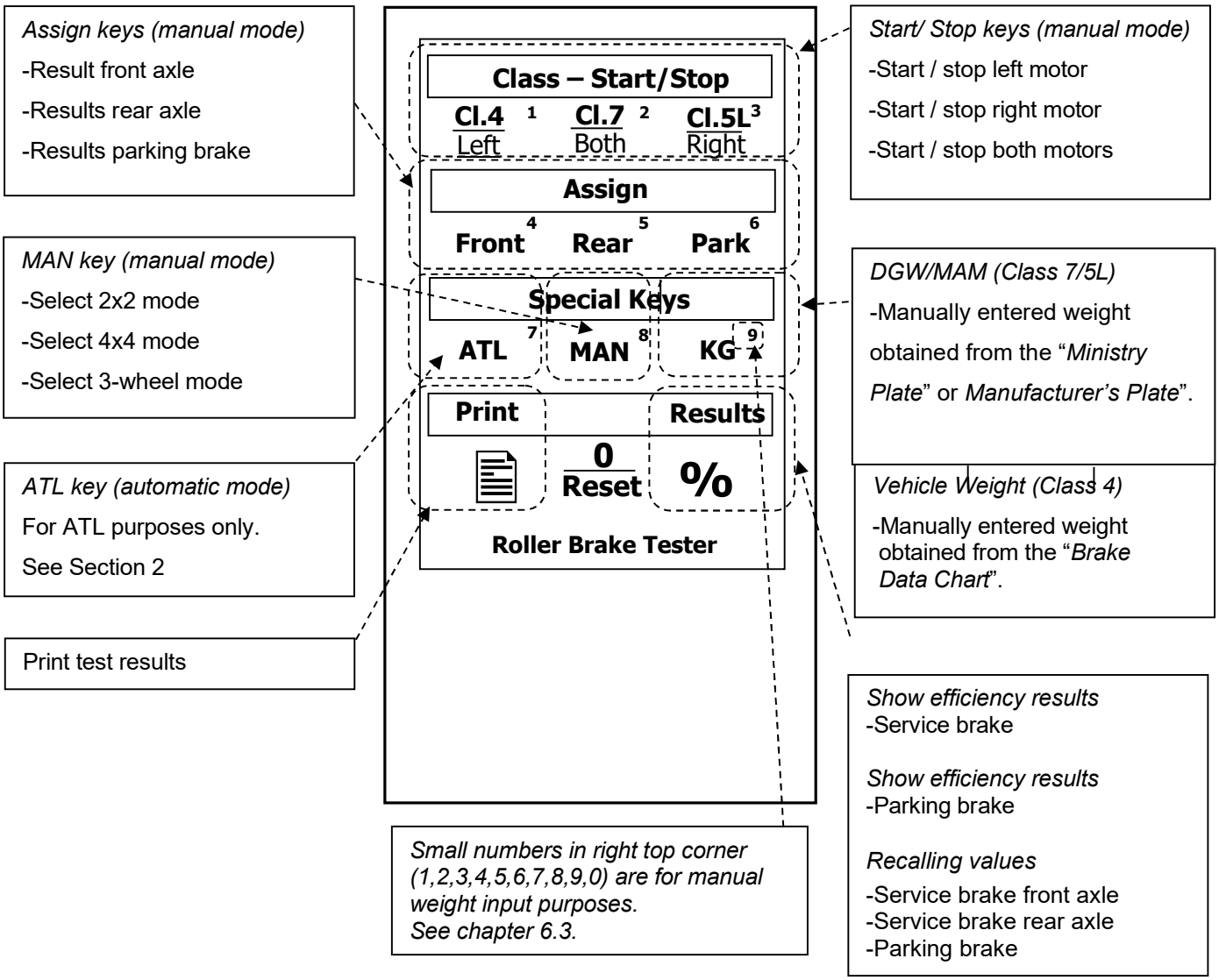
$$\text{Imbalance \%} \frac{\text{Higher brake effort – Lower brake effort}}{\text{Higher brake effort}} \times 100$$

➲ For imbalance requirements, we refer to the latest MOT Inspection Manual.

SECTION 1 MANUAL MODE TESTING

5 The infra-red remote-control functions in MANUAL mode testing

The equipment can be switched on by means of the mains switch on the side of the display cabinet. In the MANUAL mode, usually the unit is operated through the infra red remote control. The system however can also be operated manually without remote control (see chapter 6.6). The system can be switched off at any time by pressing the emergency stop button, located on the side of display cabinet. The functions of the remote control for MANUAL mode testing are explained below.



Remark: 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 8-point weighing facility. During installation the ATL and MANUAL mode are switched on. The operator can decide whether he requires an ATL- or MANUAL test by means of the remote control. When installed as a NON-ATL class 7 roller brake tester, the ATL function is switched off. The ATL key will not respond.

When selecting an ATL test class 4, the axle weight IS measured automatically. When selecting an ATL test class 7, the axle weight IS NOT measured automatically. The DGW must be entered manually.

6 User instructions MOT testing procedure MANUAL mode

Chapter 6 describes the testing procedure on the *GE7* roller brake tester according to the MOT method of inspection. *See the latest MOT Inspection Manual to check for any recent changes.*

- Brake forces are indicated in KGF.
- Weight input is indicated in KG.
- Imbalance is indicated in % and is calculated at maximum brake force.
- Brake efficiency is indicated in %.

- The GE7 can also be used for testing M1-class 4, class 4 and class 3 vehicles. The display does not contain a separate scale for the purpose of testing these vehicles.

- The graduations used on the analogue display class 7 are also according to the specifications set in the "Specification Roller Brake Testers for testing Class 3 and 4 vehicles."

6.1 Preparations before starting a brake test

A. Examine the tyres to ensure they are not under-inflated, if the tyre pattern is in good condition and if the tyres are free from mud and stones.
B. 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.
C. Remove the roller covers from the roller tester and switch the power on.

NO VEHICLE SHOULD BE IN THE BRAKE TESTER WHEN THE MACHINE IS SWITCHED ON!
The machine will go through its self-test and through its warm-up stage. When the horizontal bar diagrams are going back slowly from right to left, by pressing RESET, the tester will be in its default test mode. The first dot of digital LED display (1), (2) and (3) are at zero. This is the indication the GE4 is ready for testing. If present, the ATL display will present **"MANUAL"**

D. Drive the front axle into the brake rollers and select neutral gear.
Start both rollers by pressing **Key BOTH** on the remote control to position the wheels and align the vehicle. Make sure the tyres do not touch the sides of the chassis.

E. Press **Key BOTH** to stop the roller set. The machine is now ready to test the front wheels.

- **In the event of an emergency, these procedures must be followed:**
  (1) Press any **KEY** on the remote control. This will stop the rollers *or*
  (2) Press the manual start/stop buttons on the side of the cabinet *or*
  (3) Push the **red emergency stop switch**, to isolate the electrical supply to the roller bed and stop the rollers.

The described KEYS correspond with the KEYS on the infra-red remote control.
To ensure accurate storage of test results, always start with the LEFT wheel of an axle.

Press RESET to reset the system and clear the memory from any previous results!

6.2 Testing the wheels of an axle (service brake front, rear or parking brake)

Remarks: When testing an axle, the system does not know what axle is under test until the test results are assigned by means of the remote control.

The manual test can be performed running the brake rollers individually, or both together.

When equipped with a weighing facility and ATL display, prior to the left rollers starting, the axle weight is presented on the ATL display. For example: "**KG: 640**". Weighing of an axle is only triggered when the left roller is started. When starting the right roller or both rollers together, the axle weight is not measured.

If the operator wants to test with both rollers run together and also wants to weigh automatically, first start left, wait for the weigh result to appear on the ATL display. Shortly after the rollers start, stop the left rollers and assign to the front axle. Start both rollers to perform the brake test and also assign to the front axle.

1. Run the brake rollers together.
   Press **Key BOTH** to start **both** rollers. The ⟲ **Left** and ⟳**Right** lamp flash as an indication that both rollers are running. Slowly increase the brake force until maximum effort is achieved, or until the wheel(s) lock(s) and slip(s) on the rollers. The real time brake forces are analogue displayed on the horizontal digital LED display (1) & (2). At the slip limit the motor(s) will be cut out immediately (to avoid unnecessary wear of the tyre) and the **Left** and/or **Right** lamp will light to indicate any wheel locks. If slip does not occur while the maximum brake force is achieved, the rollers can be stopped by pressing **Key BOTH**. The **Left** and/or **Right** lamp will than not light or flash. If present, the ATL display will present numerical values.

   After the rollers have stopped, the display will present the maximum brake forces Left and Right as well as the measured imbalance left/right and will remain displayed until the next measurement is started. If present, the ATL display will present numerical values.

   The operator should note the achieved brake forces for the left and right wheel.

   Depending on the axle that is tested, when preferred, store the results:
   Press **Key FRONT** to assign the service brake result for the front axle. Lamp **Front** lights.
   Press **Key REAR** to assign the service brake result for the rear axle. Lamp **Rear** lights.
   Press **Key PARK** to assign the parking brake result. Lamp **Park l**ights.

   During the test, the tester can check for Bind, Rate of Increase, Fluctuation, Rate of Decrease and Grabbing. Grabbing is only relevant for the parking brake when a single line braking system is fitted.

   Test the next axle. If the next test is the other axle, remove the vehicle from the roller bed.
   It can be helpful to run both rollers together when driving out of the rollers.

2. Run the brake rollers individually.
   Press **Key LEFT** to start the **left** roller. The **Left** lamp flashes as an indication that the left rollers are running.

   Slowly increase the brake force until maximum effort is achieved, or until the wheel locks and slips on the rollers. The real time brake force is analogue displayed on the horizontal digital LED display (1). At the slip limit, the motor will be cut out immediately (to avoid unnecessary wear of the tyre) and the **Left** lamp will light to indicate this wheel lock. If slip does not occur while the maximum brake force is achieved, the left rollers can be stopped by pressing **Key LEFT**. The **Left** lamp will not light or flash. If present, the ATL display will present numerical values.

   For an accurate measurement, the brake force has to be built up slowly!

   After the left rollers have stopped, on the LED display (1), the brake force result for the left wheel will remain displayed until the next measurement is started.

   The operator should note the achieved brake force for the left wheel.

   Depending on the axle that is tested, when preferred, store the results:
   Press **Key FRONT** to assign the service brake left wheel for the front axle. Lamp **Front** lights.
   Press **Key REAR** to assign the service brake left wheel for the rear axle. Lamp **Rear** lights.
   Press **Key PARK** to assign the parking brake left wheel. Lamp **Park l**ights.

   The system will automatically hold the test result in its memory (only relevant for automatic brake efficiency calculation and recalling of results per axle).

   During the test, the operator can check for Bind, Rate of Increase, Fluctuation, Rate of Decrease and Grabbing. Grabbing is only relevant for the parking brake when a single line braking system is fitted.

   For the right wheel press **Key RIGHT** to start the **right** rollers. Repeat the test procedure as described for the left wheel and note the achieved brake force. The maximum brake force value will remain displayed until the next measurement is started.

   When starting the right rollers, the left wheel brake force value (and possible lock indication) will return on the display. After the right wheel test, both brake force values for left and right as well as the measured imbalance left/right are displayed at the same time.

   The operator should note the achieved brake force for the right wheel.

   Depending on the axle that is tested, when preferred, store the results:
   Press **Key FRONT** to assign the service brake right wheel for the front axle. Lamp **Front** lights.
   Press **Key REAR** to assign the service brake right wheel for the rear axle. Lamp **Rear** lights.
   Press **Key PARK** to assign the parking brake right wheel. Lamp **Park l**ights.

   The system will automatically hold the test result in its memory (only relevant for automatic brake efficiency calculation and recalling of results per axle).
   During the test, the operator can check for Bind, Rate of Increase, Fluctuation, Rate of Decrease and Grabbing. Grabbing is only relevant for the parking brake when a single line braking system is fitted.

6.3 Vehicle weight

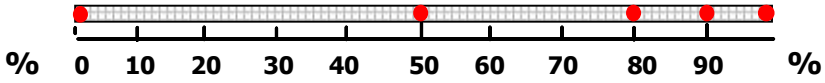
When installed as a NON-ATL roller brake tester without integrated weighing system and without ATL display, with the remote control the operator can enter the vehicle weight for the automatic calculation of the brake efficiency. The *DGW/MAM* of the vehicle can be obtained from the *Manufacturer's Plate or Ministry Plate* fitted to the vehicle.

Enter vehicle weight procedure:

Press **Key KG** on the remote control. On the third Digital LED display (3), the last right LED will light. Ten keys on the remote control mention a number 0,1,2,3....9. These keys are used for vehicle weight input.

The operator should always enter 4 digits (if the vehicle weighs under 1,000 kg, the first digit should be a 0 (zero)). The numbers 0,1,2,3….9 on the remote control correspond with 0,10, 20, 30….90% on the percentage scale.

Example: Weight = 985 kg



1. *Press KG: The rightmost LED lights*
2. *Press 0: The 0% LED lights shortly after which it switches back to the rightmost LED*
3. *Press 9: The 90% LED lights shortly after which it switches back to the rightmost LED*
4. *Press 8: The 80% LED lights shortly after which it switches back to the rightmost LED*
5. *Press 5: The 50% LED lights shortly after which it switches back to the rightmost LED*

The computer will use the last entered weight until a new weight is entered or the **RESET** key is pressed. The entered weight is also presented on an optional print out.

The same principle applies for entering the vehicle weight for a Class 4 vehicle.
The vehicle weight can be taken from the *Brake Data Chart*.

When installed as an ATL class 7 roller brake tester with ATL display, the roller bed is standard equipped with an integrated 8-point weighing facility. During installation the ATL and MANUAL mode are switched on. The operator can decide whether he requires an ATL- or MANUAL test by means of the remote control. When selecting a MANUAL test the vehicle weight is measured automatically (only triggered when starting the left rollers). When entering the weight manually, the ATL display will present "**KG: 0985**".'Always enter 4 digits (as described above). The weight is than not presented on the LED display (3).

If preferred and if measured automatically, the measured weight can be overruled by manually entering the weight as described above.

6.4 Recalling values/calculation of brake efficiency

Manually calculate the brake efficiency for both the service brake and parking brake as described in chapter 4.1 by means of a calculator. Determine if the vehicle PASSES or FAILS on brake efficiency and imbalance. All brake force values are noted by the operator in the pre-described tests.

The **GE7** is capable of displaying the efficiency for the service brake and the parking brake as well as all separate tests when all tests are assigned properly and the vehicle weight is known (measured or manually entered). Press key **%.**

Press once: Shows the weight of the front axle (automatic weighing and ATL display only).

Press again: Shows the last results of the service brake front axle and imbalance result left/right wheel, as well as possible wheel locks.

Press again: Shows the weight of the rear axle (automatic weighing and ATL display only).

Press again: Shows the last results of the service brake rear axle and imbalance result left/right wheel, as well as possible wheel locks.

Press again: Shows the last results of the parking brake and imbalance result left/right wheel, as well as possible wheel locks.

Press again: The service brake efficiency is presented on the percentage scale (third digital LED display (3)). The wheel indicators front **(F)** and rear **(R)** light as indication the service brake is presented. If present, the ATL display shows: "**EFF. SB ….%**"

Press again: The parking brake efficiency is presented on the percentage scale (third digital LED display (3)). The wheel indicator parking brake (P) will light as an indication the parking brake is presented. If present, the ATL display shows: "**EFF. PB ….%**"

Press again: Shows the total weight of car and driver (on ATL display only).

6.5 Printing test results (optional)

When an optional printer is connected, the operator can print a summary of the measurements by pressing **KEY**  on the remote control. If present, the ATL display shows: "**PRINTING….**"

6.6 Testing procedure without remote control

It is possible to do a MANUAL test without remote control. This test procedure requires two persons. One person to do a test, while the other person pushes the start/stop buttons on the display. The brake force will be displayed on the cabinet, however, these values can not be stored in the computer's memory and therefore automatic calculation of the brake efficiency is not possible.

On the display cabinet three push buttons are mounted. If you want to start the left, right or both rollers, press the related button. Press the button again, to stop the rollers. The test starts up and the procedure is the same as described in paragraph 6.2. The manual buttons function as **Keys LEFT, RIGHT, BOTH** on the remote control.

7 Testing 3-wheel vehicles

The **GE7** is capable of testing 3-wheel vehicles. This mode allows the operator to start the **left** side of the roller bed, if the smaller middle roller of this one side only is pressed down. If testing on the right side of the roller bed is required, please contact GETECH. This can be altered in the set up during installation or calibration.

When the 3-wheel mode is selected, as a safety precaution, the right rollers will not start when the middle roller of the right side is pressed down as well.

➲ **In the event of an emergency, these procedures must be followed:**
(1) Press any **KEY** on the remote control. This will stop the rollers *or*
(2) Press the manual start/stop buttons on the side of the cabinet *or*
(3) Push the **red emergency stop switch**, to isolate the electrical supply to the roller bed and stop the rollers.

Preparations

A. Examine the tyres to ensure they are not under-inflated, if the tyre pattern is in good condition and if the tyres are free from mud and stones.
B. Remove only the left roller cover of the roller tester and switch on the power.
C. Drive the front axle (front wheel) into the roller bed and select neutral gear.
D. Select 3-wheel mode by pressing **Key MAN** twice. Start the left roller by pressing **Key LEFT** to position the wheel and align the vehicle.
Make sure the tyre does not touch the side of the chassis.
The **3-wh** lamp on the display will constantly light as a warning and to confirm this function and will stay on during the test of the single wheel axle.
E. Press **Key LEFT** to stop the roller set. The **3-wh** lamp is still on.
F. The system is now ready to test the front wheel.

Test procedure

1. While the 3-wheel mode is already selected (*see D*), press **LEFT** to start the **left** roller.
This is for 3-wheel mode only and therefore not the same as **Key LEFT** as described in chapter 6. The **3-wh** lamp on the display will constantly light as a warning.
The ⊂ **Left** lamp flashes as an indication that the left rollers are running.

Slowly increase the brake force until maximum effort is achieved, or until the wheel locks and slips on the rollers. At the slip limit the motor will be cut out directly and the left lamp will light to indicate this wheel lock. If slip does not occur while the maximum brake force is achieved, the left roller can be stopped by pressing **Key LEFT**. The wheel lock lamp **Left** will not light or flash. If present, the ATL display will present numerical values.

For an accurate measurement, the brake force has to be built up slowly!

After the rollers have stopped, on the LED display (1), the brake force result for the left wheel will remain displayed until the next measurement is started.

The operator should note the achieved brake force.
Press **Key FRONT** to assign the service brake of the single wheel for a single wheel-front axle. The **Service front (F)** lamp will light to confirm this assignment.

Press **Key REAR** to assign the service brake of the single wheel for a single wheel-rear axle. The **Service rear (R)** lamp will light to confirm this assignment

2. During the test, the pedal force can be hold at a constant value to visually check any fluctuations on that wheel. The operator should note the irregularities in the brake force behaviour.

3. Follow the procedure described in chapter 6 for testing the service brake and parking brake on the dual wheel axle (can be front- or rear axle). Assigning results of the measurements is according to the same principle.

To exit the 3-wheel mode, press key MAN once. The 3-wh (and 4-wd) indicator are out as a confirmation that the 3-wheel mode is not operational anymore.

8 Testing 4x4 vehicles

The **GE7** is capable of testing 4x4 vehicles. The brakes of each wheel of an axle are tested separately one after the other. On one side the rollers turn in the normal direction, while on the other side the rollers turn in the reverse direction. **The GE7 is not suitable for testing permanent 4WD vehicles.**

Always refer to the car manufacturer's prescriptions before testing these types of vehicles! Special attention is required that the correct buttons on the remote control are used!

Select the 4x4 mode by pressing **Key MAN** once. When the **4-wd** lamp lights, the correct mode is selected.

Press **Key LEFT** on the remote control to start the **left** roller. The right rollers will turn in the reverse direction. This key is for the 4x4-mode only and is therefore not the same as **Key LEFT** as described in chapter 6.2.
The ⊂ **Left** and ⊃ **Right** lamp will flash and the **4-wd** lamp will light to indicate that the tester is in the 4x4 mode.

1 Slowly increase the brake force until maximum effort is achieved, or until the wheel locks and slips on the rollers. At the slip limit the motor will be cut out directly and the **Left** lamp will light to indicate this wheel lock. If slip does not occur the left roller can be manually stopped by pressing **Key LEFT**. The lock lamp **Left** will not light or flash. *The tester is still in the 4x4 mode.* If present, the ATL display will present numerical values.

For an accurate measurement, the brake force has to be built up slowly!

After the rollers have stopped, on the LED display (1), the brake force result for the left wheel will remain displayed until the next measurement is started.

The operator should note the achieved brake force for the left wheel and if preferred, assign the results according to the same **KEYS** as described in chapter 6.2.

2 During the test, the pedal force can be hold at a constant value to visually check any fluctuations on that wheel. The operator should note and interpret the irregularities in the brake force behaviour.

3 Press **Key RIGHT** on the remote control to start the **right** roller.

REMEMBER: The tester is still in the 4x4 mode. The **4-wd** lamp still lights.
WARNING: Do NOT press the LEFT key when the 4x4 mode is NOT selected.

The left rollers will turn in the reverse direction. Follow the procedure as described for the left wheel.

5 When starting the right rollers, the left wheel brake force value (and possible lock indication) will return on the display. After the right wheel test, both brake force values for left and right as well as the measured imbalance left/right are displayed. If present, the ATL display will present numerical values.

6 Repeat **STEP 1-3** for the service brake of the rear axle.

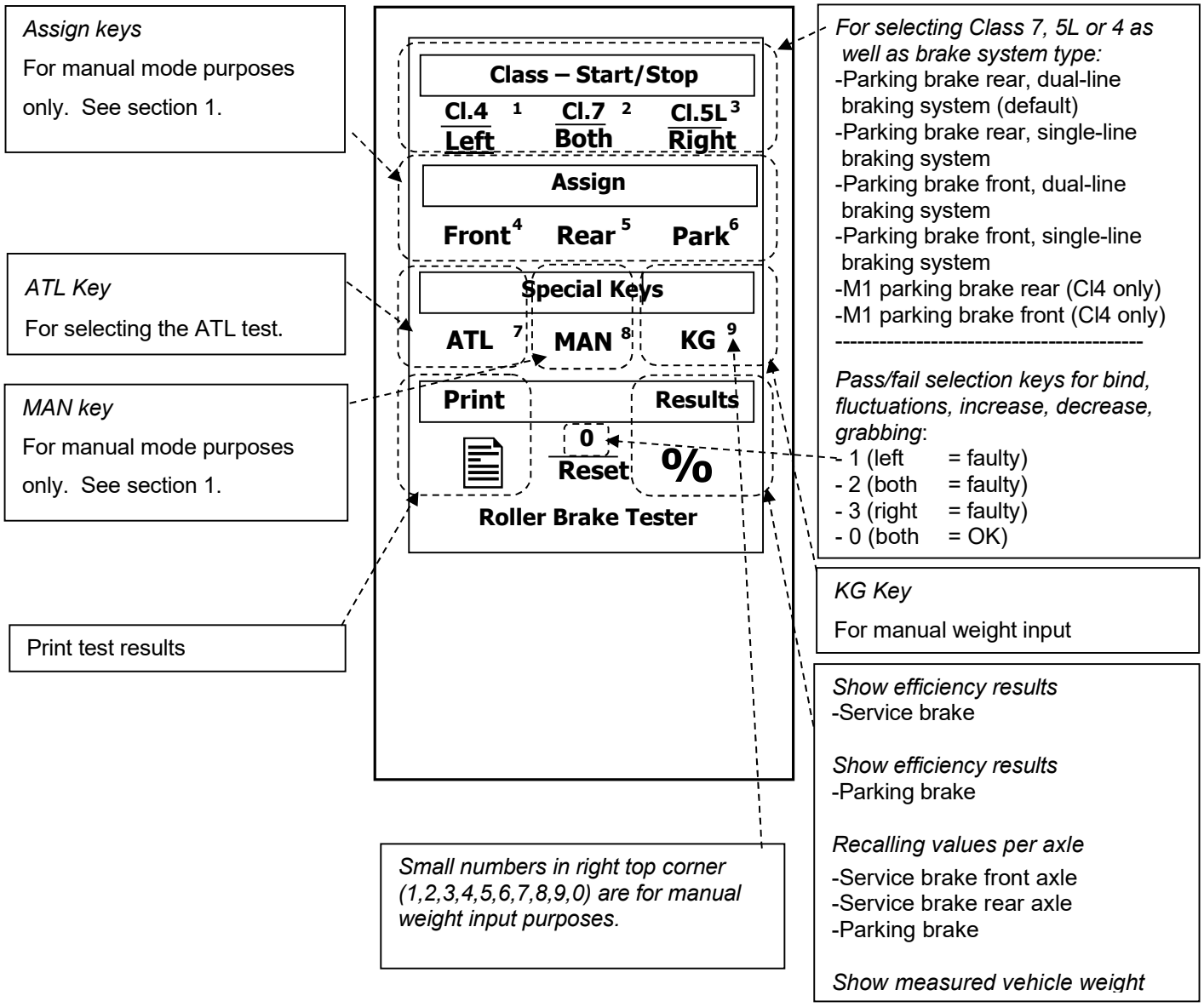
7 Test the parking brake as described in chapter 6.2.

To exit the 4x4 mode, press key MAN twice. The 4-wd (and 3-wh) indicator are out as a confirmation that the 4x4 mode is not operational anymore.

SECTION 2 ATL MODE TESTING

9 The infra-red remote-control functions in ATL mode testing

The equipment can be switched on by means of the mains switch on the side of the display cabinet. When performing an ATL test, the system will guide the operator through a test. The remote control is only used for selecting the ATL test and the required vehicle type and the Bind, Rate of Increase, Fluctuation, Rate of Decrease, Grabbing analysis at the end of a test. The functions of the remote control for ATL testing are explained below.



Remark: 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 8-point weighing facility. During installation the ATL and MANUAL mode are switched on. The operator can decide whether he requires an ATL- or MANUAL test by means of the remote control.

When selecting an ATL test class 4, the axle weight IS measured automatically. When selecting an ATL test class 7, the axle weight IS NOT measured automatically. The DGW must be entered manually.

10 User instructions MOT testing procedure ATL mode Class 7 & 5L

Chapter 10 describes the testing procedure on the *GE7* roller brake tester according to the MOT method of ATL inspection. *See the latest MOT Inspection Manual to check for any recent changes.*

- Brake forces are indicated in KGF.
- Weight input is indicated in KG.
- Imbalance is indicated in % and is calculated at maximum brake force.
- Brake efficiency is indicated in %.

10.1 Preparations before starting a brake test

A. Examine the tyres to ensure they are not under-inflated, if the tyre pattern is in good condition and if the tyres are free from mud and stones.

B. Remove the roller covers of the roller tester and switch the power on.

NO VEHICLE SHOULD BE IN THE BRAKE TESTER WHEN THE MACHINE IS SWITCHED ON !

C. The machine will go through its self-test and through its warm-up stage. When the horizontal bar diagrams are going back slowly from right to left, by pressing **RESET**, the tester will be in its default setup; the manual test mode 2x2. **"MANUAL"** will appear in the ATL display.

D. Press Key **ATL** on the remote control. The brake tester is now in its ATL mode and **"ATL CL7"** appears on the ATL display, shortly after followed by "**PB REAR DL**". The **Front** lamp will light.

E. Determine whether the vehicle has a single line braking system or a split (dual line) braking system. This is important for the automatic PASS or FAIL analysis of the brake efficiency.

When pressing Key **ATL**, the default vehicle setup is a "Class 7 vehicle with the parking brake on the rear axle and a dual line braking system." When a vehicle with a different braking system is required, select the correct vehicle type with the remote control:

Press Key **CL.7** once:
A "Class 7 vehicle with the parking brake on the rear axle and a single line braking system" is selected. The display presents "**PB REAR SL**"

Press Key **CL.7** again:
A "Class 7 vehicle with the parking brake on the front axle and a dual line braking system" is selected. The display presents "**PB FRONT DL**"

Press Key **CL.7** again:
A "Class 7 vehicle with the parking brake on the front axle and a single line braking system" is selected. The display presents "**PB FRONT SL**"

Press Key **CL.7** again:
A "Class 7 vehicle with the parking brake on the rear axle and a dual line braking system" is selected. The display presents "**PB REAR DL**"

The same applies for a Class 5L vehicle.
Press Key ATL, Key CL.5 and select the correct vehicle type.

The brake tester is now ready for the ATL testing procedure.

In the event of an emergency, these procedures must be followed:
(1) Press any **KEY** on the remote control. This will stop the rollers *or*
(2) Press the manual start/stop buttons on the side of the cabinet *or*
(3) Push the **red emergency stop switch**, to isolate the electrical supply to the roller bed and stop the rollers.

10.2 The ATL brake test

The testing procedure is described for a Class 7 or 5L vehicle with the parking brake on the rear axle and a dual line braking system.

1. Enter the Design Gross Weight (DGW/MAM)

Drive the front axle into the roller beds and select neutral gear.

The display shows the prompt: **"DGW KG: ----"**

Enter the DGW/MAM by means of the remote control.

The *DGW/MAM* of the vehicle can be obtained from the *Manufacturer's Plate or Ministry Plate* fitted to the vehicle. Always enter 4 digits (if the vehicle weighs under 1,000 kg, the first digit should be a 0 (zero)). Each key on the remote control mentions a number, which can be used for the vehicle weight input. The display will present each digit. Example: "**DGW KG: 0985**".

2. Service brake FRONT axle: Brake force observations/imbalance/maximum force.

2 Seconds after the DGW prompt, both rollers automatically start. Allow 2 seconds to centralise the vehicle in the rollers. Make sure the tyres do not touch the sides of the chassis.

The lamp **Front** lights to indicate the front axle service brake is tested. The ⊂ **Left** and ⊃ **Right** lamp flash as an indication that both rollers are running. The ATL display shows the prompt **"OBSERVE"** as an indication for the tester to check for Bind, Rate of Increase, Fluctuation and Rate of Decrease. Shortly after, the prompt changes into real time values.

Observe procedure:
a) No force is applied. The operator has to visually check **BIND**.
b) Slowly apply the service brake.
The operator has to visually check **RATE OF INCREASE**.
c) Hold the pedal pressure steady. The operator has to visually check for excessive **FLUCTUATION**.
d) Gradually release the service brake. The operator has to visually check **RATE OF DECREASE**.

During these tests, make sure no wheel lock occurs. If any of the wheels have locked, the observe test will be repeated. The display presents the prompt **"REPEAT"**.

The operator has to judge a PASS or FAIL on each of the checks and has to enter this by means of the remote control at a later stage of the test.

After approximately 10 seconds, the prompt "**SB TO MAX**" appears to indicate to gradually apply the service brake to maximum.

The prompt **"SB TO MAX"** disappears and switches into numerical values for the brake forces left and right and the imbalance value left/right. Slowly increase the brake force on the brake pedal until maximum effort is achieved, or until the wheel(s) lock(s) and slip(s) on the rollers.

For an accurate measurement, the brake force has to be built up slowly!

The following situations can occur:

Have both wheels locked?
YES: The **Left** and **Right** lamp light to indicate these wheel locks.
The brake forces and imbalance reading are stored automatically. Lamp **Front** still lights. The brake force values remain displayed until the next part of the test.

NO: *Has any wheel locked?*
YES: Related roller stops. Related lamp **Left** or **Right** lights to indicate this wheel lock. The first wheel brake force value remains displayed when second wheel continues running for a further 3 seconds, after which it stops. The related second lamp **Left** or **Right** is out to indicate no wheel lock occurs. If, within these 3 seconds, wheel lock occurs on the second wheel, the second rollers stop and the related second lamp **Left** or **Right** lights to indicate this second wheel lock.
Both brake forces and imbalance reading are stored automatically.

NO: *Have readings stabilised?*
YES: The machine determines when BOTH readings are stable for 3 seconds. Both rollers stop. Both brake forces and imbalance reading are stored automatically. If one reading is stable, but the other is not, both rollers continue running.
NO: If both readings are not stable for 3 seconds, the rollers will continue for another 3 seconds and will than stop. Lamps **Left** and **Right** turn from flashing to out (no lock). Both brake forces and imbalance reading are stored automatically. The brake force values remain displayed until the next part of the test.

Both rollers start. The ATL display shows the prompt **"DRIVE OUT".**
The system is ready for the next test; parking brake (on the rear axle).

3. Brake force maximum parking brake on rear axle.

Drive the rear axle into the brake rollers and select neutral gear.

Both rollers automatically start after 2 seconds. Allow 2 seconds to centralise the vehicle in the rollers. Make sure the tyres do not touch the sides of the chassis. The lamp **Park** lights to indicate the parking brake is tested. The **Left** and **Right** lamp flash as an indication that both rollers are running.

For single line braking system only: The ATL display shows the prompt **"OBSERVE"** as an indication for the tester to check for Grabbing. Shortly after, the prompt changes into real time values.

Observe procedure:
a) Slowly apply the parking brake. The operator has to visually check **GRABBING**.

The operator has to judge a PASS or FAIL on this check and has to enter this by means of the remote control at a later stage of the test.

After approximately 4 seconds, the prompt "**PB TO MAX**" appears to indicate to gradually apply the parking brake to maximum.

The next prompt is "**PB TO MAX**" to indicate to gradually apply the parking brake to maximum.

The prompt **"PB TO MAX"** disappears and switches into numerical values for the brake force left and right and the imbalance value left/right. Slowly increase the brake force on the parking brake until maximum effort is achieved, or until the wheel(s) lock(s) and slip(s) on the rollers.

For an accurate measurement, the brake force has to be built up slowly!

The following situations can occur:

Have both wheels locked?
YES: The **Left** and **Right** lamp light to indicate these wheel locks.
The brake forces and imbalance reading are stored automatically. Lamp **Front** still lights. The brake force values remain displayed until the next part of the test.

NO: *Has any wheel locked?*
YES: Related roller stops. Related lamp **Left** or **Right** lights to indicate this wheel lock. The first wheel brake force value remains displayed when second wheel continues running for a further 3 seconds, after which it stops. The related second lamp **Left** or **Right** is out to indicate no wheel lock occurs. If, within these 3 seconds, wheel lock occurs on the second wheel, the second rollers stop and the related second lamp **Left** or **Right** lights to indicate this second wheel lock.
Both brake forces and imbalance reading are stored automatically.

NO: *Have readings stabilised?*
YES: The machine determines when BOTH readings are stable for 3 seconds. Both rollers stop. Both brake forces and imbalance reading are stored automatically. If one reading is stable, but the other is not, both rollers continue running.

NO: If both readings are not stable for 3 seconds, the rollers will continue for another 3 seconds and will than stop. Lamps **Left** and **Right** turn from flashing to out (no lock). Both brake forces and imbalance reading are stored automatically. The brake force values remain displayed until the next part of the test.

4. Calculate efficiency parking brake.

In all in step 3 described situations both the left and right brake force readings, possible locks and imbalance reading are stored automatically. In step 1, the DGW of the vehicle is entered. The efficiency for the parking brake is calculated (see chapter 4.1. for the formula used for this calculation). The ATL display shows: **"EFF. PB: - -%"** (=efficiency parking brake) while the **Park** lamp still lights.

The system is ready for the next test; the service brake rear axle.

Remark: The imbalance test for the parking brake is only relevant when a single line braking system is fitted.

Remark: Do NOT drive out of the rollers after testing the parking brake on the rear axle. The machine knows the next test is the service brake rear axle, without driving out of the rollers.

5. Service brake REAR axle: Brake force observations/imbalance/maximum force.

Both rollers automatically start after 2 seconds. Allow 2 seconds to centralise the vehicle in the rollers. Make sure the tyres do not touch the sides of the chassis.

The lamp **Rear** lights to indicate the front axle service brake is tested. The **Left** and **Right** lamp flash as an indication that both rollers are running. The ATL display shows the prompt **"OBSERVE"** as an indication for the tester to check for Bind, Rate of Increase, Fluctuation and Rate of Decrease. Shortly after, the prompt changes into real time values.

Observe procedure:

a) No force is applied. The operator has to visually check **BIND**.
b) Slowly apply the service brake.
The operator has to visually check **RATE OF INCREASE**.
c) Hold the pedal pressure steady. The operator has to visually check for excessive **FLUCTUATION**.
d) Gradually release the service brake. The operator has to visually check **RATE OF DECREASE**.

During these tests, make sure no wheel lock occurs. If any of the wheels have locked, the observe test will be repeated. The display presents the prompt **"REPEAT"**.

The operator has to judge a PASS or FAIL on each of the checks and has to enter this by means of the remote control at a later stage of the test.

After approximately 10 seconds, the prompt "**SB TO MAX**" appears to indicate to gradually apply the service brake to maximum.

The prompt **"SB TO MAX"** disappears and switches into numerical values for the brake forces left and right and the imbalance value left/right. Slowly increase the brake force on the brake pedal until maximum effort is achieved, or until the wheel(s) lock(s) and slip(s) on the rollers.

For an accurate measurement, the brake force has to be built up slowly!

The following situations can occur:

Have both wheels locked?
YES: The **Left** and **Right** lamp light to indicate these wheel locks.
The brake forces and imbalance reading are stored automatically. Lamp **Front** still lights. The brake force values remain displayed until the next part of the test.

NO: *Has any wheel locked?*
YES: Related roller stops. Related lamp **Left** or **Right** lights to indicate this wheel lock. The first wheel brake force value remains displayed when second wheel continues running for a further 3 seconds, after which it stops. The related second lamp **Left** or **Right** is out to indicate no wheel lock occurs. If, within these 3 seconds, wheel lock occurs on the second wheel, the second rollers stop and the related second lamp **Left** or **Right** lights to indicate this second wheel lock.
Both brake forces and imbalance reading are stored automatically.

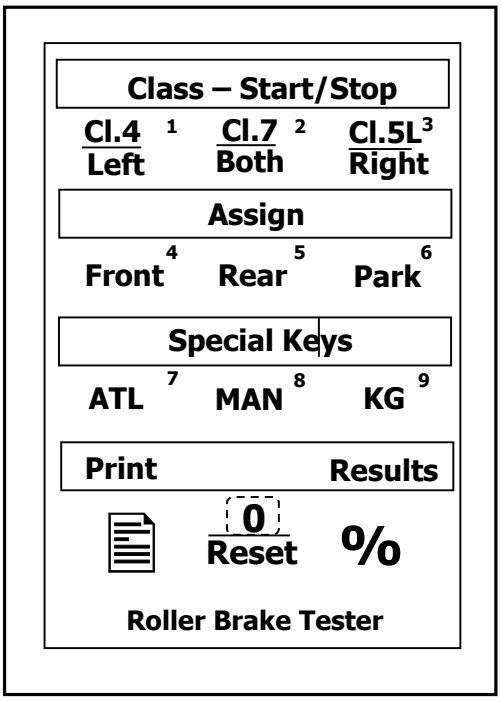
NO: *Have readings stabilised?*
YES: The machine determines when BOTH readings are stable for 3 seconds. Both rollers stop. Both brake forces and imbalance reading are stored automatically. If one reading is stable, but the other is not, both rollers continue running.
NO: If both readings are not stable for 3 seconds, the rollers will continue for another 3 seconds and will than stop. Lamps **Left** and **Right** turn from flashing to out (no lock). Both brake forces and imbalance reading are stored automatically. The brake force values remain displayed until the next part of the test.

6. Calculate efficiency service brake.

In all in step 2 and 5 described situations; both the left and right brake force readings, possible locks and imbalance reading of the axles are stored automatically. In step 1, the DGW is entered. The efficiency for the service brake is calculated (see chapter 4.1. for the formula used for this calculation. The display shows: **"EFF. SB: --%"**, while the **Front** and **Rear** lamp light.

Both rollers start. The ATL display shows the prompt **"DRIVE OUT".**
The system is ready for the next stage in the test; the wheel analysis.

7. Wheel analysis



During the tests, the operator had to visually check for BIND, RATE OF INCREASE, FLUCTUATIONS, RATE OF DECREASE for the 4 wheels of the service brake and for GRABBING on the parking brake if a single line brake system is fitted. In step 7, by means of the remote control, the operator must enter any of the faults on any of the wheels before the test can be completed.

These 4 options can be selected:
0= Left and Right OK, no faults
1= Fault on left wheel
2= Fault on both wheels
3= Fault on right wheel

The prompt **"BIND FRONT?"** appears on the ATL display. The operator has to enter the result.

Example:
No BIND on both wheels, press Key **"0/Reset"**
BIND on the left wheel, press Key **"1/Left"**
BIND on the right wheel, press Key **"3/Right"**
BIND on both wheels, press **Key "2/Both"**

The results are stored and used for the final PASS/FAIL analysis of the vehicle.

Repeat the steps as described for BIND FRONT for all following prompts:

The prompt **"BIND REAR?"** appears on the display.
The prompt **"INCR FRONT?"** appears on the display.
The prompt **"INCR REAR?"** appears on the display.
The prompt **"FLUCT FR?"** appears on the display.
The prompt **"FLUCT REAR?"** appears on the display.
The prompt **"DECR FRONT?"** appears on the display.
The prompt **"DECR REAR?"** appears on the display.
The prompt **"GRAB PARK?"** appears on the display (if applicable).

All results are stored and used for the final PASS/FAIL analysis of the vehicle and will be presented on the print out.

8. Overall analysis

The prompt **"PASS"** or **"FAIL"** appears on the display. This is the overall result of the vehicle.

The analysis is based on the following criteria:
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 (single line braking system only);
6. Wheel analysis;
7. Wheel lock analysis.

Explanation criteria 7: If more than half the wheels braked by a system lock, the percentage efficiency for that system is considered satisfactory. When the vehicle passes on wheel lock, both the print out as well as the display present "**PASS (LOCK)".**

See the latest MOT Inspection Manual to check for any recent changes.

9. Data capture & printing

See appendix A for instructions.

10. Recalling values

When required by the operator, the test results of the service brake and the parking brake can be recalled on the display by means of the remote control. The results can all be recalled by pressing Key **%.**

Press once : Shows the weight of the front axle.

Press again : Shows the last results of the service brake front axle and imbalance result left/right wheel as well as possible wheel locks.

Press again : Shows the weight of the rear axle.

Press again : Shows the last results of the service brake rear axle and imbalance result left/right wheel as well as possible wheel locks.

Press again : Shows the last results of the parking brake and imbalance result left/right wheel, as well as possible wheel locks.

Press again : Shows the service brake efficiency.

Press again : Shows the parking brake efficiency.

Press again : Shows the total weight of the car and driver.

Remark: After the results (any) are presented on the ATL display for a few seconds, the ATL display clears its results. The **Front** lamp will light to indicate the system is ready for the next test. This is not a reset of the system.

10.3 ATL Remarks

1. 4WD vehicles can NOT be tested in ATL mode. Manual mode is required.
2. 3-wheel vehicles can NOT be tested in ATL mode. Manual mode is required.
3. See the latest MOT Inspection Manual to check for any recent changes.
4. When "parking brake on front axle" is selected the test sequence is:
   1. Service brake front axle. Front axle stays in rollers.
   2. Parking brake front axle. Drive rear axle into rollers.
   3. Service brake rear axle. Drive rear axle out rollers.

5. After finalising an ATL test, for safety purposes, set the system in MANUAL mode.

11 User instructions MOT testing procedure ATL mode Class 4

Described in chapter 11 is the ATL testing procedure for M1-Class 4 and Class 4 vehicles and its differences compared to the procedure described for a class 7 or 5L vehicle.

Preparations before starting a brake test

A. When switching on the system, it will go through its self-test and through its warm-up stage. When the horizontal bar diagrams are going back slowly from right to left, by pressing **RESET**, the tester will be in its default setup; the manual test mode 2x2. **"MANUAL"** will appear on the display.

B. Press Key **ATL** on the remote control. The brake tester is now in its ATL mode and **"ATL CL7"** appears on the display, shortly after followed by "**PB REAR DL**". The **Front** lamp will light.

C. Select a M1-Class 4 or Class 4 vehicle by pressing Key CL.4 on the remote control. "**ATL CL4**" appears in the display, shortly after followed by "**M1 PB REAR"**. The **Front** lamp will light.

D. Determine the vehicle type, parking brake axle and whether the vehicle has a single line braking system or a split (dual line) braking system. This is important for the automatic PASS or FAIL analysis of the brake efficiency.

Selectable vehicles:

M1 PB REAR : For vehicles classified as M1-Class 4 (first used on or after 01/09/2010)
M1 PB FRONT : For vehicles classified as M1-Class 4 (first used on or after 01/09/2010)

PB REAR DL — For vehicles classified as Class 4 (first used before 01/09/2010)
PB REAR SL — : For vehicles classified as Class 4 (first used on or after 01/09/2010)
PB FRONT DL — For vehicles classified as M1-Class 4 (first used before 01/09/2010)
PB FRONT SL

The ATL Class 4 brake test

The testing sequence is described for a M1-Class 4 or Class 4 vehicle with the parking brake on the rear axle and a dual line braking system.

1. ~~**Enter the Design Gross Weight (DGW).**~~ **Not applicable for class 4 vehicles.**
   ATL Class 7 roller brake testers used for ATL Class 4 testing are equipped with an integrated weighing system. In stead of manually entering the DGW of the Class 7 vehicle, the M1-Class 4 or Class 4 vehicle weight is measured automatically.

2. **Service brake FRONT axle: Brake force observations/imbalance/maximum force.**

   Drive the front axle into the brake rollers and select neutral gear.
   The weight of the front axle is presented on the display. For example: **"KG: 640".**

   Both rollers automatically start after 2 seconds. Allow 2 seconds to centralise the vehicle in the rollers. Make sure the tyres do not touch the sides of the chassis. The lamp **Front** lights to indicate the front axle service brake is tested.
   Follow procedures as described in step 2 for Class 7 vehicles.

3. **Brake force maximum parking brake on rear axle.**
   Drive the rear axle into the brake rollers and select neutral gear.
   The weight of the rear axle is presented on the display. For example: **"KG: 420".**
   Follow procedures as described in step 3 for Class 7 vehicles.

4. **Calculate efficiency parking brake.**
   In step 2 and 3, the weight of the front - and rear axle are recorded. The efficiency for the parking brake is calculated. The display shows: **"EFF. PB: - -%"**.

5. **Service brake REAR axle: Brake force observations/imbalance/maximum force.**
   Follow procedures as described in step 5 for Class 7 vehicles.

6. **Calculate efficiency service brake.**
   In step 2 and 3, the weight of the front - and rear axle are recorded. The efficiency for the service brake is calculated. The display shows: **"EFF. SB: --%"**.

7. **Wheel analysis**
   Follow procedures as described in step 7 for Class 7 vehicles.

8. **Overall analysis**
   Follow procedures as described in step 8 for Class 7 vehicles.

9. **Data transfer & printing**
   Follow procedures as described in step 9 for Class 7 vehicles.

10. **Recalling values**
    Follow procedures as described in step 10 for Class 7 vehicles.

Appendix A: GETEST Connected Software

The GETEST Software used to send you brake test results to the MTS will be pre-installed on the laptop provided.

The laptop will setup with a new outlook.com email account with the company name of the VTS and the following default passwords/codes;

Laptop Password : GETEST2020
Laptop Pin Code : 2020

GETEST Password : 000000

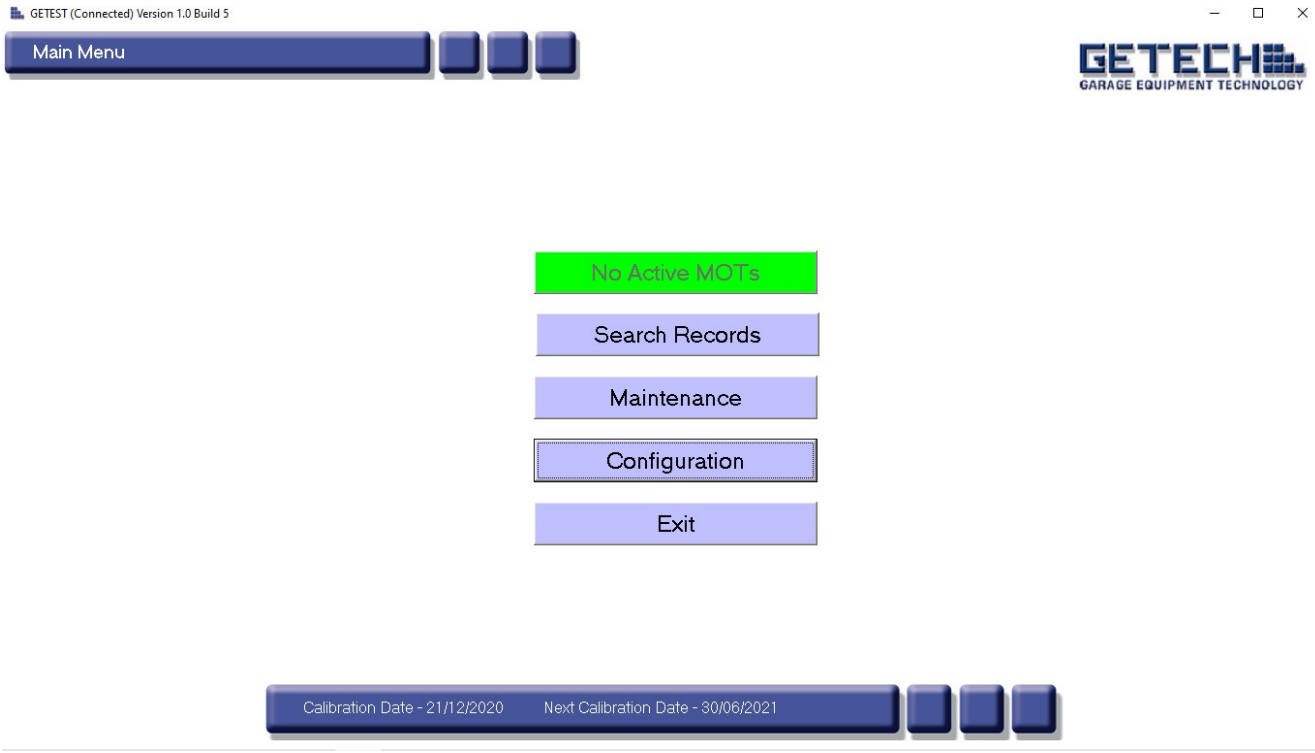
Please note the Pin Code is set as the default login.

The software should be started before logging on to a new test on your VTS device.

Start the software from either the desktop shortcut, taskbar icon, or start menu.

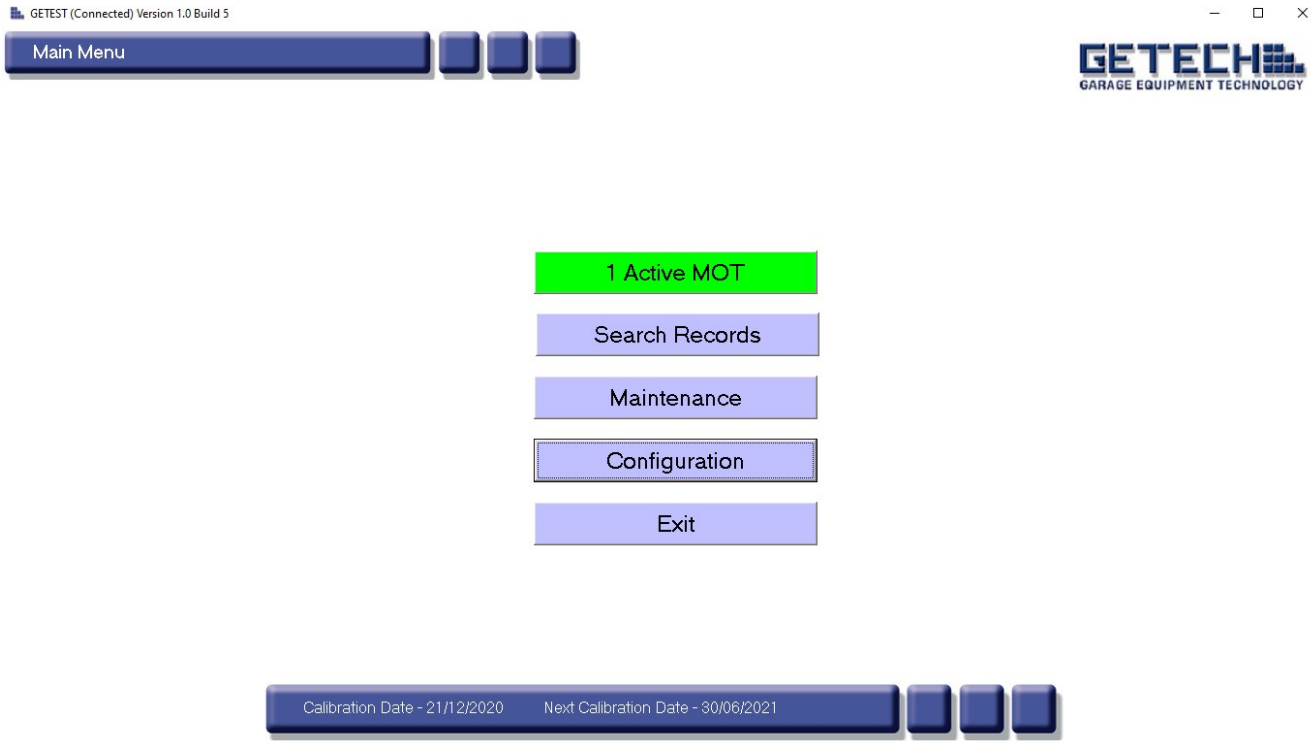
1 New Test

When the program is run following 'Main Menu' will appear.

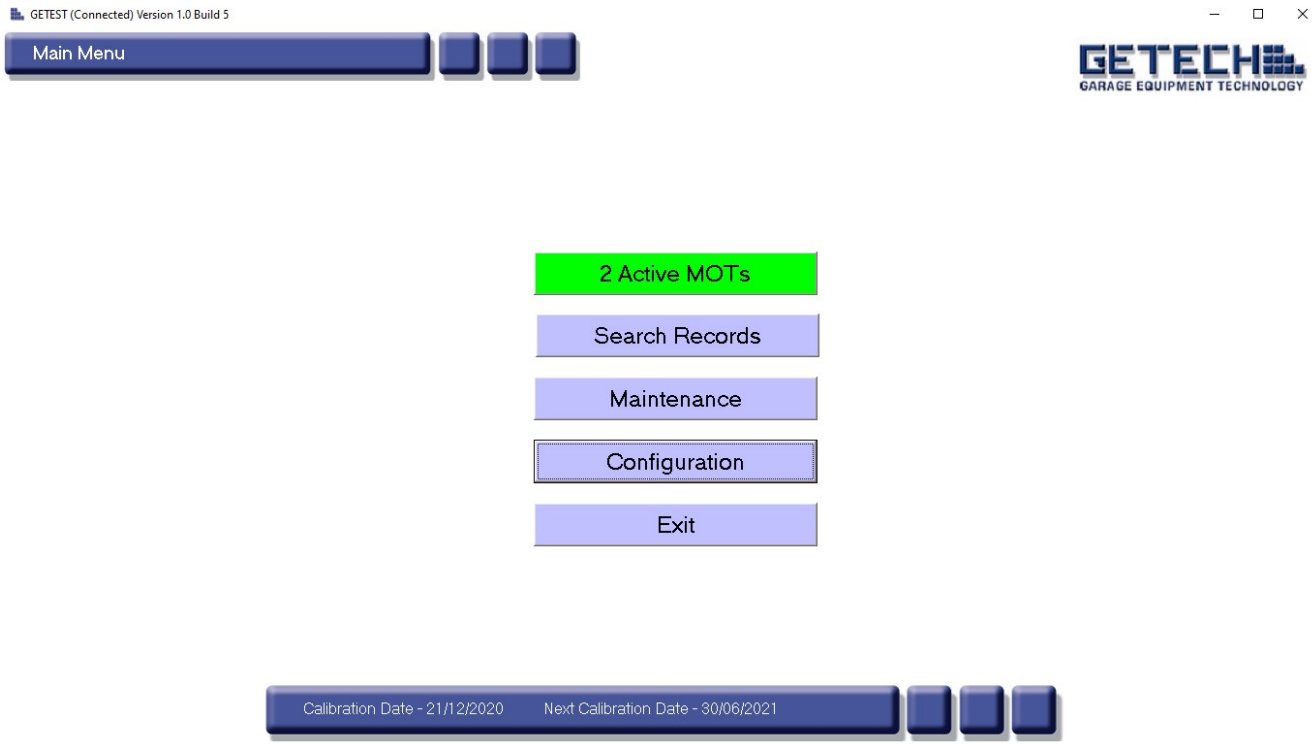


One the 'No Active MOTs' tab is green then connected software is now ready for a test to be logged on with your VTS device.

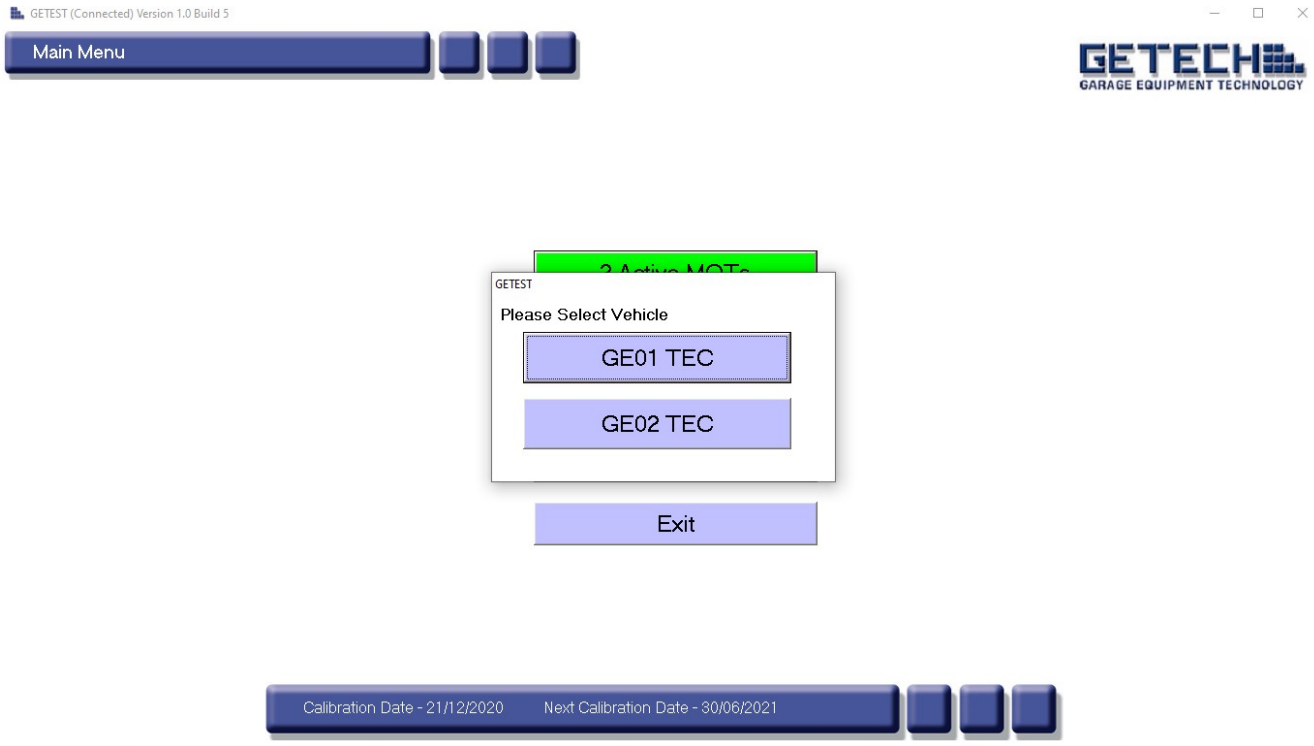
Once a test has been logged the tab will indicate the active test as below



Or the following if two or more tests are logged

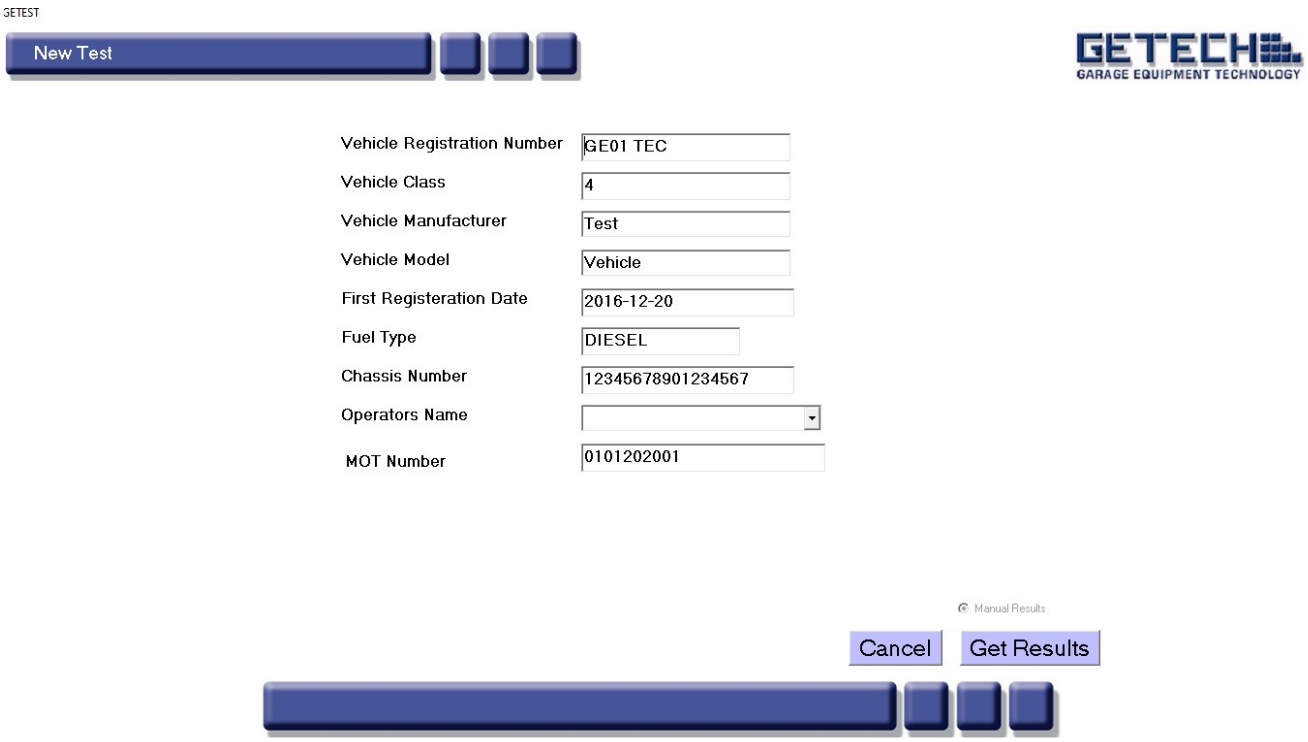


Click on the 'Active MOTs' tab and then click on the correct vehicle registration that is being tested



If only one vehicle is being tester then this step will be bypassed.

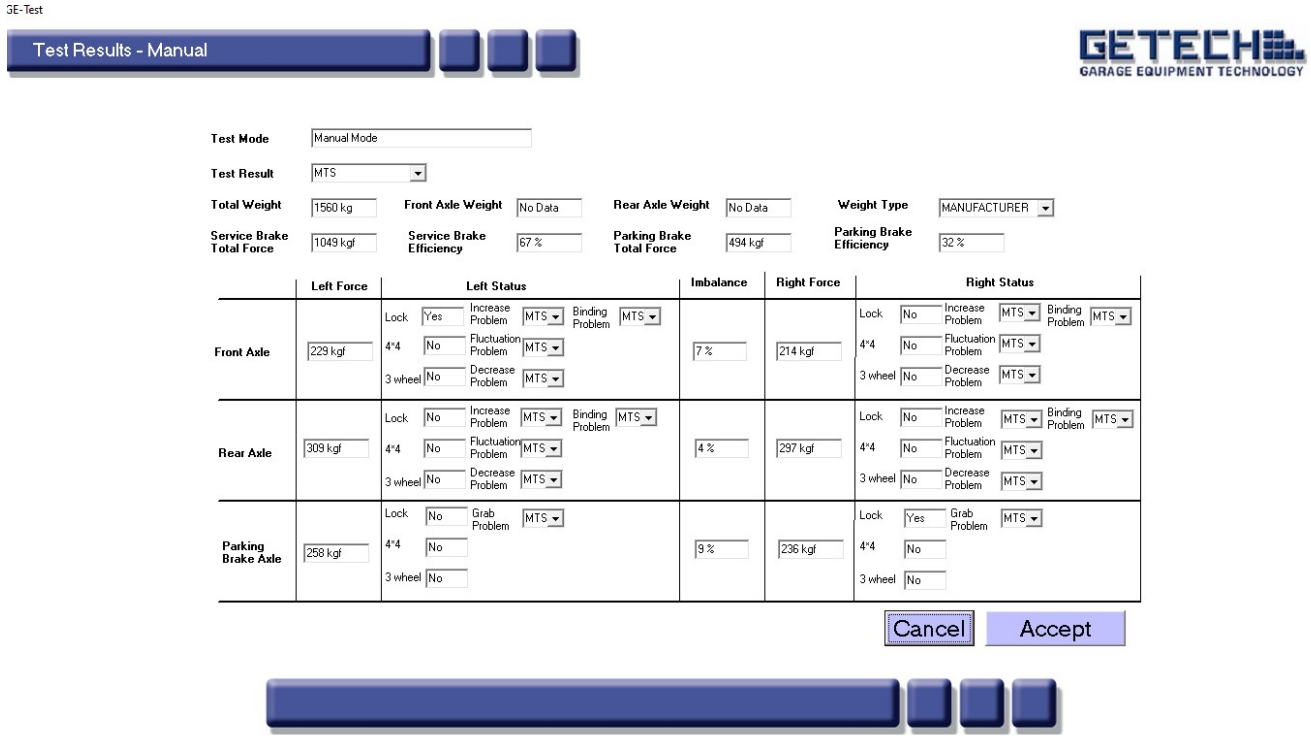
The following acreen will now appear with the details of the vehicle being tested. The tester can now carry out the test, storing the results and vehicle weight (not Class IV ATL) as described in previous sections of this manual.



Once the test has been completed, stored and vehicle weight entered (not Class IV ATL), return to the laptop and enter the tester from the drop down list of current VTS testers and click on the 'Get Results' tab at the bottom of the screen.

Please note you will not be able to get the brake test results if a tester is not chosen.

The results will now be retrieved from the display and the following results page will be displayed.



If a result has not been stored, or vehicle weight entered correctly, the relevant field or fields will be heighlighted red, a note will appear at the bottom of the page 'Incomplete Data', and you will not be able to accept the data.

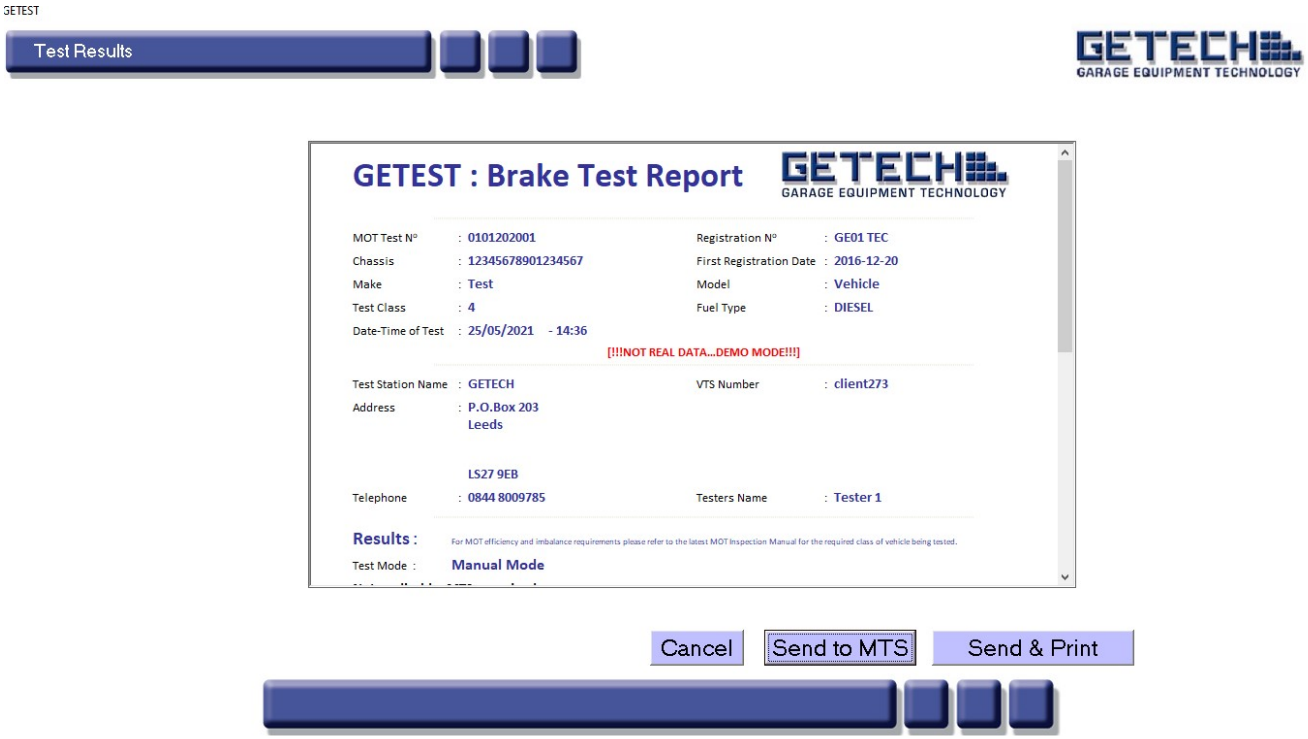
A full set of data must be sent to the MTS, therefor the missing data mst be captured , or weight entered.

Once the data set is complete and in the testers opinion the brake test results are acceptable then click the 'Accept' tab.

If the tester wants to repeat the physical brake test then click the 'Cancel' tab, where you will be returned to the 'Main Menu' screen.

The tester can now repeat the test.

The following results page will appear



By clicking the 'Send to MTS' tab the results shown will be sent to the cloud based MTS server.

The results will be automatically saved to the hard drive and the program will return to the 'Main Menu' screen.

Please note it is critical that this is done before logging back on to the VTS device to enter the rest of the test details and completing the test.

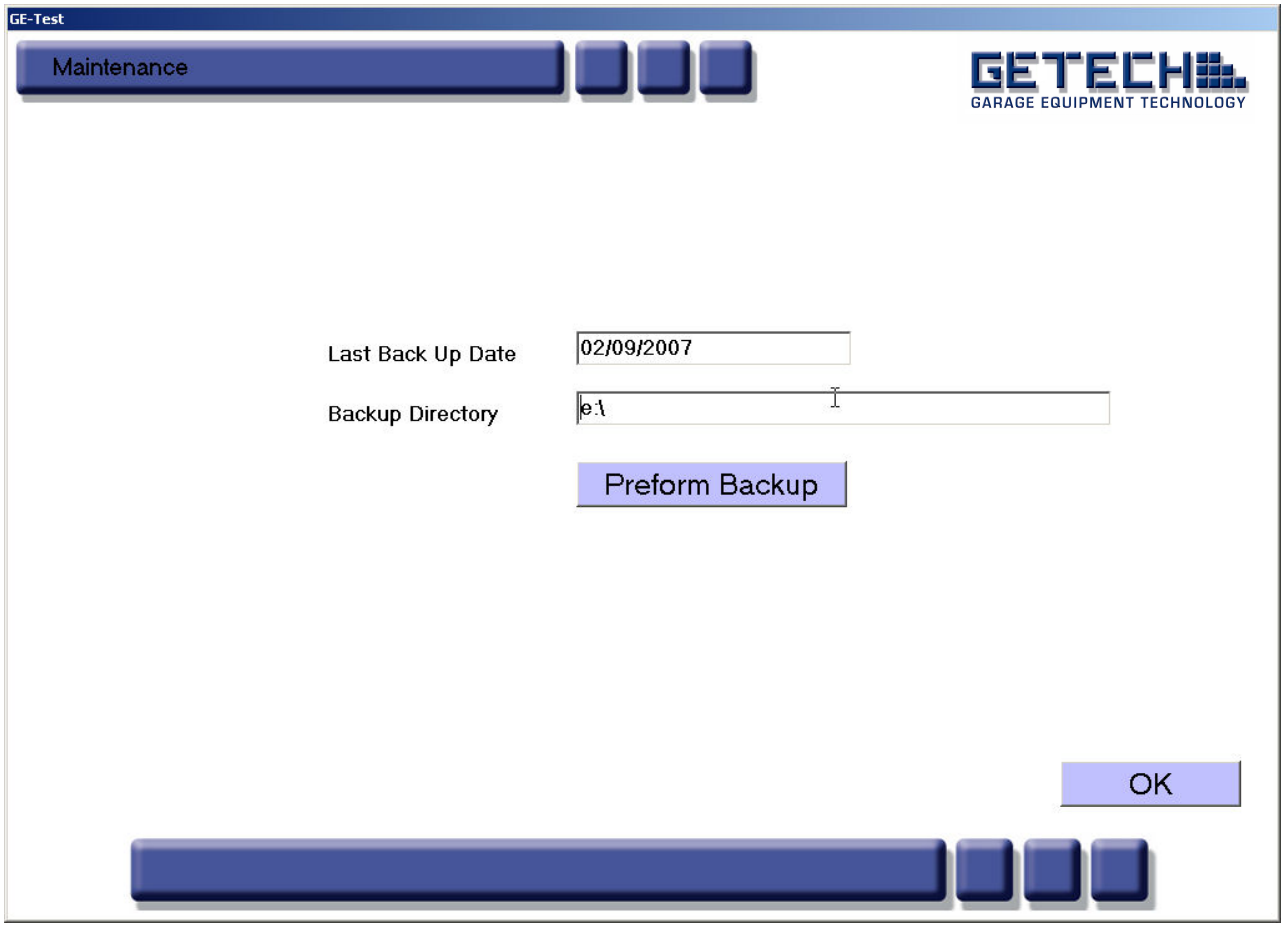
When the tester now loggs back on to the VTS device, the test results will now appear in the 'Brake Testing' section.

The test will remain active in the GETEST software until the test is completed on the VTS device.

2 Maintenance

NOTE: GETECH recommends that the test data is backed-up on a monthly basis.

Click the 'Maintenance' tab to open the following screen.



The 'last back up date' will indicate when the last backup was performed.

Click the 'Backup Directory' tab to indicate where the backup will be saved.

Click the 'Perform Backup' tab to backup your data.

Click the the 'OK' tab to open the 'Main Menu'.

NOTE: GETECH does not accept any responsibility for consequential losses experience losses of data due to failure of the operating system or hardware.

3 Configuration

The GETEST program will have been preconfigured with the station details and current testers.

If however details or testers are changed then please follow the following instructions.

Click the 'Configuration' tab to open the following screen, and when prompted enter the GETEST Password (Default setting '000000')

Make the required changes to the field and press return to move to the next field.

Complete the customer information screens as required.

NOTE: F7 will clear the highlighted entry field.

Clock on the 'Operators' tab to add or remove current testers.

Left click over the 'Save' tab to return to the 'Main Menu'.

Please note that care should be take when making changes as some field contain information that are critical to the operation of the connected software.

Appendix B: Trouble shooting & maintenance

If the **GE7** does not function as it should, the operator should only take action when the failure appears to be very simple to solve. For example, changing the battery on the remote control or cleaning the front plate for better signal receiving of the remote control.

If for example the motors are not starting when a vehicle is placed in the rollers or the roller beds make uncommon noises, please contact GETECH for service and do not open the brake tester for inspection yourself.

The **GE7** is designed and constructed so maintenance can be reduced to a minimum.
Only the service technicians are allowed to perform adjustments. They are trained and have suitable calibration instruments at their disposal.

Although the **GE7** involves very little maintenance, it is important that the following instructions are carried out properly:

- Check the roller coating twice a year (visually by the operator).
- Check the tension of the chains every four months (recommended to be done by GETECH).
- Lubricate the chain every 3 months when used intensively (recommended to be done by GETECH).

For periodic maintenance, calibration and service contact GETECH.

Warning: Do not use high pressure or steam cleaners on the roller brake tester. The brake tester should be kept clean and dust-free. Clean the sheet metal with a lukewarm soap solution. Do not use any aggressive or abrasive detergents. Do not spray the units with water.

Appendix C: Product specifications

Voltage	3 phase 400 V / 50 Hz / 32 A
Motor	2 x 4 kW
Electronics	Microprocessor controlled
Testing speed	2.9 km/h
Max. brake force (per wheel)	1250 kgf
Measuring range weighing	2000 kg/wheel
Max. axle load	4,000 kg
Weight roller tester	550 kg (including roller covers)
Chassis dimensions (each side)	144 cm x 66 cm x 30 cm (L x W x H)
Diameter of the rollers	206 mm
Roller width	900 mm
Roller centres dimension	420 mm
Friction roller surface	0.9 μ dry, > 0.6 wet
Dimensions digital display	635 x 465 x 165 mm (L x W x H)
Dimensions ATL display	210 x 465 x 165 mm
Dimensions remote control	120 x 65 x 22 mm (L x W x H)

Appendix D: Certificates of acceptance

GARAGE EQUIPMENT ASSOCIATION LIMITED
2/3 Church Walk, Daventry, Northamptonshire. NN11 4BL UK
Tel: +44 (0) 1327 312616 fax: +44 (0) 1327 312606
email: info@gea.co.uk website: www.gea.co.uk

CERTIFICATE OF ACCEPTANCE

ROLLER BRAKE TESTER (RBT)

Brand:	GETECH
Model:	GE7ATL-C
Equipment Identification Number:	EINCBR14960A022013--
Software Version:	V1.0
Suitable to testing (ATL):	Classes 4 & 7
Suitable to testing (Non ATL):	Classes 3, 4 & 7

This is to certify that the above Brake Tester meets the requirements of the DVSA 2005 RBT Specifications, including annexes 1, 2 and 3, for the Classes listed above.

The above brake tester has been tested and certified as meeting the test equipment interface specification (2019) for data transfer to and from the MOT Testing Scheme (MTS)

24 February 2020

Chief Executive Date

For and on behalf of the Garage Equipment Association (GEA), administrators of the DVSA equipment approval scheme

For Manufacturers/Importers use

I certify that the test equipment of the above make and model, bearing the serial number: .....

is installed in VTS No: ..... and is suitable for MOT testing.

VTS Details:

Name .....

Address .....

.....

Postcode .....

Supplier's Details:

Name ..... Position .....

Signature ..... Company .....

GARAGE EQUIPMENT ASSOCIATION LIMITED
2/3 Church Walk, Daventry, Northamptonshire. NN11 4BL UK
Tel: +44 (0) 1327 312616 fax: +44 (0) 1327 312606
email: info@gea.co.uk website: www.gea.co.uk

CERTIFICATE OF ACCEPTANCE

ROLLER BRAKE TESTER (RBT)

Brand:	GETECH
Model:	GE7-C
Equipment Identification Number:	EINCBR14960-022011--
Software Version:	V1.0
Suitable to testing (ATL):	None
Suitable to testing (Non ATL):	Classes 3, 4 & 7

This is to certify that the above Brake Tester meets the requirements of the DVSA 2005 RBT Specifications, including annexes 1, 2 and 3, for the Classes listed above.

The above brake tester has been tested and certified as meeting the test equipment interface specification (2019) for data transfer to and from the MOT Testing Scheme (MTS)

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is installed in VTS No: ..... and is suitable for MOT testing.

VTS Details:

Name .....

Address .....

.....

Postcode .....

Supplier's Details:

Name ..... Position .....

Signature ..... Company .....