Vamag
TECNICHE DI COLLAUDO
EUROPEAN QUALITY MADE IN ITALY

Roller brake tester
RBT3500_C4
&
RBT3500_C7
User Manual

INDEX

VAMAG TECNICHE DI COLLAUDO EUROPEAN QUALITY MADE IN ITALY **S.r.l.**
21012 CASSANO MAGNAGO (VA)
Via G. Pascoli, 15
info@vamag.com TEL. 0331/ 20.59.63

Capitale Sociale € 115.500,00 int. Versati
C.C.I.A.A. Varese n. 164919
Tribunale N. 13172
M.: VA014988
Codice Fiscale - Partita IVA IT 01234220125

DICHIARAZIONE CE DI CONFORMITA'

EC declaration of Conformity/Konformitatserklarung / Déclaration de Conformité / Declaration de Conformitad

NOI

We / Wir / Nous / Nosotros

VAMAG S.r.l. Via G. Pascoli, 15
21012 CASSANO MAGNAGO (VA) ITALIA

Dichiariamo sotto la nostra esclusiva responsabilità che il prodotto

Declare, undertaking sole responsability, that the product
Erklaren unter unserer alleinigen Verantwortung, daas dasProduckt
Déclarons, sous notre entiére responsabilité, que le produit
Declaramos hajo nuestra exclusiva responsabilidad, que el product

PROVA FRENI RBT3500 C4 / C7

al quale questa dichiarazione si riferisce è conforme alle seguenti norme o altri documenti normativi

to which this declaration applies is in compliance with the following standards and other normative documents
auf das diese Erklarung bezieht, den nachstehenden Normen oder anderen Normunterlagen entspricht
objet de cette déclaration est conforme aux normes suivantes et à d'autres documents réglementaires
al que se refiere esta declaracion es conforme a las siguientes normas o a otros documentos normativos

EN 12100:2010 – EN 60204-1 del 2016 – EN61000-6-1

……

in base a quanto previsto dalle Direttive
2006/42/CE ; 2006/95/CE ; 2014/30/CE ; 2014/35/CE

According to the provisions of the Directives : 2006/42/CE -2006/95/CE – 2014/30/CE -2014/35/CE
Gemass den Richtlinienen : 2006/42/CE -2006/95/CE – 2014/30/CE -2014/35/CE
Comme prèvu par la Directive : 2006/42/CE -2006/95/CE – 2014/30/CE -2014/35/CE
En base a cuanto està previsto por la Directiva: 2006/42/CE -2006/95/CE – 2014/30/CE -2014/35/CE

Nome e indirizzo della persona autorizzata alla costituzione del fascicolo tecnico:
Name and address of the person authorised to compile the technical file:
Name und Anschrift der Person, die bevoltmächtigt ist, die technischen Unterlagen zusammenzustellen:
Nom et dresse de la personne autorisée à constituer le dossier technique :
Nombre y direcciòn de la persona facultada para elaborar el expediente técnico :
Oliviero Giorgetti, VAMAG SRL Via G. Pascoli 15, 21012 Cassano Magnago (VA), ITALIA

Cassano Magnago, 15 Marzo 2017

Gianfranco Crosta
L'Amministratore

Vamag S.r.l.
Via G. Pascoli, 15
21012 CASSANO MAGNAGO (VA)
Cod. Fisc./Partita IVA 01234220125
Tel. 0331205963 - Fax 0331200485

Il modello della presente dichiarazione è conforme alla norma EN 45014
The version of the present declaration conforms to the regulation EN 45014 (BS 7514)
Das Formular der worliegenden Eridarung entspricht den Normen EN 45014
Le modèle de la présente déclaration est conforme à la norme EN 45014

El modelo de la presente declaration es conforme a la norma EN 45014

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:	Vamag
Model:	RBT 3500-C4
Equipment Identification Number:	EINCBR18412A1019124--
Software Version:	V1.0.0 & above
Suitable to testing (ATL):	Class 4
Suitable to testing (Non ATL):	Classes 3 & 4

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)

23rd October 2019

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 ……

Proudly Backing ben

Registered in London No. 2891852

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:	Vamag
Model:	RBT 3500 B-C4
Equipment Identification Number:	EINCBR18412A1019125--
Software Version:	V1.0.0 & above
Suitable to testing (ATL):	Class 4
Suitable to testing (Non ATL):	Classes 3 & 4

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Tel: +44 (0) 1327 312616 fax: +44 (0) 1327 312606
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CERTIFICATE OF ACCEPTANCE

ROLLER BRAKE TESTER (RBT)

Brand:	Vamag
Model:	RBT 3500-C7
Equipment Identification Number:	EINCBR18444A1019126--
Software Version:	V1.0.0 & above
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)

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VTS Details:

Name ……

Address ……

……

Postcode ……

Supplier's Details:

Name …… Position ……

Signature …… Company ……

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1 WARNINGS

1.1 EXPLANATION OF SYMBOLS

In the following instructions, these symbols are used to draw attention to signals of danger.

Signal of concern for safety.

This symbol is shown in the instructions at the service of adversaries ¬ skills in operating conditions that present serious risks to the safety of the people-. These warnings should be aware of all the operators and maintainers of the machine which must be strictly adhered to operating with care and caution. In addition to the specific warnings, you should keep in mind the common ¬ que general safety rules.

Danger signal for voltages.

Contact with live parts may cause immediate death. Co ¬ roofing (eg. caps and lids) and bring this signal must be re ¬ moved exclusively by "qualified personnel and / or instructed, after switching off the operating voltage (power supply or operating voltage and power separately).

Danger signal compression arts.

This symbol is shown next to all those operations on the machine ¬ na or parts of it that can cause crushing of the hands or feet. All operators must be aware and then act with care and prudence ¬ za near moving machine parts.

Hazard warning device for suspended loads.

Any stay of people in this danger zone may cause serious injury or death. Make sure that no one ever transits under suspended loads or acci ¬ dentally positions on the vertical parts of the body or in the immediate vicinity of the same is ¬.

Security system in jeopardy.

This symbol is shown in the instructions at the service of notices and failure to comply may cause damage to parts of the machine.

GENERAL INFORMATION FOR USERS

Disposal of bench

This unit cannot be disposed of as household waste. Dispose of as special waste. Reuse or recycling, in accordance with the regulations concerning electrical and electronic equipment (CEE), it is useful to protect the environment and our health. In compliance with the European WEEE 2002/96/EC, there are centers of specific collection available to the public that bring electrical devices that are no longer used. The government and producers of electrical and electronic equipment undertake to simplify the process of reuse and recycling of waste electrical and electronic equipment such as through the collection and measures to comply. The law agrees with the corresponding penalties to punish those who do not respect the rules and do not dispose of electrical and electronic equipment in accordance with the provisions of law.

Disposal of batteries

The batteries must be recycled or disposed of according to regulations. Do not dispose as household waste.
Never dispose of batteries in a fire!

1.2 PRECAUTIONS AND SAFETY INSTRUCTIONS

• Prior to working on the machine, please carefully read this instruction manual, that must always be kept at hand.
• Before proceeding to any operations and works on the electric live parts, the Main Switch on the electric board must be disconnected.
• DO NOT use any working tools (wrenches or pincers) to operate the Main Switch on the electric board with the board door open. This operation must be carried out by skilled technicians only, which are expert in working on alive electric board components .
• The symbols shown in the manual are aimed at drawing the operator's attention to the major hazards or to those most likely to occur.

Note:
how is possible view by an arrow placed on the bench, the bench run in only one direction

1.3 WARRANTY

Vamag S.r.l. guarantees that the reference machine has been tested under maximum stress with successful results. The warranty period is twelve months, which only covers the good quality of the materials and the lack of manufacturing defects.
The Customer is only entitled to the replacement of the defective parts. The costs for transportation, packing and replacement, if any, are not included.
The warranty does not cover any damages resulting from dropping or tampering with, or due to incorrect machine handling, failure in complying with the maintenance instructions set forth in the manual, or due to wrong use by the operator. No compensation can be asked if the machine is kept non operating. The warranty is valid only if the payment conditions have been duly fulfilled.
The Customer service fees, along with the costs of the spares which are not covered by warranty must be paid directly to the technician in charge of the works performance. He will draw up a written Customer service form; a regular invoice will follow.
The service fees and the costs for the used spares are those shown in the latest price-list in force.

1.4 UNAUTHORIZED OPERATIONS

While operating the Roller Brake Tester the following works and operations are not allowed, since in special circumstances, they can be hazardous for people and cause permanent damages to the bench.
It is forbidden to leave the driving position while performing the test.
The operator only is allowed to stand within the area bound by the yellow line with the Roller Brake Tester operating.
It is not allowed to make any arbitrary changes to the functions of the pushbuttons located on the control board.
It is not allowed to remove or tamper with the warning signs and/or notices located aboard the Roller Brake Tester.
It is forbidden to switch off the safety devices provided on the machine.

1.5 GENERAL WARNINGS

The operating instructions must always be kept within reach on the installation site!
The manual refers to essential aspects of the directive, Standards and provisions related to the machine use and summarizes the most significant items thereof.
Failure to comply with the instructions and advice in this manual could cause damages to the vehicle being tested and to the bench as well.
In addition to the given operating instructions, the general law regulations and the binding rules on accident prevention and environmental protection must be followed and have followed.
While performing any works on or with the machine, the following provisions must be complied with, as well as the regulations set forth by general accident prevention standards.
Neverthenless, the use of the machine by non trained or non specifically trained personnel, or for different uses than the ones the machine has been designed for can result in severe damages to the operators.
The manual must be completed with adequate instructions, including the monitoring and reporting duties, upon corporate specifications, i.e. concerning the operators in charge.
Prior to start the bench, the operators in charge must carefully read the operating instructions, especially the section on warnings.

It would be too late to read it while performing the work! This applies particularly to operators that operate the bench occasionally, i.e. for maintenance works on the machine.
It is recommended to check from time to time that the working operators are well aware of the safety standards and of the existing hazards, and that they keep to the operating instructions given herein. The user must ensure that the machine is always and only used under perfect working conditions and that the essential safety requirements and the relevant standards are always complied with. Should any defects or working irregularities be detected, the machine must immediately be switched off.
All hazard warnings and signs, such as tags, adhesives or markings must never be removed or tampered with.
Any warning and hazard signs applied to the machine must be kept clearly readable.
No changes, additions or alterations that may jeopardize the machine safety can be made, unless expressly authorized by VAMAG S.r.l.. This applies to the assembly, the adjustments on the safety devices, and the welding on bearing parts.
All spare parts must comply perfectly with the technical requirements set forth by VAMAG S.r.l. The compliance is assured by the use of original spares. The check/inspection time intervals indicated in the operating instructions must always be respected.

1.6 PERSONNEL SELECTION AND QUALIFICATION

All works on/with the machine must be carried out by reliable operators only.
The required instruction and training level of the qualified personnel is the user's responsibility.
The user is kindly invited to establish suitable behaviour rules and directives should any irregularities occur, to provide the operators with the proper instructions and display such rules in a suitable, clearly visible location.
Prior to starting the machine, the user must ascertain the level of knowledge of the operators in charge, especially on the following:
- knowledge of the operating instructions contents;
- knowledge of the safety and operating rules mentioned in the above mentioned manual;
- knowledge of the law regulations in force on accident prevention.

Only well trained and instructed operators must be employed. The tasks of the operators and of the personnel in charge of maintenance and repairs must be clearly defined.

1.7 SAFETY RULES FOR USE

All works on the machine electrical equipment must be carried out by skilled electricians only, in compliance with the electrotechnics rules. People under drugs, alcohol or medecine effects which may jeopardize their quickness of reflexes must not be allowed to operate the machine or to perform any repairs/maintenance works.
All warnings and precautions related to safety during operation, to general safety and accident prevention rules to be adopted before, during or after the start-up of the machine must be strictly followed.
Failure in keeping to them can result in people injuries.
Should any major defects affecting the machine safety and/or performance occur, the machine must be stopped or not started at all.
It is not allowed to cut off the safety devices, to make changes to them or to use them in a way different from the one originally set forth.
The necessary measures must be taken to ensure that the machine is operated under perfect safety and operating conditions only.

The machine must be operated only when all the safety and protection devices are in place and working (i.e. stationary emergency and protective devices).
It is forbidden to make changes or modifications to the system.
The above prohibition does not apply to minor modifications that do not affect the machine static and
dynamic conditions, the operating as well as general safety features, or to measures aiming at increasing the machine safety.
The User shall be held responsible for such changes and for the consequences thereof. Should any doubt arise, please contact VAMAG S.r.l. before carrying out any modification, and ask for an authorization in writing.
In case of operating irregularities, the bench must be immediately stopped and switched off, and the irregularities promptly eliminated!
Whoever detects an immediate danger for people must promptly operate the emergency pushbutton. This also applies to any damages occurring to the system component parts, which require an immediate stop.
In the event of an emergency stop, the operator can switch on and start the machine again after making sure that the defect cause has been removed and that the system is now in a position to work under safe conditions.
The bench must be immediately switched off in case of:
- defect of the electrical equipment and lines and of the insulating devices ;
- failure to operate of brakes and/or safety devices;
- breakage or defect of the vehicle which is being tested.

Special environmental conditions and applications can result in unexpected situations that cannot be foreseen upon completion of this section.
If this is the case, it is the responsibility of the User to assure safe operation and, if necessary, he must stop the system until the procedures necessary to assure safe working conditions are defined and carried out, upon previous agreement with VAMAG S.r.l. or other competent bodies.
Before starting the machine, make sure that nobody is endangered by the machine running.
Should the operator in charge notice some people who may be endangered by the system running, he must immediately stop it; the system must be started again only when the people are beyond the danger area.

Prior to every start-up of the bench, the operator must ascertain that the working conditions on the system are correct and perfectly safe.

When the system is put out of service (i.e. due to ascertained lack of safety and reliability, working defects, repairs and maintenance operations, ascertained damages, or at the shift end) the operator must take all the prescribed safety measures or watch the automatic execution of the same.

Any works on the machine are only allowed following a specific order and after a suitable training on the machine operation and use.

1.8 SAFETY RULES FOR MAINTENANCE AND REPAIRS

All adjustment, maintenance and inspection operations set forth in the operating instructions must be carried out according to the provided schedule, by keeping to the instructions concerning the replacement of partial components. Such operations must be carried out by qualified personnel only. All mechanical and electrical repairs, as well as all arrangement interventions must be carried out by qualified personnel only.
It must be forbidden to unauthorized people to carry out any kind of work on the system machines and equipment.
Prior to proceeding to maintenance and repairs, the machine must be temporarily switched off and stopped; any unintentional restart by unauthorized personnel must be prevented.

Before working on the electrical devices and systems, make sure that the bench is not energized
The following must be assured:
- the main power supply line must be cut off;
- the movable parts must be at a standstill;
- the movable parts must be made unable to get into motion during maintenance operations;
- it must be impossible to unintentionally switch on again the power supply line, as long as the machine is not operationg due to maintenance or repairs.

In disposing the waste materials and the replaced components, strictly follow the environment protection rules.

1.9 RULES FOR WORKS ON ELECTRICAL COMPONENTS

All works on electrical parts or components shall be carried out by qualified technicians only, or by specifically trained operators, under the direction or the supervision of a skilled electrician, according to the electrotechnics rules.

Before proceeding to inspection, maintenance and repairs on the machine parts, the power supply must be cut off.

The machine electrical equipment must be inspected/checked at regular time intervals. Defective parts, such as loose connections or singed cables, must be immediately removed.

Switch off the power supply before removing or connecting the plug electrical connections (exception made for the network connections, whenever it is not dangerous to come in contact with them, according to the safety rules).

Use original fuses only, with the prescribed current carrying capacity (in Ampere)! In case of defects in the power supply, the machine must immediately be disconnected.

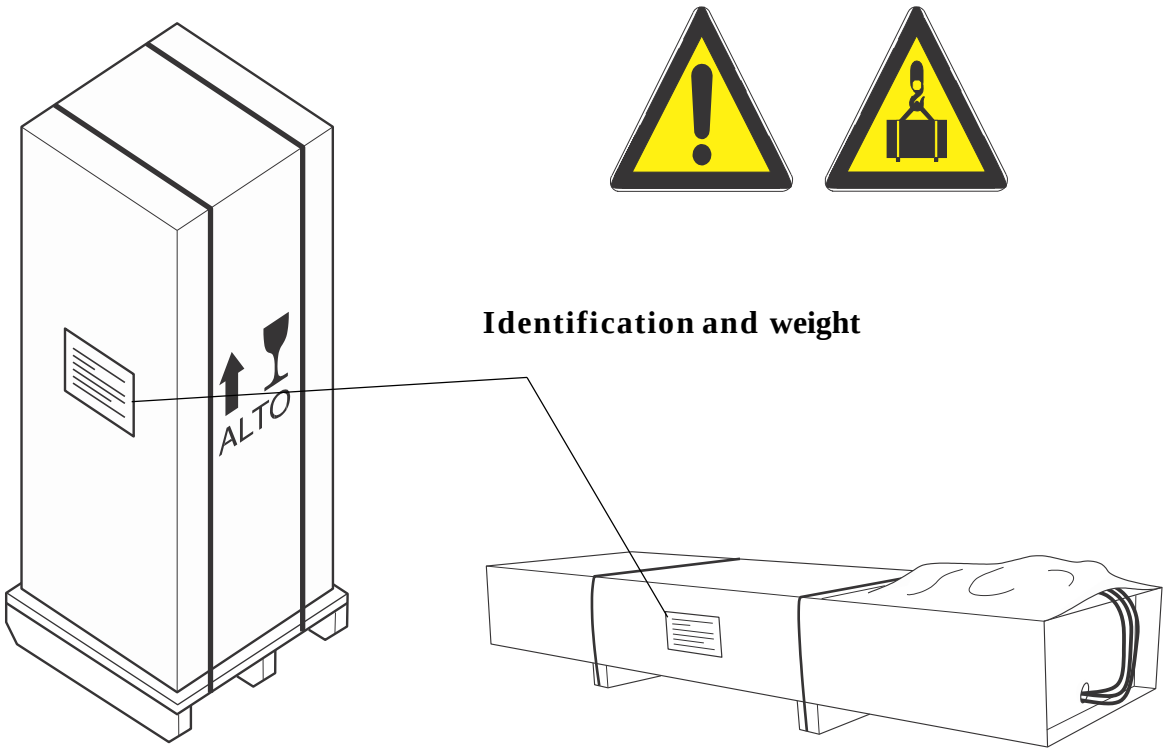
Defective fuses must not be repaired or cut off, but replaced with new fuses of the same type.

In case of intervention on alive parts, the assistance of a second operator must be provided. In case of an emergency, the second operator will operate the emergency or the main switch. The working area must be temporarily bound by a red/white chain and by a hazard signal. Use insulated tools only!

2 PACKING/ TRANSPORTATION

2.1 PACKING FOR TRANSPORTATION IN CASES

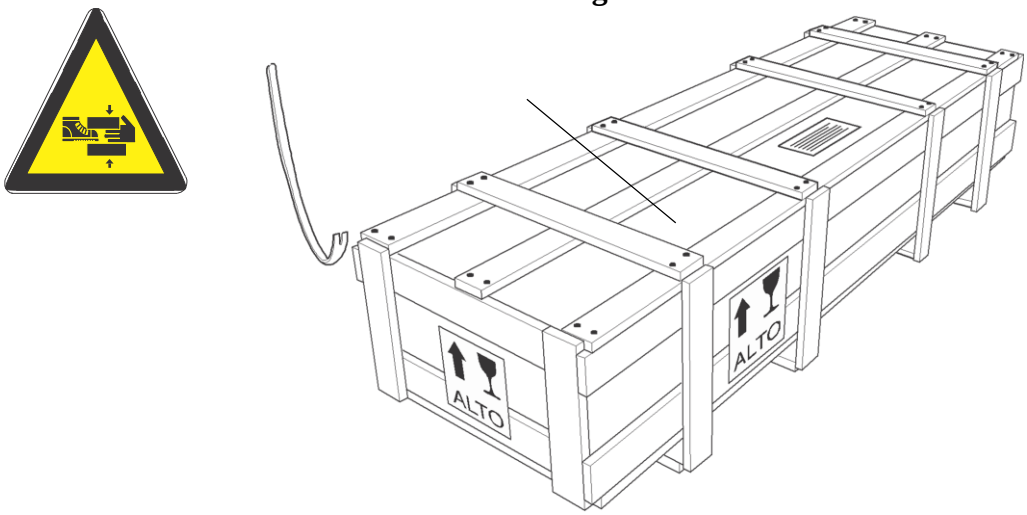
The machine is packed completely assembled. The machine and the control console bodies are packed separately. The console may be packed in two ways: in a wood case, closed at all sides, sizes
2100x900x1000 mm, or in a cardboard box on pallet, sizes 2000x820x820. The total weight is about 150 Kg. The case is mounted on pallet.



Identification and weight

Handling must be carried out through transpallets or fork-lifts. The fork lifting points are the cavities provided on the pallet. There is no need of lifting the machine in special positions. The Roller Brake Tester is in turn coated with protection cardboard, wrapped in plastic strap and put in wooden crates. Sizes of packing 2570x830x550, approx. weight 400 Kg.

Identification and weight



3 HOISTING INSTRUCTIONS

3.1 HOISTING ADVICE

Should the machine be moved from its usual working location to a different one, it must be carried according to the following instructions.
The console must simply be removed and carried to the new location by keeping to the common precautions required in handling pieces of furniture and the like.
The roller module must be removed from its recessed position, by removing both side guards and unscrewing the 4 screw anchors that fix it to the ground. Then lift the module through ropes of suitable strength and place it in the new location.

DO NOT USE WIRE ROPES FOR HOISTING

Note. Prior to starting the handling procedures, disconnect all electrical connections between the console and the module RBT-3500.

4 UNPACKING AND INSTALLATION

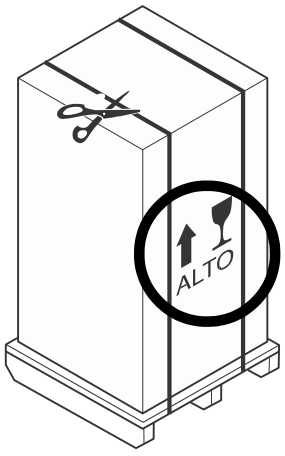
4.1 UNPACKING

The module wooden case nails must be removed with the utmost care, according to the reading

ALTO (UP), or bottom-up arrow, on the packing.

The cardboard box containing the console is wrapped in plastic straps. Cut the straps using proper scissors. With a small knife, cut along the box side areas and open it fan-shaped.
After unpacking, check the component parts of the machine whole for integrity. Check by visual inspection that there are no damaged parts. In case of doubt **DO NOT START THE MACHINE** and contact qualified personnel (your dealer).
All polluting or non biodegradable packing items (plastic bags, polystyrene foam, nails, screws, wooden parts and so on) must be gathered in special collection areas.
Note. Prior to proceeding to the installation, which must be carried out by skilled personnel, make sure that the following components are present:
(floor-embedded version)

n°1 console T100
n°1 remote control (rmc)
n°1 keyboard
n°1 PC desk +SW (software)
n°1 monitor
n°1 printer (colours / BW)
n°1 outfit kit
n°1 Roller Brake Tester RTB provided with signal cable, proximity cable and motor cables
n°1 manual
n°1 calibration bar + sample loads (optional device)



4.2 INSTALLATION REQUIREMENTS

To install the machine (floor-embedded Roller Brake Tester) a working embedding space of 2350x680mm [Class IV] and 2990x760 [Class VII] are required (refer to Pit drawings).
The bottom of the recessed area must be smooth and suitably levelled, the slab thickness must be fit to the maximum transit load (15cm as a min).
The floor breaking must be 280mm deep Class IV and 330mm deep Class VII.
Suitable operating gaps must be provided from the surrounding walls, according to the enclosed sketch.

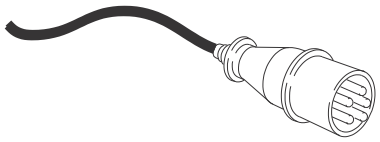
Note: From his control position, the operator must be able to see the whole equipment and the surrounding area as well. He must also prevent all unauthorized people from standing within the working area or remove all items that could be a danger source.

4.3 WATER DRAINS SPECIFICATIONS

Arrange the building works for drainage so that it is suitable to drain waste water. Bear in mind that the minimum cavity level is -280mm Class IV and -330mm Class VII.

4.4 ELECTRIC CONNECTIONS (power supply)

In order to provide the power supply, it is necessary to arrange a 380V (Volt) three-phase line with neutral and earthing wires, protected by a differential switch with max. current output of 32A (Ampere). The line must end with a 32A interlocked plug (EEC type) with 5 poles L1, L2, L3, N, TERRA (EARTH).



Any connection different from the one prescribed in this manual must be considered incorrect, and is not to be used.

Before connecting the plug with the control panel connection, please carry out the following operations:
- check that the power supply voltage is 380V;
- check the conductors conditions and make sure the earthing wire is provided;
- perform the electric connection with the utmost care according to the regulations in force.

The Manufacturer canno be held responsible for any damages due to failure in following the above prescriptions; this can also cause the warranty forfeiture.

4.5 ELECTRIC RACEWAYS

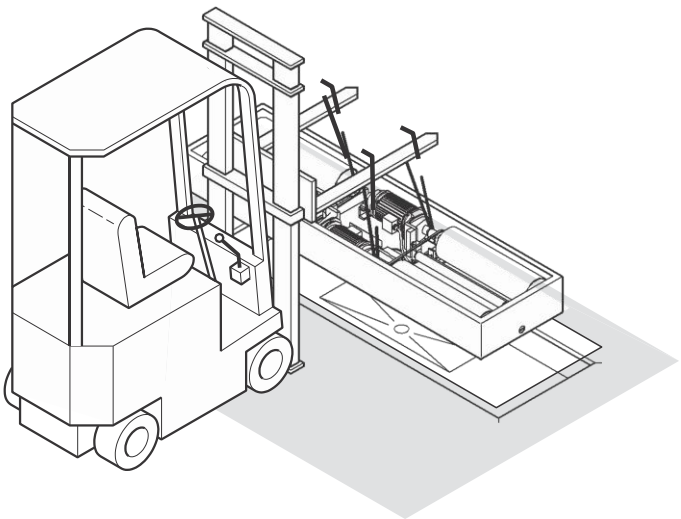
While performing the building works, provide electric raceways according to the relevant sketch (item 5.3): a plastic pipe, diameter 100mm, with elbows of more than 90°, max. length 8m. (we recommend 5m), from the left side of module RBT-3500 to the control console.

5 INSTALLATION/ TESTING RULES

5.1 INSTALLATION

After unpacking the various component parts, check them for integrity and for lack of defects; then assemble them by keeping to the following instructions (refer to the enclosed series of pictures).

a- remove the packing by making sure you don't damage its content (monitor and printer, if any);
b- use protection gauntlets and scissors to remove safety straps;
c- place the console INSPECTOR M about 4 m before the cavity provided for the Roller Brake Tester;
d- remove the module RBT cover by loosening the 4 fixing bolts;
e- remove the side guards by loosening the 6 fixing bolts;
f- unroll the cables (2 power supply and 2 signal cables) which are rolled up on the left side of the module and gather them before inserting them in the provided raceway, connected to the console, through the hole. Carry out this operation with the utmost care.
g- slide a belt under the module motors and lift it up;
h- lower it into the cavity;
i- though a drill with a drill bit of 12mm x 450mm, make 4 holes in the underlying floor, by using the holes provided for the fixing of the module as template.
l- by making use of the suitable plugs and of a17mm socket spanner, fix the module RBT to the floor.



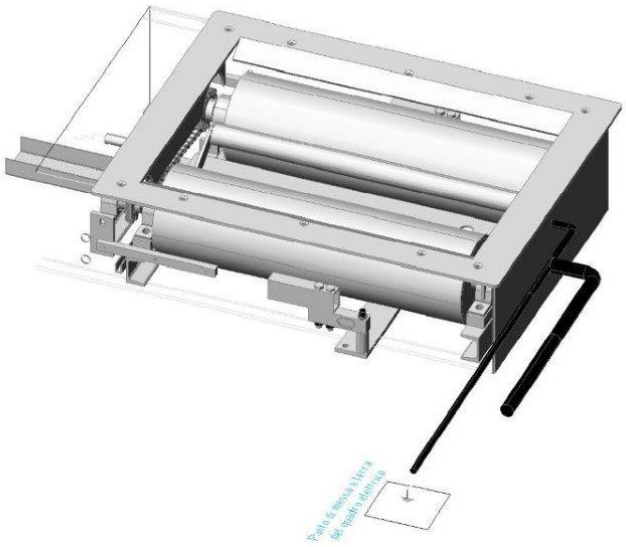
5.2 GROUNDING OF BENCHES

Each banch is provided with an indication applied on the upper surface of the frame in order to remind the installer to carry out the operation of ground equipment.

> WARNING:
> Terminal grounding of the machine structure.
> Before commissioning a cable connected to the terminal of at least 16mm at the point of land where the electrical system provides power to the machine

During the operation for connecting cables, you should connect the clamps grounding of the structure of the bench to the point of land where the main electrical system provides power to the central unit. Use a cable of at least 16mm ^{2} cross-section (not included).

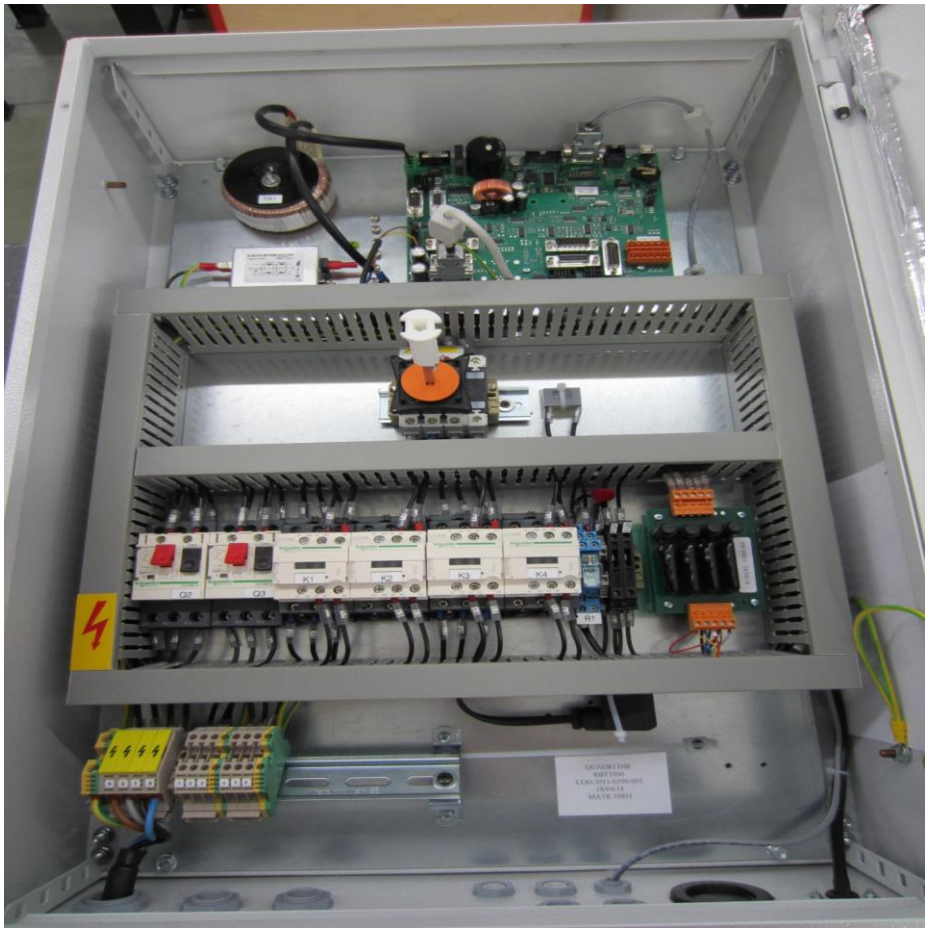
N.B.:
please note that the task of grounding should be performed by a qualified electrician.



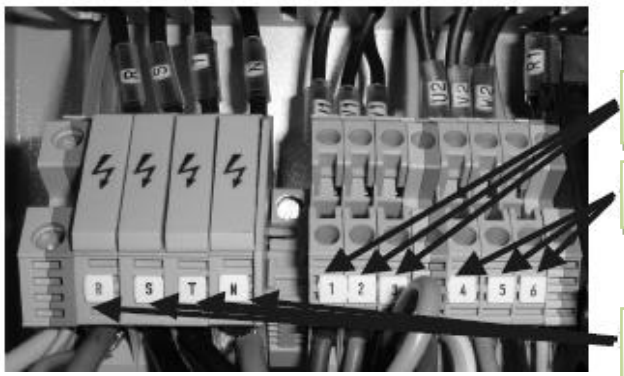
5.3 ELECTRICAL CONNECTIONS

Installing the power module

Attach to the wall power module using the supplied plugs



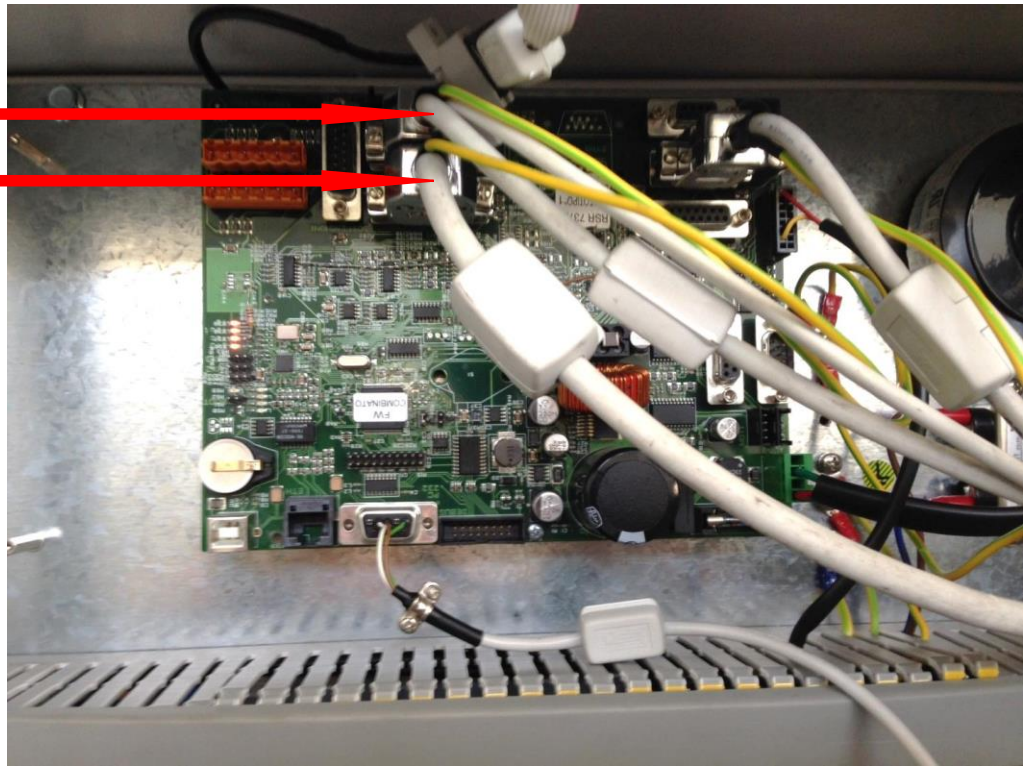
Connect the external power supply 400V AC from the interlocked socket terminals marked R-S-T-N and ground and connect the motors of the bench to the power module (pictured below).



Connect the cable presence, the cable signals, cable relay as picture:

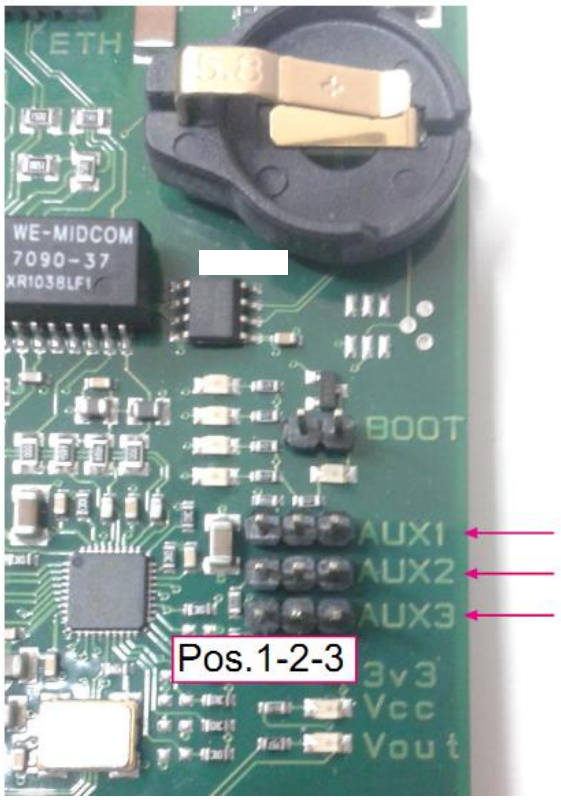
Proximity cable

Signals cable



warning: please set the correct configuration FW UK, see the table below

737 - hardware configuration



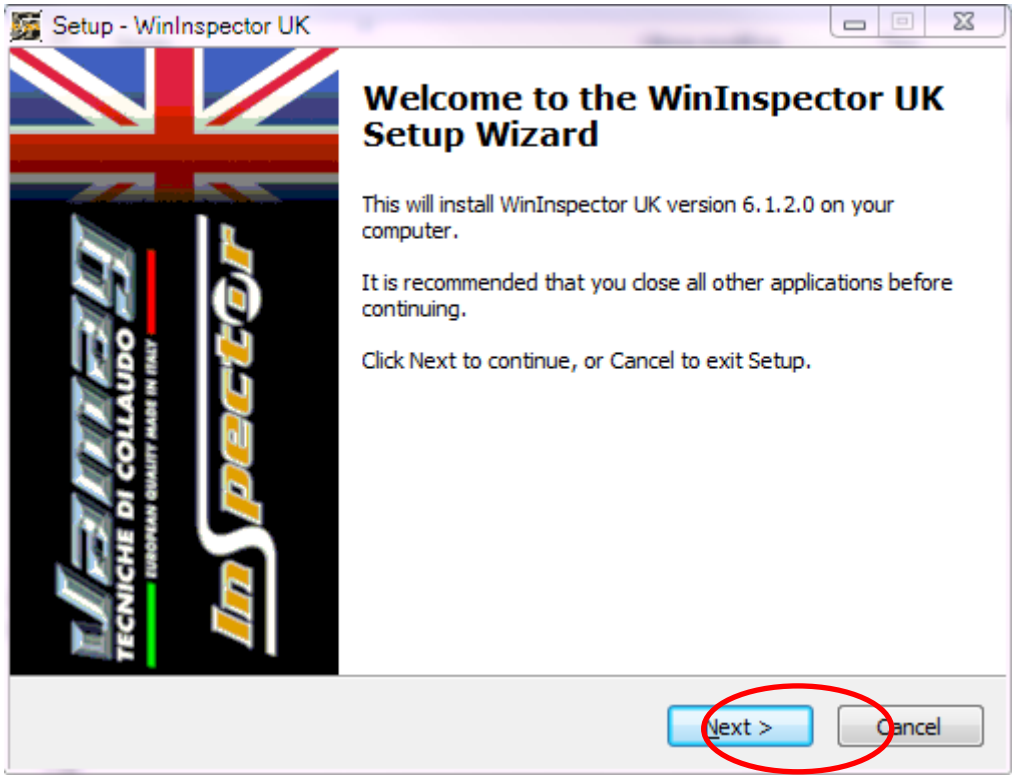
737 Jumper Brake

FW Bike		
	AUX1	1 - 2
	AUX2	2 - 3
	AUX3	2 - 3
FW Car/Bike		
	AUX1	2 - 3
	AUX2	2 - 3
	AUX3	2 - 3
FW UK		
	AUX1	1 - 2
	AUX2	1 - 2
	AUX3	2 - 3
FW Truck		
	AUX1	2 - 3
	AUX2	2 - 3
	AUX3	1 - 2

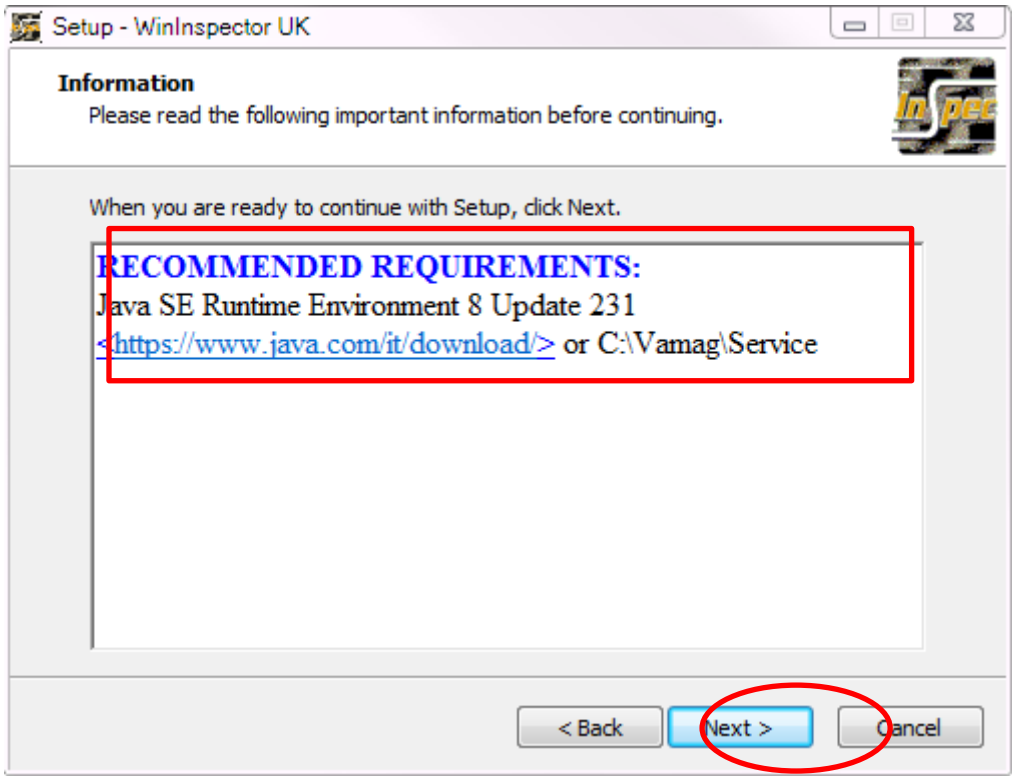
6 How to install the software

6.1 INSTALLATION

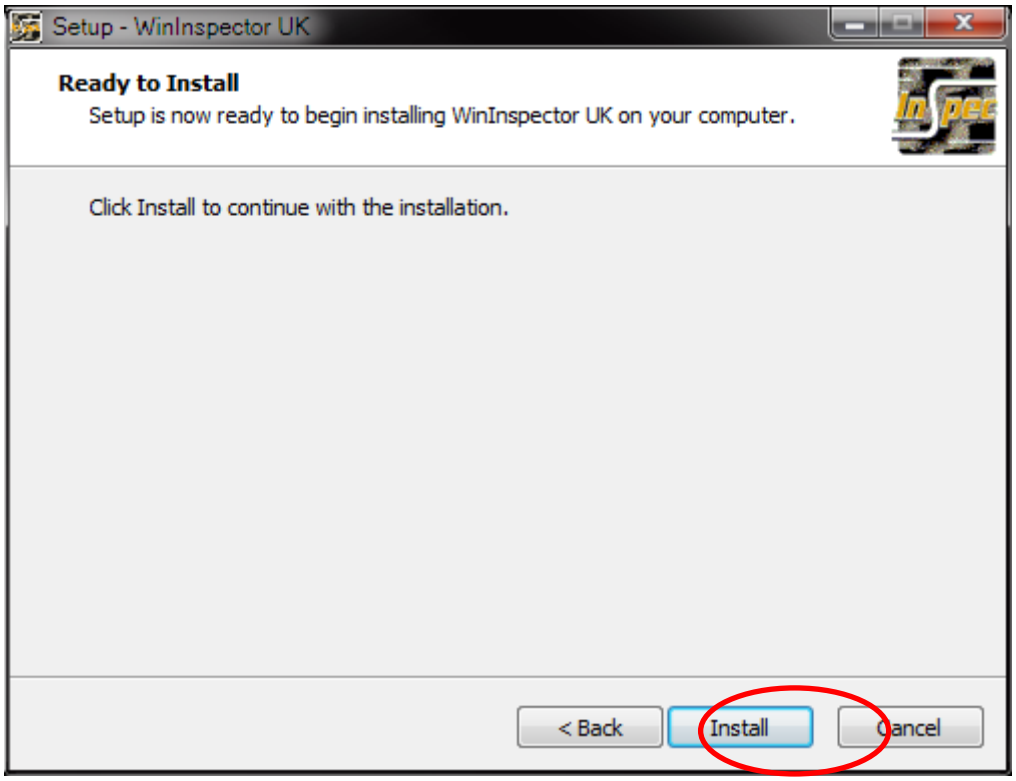
The WinInspector software is on USB key.
Insert the USB key in the PC and launch “Setup.exe”.
Software will be installed in the folder “\Vamag” in the main OS disk with a guided procedure made of a few simple steps.
Click “Next”:



Read the **recommended requirements** and click “Next”:



Click “Install”:



From now on, the installation will work automatically.
The new folder named “\Vamag” MUST NOT BE RENAMED OR MOVED.
If in the PC already exist a previous version of the Software, the new installation keep the configuration without any change, updating it with new features and information.

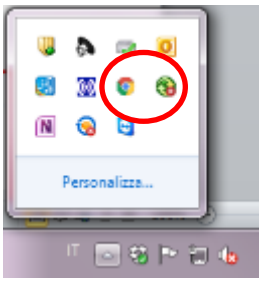
6.2 LIVE UPDATE

LiveUpdate is integrating part of the WinInspector Software.
LiveUpdate connect the customer's PC to Vamag server every 4 hours to check any available update.

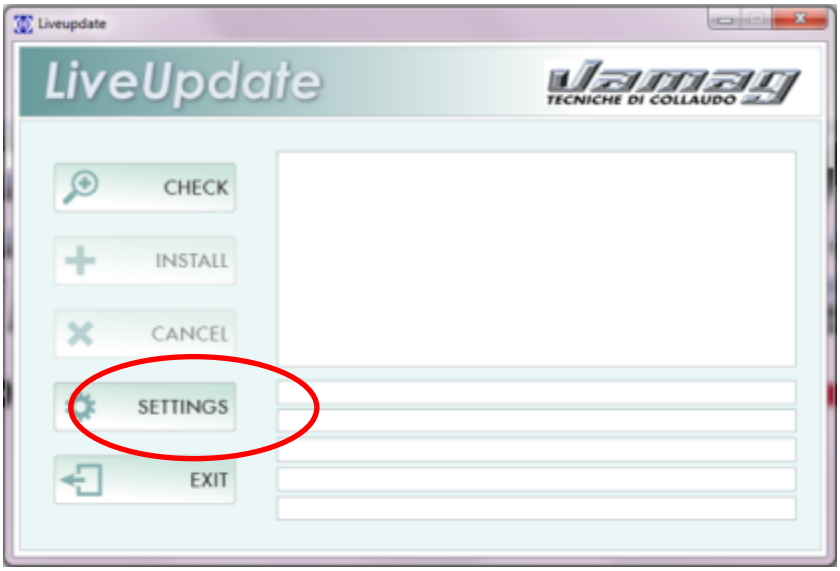
6.2.1 Activation

LiveUpdate is installed with default Username and Password, both must be replaced with specific Username and Password given by Vamag Srl during activation.
To obtain specific Username and Password, you have to request the specific form to Vamag Srl:
- E-mail: info@vamag.com (Object: LiveUpdate Activation)
Vamag S.r.l. will give unique Username and Password for the customer.
How to activate LiveUpdate:

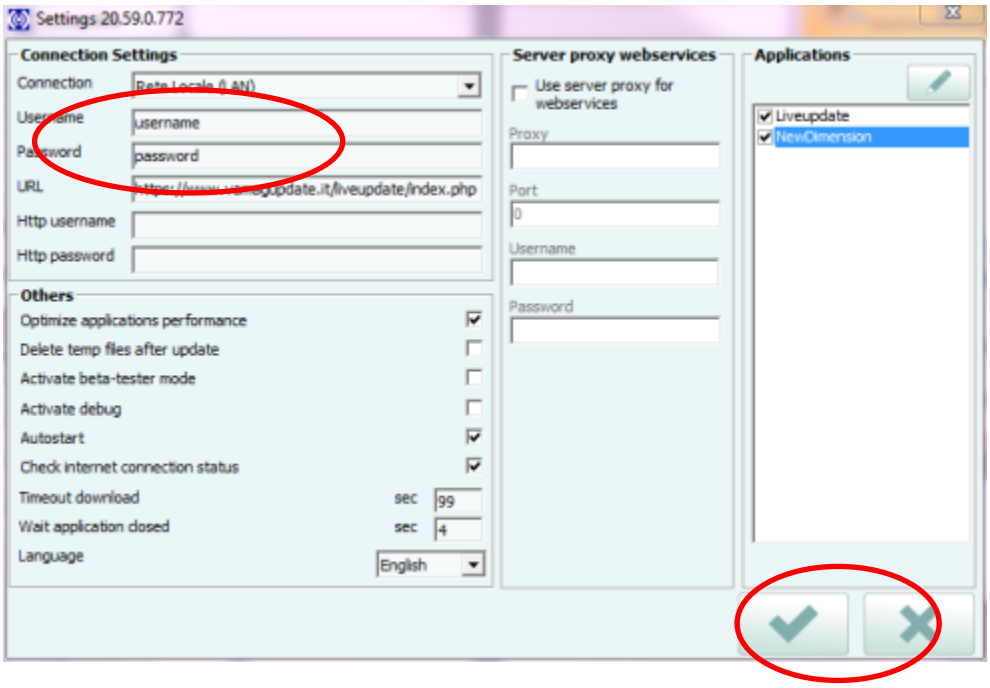
Double click on the icon  in the Windows application bar:



Click "SETTINGS"



Insert Username and Password given by Vamag S.r.l. and click on "√":

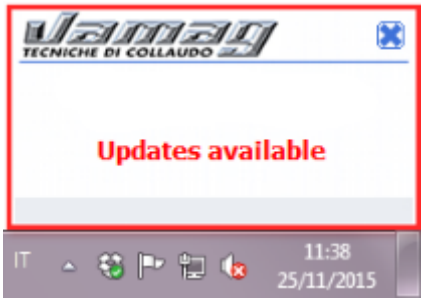


LiveUpdate is now active.

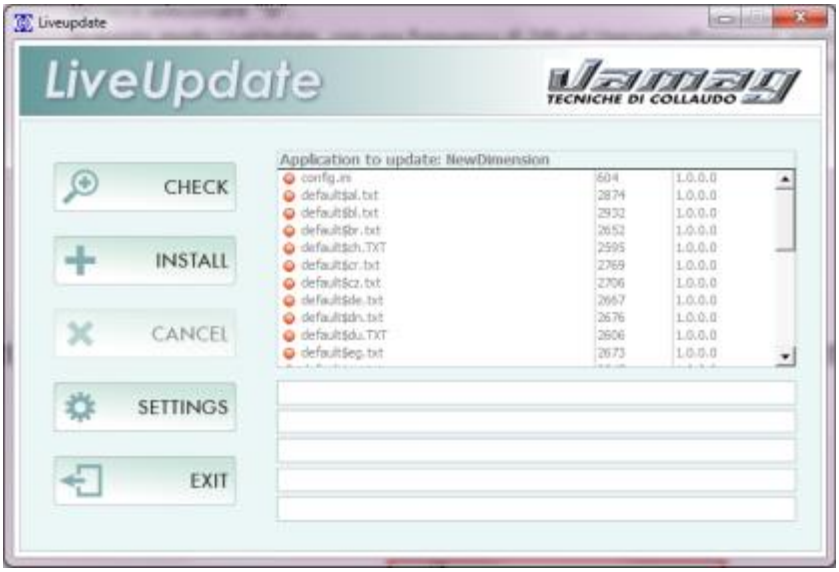
6.2.2 Function

The icon  in the Windows application bar show that LiveUpdate is active.
LiveUpdate is automatically lanched every PC restart.

When LiveUpdate is running, it checks every 4 hours the availability of new updates on "vamagUpdate" server. In case an update is available, you'll see the following pop-up appearing:

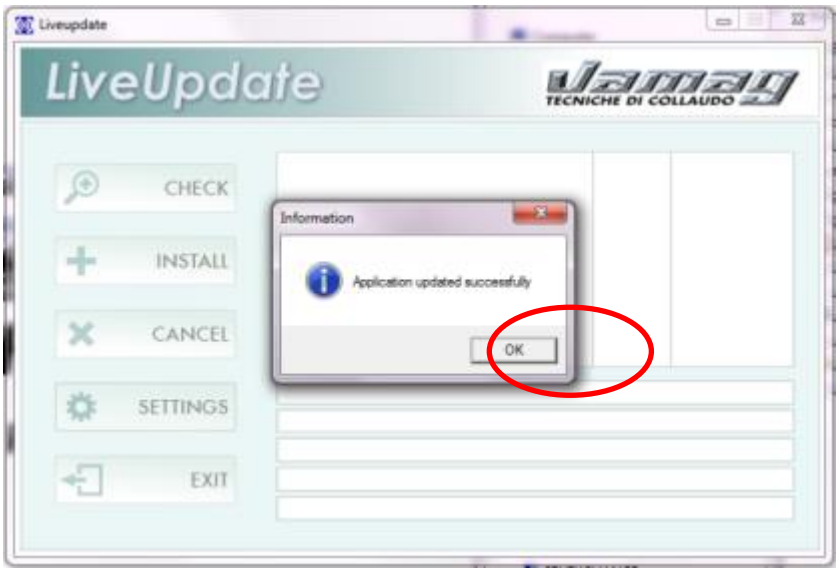


By clicking on "Update available" it will appear the list of the available updates.



Before proceeding with any update, it is fundamentally important to close WinInspector Software.
By clicking on "INSTALL" you'll launch the installation of all the available updates: it's not possible to select them one by one.

When the updating procedure is finished, you'll see the following message:



Click "Ok" to end the procedure and reduce LiveUpdate to an icon.

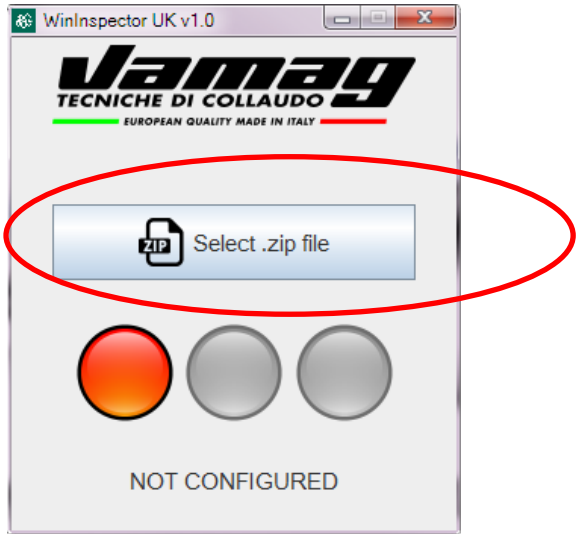
6.3 USE

The DVSA will provide the .zip file.
The customer has to:

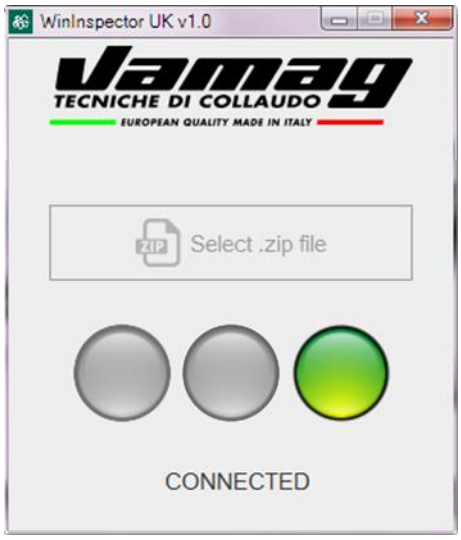
1) Copy/save the .zip file in the directory: C:\Vamag\Java folder

2) In alternative to point 1): click on the icon 

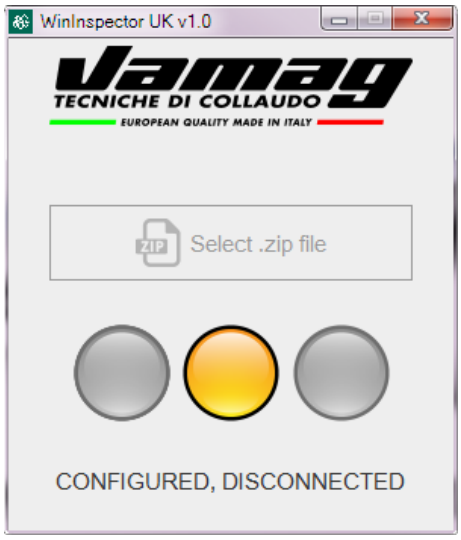
to run the software. When the software starts, it shows the below screen. Click on: "Select .zip file"



The software automatically read the .zip file and create the connection.
If the connection is established (Amazon server is reachable), the software shows:



If the connection is not established or falls (Amazon server is not reachable), the software shows:



When the Amazon server is reachable again, the connection is automatically re-established and the software shows again the green light.

To set software parameters click on the icon: 

After the installation of the software you'll find on the screen two icons, one for the Official DVSA test, one for the free or Stand alone test for C I, C II and C III categories.
DVSA icon automatically starts everytime the PC is turned on and must always be active, due to its role of monitoring the test booking.
NOTE: the WinInspectorDVSA software starts automatically when a new Official test arrives, but to run this software you've to keep the WinInspector Stanadalone closed. So, after every Standalone test is necessary to close the software.

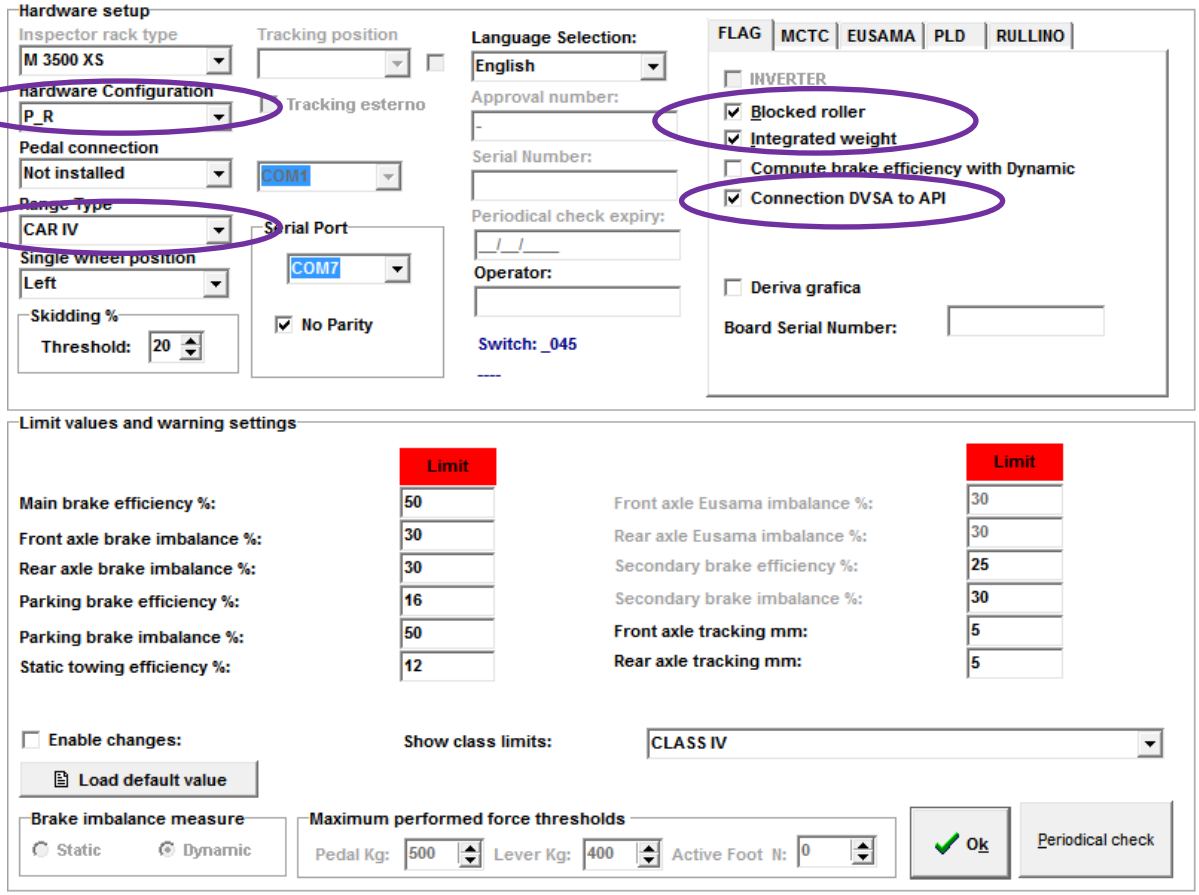
L'icona DVSA si avvia in automatico all'avvio del PC e deve sempre essere attiva, dato che svolge la funzione di monitor per prenotazioni in ingresso.
NOTA: il software WinInspectorDVSA si avvia automaticamente all'arrivo di prenotazioni per effettuare test ufficiali, ma per potersi avviare deve essere chiuso il software WinInspector Stanadalone.
Quindi dopo ogni prova Standalone è necessario chiudere il software.

6.4 CONFIGURATION SETUP

After installing the software on the PC you need to enter some data into the Setup.

Access the WinInspectorUK standalone software and click on "setup" button.

The following screen appears:

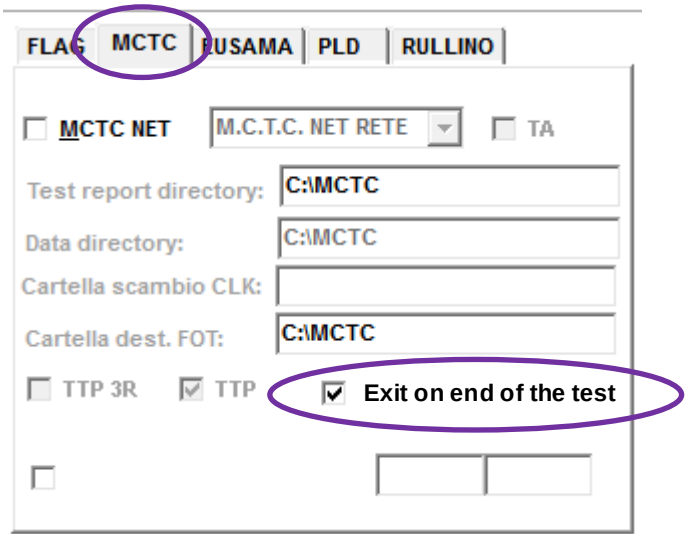


Set the SETUP and apply the check mark indicates into the photo,
for RBT3500_C4 change the "range type" in setup with CAR IV.
for RBT3500_C7 change the "range type" in setup with CAR VII.

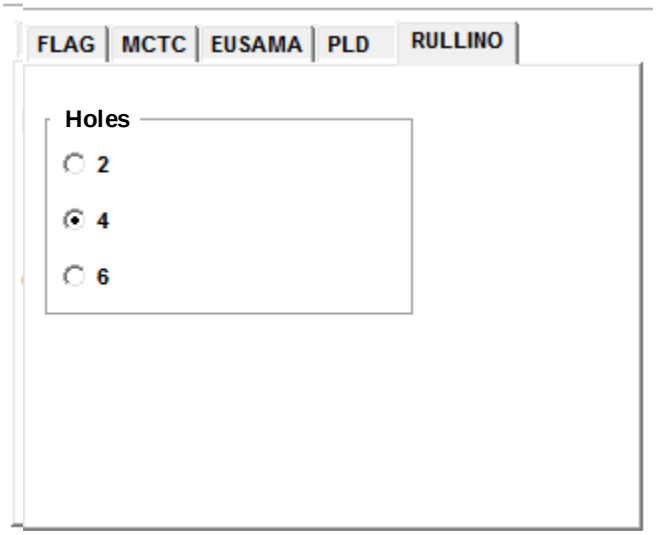
Check if the brake tester includes the weighting system, in that case select "Integrated weight"
And in "hardware configuration" wselect only "R"
Check if the brake tester has auto-braking rollers, in that case select "Bloked roller"

IMPORTANT: to use the new Connectivity function, check "Connection DVSA to API"

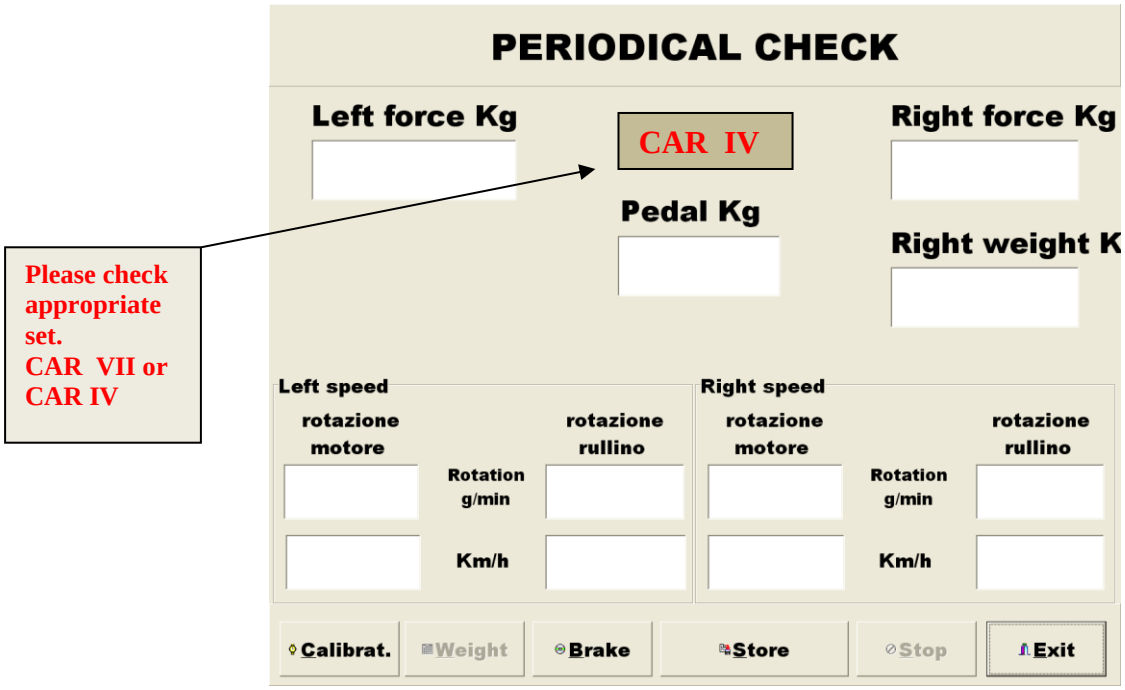
It's important to select also the option shown in the MCTC folder.



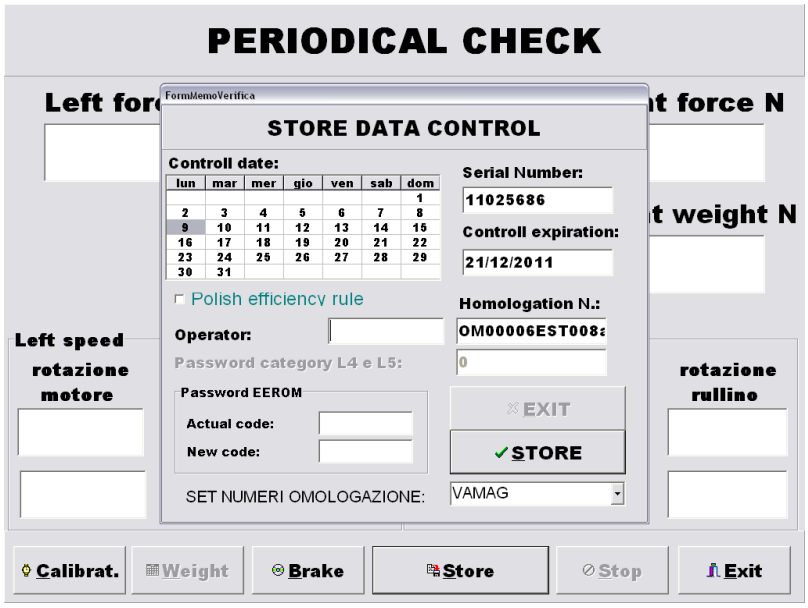
Select Rullino folder and apply 4 Holes



Click on the button "Periodical Check", you will be prompted for a password, enter" rullo ".
The following screen appears:



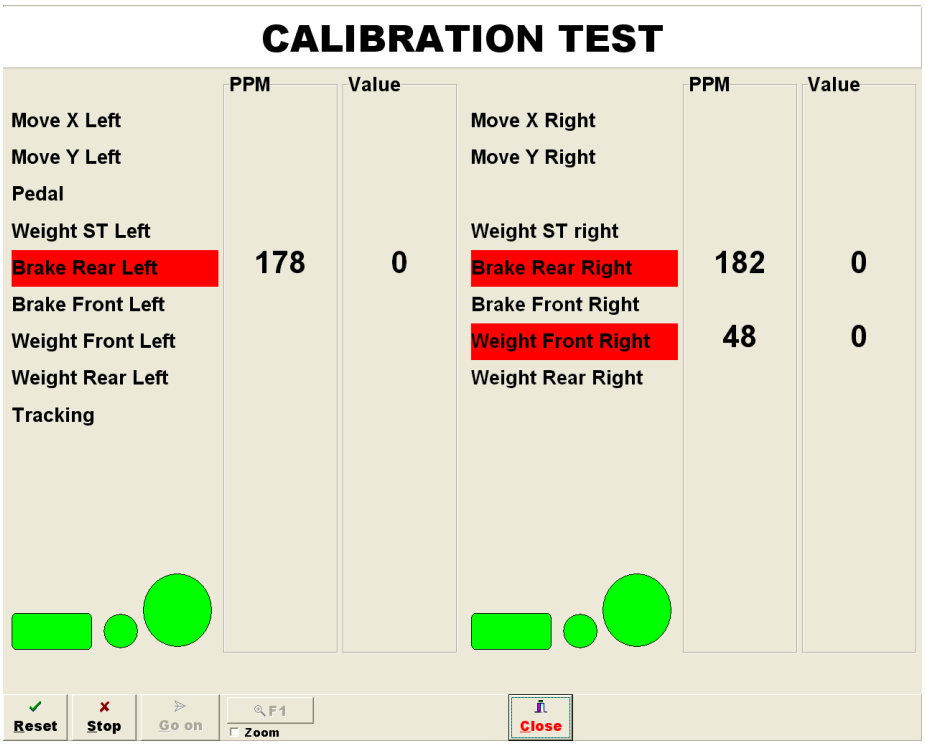
Click on "STORE" to see the following screen:



Verify that the date is correct (1) and enter the serial number of the bench (3), type the expiration date of the next inspection (4), generally one year after installation.
Enter the name of the engineer (2) that carried out the verification.

6.5 CONTROL OF SAFETY DEVICES

1 - remove the protective covers roller;
2 - turn on the equipment carrying the confirmation screen for Sensor Calibration

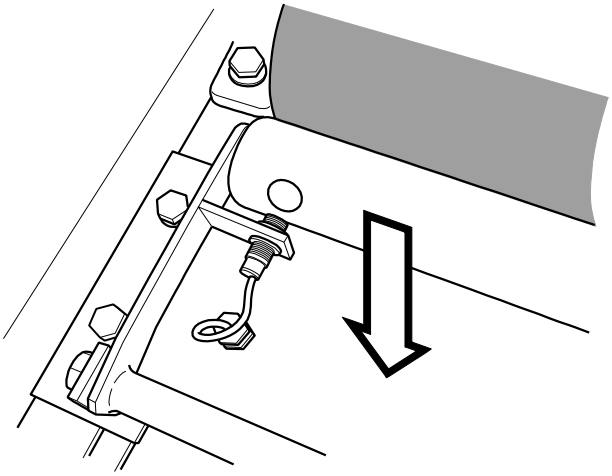


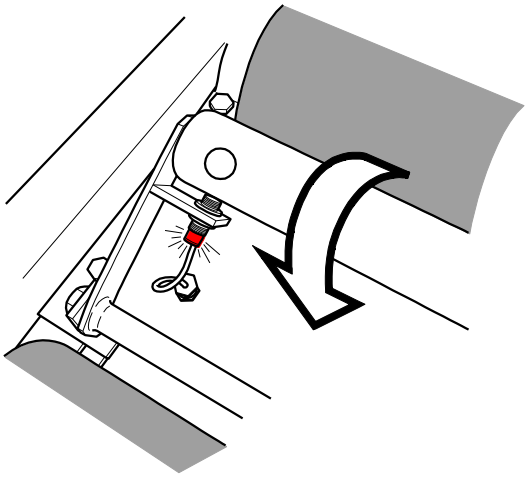
3 - Check that the 2 "rectangles," control switches associated with the presence (A) are RED in the condition of the vehicle presence and GREEN for absence of vehicle into the rollers;
4 - check that, slowly turn the rollers, the two "dots" corresponding to the speed detection (B) flashing, when the proximity sensor reads the hole, the ball must be green, and when read not hole must be red, see figure below and also figure in the previous calibration sensors
5 – the dots “C” is for diagnostic the correct functionality about the proximitry sensor for the speed rotation of electric motor.

Check safety devices, about Presence and rotation:

- turn on the PC, start Inspector Software and enter into Calibration Page
- Check that the 2 "rectangles," control switches associated with the presence (P) are red when the vehicle is out the roller ; green color when the small roller are Down ;

- also check that by slowly turning the rollers, the 2 "dots" corresponding to the detection rate (G) blink, and when the proximity sensor reads the hole, the Dots must be green, but when the law must become a full red.





6.6 CHECKING THE MOTORS DIRECTION OF ROTATION

A - enter the opening screen (logo) and click the key “BRAKE TEST” or “OFFICIAL TEST” using the remote control (key 10 and Start) - refer to figure 01 on previous pages

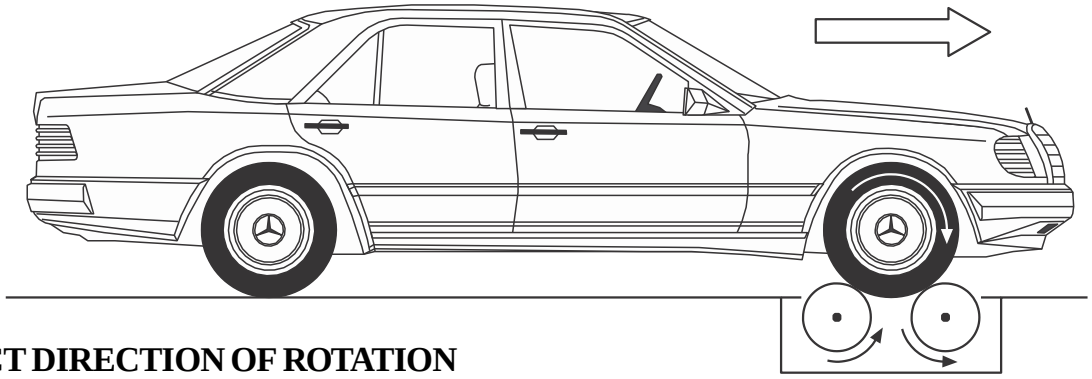
NOTE: using the key 10 of the remote control, the selected key highlighting may vary, i.e. from black to red.
B - get inside the rollers with any axle of a motorvehicle;

C - click the key “START MEASUREMENT” to start the roller (if the equipment is not provided with a vehicle weighing system, the vehicle weight must be entered, according to the programme request);

D- get yourself assisted by a reliable person and make sure that the roller rotation direction is such as to cause both wheels to turn in forward running direction.
NOTE: DO NOT LEAVE THE DRIVING POSITION FOR ANY REASONS WHATEVER WHEN THE ROLLERS ARE MOVING

E- press the START key of the remote control again to accomplish the measurement and stop the rollers;
F- if the roller motion is concordant in the correct direction it is not necessary to carry out any operation; **G**- if the roller motion is concordant in the incorrect direction, it is necessary to invert two phase wires within the cable connecting the relay box to the terminal board inside the Power Box site;
H- if the roller motion is not concordant, it is necessary to invert two phase wires within the cable connecting the motor (the one with the incorrect running direction) to the relay box.

WHEN CARRYING OUT THE OPERATIONS (G) AND (H) THE MACHINE MUST NOT BE ENERGIZED

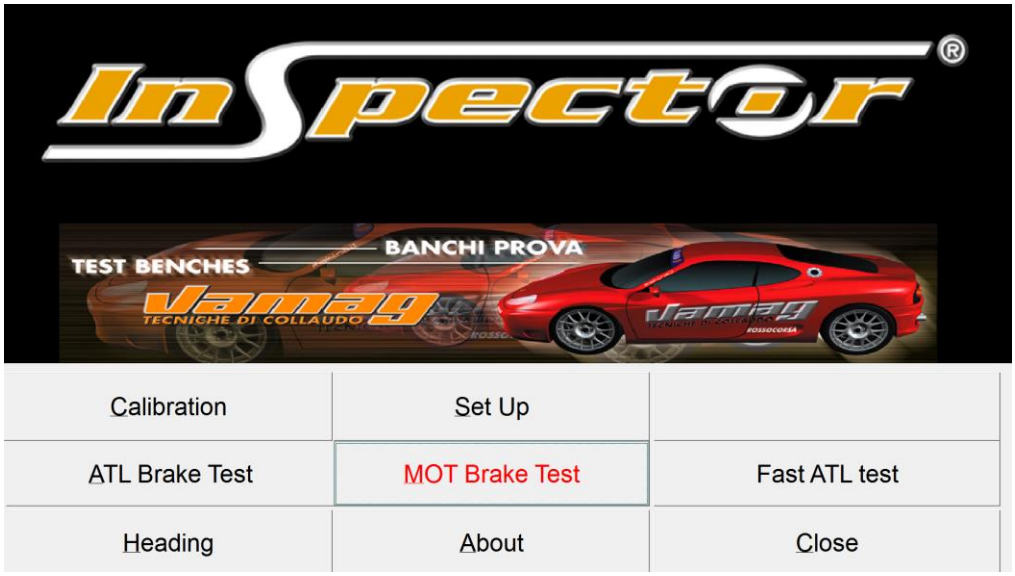


CORRECT DIRECTION OF ROTATION

7 USE OF THE RBT3500_C4 AND RBT3500_C7

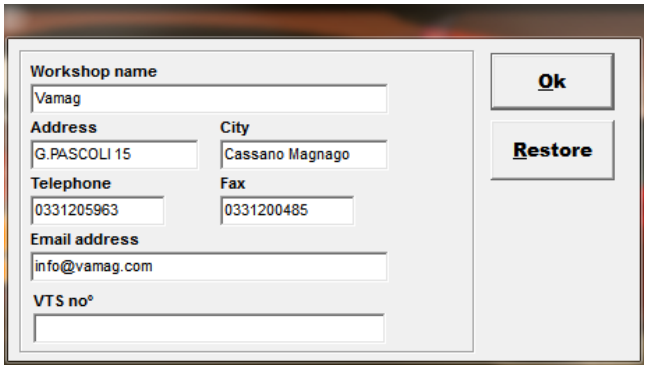
Note: Refer to VOSA MOT Tester's Manual when conducting a statutory test.

Click on the Win-Inspector icon on the desktop, then this display will show:



7.1 Settings

A – Workshop data: click on "Heading" to enter the workshop data and display in the printed report.



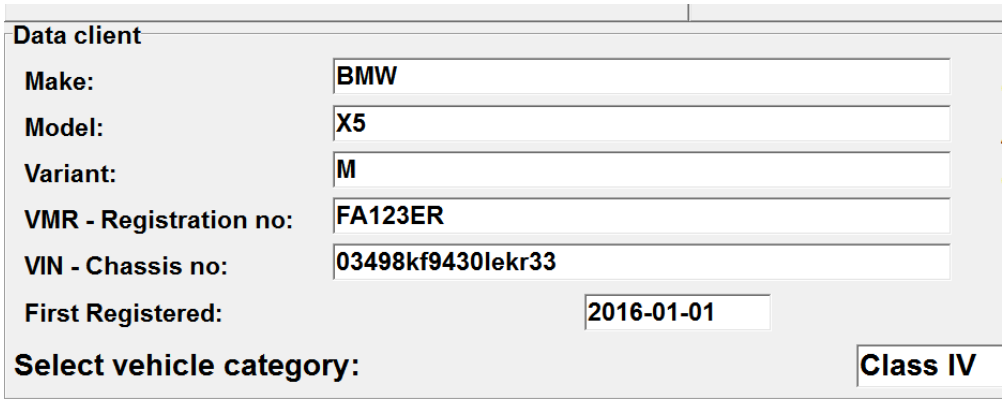
B – Test mode: two test modes are selectable to perform brake testing: "ATL Test" mode or "Manual Test" mode.
By selecting "ATL test " the software will perform the brake test following the VOSA MOT test procedure as per related documents.
By selecting "MOT Brake Test" the software leaves the operator free to choose whether to test a single wheel, left or right, or the axle; Manual Test can be chosen for Class I, II, III (if the bench is approved and equipped for) and Class V and VII.

7.2 WinInspectorUK in DVSA connectivity

When using the software in DVSA Connectivity mode,  setup such as Customer Data or Vehicle category are filled automatically.

We only have to decide to run an ATL test (automatic mode driven by the software) or MOT test (manual test with the possibility to run the test wheel by wheel or axle by axle).

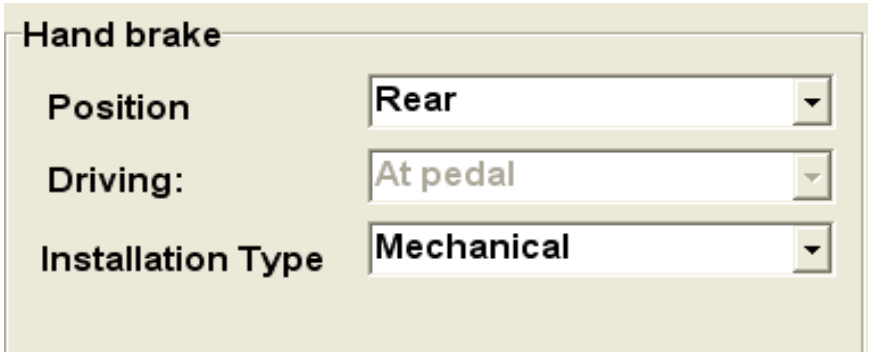
The setup supplied from the vehicle booking will be automatically filled when starting with the selected mode.



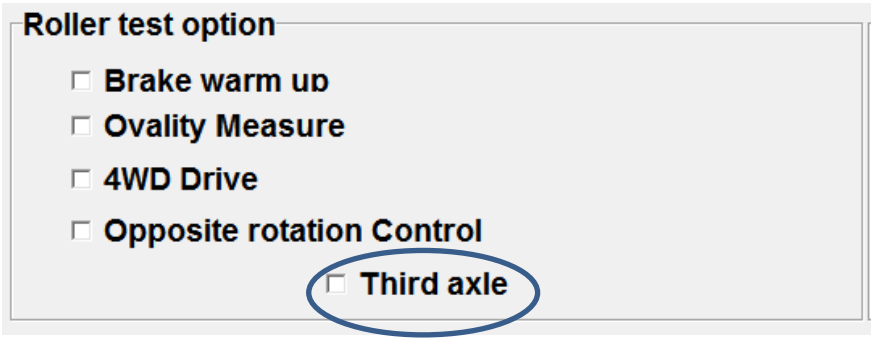
The following settings relating to the braking system of the vehicle are required before to perform the test.

There are some more setup options like the following:

Parking brake:



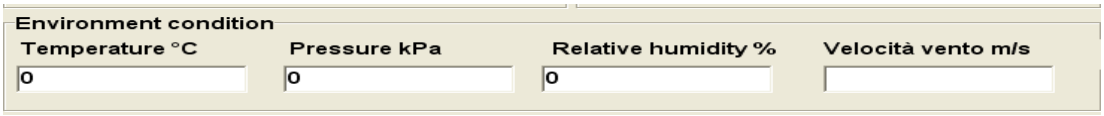
General options:



<u>Warning: if 4WD is selected "opposite rotation control" should also be selected to prevent from damaging the gear box.</u>

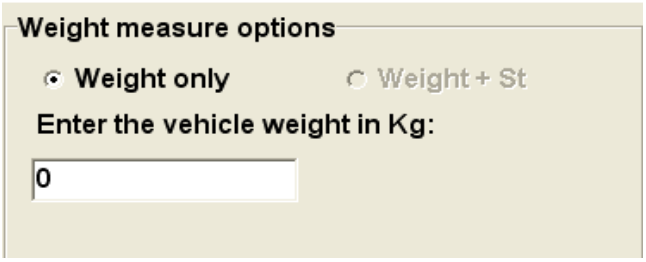
NOTE: if the vehicle booked for the test has 3 axles, so it's a Class VII, it's necessary to manually check the above option.

Environmental condition (optional)

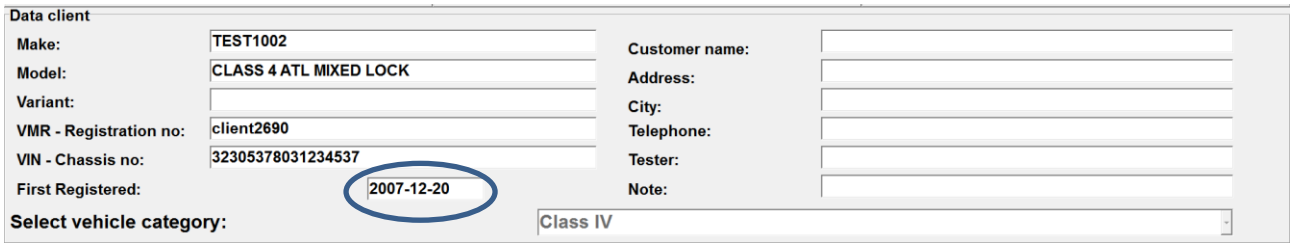


Vehicle weight and option: used when the bench is not equipped with weighing system or when the DGW weight must be entered manually.

Note: when manual weight is entered, it is then used to calculate the overall efficiency.

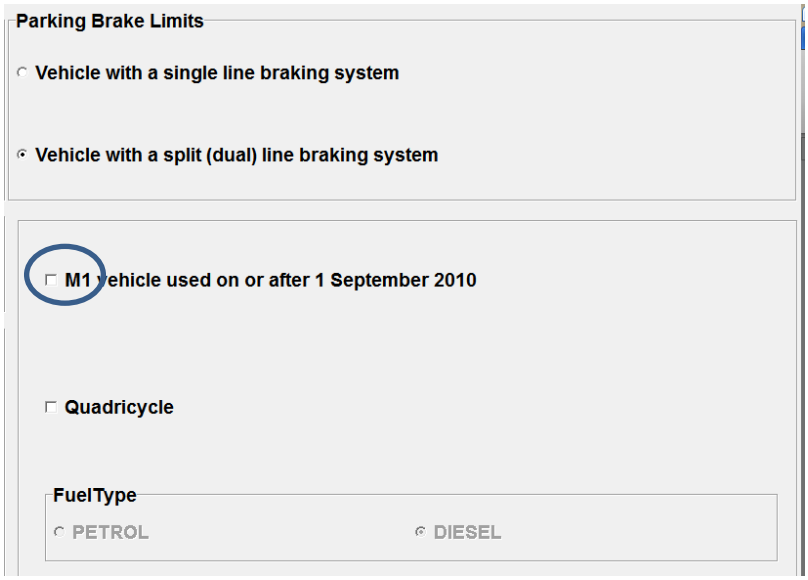


C – Customer data can be entered through the window shown below.



Before starting the test , both ATL or MOT , it's necessary to setup some important options:

- Parking Brake Limits
- Setup vehicle type if M1 Vehicle used on or after 1 settembre 2010 , it should be in agreement with the First Registration date.
  By setup this check box, the 58% efficiency limit will be set up
- Setup if it's not M1 but four wheeler



7.3 ATL Test

Warning: The vehicle must enter and drive through the bench following the direction shown by the arrow located in the centre of the bench

To select ATL test, click on the “ATL test” button of the Inspector screen. Then click on "START MEASURE" on the software will perform "ZERO CHECK" for a few seconds.

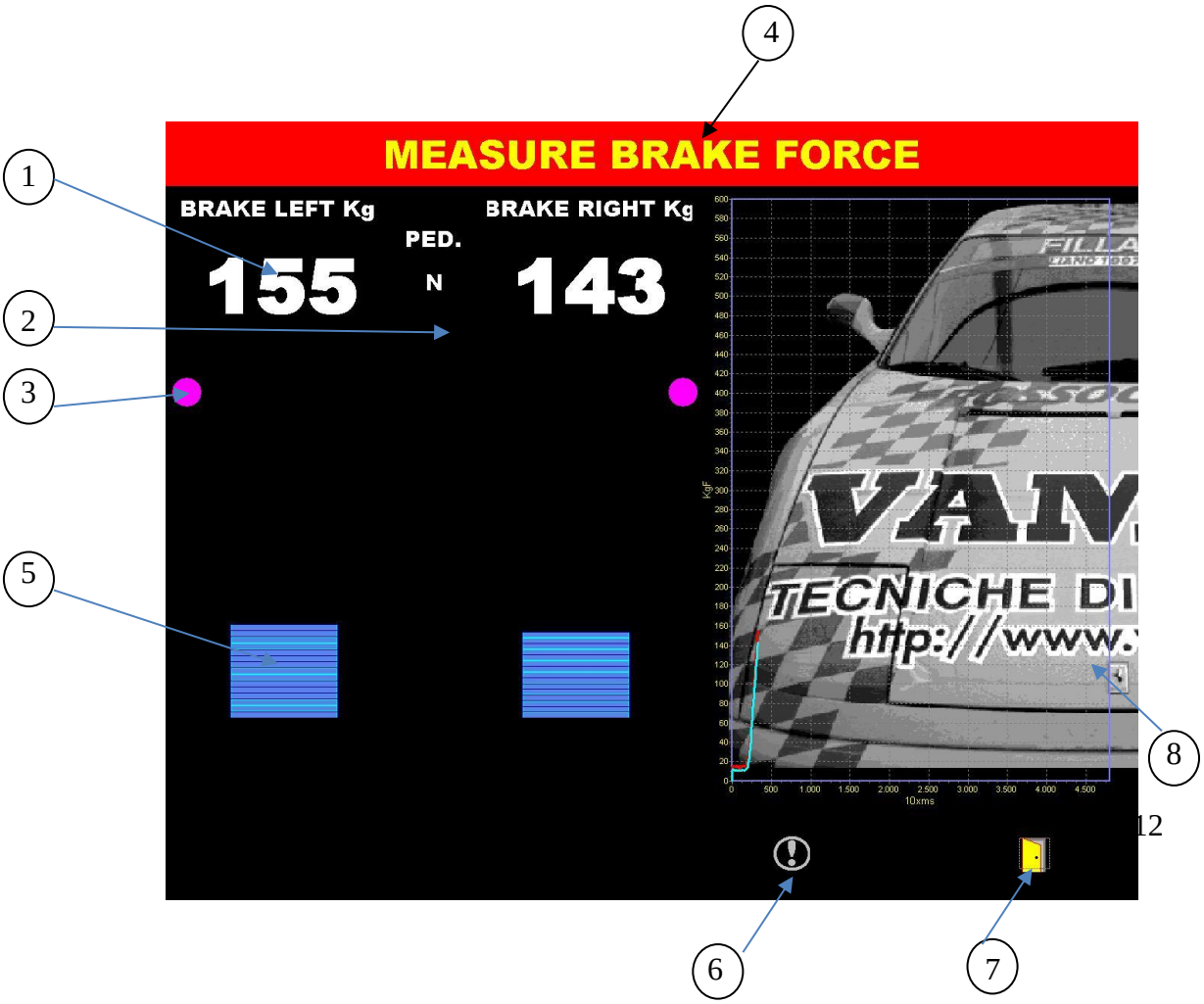
After zeroing, the test starts: measurements and instructions for the operator are displayed on the pc monitor

7.4 MESSAGES AND INSTRUCTIONS

The test software is designed for ease of use; windows are divided into areas with different colours for good visibility throughout the test bay and clear understanding.
A timer is also included to show the time elapsing to carry out the test.

7.5 OVERVIEW OF THE TYPICAL BRAKE TESTING DISPLAY

The window displayed when performing the actual brake test using the RBT3500_C7 is shown here below.



[1] Braking force applied to the left and right wheels
[2] Digital display of the brake pedal strength (with optional brake pedal strength meter)
[3] Motor indicators: lit when motor starts
[4] Message showing the test steps
[5] Braking force bar graph, amplitude of force in blue colour.
[6] Emergency button: clicking on this button and pushing enter on the remote control or keyboard cause immediate motor shutdown and test abort.
[7] Exit test: clicking on this button and pushing enter on the remote control or keyboard terminates the current test and proceeds to the next test.
[8] Graphic representation of the brake force by the wheel.

7.6 Overview of messaging and typical test sequence

A- FRONT AXLE
- a- application of maximum brake force
- b- calculation of bind
- c- calculation of imbalance and judder rate
- d- calculation of parking brake if operating on the front axle.

B- REAR AXLE
- a- calculation of parking brake if operating on the rear axle.
- b- Application of maximum brake force
- c- calculation of bind
- d- calculation of imbalance and judder rate

C- THIRD
- a- calculation of parking brake if operating on the rear axle.
- b- Application of maximum brake force
- c- calculation of bind
- d- calculation of imbalance and judder rate

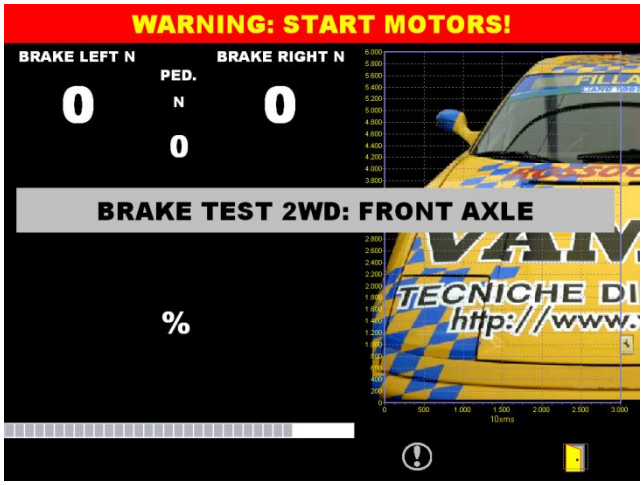
The operator must follow instructions given on the display to perform test properly; a single window per axle is used showing real-time data and results also showing guidance to the operator.

7.7 ATL MODE OPERATING SEQUENCE

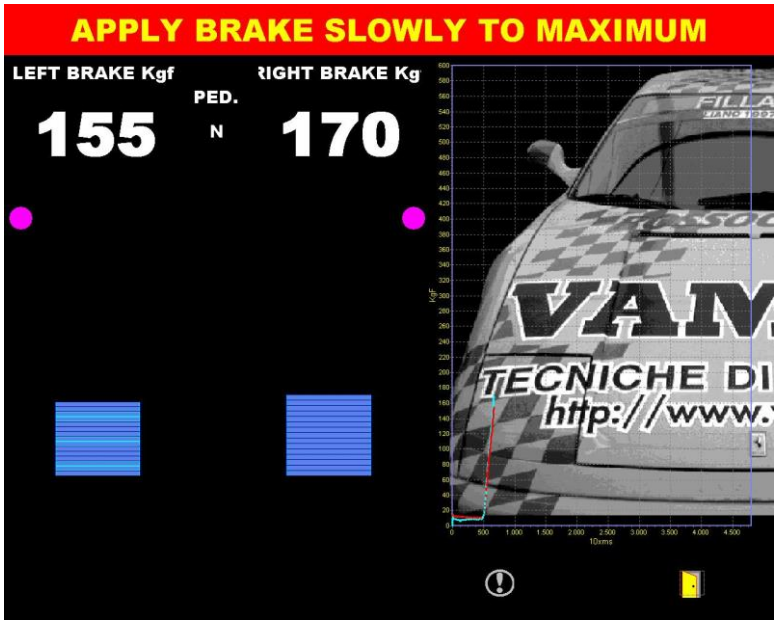
After entering the roller bench the test is carried out in subsequent steps.

First step:
Measurement of the axle weight.

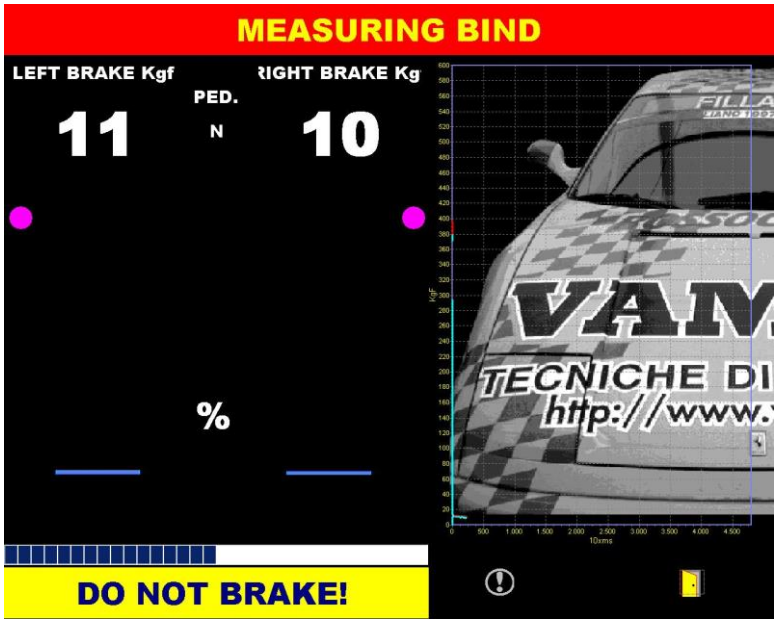
Second step:
Start of test: release brakes, gear in neutral; allow the roller motor to run

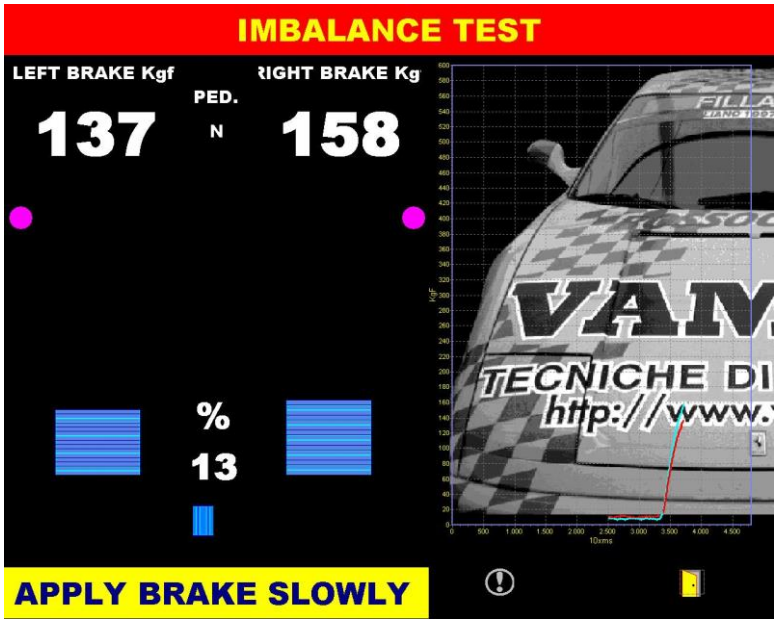


Third step:
Apply force on the brake pedal slowly to maximum till roller motor stops.

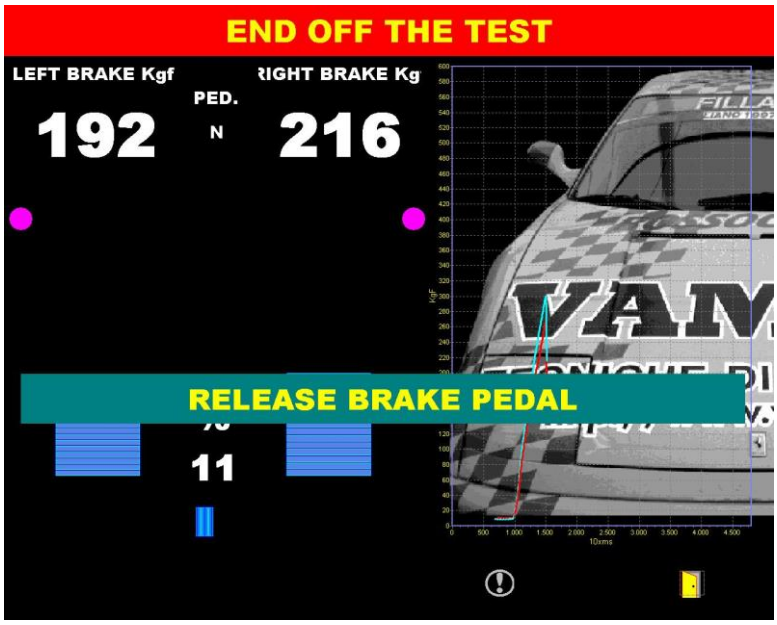


Fourth step:
Calculation of imbalance and bind check





According to the VOSA MOT Test procedure, a braking force up to 75% of the maximum is applied before test ends.



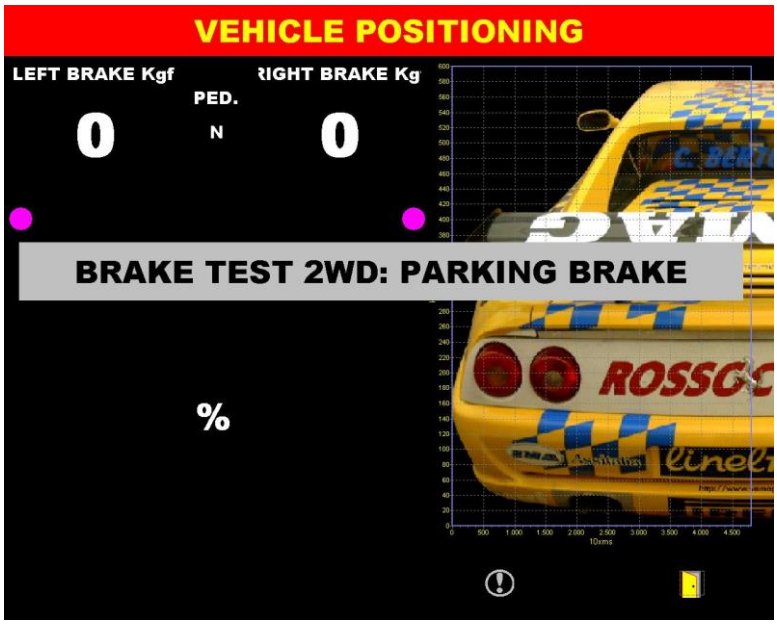
When imbalance phase is finished the Exit page is shown; rollers start automatically to allow the vehicle to exit the rollers.

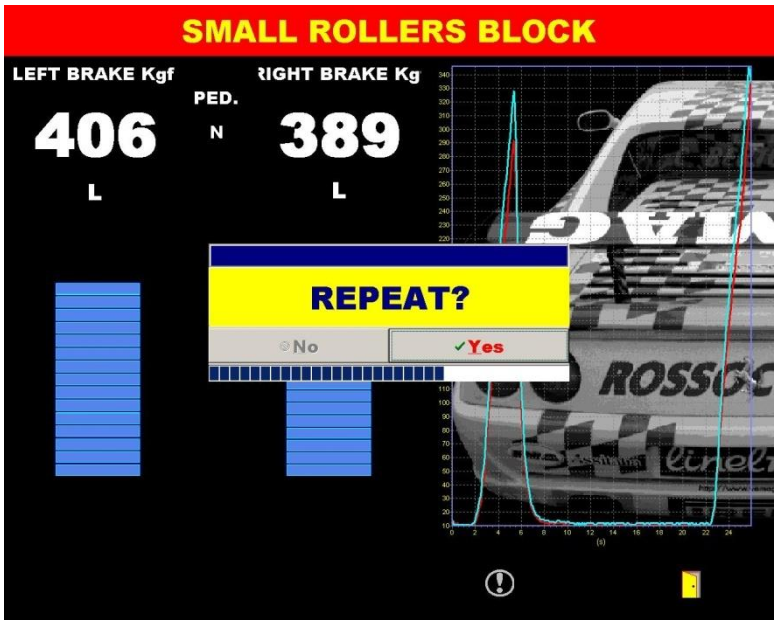
Then rear axle can enter the roller bench.

NOTE: if the brake tester includes auto-braking rollers, the above phase is not requested

.

Fifth step:
the Parking brake is now tested if acting on the rear axle.



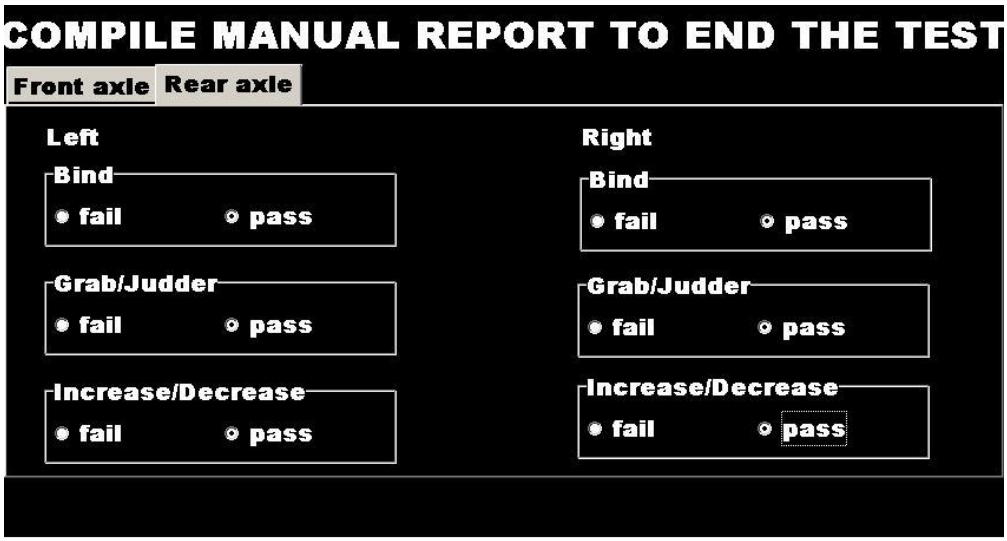


After that the same testing sequence applies to the rear axle: maximum force, bind, imbalance.

Note: the class VII bench running Win-Inspector software allow also the test of a 3-axle vehicle; select this option in the "Roller Test option" field in the Measuring page.

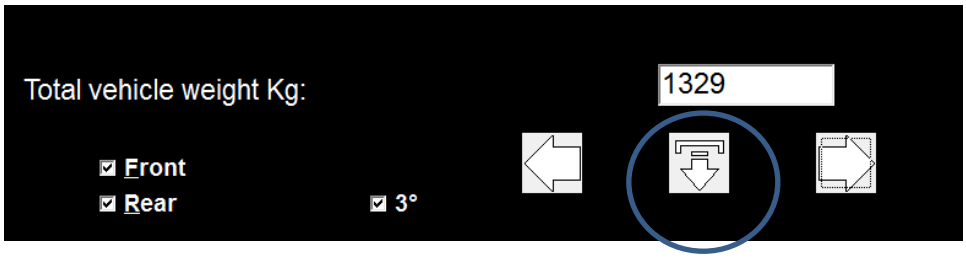
7.8 END OF TESTS

When all tests are complete, a results window is displayed on the screen:



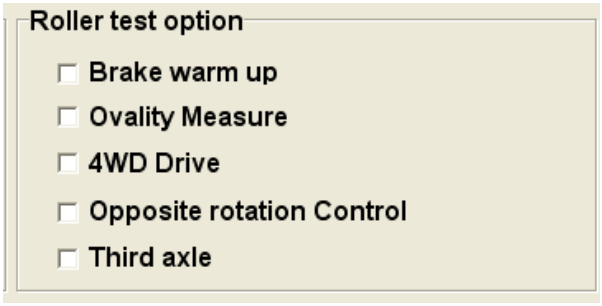
The operator is now requested to select/adjust pass/fail result on each and every single. Such a results window show at the end of every axle test; the operator is responsible to select the result according to his/her judgment of the condition of the braking system of the vehicle tested.

After the Manual Report is completed, **it's necessary close the software by clicking on the down arrow** and the test will be sent and registered by DVSA competent Authority.



7.9 4WD MODE (for benches equipped with optional 4WD mode)

To test a permanent four wheel drive vehicle, 4WD drive test mode has to be selected



The 4WD test mode allows the left and right roller sets rotate in opposite directions, allowing to the brakes to be tested without causing transmission of torque to the other axle.

4WD options must be selected in the “Settings” menu to perform brake testing on permanent 4wd vehicles:
– Tick "4WD Drive" option and "Opposite rotation Control" option

Enter the roller test bench then click on "START MEASURE"; after performing "ZERO CHECK" for a few seconds, the rollers start moving with the left and the right sets turning in opposite directions;
– the left wheel is now tested following the same procedure (maximum force, bind, ovality, imbalance)
– after a short pause, the rollers then start turning opposite to perform the brake test on the right wheel (maximum force, bind, ovality, imbalance).

WARNING: If for any reason during the test the peripheral speed of the two wheels shows a difference higher than 10% of the motor stops immediately the message "speed difference PLUS 10%" shows on the display. In such an event the test must be repeated; if the same problem persists the test is considered valid and results are acquired.

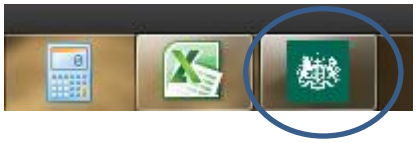
7.10 Operative conditions

To make the WinInspector DVSA software to load a booked test, it’s necessary to close the WinInspector Standalone software.

Icon 

You only have to see the monitoring software which is shown like this:

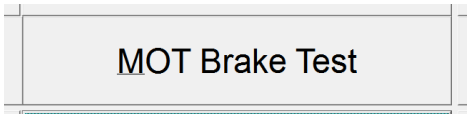
Or its icon:



NOTE, if the monitoring software is not installed, it’s impossible to make DVSA Connected test.
Restart the PC .

8 MOT Brake Test (manual mode)

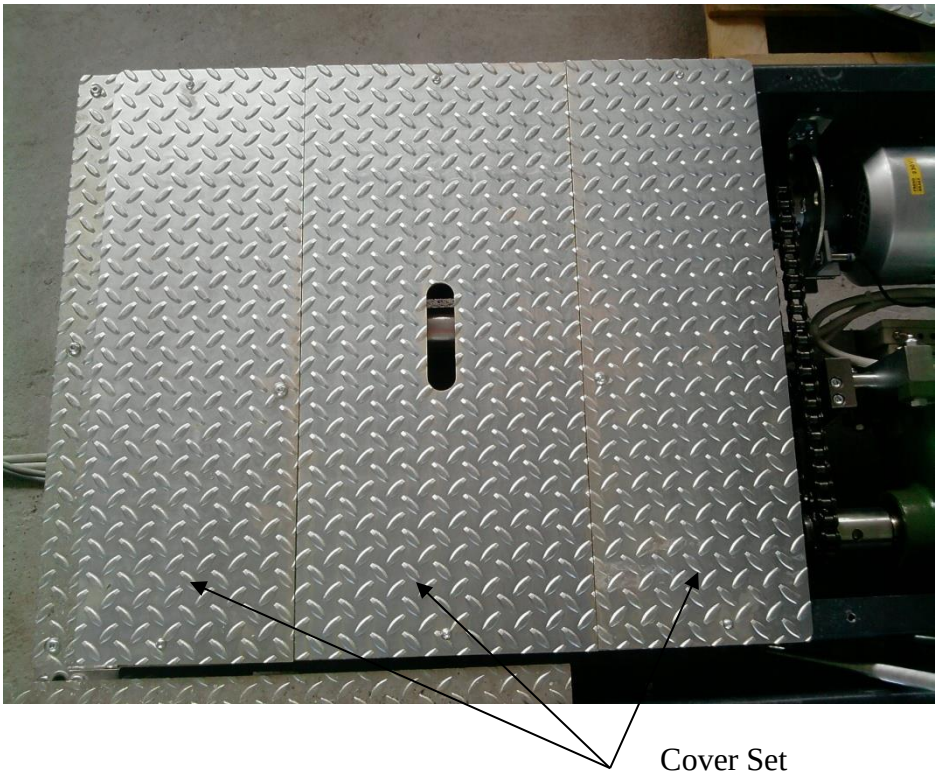
Manual test mode can be used also in DVSA mode, so with active booking, by clicking on the specific button.



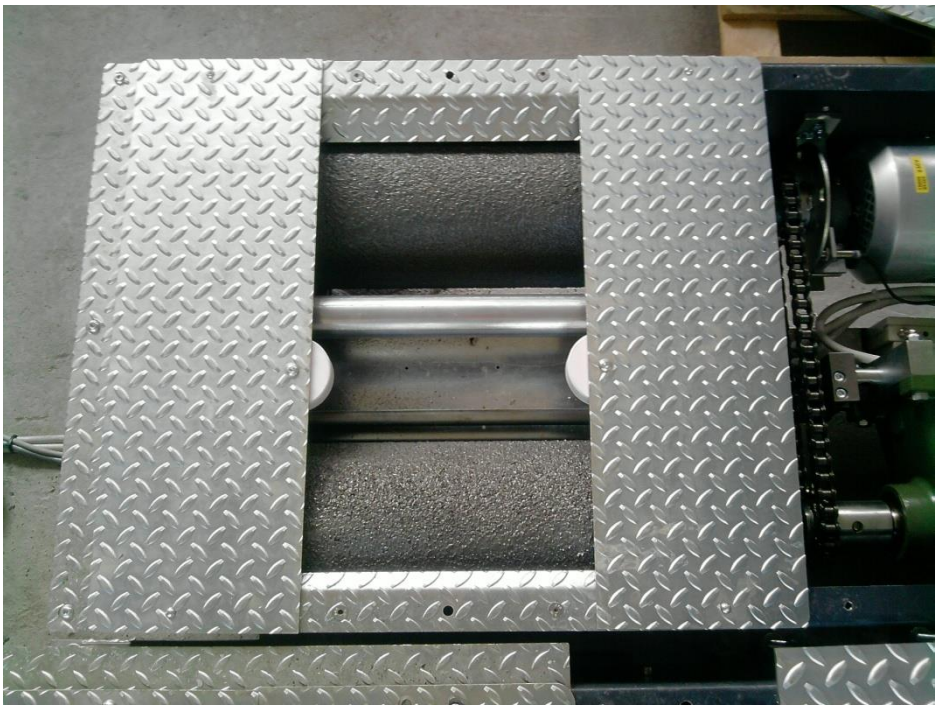
Warning: The vehicle must enter and drive through the bench following the direction shown by the arrow located in the centre of the bench

The Manual test is similar to the ATL Test except for automatic calculation of the brake efficiency.
The Manual test mode allows to test single wheel or axle.
The Manual test mode is used to test 3-wheel vehicles (class III) and 2-wheel vehicles (class I and II).

8.1 HOW TO TEST CLASS I, II and III (for benches equipped with optional class I, II and III adapters)

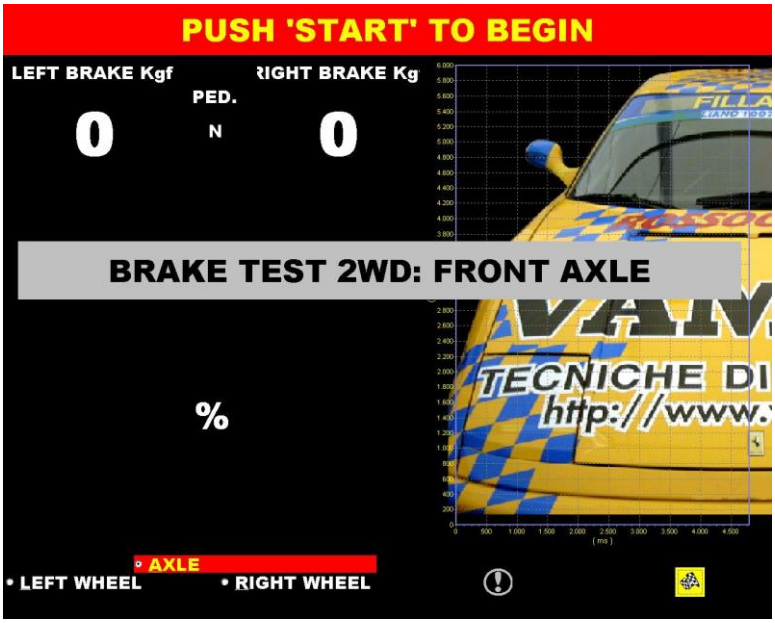


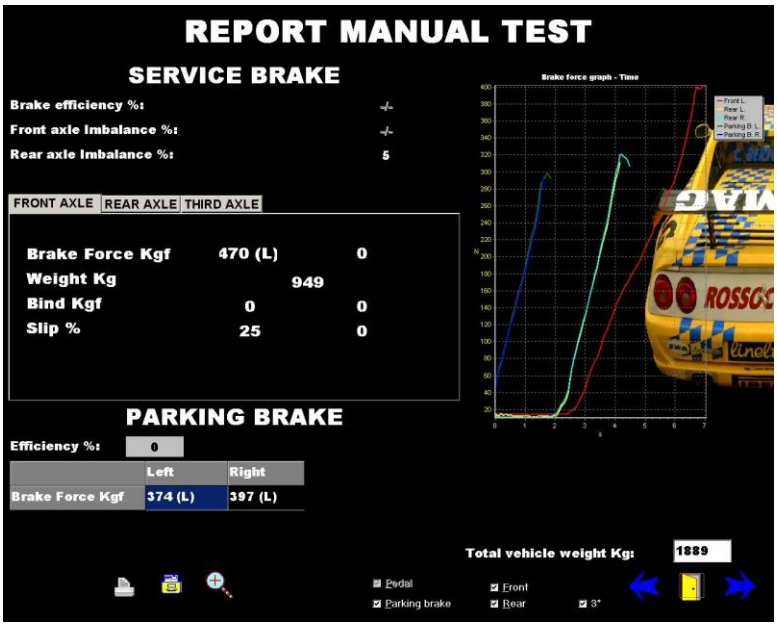
NOTE: Class I, II, III vehicles can be tested only with the WinInspector Standalone software, DVSA doesn't include these categories under the Connected test procedure.
Run the MOT test, and at the end of the test close the Standalone software.



Remove the central plate of the class I, II and III adapter.

WARNING: the right roller cover provided along with the class I, II and III adapter must be placed on the right roller set to allow the test bench to work with one wheel only.



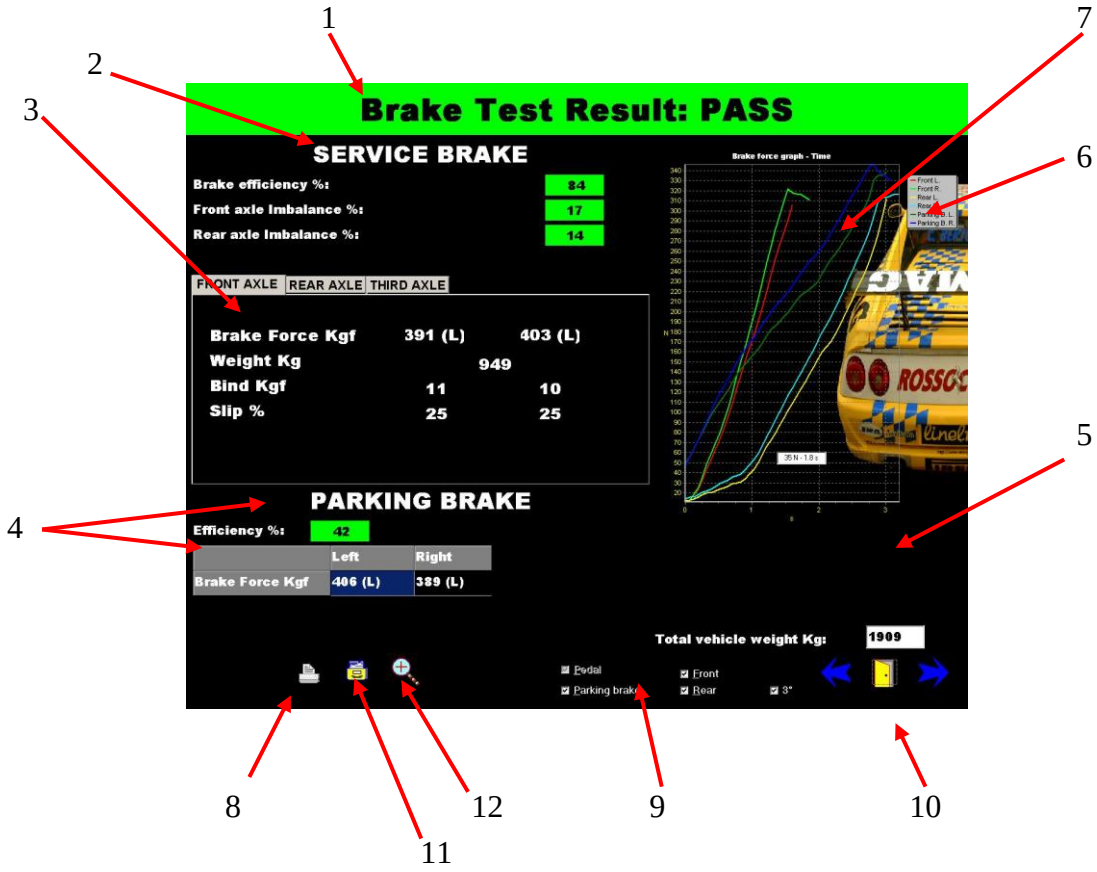


9 RESULT SCREEN

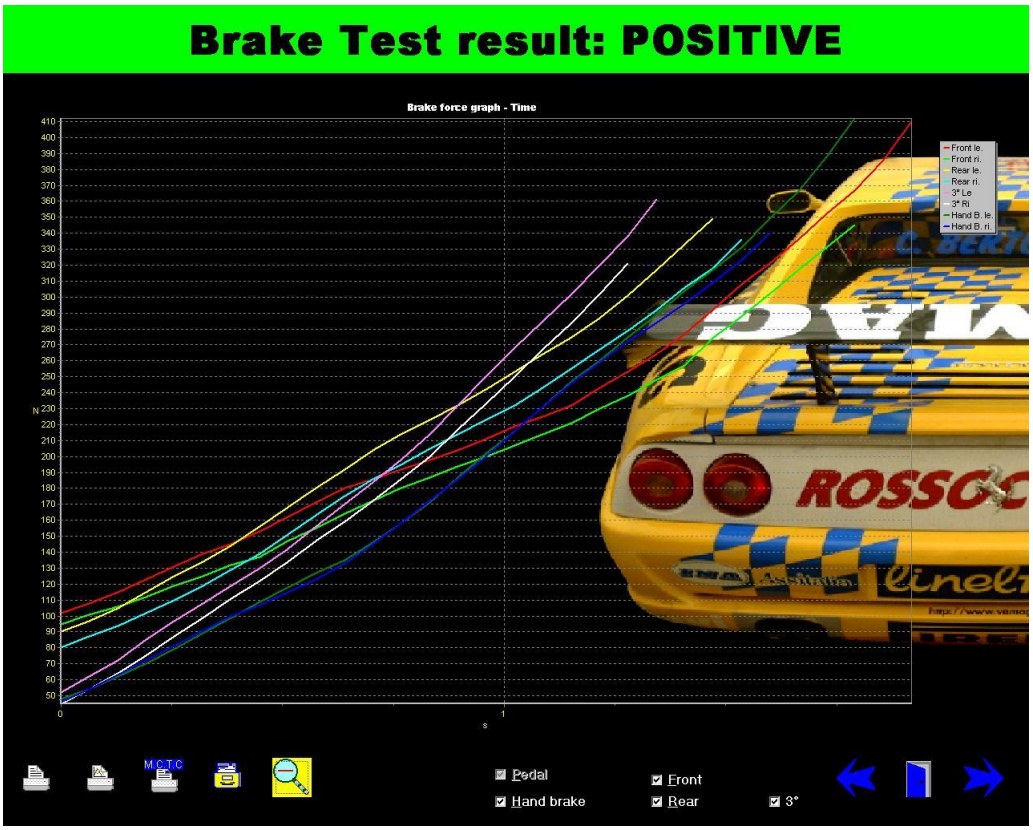
At the end of the test the software shows a results screen with all the measured data, which completes the full test.

9.1 RESULTS page brake system

For convenience, the screen was divided into 12 zones that have the following meanings:



[1] - Zone indicating the test result
[2] - Data calculated for the service brake, divided into braking performance imbalance front axle and rear axle
[3] - Details of the data collected during the test, divided by each axle and each wheel showing:
Braking force, vehicle weight, bind , wheel slip during braking on the roller,
[4] - Information relating to the parking brake, efficiency, the braking force divided by the right wheel and left wheel.
[5] – Options: This area shows the data referring to the effort exerted on pedal and / or the lever (If the optional pedal effort meter is connected), divided for front axle, rear brake, and indicates also the total weight of the vehicle
[6] – Key list to the chart and the identification of the resulting curves and measurement made
[7] - Chart Area braking force relative , you can view the graphic full-screen icon with "12" of the page



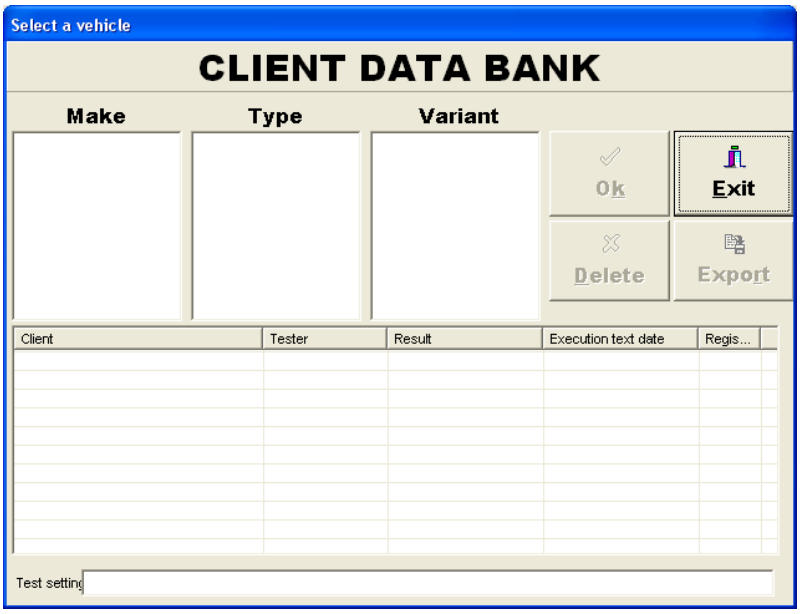
(enlarge to full screen as well as the chart is also possible to make a further zoom to a particular point of the curves obtained by clicking with the mouse anywhere on the screen and holding the mouse button to draw a square around the
graph point of interest, release the mouse button will appear as a further key to the right of the graph which will allow the return to the previous screen (1:1)

[8] Icon Print Report , in according to the Vosa Mot Test.
[9] – Enable or disable certain curves in the graph for visual clarity
[10] – when a test is finished you can scroll through the various screens of inyerest that have

occurred during the test yourself by using icons "arrow", using the left arrow to scroll the test carried out in reverse and back using the arrow right you scroll forward, while the icon "door" is used to exit terminate this test (for these functions can also use the remote control)
[11] - After the test, before leaving with the "door icon", you can save to the hard drive and finish the test with all its data and related graphics, the detail of this function will be explained later.

10 USER DATABASE

Is possible store all data about any single test.
The stored test data are protected for one year, after which it is possible delete, but not before.



11 PRINTOUTS

When the test is finished it is possible print the result.
The printout will be similar to this:

BRAKE TEST REPORT - ATL Test

VAMAG BRAKE TESTER DATA *Brake tester bench model: InspectorM RBT3500*

Homologized N.: OM00006EST002a	Serial N.:	Calibration expiry date: / /

VEHICLE DATA *Vehicle category: Class IV*

Make: QQ	Model: WW	Variant: EE
Chassis no:	Registration no: RR	Year of registration: 0

VEHICLE WEIGHT

Tare Kg: -/-	Vehicle max weight Kg: 1910

ENVIRONMENTAL CONDITION *(Reading data of the barometric station)*

Pressure kPa: 0.0	Temperature °C: 0.0	Relative humidity %: 0.0

TEST STATION

VTS no°		
Garage Name:	Address:	City:
Telephone:	Tester:	Tester sign: .....

TEST RESULTS

BIND:

pass	pass	pass	pass	-/-	-/-

GRAB/JUDDER:

pass	pass	pass	pass	-/-	-/-

INCREASE/DECREASE:

pass	pass	pass	pass	-/-	-/-

WEIGHT Kgf:

Front axle:	949	Rear axle:	960	-/-	-/-
Total weight: 1909					

SERVICE BRAKE FORCE Kgf:

Front left: 391 (L)	Front right: 403 (L)	Rear left: 418 (L)	Rear right: 396 (L)	-/-	-/-

PARKING BRAKE FORCE Kgf:

Left: 406 (L)	Right: 389 (L)

BRAKE EFFICIENCY %	*Measured %*	*Limits %*
Service	84	>= 50 pass
Parking brake	42	>= 16 pass

DYNAMIC BRAKE IMBALANCE %	*Measured %*	*Limits %*
Front axle service brake	17	<= 25 pass
Rear axle service brake	14	-/-

Brake Test Result: PASS

25 - 07 - 2011 Test start 09:14:46 Test end 09:18:19

11 ROUTINE MAINTENANCE

To ensure the efficiency of the machine and its proper functioning is essential to follow instructions below, carrying out the routine maintenance at least every month and not more than 30 hours of operation.
The routine maintenance should be performed by authorized personnel In agreement with the following instructions:

Physically disconnect the machine from a power source (unplug).

2 Remove the protective cover of the rollers.

3 Using a vacuum cleaner thoroughly clean the accessible part of the module RBT3500_C7 removing all foreign bodies (earth, stones, rubber).

4 Make sure the correct rotation of the small roller placed between the two rollers, if it appears to be sticking lubricate the bearings with silicone spray.

5 Check the operation of the vehicle presence, with a foot by depressing the centre rollers, it must be allowed its original home position when test is complete.

If for any reason during the routine maintenance a malfunction or failure of the safety-related parts or devices of the machine is detected, do not use the machine and contact the your local service provider.