Continental
The Future in Motion

ATL Roller Brake Tester Class 4 & Class 7

Operations Manual

RBT240 / RBT270

I324455 Issue 1

Contents

1 About This Manual

These operating instructions are intended for the operators and owner of the Brake Tester.

Operators are trained automotive personnel, who must be instructed in the operation and safety requirements of this equipment.

The owner, is responsible for the conditions surrounding the operation of the Brake Tester (e.g.: accident prevention, check of components, maintenance etc.).

1.1 Copyright

Software and data are the property of Continental or its suppliers and are protected against unauthorized reproduction under copyright laws, international contracts and other national legal provisions. The reproduction or sale of data and software or any part thereof is prohibited and punishable by law; in the event of violations, Continental reserves the right to prosecute and to assert claims for damages.

1.2 Liability

As far as possible, all the data in this program is based on information from the manufacturer and importers. Continental furnishes no guarantee for the correctness and completeness of software or data; we assume no liability for damage caused by faulty software and data. At any event, the liability of Continental is limited to the amount which the customer has actually paid for this product. This exemption from liability does not apply to damages caused intentionally or by gross negligence on the part of Continental.

2 General Instructions

PLEASE READ CAREFULLY BEFORE COMMISSIONING OR BEFORE USING THE EQUIPMENT FOR THE FIRST TIME

2.1 General safety instructions

The RBT240 or RBT270 is a machine in the sense of Directive 2006/42/EC. This machine can generate dangers that can be sources of injury or health issues. These dangers have been taken into account in the machine design. However, some dangers cannot be completely controlled and are the subject of the safety instructions below which are to be followed strictly.

Do not use the bench without first having been trained by a qualified person on the equipment specifications, the dangers it represents and how to use it.

Before starting to use the equipment without surveillance, make sure to have perfectly understood how it works and that all the following instructions have been followed.

The Brake Tester is for the user-friendly testing of brakes. The measured values displayed do not, however, replace expert visual examination after the tests, on a lifting platform, for instance.

Do not use except for the purpose specified

Always observe Safety and Accident Prevention guidelines, and regulations!

› If the Brake Tester is not in use, switch off the power supply at the main switch. Secure mains switch against unauthorised use.

› Cover the roller sets of the brake tester when not in use.

› Do not park vehicles on the Brake Tester.

› Work on the Brake Tester may only be carried out by qualified electrical / mechanical engineers.Do not start vehicle engine by means of roller-drive motors.

› Drive the vehicle slowly (less than 5mph) onto the set of rollers to avoid unnecessary loading strain.

› Only drive the vehicle off the Brake Tester in a forward direction and with the rollers still moving.

› When the Brake Tester is switched on, no persons or vehicles should be standing on or near the rollers. There is a risk of fatal injuries to anyone near the rollers.

› No Repairs or other work may be carried out on a vehicle when it is in the rollers of the brake tester.

› Operators must wear work clothes without loose straps and loops. This includes work shoes without laces. Loose straps and laces may catch in the rollers and endanger the operator.

2.2 Information

Before commissioning it is essential to:

› Correctly understand what is described in this manual and to be aware of the capacities, specifications and dangers of the equipment.

› Make sure all possible operatives are perfectly trained and that they know how to use the equipment safely.

› Make sure that safety instructions are strictly followed to prevent non-authorised persons from approaching the safety zone.

› Make sure that the layout is compliant with the civil engineering drawings and compliant with all applicable regulations. For the civil engineering definition, the safety zones and the safety device layouts, only use the layout drawings.

› Mark the safety zone on the ground (0.5 m wide, yellow and black stripes, completely surrounding the embedded equipment).

Depending on the site, plan for the installation of:

- side barriers preventing access to the test bench
- spherical surveillance mirrors visible from the control stations
- additional systems to protect all persons likely to access the installation
- an exhaust fume evacuation system

› Use all required personal protection equipment,

› Never carry out work on the equipment (servicing, repairs, checks, movement, etc.) without first having powered it off,

› Carry out the regular servicing as described in the maintenance manual,

› Position the console so that the operative can always read the control screen regardless of outside lighting conditions,

› Check that the screen is sufficiently legible at the maximum distance between the operative and the screen (depending on the type and length of the vehicle). If this is not the case install an active repeater screen in a suitable location to meet this requirement,

› Always keep this manual within reach and remember to consult it whenever necessary.

As soon as a vehicle axle is in position on the brake tester bench, its rollers can be started up and become dangerous elements. It is therefore imperative to take all required precautions to prevent any persons from accessing the safety zone, especially in an inspection pit, when a vehicle is being tested.
Similarly, when a vehicle is being tested and depending on the brake circuit and the type of test being carried out, the front axle wheel can lock. In some cases, this can lead to the unplanned reversal of the vehicle. Consequently, permanent monitoring of the safety zone is required to check that nobody is standing behind the vehicle.

The installation of an approved safety system preventing access to the rollers as much as possible may be required by the regulations applicable at the installation site. If this is not the case such a system can be installed on request from the owner.

The manufacturer declines all liabilities in the event of alterations likely to cause damage or accidents made to any of the equipment. This especially includes the prohibited deterioration, disabling or removal of safety or protective devices.

The test bench has been designed to test vehicles of an authorised size and weight. Any other use not described in the user manual is prohibited.

2.3 Content of the EU Declaration of Conformity

UKCA Declaration of Conformity

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: Continental Automotive Trading Uk Ltd

Details of Equipment: Roller Brake Tester

Models include: **RBT240 Class IV** & **RBT270 Class VII**
Pt. No. 29-1000-2557-4-00 Pt. No. 29-1000-2557-7-00

Description:

The Roller Brake Tester is designed to check the brake efficiency of automobiles, both Class IV and Class VII – including passenger, motorcycle & commercial vehicles. The Roller Brake Tester is supplied with a control system and, can be part of an Automated Test Lane (ATL).
The RBTis supplied as a kit, options listed by part number:

29-1000-2582-9-00	RBT240-C-EN000Brake Tester Kit with Control Centre
29-1000-2583-1-00	RBT270-C-EN000Brake Tester Kit with Control Centre
29-1000-2583-3-00	RBT240-C-EN001BrakeTester Kit for connection to existing PC
29-1000-2583-6-00	RBT270-C-EN001BrakeTester Kit for connection to existing PC
29-1000-2583-7-00	RBT240-C-EN570Brake Tester Kit with Cabled Emissions
29-1000-2584-1-00	RBT240-B-EN570Brake Tester Kit with Wireless Emissions
29-1000-2584-3-00	RBT270-C-EN570Brake Tester Kit with Cabled Emissions
29-1000-2584-4-00	RBT270-B-EN570Brake Tester Kit with Wireless Emissions

Conformity:
The object of the declaration is in conformity with the relevant UK Statutory Instruments:

- 2016 No. 1101- Electrical Equipment Safety Regulations (EMC Directive 2014/30/EU)
- 2016 No. 1091- Electromagnetic Compatibility Regulations (LVD Directive 2014/35/EU)

Relevant standards used for conformity assessment:

- BS EN 61010-1 :2011, BS EN 301-489-17 :2012, BS EN 61326-1 :2013
- BS EN 61000-3-3 :2014, BS EN 61000-3-2 :2014

National Technical standard

- DVSA 2005 RBT specifications including: Annexes 1,2 &3 suitable for Classes 3 & 4

Authorized representatives Continental

Position -	Product Manager	Managing Director
Name -	Stuart Clarke	Paul Jennings
Signature -	Stuart Clarke	

Date of 1st Issue 21st December 2020 I324458 Iss 1

Continental Automotive Trading Uk Ltd
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Web: www.cryptontechnology.com

Operating Manual RBT240 / RBT270

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29-1000-2584-3-00	RBT270-C-EN570Brake Tester Kit with Cabled Emissions
29-1000-2584-4-00	RBT270-B-EN570Brake Tester Kit with Wireless Emissions

Conformity:
The above described product complies with the essential requirements of the following directives:

- Low Voltage Directive (LVD) 2014/35/EU
- Electromagnetic Compatibility Directive (EMC) 2014/30/EU – EN61000-3-2

National Technical standard

- DVSA 2005 RBT specifications including: Annexes 1,2 &3 suitable for Classes 3 & 4

Authorized representatives Continental

Position -	Product Manager	Managing Director
Name -	Stuart Clarke	Paul Jennings
Signature -	Stuart Clarke	

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Email: sales@cryptontechnology.com
Web: www.cryptontechnology.com

2.4 Certificates of Acceptance

2.4.1 RBT240 Class 4 Roller Brake Tester

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:	CONTINENTAL
Model:	RBT240
Equipment Identification Number:	EINCBR20612A112093--
Software Version (& above):	V2.00
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 2005RBT 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)

Chief Executive 4 November 2020 **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 Stuart Clarke Position Product Manager

Signature Stuart Clarke Company Continental Automotive Trading UK Ltd

2.4.2 RBT270 Class 7 Roller Brake Tester

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:	CONTINENTAL
Model:	RBT270
Equipment Identification Number:	EINCBR20644A112094--
Software Version (& above):	V2.00
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 2005RBT 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)

Chief Executive 4 November 2020 **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 Stuart Clarke Position Product Manager

Signature Stuart Clarke Company Continental Automotive Trading UK Ltd

2.4.3 MK240 Class 4 Motorcycle Adapter

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: CONTINENTAL
Model: MK 240 (Adaptor plate for RBT240 for class 1&2)
Equipment Identification Number: EIN-BR2063-112095MC
Software Version (& above): n/a

Suitable to testing (ATL): None
Suitable to testing (Non ATL): Class 1 & 2

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

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)

Chief Executive 4 November 2020 **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 Stuart Clarke Position Product Manager

Signature Stuart Clarke Company Continental Automotive Trading UK Ltd

2.4.4 MK270 Class 7 Motorcycle Adapter

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: CONTINENTAL
Model: MK 270 (Adaptor plate for RBT270 for class 1&2)
Equipment Identification Number: EIN-BR2063-112096MC
Software Version (& above): n/a

Suitable to testing (ATL): None
Suitable to testing (Non ATL): Classes 1 & 2

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

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)

Chief Executive 4 November 2020 **Date**

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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 Stuart Clarke Position Product Manager

Signature Stuart Clarke Company Continental Automotive Trading UK Ltd

2.5 Handling and installation instructions

Remember that during all loading, unloading, handling, installation, assembly or dismantling operations on the equipment the operators must take all necessary precautions under workplace accident prevention rules (hard hat, gloves, safety footwear, etc.) as defined by applicable country specific regulations. Packaged equipment must be handled using equipment suitable for lifting and moving pallets. Unpacked equipment must be handled and installed by trained qualified engineers.

The chassis is fitted with lifting rings and are delivered on pallets. Their installation over an inspection pit must be carried out using a sling with chains attached to the 4 lifting rings screwed onto each chassis. Once installed over an inspection pit they are completely embedded and cannot be moved.

2.6 Instructions for the electric installation

Remark: The wiring diagrams required to service the equipment are not supplied because these servicing and repair operations should only be carried out by qualified staff. These persons have all the required documentation.

General case: 230/400 V 50Hz electricity supply:
To connect the consoles and repeater screen (optional) install a single phase 230 volts 10% 50 Hz, 16 A electricity supply + Ground fitted with a protection compliant with applicable regulations.

› To connect the electric motors, install a 3 phase, 400 volts, 50 Hz (30 A for light vehicles) + Ground fitted with a protection compliant with applicable regulations.

For any other power supply voltage: the specifications of the electricity lines and protection to be installed are defined on the layout drawings. Any electricity supply different from that described above must be notified when ordering the equipment.

› Fix the electric box over the cable input opening. An unfixed console can cause the electric wiring to be damaged and create an electrocution hazard.

› It is mandatory to pass electricity supply cables through the buried sheaths recommended on the layout drawings and they should be protected from any risk of being damaged (such as being crushed, cut or ripped out).

› The embedded electric ducts for the consoles must arrive in the ducts over which the consoles are placed so that no cables are apparent from the outside.

› The cables must be protected and the inspection pit cleaned if liquid (water, oil, fuel, etc.) leaks from a vehicle and comes into contact with the cables.

› If the inspection pit has no water drainage (for example due to water table issues), in wet or snowy weather take the required precautions to prevent water or snow from running or falling off vehicles into the test benches. In the event of heavy rain, prevent the benches from being flooded. Do not allow an inspection pit to fill.

› Special case of low voltage cables for measurement circuits, printer and computer connections, etc.

– These cables must be installed in cable raceways separate from the power cables.

– The measurement cable sheaths must be more than 0.5 m from the power supply cables for other machines as these can be the cause of parasites: compressors, motors of several HP, arc welding equipment, etc.

– Avoid having a magnetic field close to the console and the magnetic readers (diskettes, hard drives, etc.) as this could damage data or the application programme.

– Similarly, a very high voltage power line less than 50 m from the premises or a high-power radio emitter could possibly disrupt the computers or the measurement equipment.

2.7 Other precautions and instructions to follow

Use of the remote control:

› In order to guarantee the correct operation of the remote control, all infrared sources other than those from Continental equipment must be avoided (such as alarms, vehicle remote controls, etc.), as must all neon's at less than 2.5 m from the infrared sensors.

Computer risk prevention, precautionary rules and handling rules:
The supplied computer equipment has been configured for professional use.

It is prohibited:

› To shut down the PC using the console power switch, the PC must be shut down using the described programme shut down procedure.

› To modify the BIOS.

› To add components to the PC such as RAM, cards etc. ...

› To change Windows configuration settings,

› To install software that is not supplied by Continental,

› To connect removable media such as USB flash memory, unless specifically instructed to do so by Continental product support.

Console protection

› Protect the console and the printer from any water, oil or other liquid spray as well as from any dust-laden atmospheres. If necessary, use a protective cover when the appliance is not in use.

› Protect the console and its components from heating due to direct exposure to heat sources (sunlight, radiant heating, etc.)

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2.8 Priority stop devices

The bench is fitted with several priorities stop devices:

› The "ESC" key on the software keyboard,

› The red "ESC" button on the remote control. We recommend that the operator in charge of ongoing tests has an operational remote control (regularly check the state of the battery) as this is a remote priority stop device. Warning: the remote control infrared beam is directional.

› **Note:** the "ESC" key on the remote control is permanently operational, even if the test operations are conducted from the console.

2.9 Emergency stop devices

The bench is equipped with an emergency stop device:

› The main power switch on the side of the console completely cuts the single and three phase power supplies to the console.

Warning: before testing a vehicle on the brake testing bench it is imperative to:

2.10 Precautions for vehicles checked on the brake tester

› Check the cleanliness of the tyre treads, wash off mud that could alter measurement quality by reducing adherence, and remove any objects jammed in the treads that could damage the roller surface coating.

› After eventual cleaning look for traces of aggression or cuts on the tyre treads; the force exerted by the rollers on the rubber during the test can worsen existing damage and rip off pre-cut pieces of rubber.

Only place vehicles on the bench of which the weight and size are compliant with the Highway Code and/or the maximum specifications of the type of installed test bench (see user manual, general presentation section).

If a vehicle being tested is driven by an untrained person (the vehicle's owner for example), it is mandatory to carry out the operations under the control of an authorised operator who will give the driver all the necessary instructions to prevent incorrect operations.

The maximum vehicle speed during use (entering and leaving the bench) is limited to 10 km/h.

2.11 Servicing, maintenance, verification or repair work

Before carrying out any work on the equipment it is imperative to power it off.

Any work other than the servicing described in these instructions can only be carried out by persons qualified persons.

Special case of metrology checks:

› When carrying out metrology checks, which require the equipment to be powered on, it is imperative that no one other than the technician carrying out the check can access the controls or work on the bench.

› During work on the equipment, access to the work zone is prohibited to all persons other than the technician carrying out the work.

After the benches, have been serviced or cleaned, refit all protection equipment that may have been removed.

2.12 Recycling

The materials from the destruction of this equipment must be eliminated in compliance with the applicable regulations in the country of installation:

› Collect the oil and dispose of it in a specialised facility,

› Remove the electric and/or electronic parts,

› Dispose of the rest as scrap metal and deliver it to specialised collection points.

2.13 Fire prevention

The equipment as such cannot in principle cause a fire. However, the premises must meet fire prevention standards in compliance with regulations applicable at the location the equipment is installed.

The vehicle being tested can be the cause of a fire (accidental petrol leak, petrol fumes, sparks or other causes). For these situations, it is recommended to always have a fire protection device (extinguisher) to hand (in the area reserved for the operator) in order to immediately eliminate any danger that may arise.

2.14 Warranty terms and conditions

The warranty is voided by any alteration of the equipment or use other than that defined by the manufacturer and made without the manufacturer's permission, and by any deterioration of specifications resulting from incorrect servicing or the absence of precautions.

Any use of hardware and/or software not been approved by Continental constitutes a modification of our products, and hence exclusion of all liability and warranty claims, even if the hardware has been subsequently removed, or the software erased in the interim. Our products must not be modified in any way. Furthermore, our products may only be used with original accessories. Disregard for the above will render all warranty claims invalid.

The present Continental tester may only be used with operating systems approved by Continental. Using the Continental tester with different operating systems to those which we have approved will render our warranty obligation null and void, in accordance with our terms of delivery. In addition, we cannot assume liability for damages and consequential damages which are the result of the use of a non-approved operating system.

Full terms and conditions are available on request.

Continental cannot be held liable for incorrect measurements resulting from the use of an operating mode different from the one recommended in this manual, or if the operating, servicing and safety conditions are not followed.

2.15 Working environment conditions

The equipment environment must meet the following specifications:

The equipment must be used under shelter.

Temperature: field of reference	20ºC 5.
Surrounding temperature (max. Range)	Between +0ºC and +40ºC
Operating conditions	Relatively humidity between 5% and 85%
Water	Negligible (no vertical dripping of drops of water). No traces of damp on the wall of the premises and correct ventilation
Dust	The dust must not have any electrical impact Presence of solid bodies greater than 2.5mm
Corrosive substances	Possible presence of corrosive or polluting agents from atmospheric pollution, but no direct contact
Impacts	Impacts less than 2 joules
Vibrations	Usual in an industrial environment. Frequency between 10 and 50Hz. Amplitude less than 0.15mm
Electromagnetic and electronic influences or radiation	No power switchgear, high frequency current emitters, devices containing radioactive substances, high voltage power lines, electricity transport lines close by.
Sunlight	It should be reduced to a minimum
Grounding	Grounding must be carried out according to the type of soil and in compliance with applicable regulations.

3 Overview

The RBT240 and RBT270 are braking test benches for light vehicles.

3.1 Presentation of the different elements

The electric control box communicates with the braking test bench and sends the information to the control trolley PC.

3.1.1 Control Trolley

- The mobile cabinet houses,
- A large 23" coloured screen with directional mount for clear visibility.
- Windows 10 PC
- Mouse & keyboard with protective cover
- A4 printer

The image can be echoed to a remote screen via the HDMI port.

Optional:

- Vehicle Exhaust Gas Analyser (VEGA)
- Diesel Smoke Meter (DSM)

3.1.2 Electric Control Box

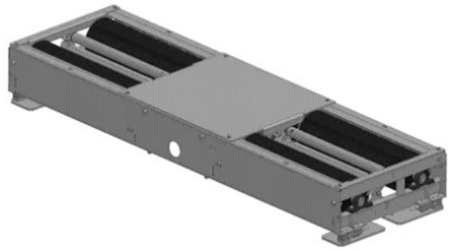
This unit houses:

- the processing card
- The connection terminals for the sensors and actuators
- the control part (contactors)

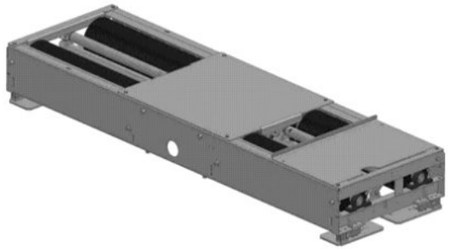
There is a location for an emergency stop.

3.1.3 RBT240 and MK240: Braking Bench

RBT240 Class 4 ATL



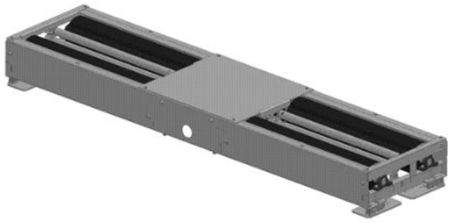
MK240 Motorcycle Adapter



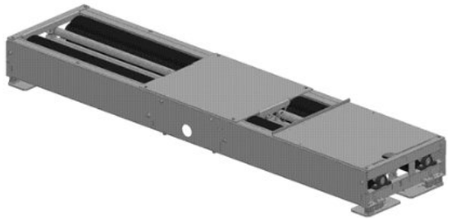
Width of the braking area	800mm - 2,200mm
Height	275mm
Max. force	750 daN

3.1.4 RBT270 and MK270: Braking Bench

RBT270 Class 4, 5L & 7 ATL



MK270 Motorcycle Adaptor



Width of the braking area	800mm - 2,800mm
Height	300mm
Max. force	1,200 daN

3.1.5 Remote Control

The remote-control kit is composed of an infrared remote control and an infrared receiver.

Remote control

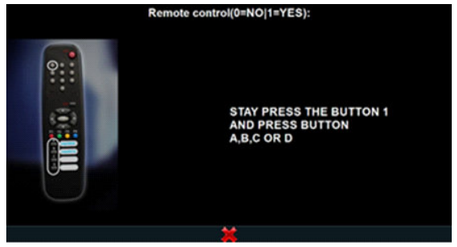
Infrared / USB receiver

Installation is a quick two-step process:

› Connect the IR receiver to a USB port on the PC. The driver installs itself automatically.

› Place it so that it is in the operator's field of vision when they are carrying out a measurement (see the installation instructions for the special case of several devices using the same remote control).

› This remote control can be associated with 4 different items of equipment. Therefore, the remote control must be associated to the different receivers. Go to Settings and Specification.

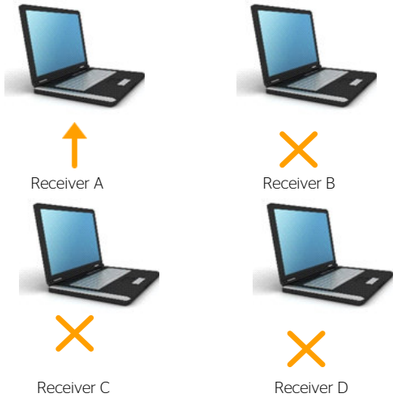


Using the remote control with several items of equipment:

Press the remote control corresponding to your A, B, C or D equipment once.

You can use the other remote control keys, only the selected equipment will receive the information.

For example, if the operator presses key A once.



Now just use the key:

Navigation in the menu:

The different elements are selected using the directional keys. The active field is highlighted in blue.

The up and down keys are used to change the selection in the active field. The left and right keys are used to switch fields.

When all the fields are correct, the user launches the control by pressing OK.

3.2 Technical Specifications

Brake Testing Bench	RBT240	RBT270
Minimum space between the wheels	800mm	800mm
Maximum space between the outside of the wheels	2,200mm	2,200mm
Max. Load per wheel	2,000kg	2,200kg
Power supply voltage	400V + Three phased + Ground + Neutral	400V + Three phased + Ground + Neutral
4 rollers	Ø≥200mm	Ø≥200mm
Roller speed	5km/h	5km/h
Motor power	2x 4kW	2x 4kW
Indicator roller	Ø50mm	Ø50mm
Maximum force	750 daN	1,200daN

Equipment accessories are all in the LV category (Low Voltage) when using alternating current and VLV (Very Low Voltage) when using direct current and are all insulated.

3.3 Installation & Commissioning

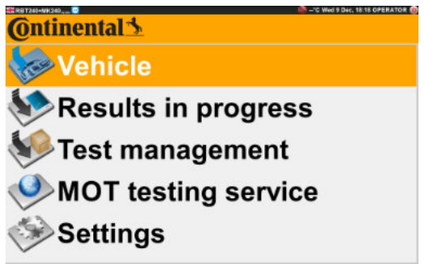
3.3.1 Recommendations

The equipment can be left powered on 24*7. However, it is recommended to turn off the power supply at night.

3.3.2 Powering on

The screen must not be directly exposed to sunlight when using with a PC and touch screen using IR technology.
In this case the touch function will be disrupted and will not work properly.
In this case, it is recommended to pivot the screen slightly away from the sunlight.

After a few seconds the main menu is displayed.



Use the directional arrows on the remote control or the computer keyboard to move around inside the menu. The OK key is used to validate the choice on which the cursor is located. The ESC key is used to return to the previous window and is available at all times.

3.3.3 Navigation, getting started with the user interface

The navigation functions are easy to use by pressing a button.

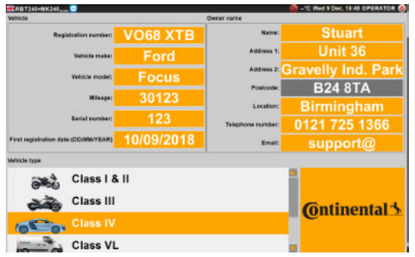
The user interface can be fully operated at a distance using a remote control. This feature is useful when carrying out a test from inside a vehicle.

It is also possible to scroll through the menus using the keyboard and a mouse.

In all data entry fields, a virtual keyboard displays to carry out fast and intuitive data entry.

4 Control

4.1 Selecting the vehicle and configuring the test



The following information is required for all vehicle classes

Class I & II

- Number of wheel
- Motorbike brake type (brake system: Front/Rear Linked)
- Registration number
- Make
- Model
- Registration date

Class III

- 4x4 Selection (Note: See the car manufacturer's prescriptions before)
- Single wheel axle (Axle1=front or Axle2=Rear)
- Parking brake type (Axle1=front, Axle2=Rear)
- Service brake type (Dual or Single)
- Registration number
- Make
- Model
- Registration date

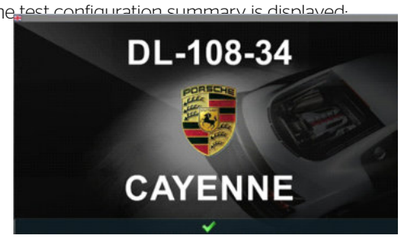
Class IV

- Manual Mode (MAN) or Automatic Mode (ATL)
- 4x4 Selection (Note: See the car manufacturer's prescriptions before)
- Service brake
- Number of axles
- Parking brake type (Axle1=front, Axle2=Rear)
- Service brake type (Dual or Single)
- Registration number
- Make
- Model
- Registration date

Class VII

- Manual Mode (MAN) or Automatic Mode (ATL)
- 4x4 Selection (Note: See the car manufacturer's prescriptions before)
- Service brake
- Number of axles (2 or 3)
- Parking brake type (Axle1=front, Axle2=Rear)
- Service brake type (Dual or Single)
- Design Gross Weight (DGW)
- Registration number
- Make
- Model
- Registration date

The test configuration summary is displayed:

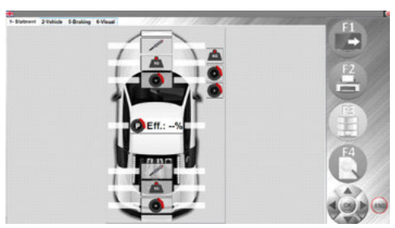


4.2 Current results

This page can be viewed at all times to follow the test progress status:

- The detail is available using the tabs on the right part.

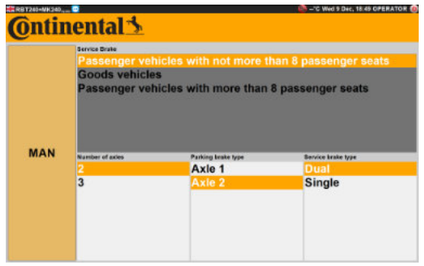
Example: Test started, no tests carried out



4.3 Operating Instructions

4.3.1 Manual Mode

"Class I or Class II"



You must use motorcycle cover plate.

Motorcycle Plate MK240 for the RBT240 or Motorcycle Plate MK270 for the RBT270

Most machine have two controls, one operating the front wheel brake and the other rear wheel brake.
In this case, you must use **Front/Rear.**

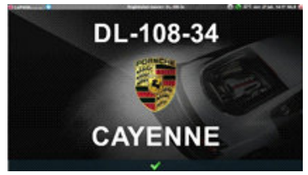
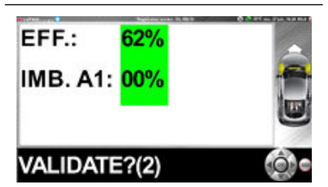
Where a linked or dual system is operated by one control, in this case you must use Linked

Example of side car, which have one command for front wheel and the other command link rear wheel and side car wheel, you have to:

- On the customer header, select "Front/rear" and 3 wheels
- Go to first wheel (front wheel), control weight and brake
- Go to second wheel (rear wheel), control weight only
- Go to third wheel (side car wheel), control weight only
- Print test report
- For the other command, on the customer header, select "Linked" and 3 wheels
- Go to the first wheel (front wheel), control weight only
- Go to second wheel (rear wheel), control weight and brake
- Go to third wheel (side car wheel), control weight and brake
- Print test report

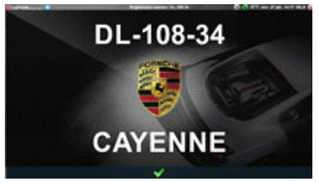
Software	Command	To Do
		Drive into brake tester on the right or on the left.
		The weight measurement starts automatically. The weighing results are displayed on the screen
	 	Select options: › Left/Right wheel › Exit (if you don't have any brake, only weight) And Press OK
		Apply service brake to the maximum Roller stop at: › Lock › Force stable during 3 seconds › Wheels out of the rollers › Abort test (Press ESC)
	 	Press OK to start an observe test. Or ESC
	 	Select options: › Left/Right wheel › Exit And Press OK
		You have 5 seconds to drive out. I you don't have any time you can press OK.

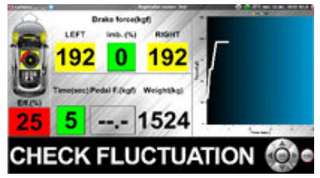
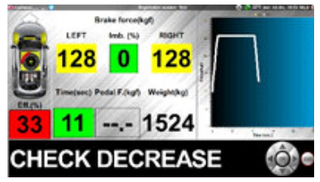
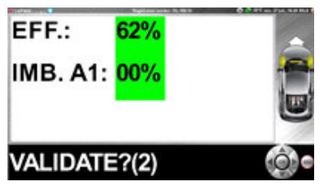
"Class III, Class IV or Class VII example"

Software	Command	To Do
		Drive into brake tester
		The weight measurement starts automatically. The weighing results are displayed on the screen
	 	Select options: › Axle › Left wheel › Right wheel › Exit And Press OK
		Apply service brake to the maximum Roller stop at: › Lock › Force stable during 3 seconds › Wheels out of the rollers Abort test (Press ESC)
	 	Press OK to finish Or Select options: › Axle › Left wheel › Right wheel › Exit
	 	You can invalidate and restart if you press ESC
		You have 5 seconds to drive out. I you don't have any time you can press OK.

4.3.2 Automatic Mode (ATL)

Refer to the MOT Insection Manual for details of the correct MOT test procedure.

Software	Command	To Do
		Drive into brake tester
		The weight measurement starts automatically. The weighing results are displayed on the screen
		Motors starts automatically. 2 secs to centralise ⚠ Stay inside the car. Nobody around the car during the test.
		› Check for Bind Roller stop at: › Lock › Release pedal force › Wheels out of the rollers Abort test (Press ESC)
		› Slowly apply service brake Roller stop at: › Lock › Release pedal force › Wheels out of the rollers Abort test (Press ESC)
		› Check for rate of increase Roller stop at: › Lock › Release pedal force › Wheels out of the rollers Abort test (Press ESC)
		› Hold the pedal pressure steady Roller stop at: › Lock › Release pedal force › Wheels out of the rollers Abort test (Press ESC)

		Check for excessive fluctuation of brake effort Roller stop at: › Lock › Release pedal force › Wheels out of the rollers › Abort test (Press ESC)
		Gradually release the service brake and check for rate decrease. Roller stop at: › Lock › Release pedal force › Wheels out of the rollers › Abort test (Press ESC)
		Gradually apply the service brake The imbalance left-right is measured Roller stop at: › Lock › Force stable during 3 seconds › Release pedal force › Wheels out of the rollers › Abort test (Press ESC)
		You can invalidate and restart if you press ESC
		You have 5 seconds to drive out. I you don't have any time you can press OK.
Test the second and/or third axle as seen previously.		

4.3.3 Print Results

"F1" key: Restart a new test

"F2" key: Print results

"F3" key: Save results

"F4" key: Preview the results before printing

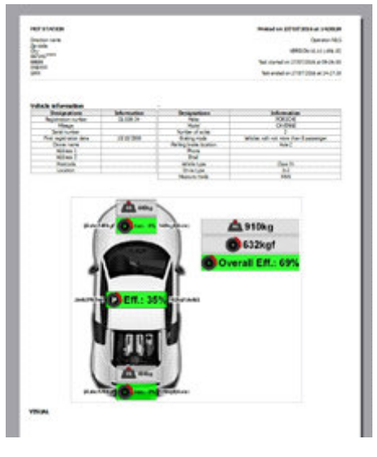
If you select Braking tab, you see the complete test report.

In ATL mode you have the test result.

OK if you want a test report with the car

ESC if you want the complete table

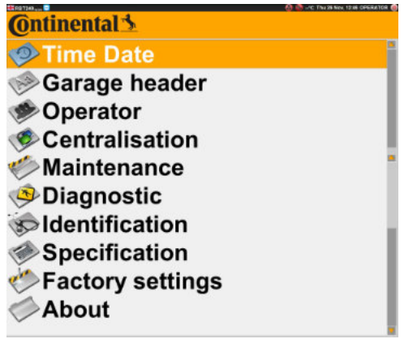
Example if your press OK:



5 Settings

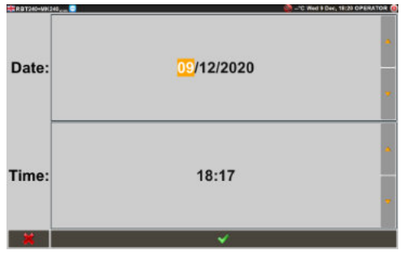
To launch the Settings menu, from the home page.

The following menu is displayed:



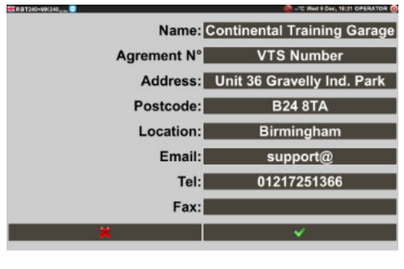
The settings menu is composed of different sub-menus which are described in detail below.

5.1 Date/time:



Used to set the date and time on RBT240/RBT270s.

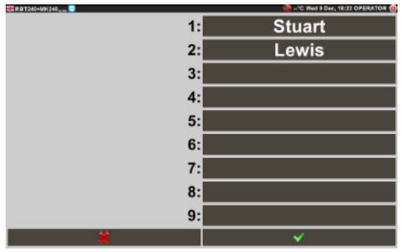
Select the field using the OK key, use the UP and DOWN arrows to change the value. Then, to save the new values, press OK.



Exit using the ESC key.

5.2 Garage Header

Used to enter and customise garage or MOT centre related information. This information is printed on the test report header.



5.3 Operator

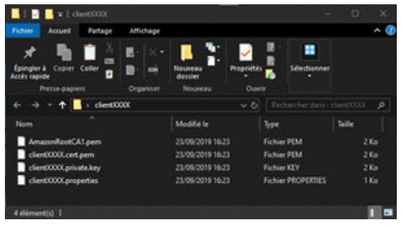
Used to enter up to 9 operator names. The principle is the same as for the "garage header".

To select the operator name on the main menu, press the **top right zone and select the operator**. This name will be printed on the completed test report.

5.4 Centralisation

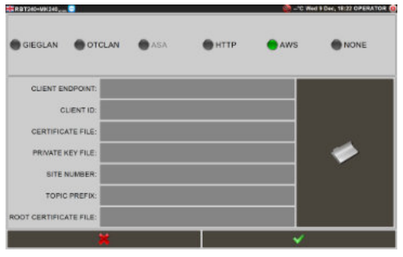
In order to connect to AWS, the equipment will require an X.509 client certificate, which is issued by DVSA. These certificates are being supplied to the Authorised Examiner Designated Manager in a zip file format and are unique for each client.

Unzip this file with Authorised Examiner Designated Manager ID as password.

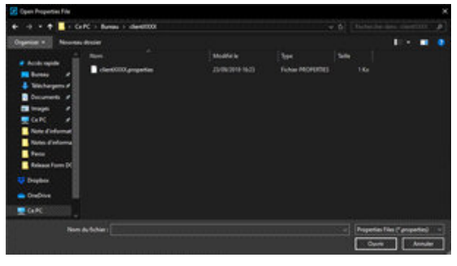


The minimum list files form DVSA required by WIN9010 software:
› AmazonRootCA1.pem
› XXXX.cert.pem
› XXXX.private.key

Plug this USB stick into a free USB port on the RBT control PC.



Select AWS and click on folder button.



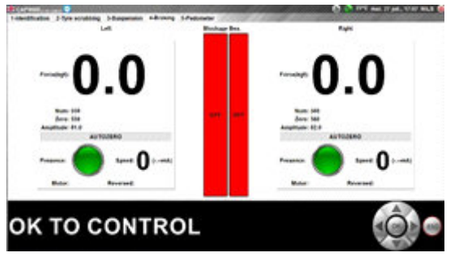
Browse to certificate folder on your USB stick and select XXXX.properties

Validate by a click on bottom right button and restart software.

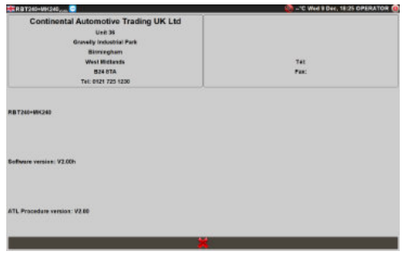
5.5 Maintenance

Maintenance menu (password protected). Calibration must be carried out by an approved person. For service contract options and further information contact Continental Sales on 0121 725 1400 or email salesordrs@continental-corporation.com

5.6 Diagnostic



This window contains the diagnostic of all sensors are inside the brake tester.



5.7 About

This window contained the manufacturer contact details, the maintenance company details and information about the software versions. For more information about our products, go to the website: www.capalec.fr

This symbol indicates that, in compliance with the WEEE directive (2002/96/EC) and with your local regulations, this product must not be disposed of with household waste. It must be deposited in a zone specific to this effect, for example an official electric and electronic equipment (EEE) waste collection centre for recycling, or at an approved product exchange point which is available when purchasing a new product of the same type as the product being disposed of. Any failures to respect these recommendations on the disposal of this type of waste can have negative effects on the environment and public health because these electric and electronic products generally contain potentially dangerous substances. In parallel, your complete collaboration in the correct disposal of this product will contribute to a better use of natural resources. For more information on equipment collection points for recycling, contact your town hall, the waste collection department, the approved WEEE plan or the household waste removal service.

6 After Sales Service

Apart from the routine maintenance and adjustments stipulated in this manual the equipment must not be tampered with in any way. All further servicing must be carried out only by an engineer from an Authorised Agent. Failure to observe these conditions will invalidate the Guarantee.

6.1 On-Site Service / Overhaul / Spare Parts

If you require a Service Engineer to attend ON SITE, either due to an equipment fault, or for machine calibration, or if you need spare parts, please contact our Product Support Department

6.2 UK After-Sales Service

Call Continental support for details of local service agents.

7 Contact Details

SALES
Tel: 0121 725 1400
Email: salesorders@continental-corporation.com

SUPPORT
Tel: 0121 725 1366
Email: support@cryptontechnology.com

Continental Automotive Trading UK Ltd
36 Gravelly Industrial Park
Birmingham
B24 8TA
United Kingdom

www.cryptontechnolgy.com

E & O E. The Company reserves the right to introduce improvements in design or specification without prior notice. The sale of this product is subject to our standard terms, conditions and relevant product warranty.

Operating Manual RBT240 / RBT270

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