

Technical documentation

SAXON®

Roller brake tester

B 67A-ATL	24648
B 70A-ATL	24650
B 67.6-ATL	24649
B 67-ATL 1Phase	24649 1
B 60.6VB-ATL	24651

Automatic Test Lane

UK - Version

User manual
Installation
Electrical diagram
Spare part list
Declaration of conformity
Certificate of acceptance

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Table of contents

1	Introduction.....	3
2	Approvals and use MOT in UK.....	3
3	Safety Instructions.....	4
4	Packing, transport and storage.....	5
5	Mounting, installation and start-up.....	7
6	Displays and operating elements.....	8
6.1	Display cabinet.....	8
6.2	Function of the operating elements at the electrical cabinet.....	9
6.3	Meaning of display elements.....	9
6.4	IR remote control.....	11
6.5	Useful accessories.....	14
7	Starting the brake tester.....	14
8	ATL brake test mode.....	15
8.1	Standard sequence for performing a brake test.....	15
8.2	Detailed description of tasks.....	15
8.2.1	The main screen.....	15
8.2.2	Create an order.....	16
8.2.3	Activate the order.....	19
8.2.4	Perform the test.....	20
8.2.5	Test the vehicle according the machine's guidance.....	21
8.2.6	See the results.....	27
8.2.7	Evaluate the results as required by ATL specification and close the order.....	28
8.2.8	Print the ATL test report.....	29
8.2.9	Create a new basic data (Make, Models, Inspectors, Vehicle class).....	33
9	Operating in manual mode.....	35
9.1	Self test and start up procedure.....	35
9.1.1	Error codes at the start up.....	35
9.1.2	Wrong manual entries.....	35
9.2	Side slip test (not required for MOT).....	36
9.3	Chassis tester check (not required for MOT).....	36
9.4	Brake test for MOT.....	37
9.4.1	Normal test process.....	37
9.4.2	Special operation steps.....	37
9.4.3	Testing vehicles with 4WD.....	38
9.4.4	Testing vehicles class I + II.....	38
10	Special evaluations for side slip and suspension tester.....	39
10.1	Side slip test evaluation.....	39
10.2	Chassis test evaluation.....	39
11	Maintenance, instrument test and customer service.....	41
11.1	Maintenance.....	41
11.2	Instrument Test.....	42
11.3	Customer Service.....	42
12	Annex.....	43
12.1	Technical Data.....	43
12.2	Installation.....	44
12.3	Electrical diagram.....	44
12.4	Spare part list.....	44
12.5	Declaration of conformity.....	44
12.6	Certificate of acceptance.....	44

1 Introduction

We congratulate you on having purchased a new SAXON® roller brake tester. The brake tester is a combination of a well-proved and tested computer-controlled electronic system, a highly developed software system, and a top quality mechanical system. With the appropriate options, the tester can be used for checking track angles, shock absorbers as well as braking systems.

Whether you can use all the elements and operating functions specified herein depends on the equipment provided on your brake tester. We do not assume any guarantee for the error-free operation of functions which are not specified herein.

The modular system of the tester allows customers at any time to add a wide range of options and accessories. Consult your dealer.

We reserve the right to alter our products in the interest of technical progress.

Please read these Operating Instructions carefully before you start using the brake tester. The instruction given after the mounting by our technical service will surely be helpful, but cannot replace the complete content of this technical manual.

Your SAXON Team

2 Approvals and use MOT in UK

The testers are approved by the VOSA and can be used for MOT on following vehicles classes:

Model of the brake tester	for MOT using ATL	Additional for MOT using manual test mode (MOT specification is relevant)
B 67A-ATL	class IV*	class I, II, III, IV
B 67.6-ATL B 67-ATL 1Phase	class IV*	class I, II, III, IV
B 70A-ATL	class VII, 5L and IV*	class I, II, III, IV, VII, 5L
B 60.6VB-ATL	class VII, 5L and IV*	class I, II, III, IV, VII, 5L

Important remarks:

* If a brake is used for testing vehicles class IV a weight facility is mandatory!
The brake testers can be used as stand alone version (with weight facility below the rollers) or combined as test lane with optional suspension tester (used as external weighing facility) and side slip tester (not required for MOT).

Vehicles class III and vehicles with permanent 4 wheel drive can be tested in manual mode only.

Vehicles class I and II can be tested using additional special motor cycle adaptors depending from model.

This manual considers the ATL specifications and the specifications for roller brake tester for MOT of the year 2007.

3 Safety Instructions

- Brake tests on the vehicle tester should be performed only by trained personnel !
- Use brake tester only for the application it is intended for!
It is not allowed to use the equipment for starting motors as such use may result in damage.
- During the testing, no persons should stay in the immediate danger zone! Keep customers and onlookers away from the brake tester!
- If the brake tester is not used or if it is installed in a place accessible to customers or onlookers (workshop entrance etc.), it should be covered and/or access to it prevented by appropriate barriers. The main switch should be secured against switching on without authorization!
- Place cover plates on the brake tester only after the brake tester have been switched off.
Do not place cover plates on the brake tester on the left and right sides at the same time.
If the brake tester is switched on, the rollers may start to run.
- All repair and maintenance work should be performed by personnel instructed accordingly and/or trained customer service engineers!
- Any operations at the electric system must be performed by an authorized specialist only!
- When you drive the car into the brake tester, drive it slowly, centrally, and in a straight direction.
- Make sure that the vehicle aligns according to its rear axles after the drives have been switched on. Put the steering system in the straight direction.
- After the brake test at the driving axle has been completed, you should drive the vehicle out of the brake tester in the forward direction and with running rollers only!
Proceed as follows:
 1. *Start the brake rollers and wait until they are prepared for taking measurements.*
 2. *Start the vehicle motor.*
 3. *Engage gear and leave brake tester steadily in the forward direction.*
 4. *Then, leave the area by driving backwards via the brake tester.*
- When driving through the vehicle brake testing stand do not exceed a speed of 2 km/h. You should be aware that impacts occurring while passing through the testing station will produce great forces.
- Do not operate the key switches by using any sharp-pointed tools!
- For the brake testing stand the following applies: Prior to measurement, operate brakes until they reach service temperature. Brake slowly and continuously until brakes reach the temperature required.

Observe the technical data of your brake tester. Pay special attention to the admissible axle load!

4 Packing, transport and storage

The vehicle tester consists of:

- 2 Build-in trays with cover plates
- 2 brake mechanics
- 1 display cabinet

and, as option, of

- 1 support or wall swivel arm,
- 1 equipment for printer
- 1 Set of accessories for remote control, foot or hand force sensors, as well as additional elements.

B67A-ATL, B67-ATL 1Phase & B67.6-ATL:

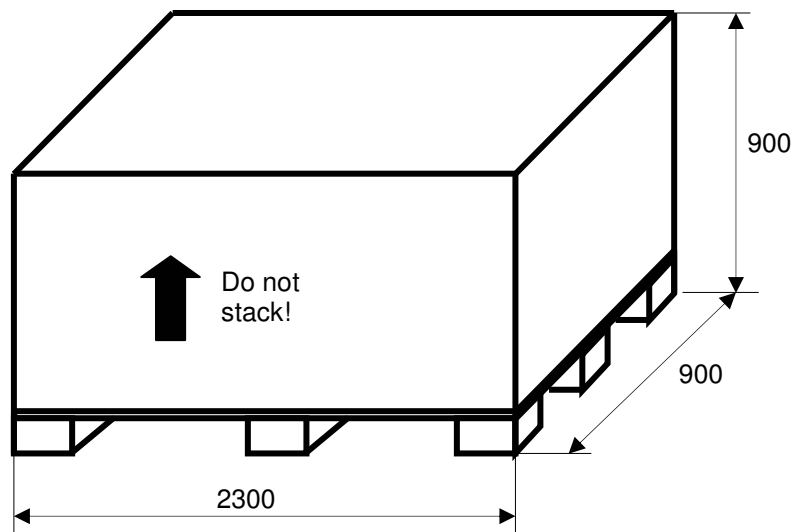
The **packing** is made on a wooden EURO standard pallet. 2300 x 900mm with a cardboard box of a height of 900mm

The **delivery** lot is transported as:

- 1 cardboard box 2300 x 900 x 900 (LxWxH) 550 kg (B60A), 425 kg (B67A)

They may only be taken up and transported via the pallet load board and are not stackable.

Storage is possible for up to 12 months in moderate climate in closed rooms with temperatures between – 10 and + 45 °C and an atmospheric humidity to up to 75 %.



B70A-ATL & B60.6VB-ATL:

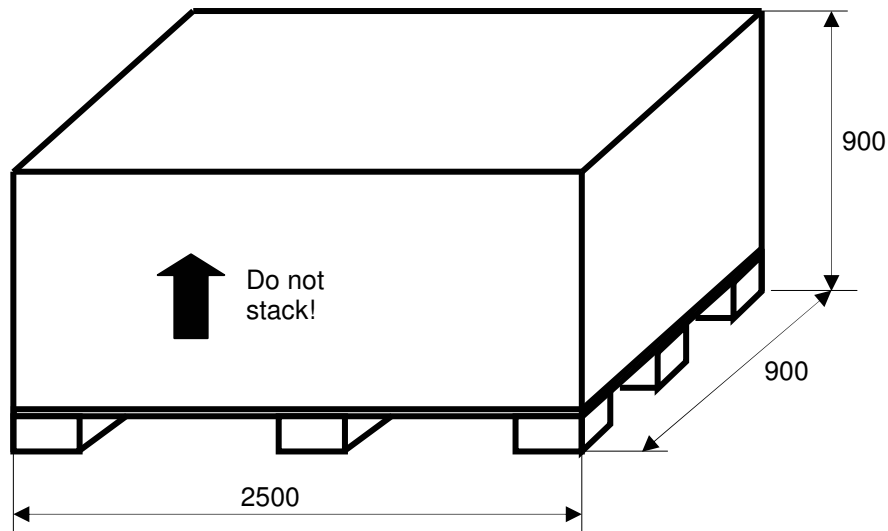
The **packing** is made on a wooden EURO standard pallet. 2300 x 900mm with a cardboard box of a height of 900mm.

The **delivery** lot is transported as:

1 cardboard box 2500 x 900 x 900 (LxBxH) 645 kg

They may only be taken up and transported via the pallet load board and are not stackable.

Storage is possible for up to 12 months in moderate climate in closed rooms with temperatures between – 10 and + 45 °C and an atmospheric humidity to up to 75 %.



The packing can deviate from the standard.

Other packing, transport or storage conditions imperatively must be agreed on by SAXON.

If the packing shows exterior signs of damages at the delivery already, the addressee must immediately write a damage record which has to be confirmed by the carrier. In the case of exterior damage or opened packing or other unauthorized manipulations any guarantee is a priori excluded.

5 Mounting, installation and start-up

Generally the brake tester is installed level with the floor with and centrally in the test bay. For this version an installation plan can be found in the annex.

In addition, the following explanations are necessary:

- The brake tester mechanics with build-in frame and cover plate is designed in such a way that its upper edge is level with the floor and can be driven over in each direction with cars up to a weight of 3.5 t. Thus the brake tester can even be mounted in an entrance. The brake tester cover plates are only removed for tests. (Note: (refer to safety instructions!))
- The build-in frame contained in the scope of delivery is placed on a concrete foundation platform and adjusted with wedges to be level with the floor as well as to the test direction. The test line is central. After that it is recommended to pour thin concrete to the bottom plate of the frame. The empty conduit should stick out for approximately 30 mm, in order to prevent this liquid or later water from pouring in. If there is the risk of water or if it is an installation in the open air, a drain is recommended. After hardening the further assembly and mounting on the floor can continue.
- During the assembly, a pull rope is introduced into the empty pipe in order to make it later possible that the cables can be pulled through (avoid sharp edges).
- The display cabinet can be mounted to a wall (4 anchor bolts at the rear side), so it does not take any workshop ground space. That is also the reason why the pointers and display elements are so big. In the cabinet there are also the electric main switch as well as the electric power supply; it should be positioned at a place and height easy to reach. As an alternative, it can be positioned on a support or a wall swivel arm.
- To the display cabinet are connected the brake tester mechanic (all cables are supplied with a length of 15 m), the printer according to the length ordered and all sensor connections for pedal and hand force, PC-connection etc. There we recommend you to choose an appropriate place for its position. Without connection to a PC it is recommendable to position the printer next to the display cabinet (up to a maximum of 5 m).

The installation is made according to the general plans and the circuit scheme in the annex. The high-voltage supply needs the indicated protection and is inserted in the display cabinet in front of the main switch. This must only be carried out by a specialised electric company; the net conditions and safety regulations must be respected. The other power connections to the brake tester motor as well as the measuring circuits are marked. Special attention must be given to the right sense of rotation (brake test may only be carried out in the usual sense of rotation of the wheel!).

The data connections are wired by the manufacturer for plug-in.

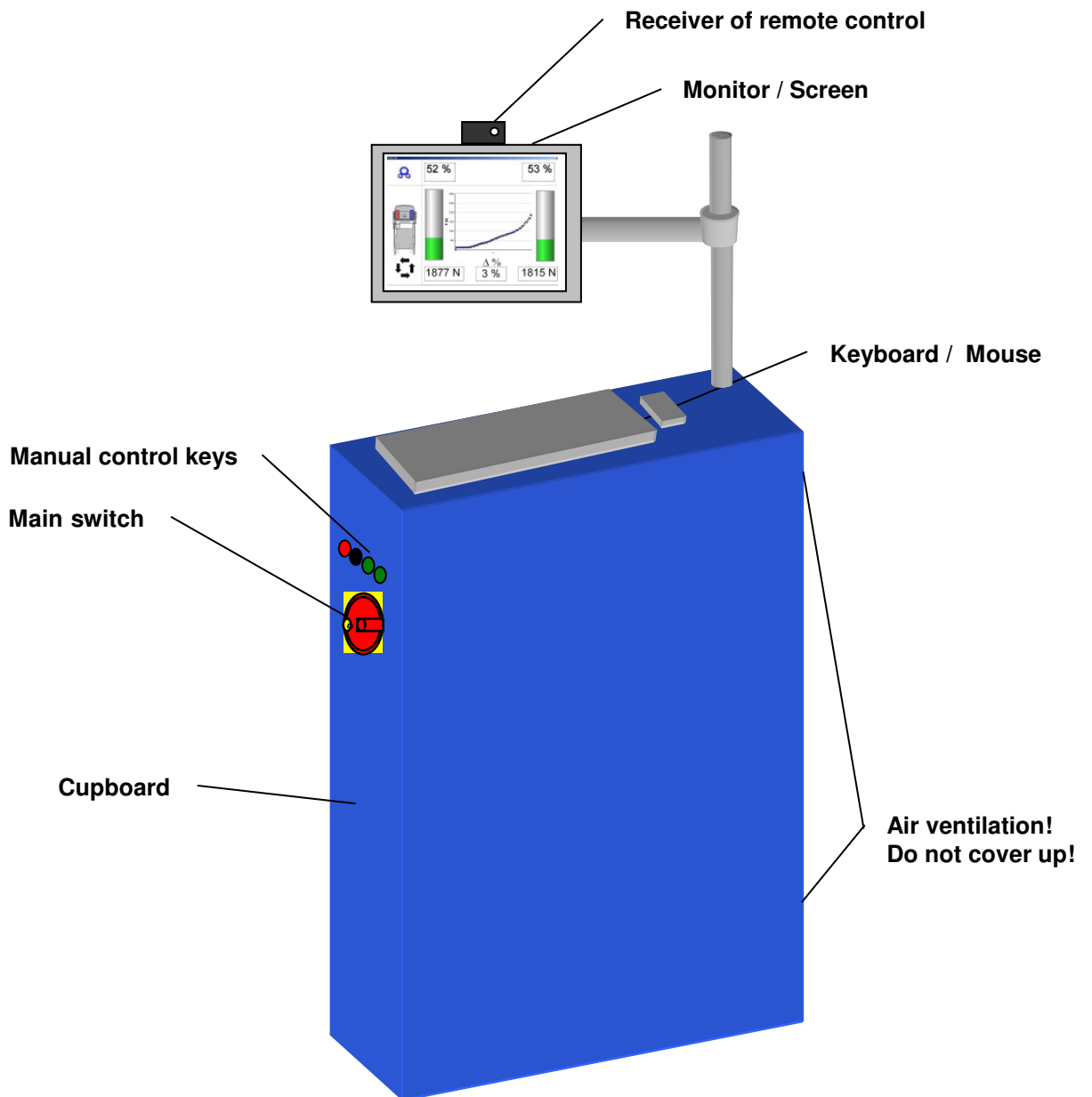
For the start-up it must be proceeded in the following order:

- Check the mechanical installation of all elements and make sure that they have sufficient space for function.
- Check the mechanic adjustment of the sensors (switching levels).
- Check the electric function of the sensors (zero points).
- Check the sense of rotation of the drive motor.
- Check the displays and the infrared remote control.
- Check calibration and adjustment of the brake forces, the chassis tester as well as of the track plate.
- Check of all maintenance and lubrication parts.





Although the vehicle tester has gone through a comprehensive function test and control by the manufacturer, damage can occur caused by transport and installation. We recommend you to install and start the tester during an instruction about how to operate it and its maintenance.

6 Displays and operating elements

6.1 Display cabinet

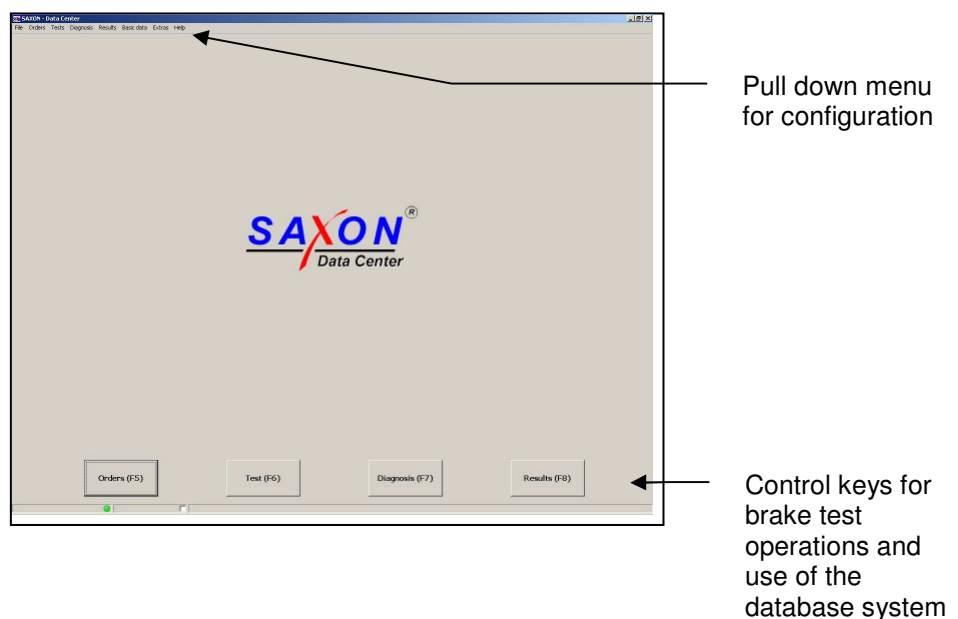


6.2 Function of the operating elements at the electrical cabinet

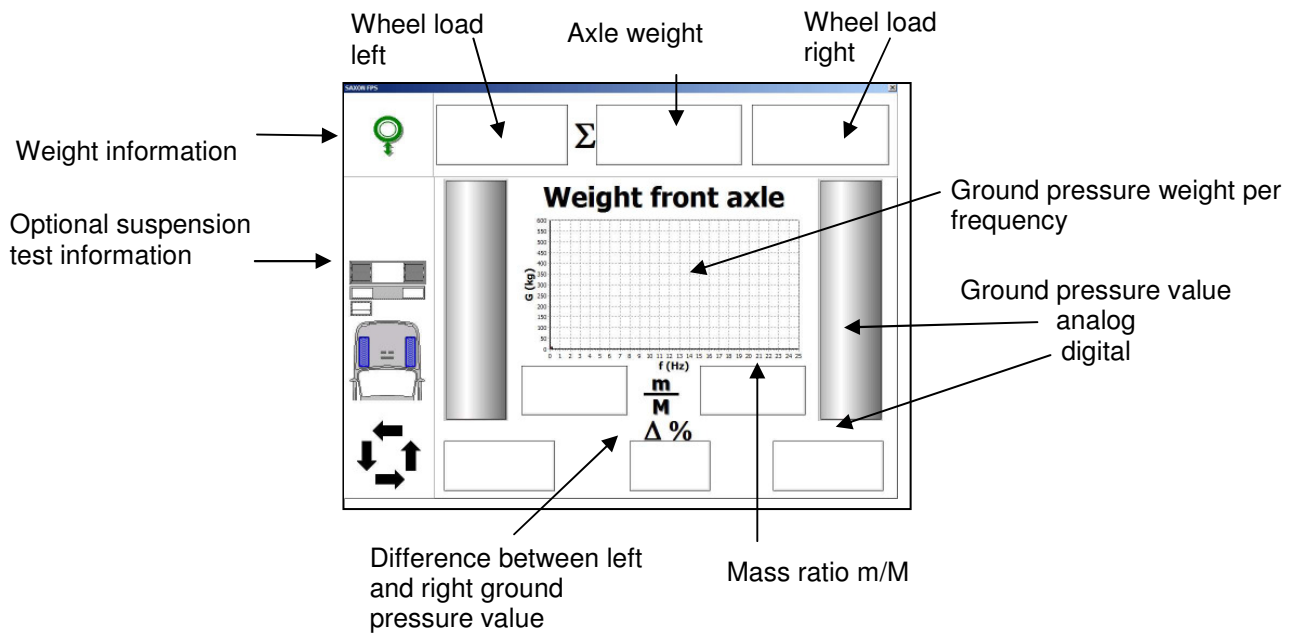
Button:	Function	Description
	STOP	Press the STOP button to terminate the test process or to stop the current test operation.
	AUTOMATIC	Apply the AUTOMATIC button to start the automatic test program.
	Left roller start Left chassis tester start	Press the "Left roller start" button to activate the left set of rollers. Press the "Left chassis tester start" button to activate the left chassis tester.
	Right roller start Right chassis tester start	Press the "Right roller start" button to activate the right set of rollers. Press the "Right chassis start" button to activate the right chassis tester.

6.3 Meaning of display elements

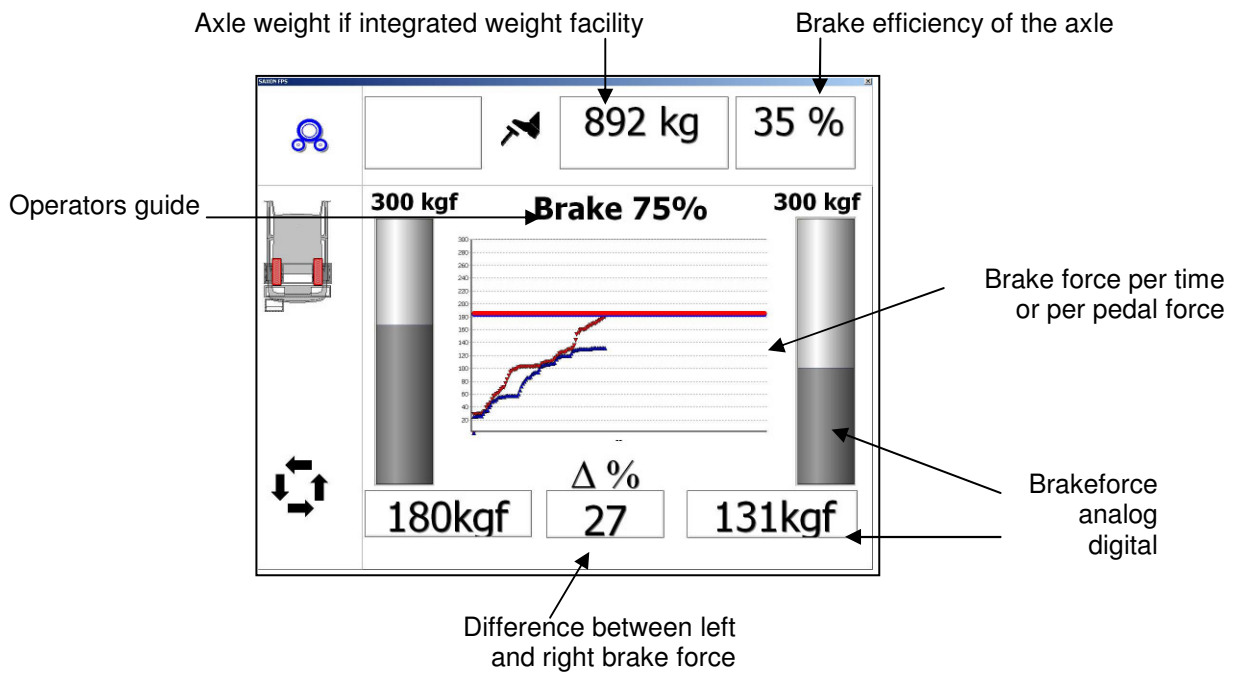
Main screen of the Software "Data Center"



Weight facility / Optional suspension tester



Braking Force Display

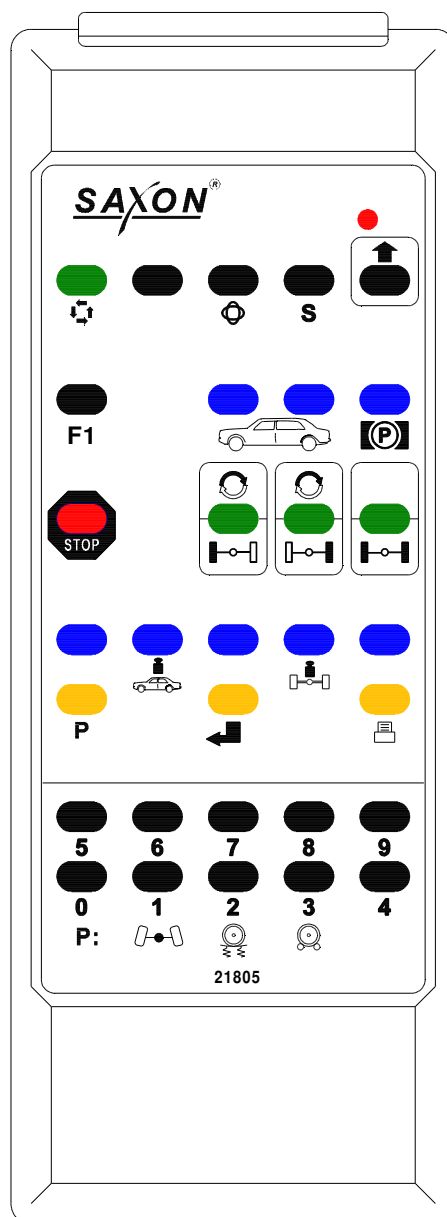









6.4 IR remote control







The remote control enables the testing process to be controlled from inside the vehicle under inspection. For this purpose, you should hold the remote control unit so that it shows in the direction of the display unit.

Using the remote control you can do manual tests of the brakes following the latest MOT regulation from driver's seat.

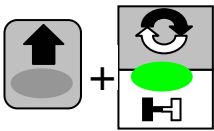
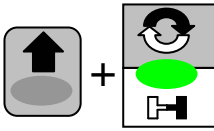
Additional special vehicles i.e. like permanent driven 4WD vehicles, vehicles with 3 axles, motorcycles and 3 - wheelers can be tested.



Button:	Function	Description
	STOP	Press the STOP button to terminate the test process or to stop the current test operation.
	Left roller start Left chassis tester start	Press the "Left roller start" button to activate the left set of rollers. Press the "Left chassis tester start" button to activate the left chassis tester.
	Right roller start Right chassis tester start	Press the "Right roller start" button to activate the right set of rollers. Press the "Right chassis start" button to activate the right chassis tester.
	Both sets of rollers Chassis tester	Press the "both start" button to activate both sets of rollers. Press the "both start" button to activate first the right chassis tester and then automatically the left chassis tester.
	Program	Apply the "Program" button to start selection of the test program. The brake tester is then in input mode. The test program can now be selected (e.g. 3 for brake tester) and confirmed by applying ENTER.
	Enter	Press "Enter" to confirm the entry you have made.
	Ovality measurement	Starts the ovality measurement.

Button:	Function	Description
	SHIFT	Press the "SHIFT" button to activate the functions above the keys. see SHIFT functions
	Numbers	The number buttons 0-9 are for entry of numerical values.
	Total weight of vehicle	Apply the "Total weight of vehicle" button to activate the input mode for the vehicle weight. The brake tester is then in input mode. The vehicle weight (e.g. 900) can now be selected and confirmed via Enter.
	Axle weight	Apply the "axle weight" button to activate the input mode for the axle weight. The brake tester is then in input mode. Then enter the empty axle weight (e.g. 500) and confirm by pressing ENTER.
	Save service brake Chassis tester	Apply the "Save front wheel service brake" button to save the measured values of the front wheel service brake. Apply the "Save rear wheel service brake" button to save the measured values of the rear wheel service brake. The values are assigned to the respective axle.
	parking brake	Apply the "parking brake" button to assign the measured values to the parking brake.

SHIFT – Functions

Button:	Function	Description
	4-wheel left	Press the "4-wheel left ON" button to start the left set of rollers in the sense of rotation and the right set of rollers against the sense of rotation.
	4-wheel right	Press the "4-wheel right ON" button to start the right set of rollers in the sense of rotation and the left set of rollers against the sense of rotation.

6.5 Useful accessories

Pedal force sensor

Measures the operating forces at the brake pedal of the foot brake. This accessory enables the brake tester to put the operating forces of all wheels in relation to each other and to compare them. It is indispensable for evaluating the difference at single-wheel and four-wheel measurements. The sensor is attached to the brake pedal or the foot. The basic version is connected by cable.

A version with radio control is also available.

7 Starting the brake tester

Make sure that no vehicles are in the brake tester!
Remove cover plates from the rollers!

Switch on the brake tester on main switch!

The indicator for operation will light up!

The computer will start up and will automatically start the software application.
The following screen will come up.



Now you have to decide what you like to do with the equipment!

1. Possibility: Use the program "Data Center" to carry out a MOT test using the automatic working ATL test sequence.

Go ahead with the description of the section "ATL brake test mode"
The results will be memorised in the data base permanently.

The same procedure is to use for MOT tests on vehicle out side of the ATL specification i.e. vehicles class I, II, III and vehicles which can not be tested in automatic mode i.e. 4x4 driven or 3 axle vehicles. In that case the brake test steps are used in the manual mode.

2. Possibility: Start up using the "Diagnosis Modul" to do diagnosis on brakes of a vehicle.

Do not use that possibility for MOT test.
The datas can not be memorised in the data base.

8 ATL brake test mode

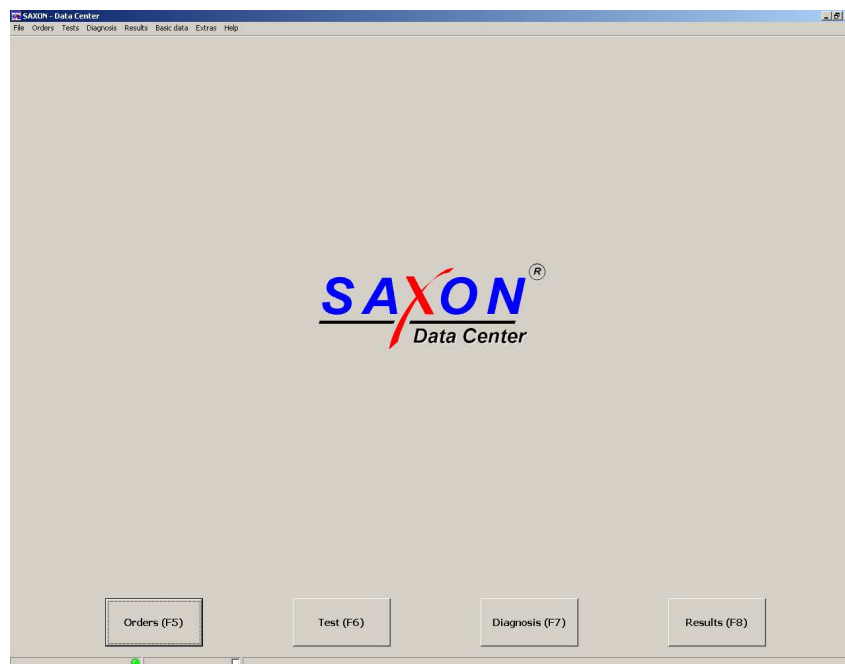
8.1 Standard sequence for performing a brake test

In order to perform a brake test a certain sequence of tasks must be accomplished:

1. Create an order
2. Activate the order
3. Perform the test
4. Test the vehicle according the machine's guidance
5. See the results
6. Evaluate the results as required by ATL specification and close the order
7. Print the ATL test report
8. For the next vehicle repeat from step 1

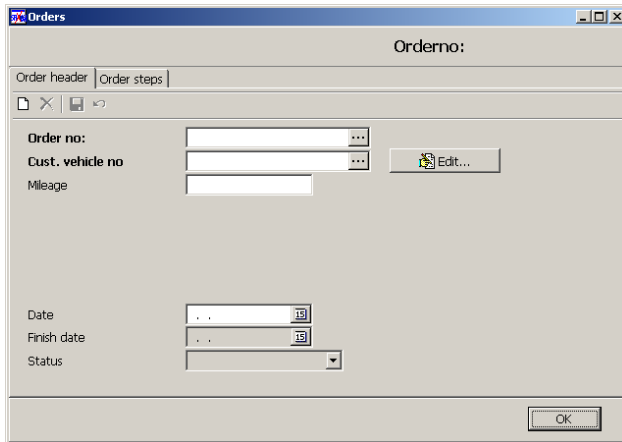
8.2 Detailed description of tasks

8.2.1 The main screen



8.2.2 Create an order

Press Orders (F5) on the main screen to open the order entry window.

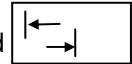


Create the new order:

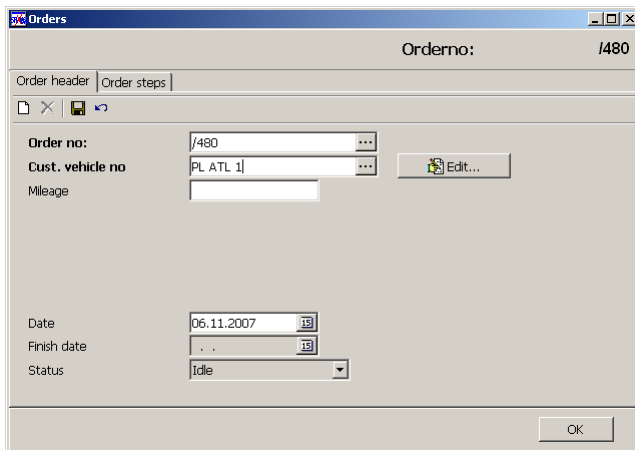
All fields written in bold are mandatory and must be filled.

Press the "Insert" button to create a new order, the order number will be generated automatically.

Using the Tab key on keyboard



you jump to the next field.



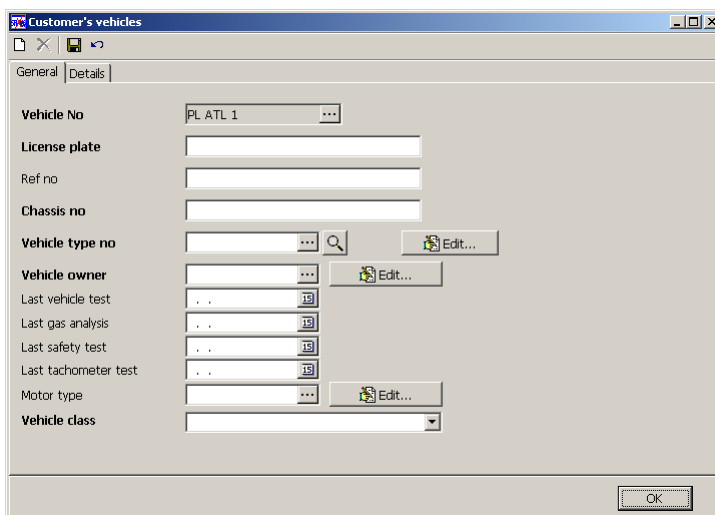
Define the vehicle:

Enter the vehicle registration number, this can be the license plate or another custom defined number. The press the Tab-key now to move the cursor to the next field.

If the vehicle is recognized by the system (returning vehicle) then the stored data from the database will be used.

The Edit bottom allows to see the details.

If the vehicle is new to the system, the vehicle information window will open.



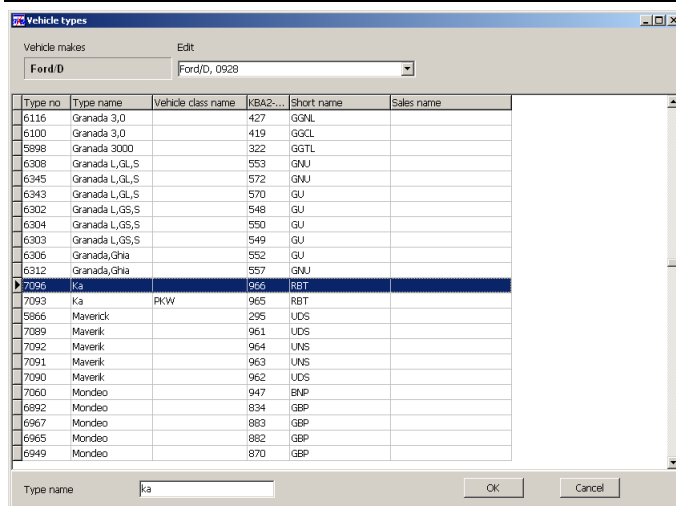
Fill the vehicle details:

Again, all labels in bold are mandatory fields and must be filled.

The vehicle type is a lookup field. To find a vehicle type, press the "magnifying glass" button.



It contains Make and Model information, mandatory for ATL testing.



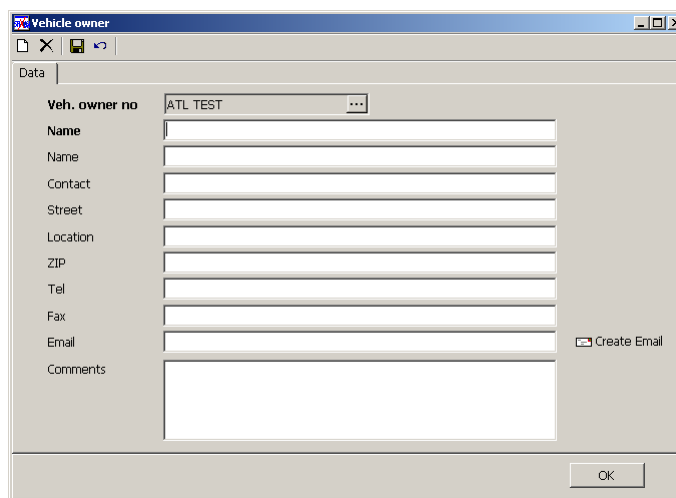
Select make and model:

Select the make from the list box above the table. The table is then filtered to the selected make and a list of vehicles appears.

To quickly find a vehicle name, enter the first letters in the "type name" search box on the bottom of the list.

Select the desired model and click "OK".

In case the vehicle or make or model does not exist in the database please press Cancel and go to section 8.2.9 "Create a new model".

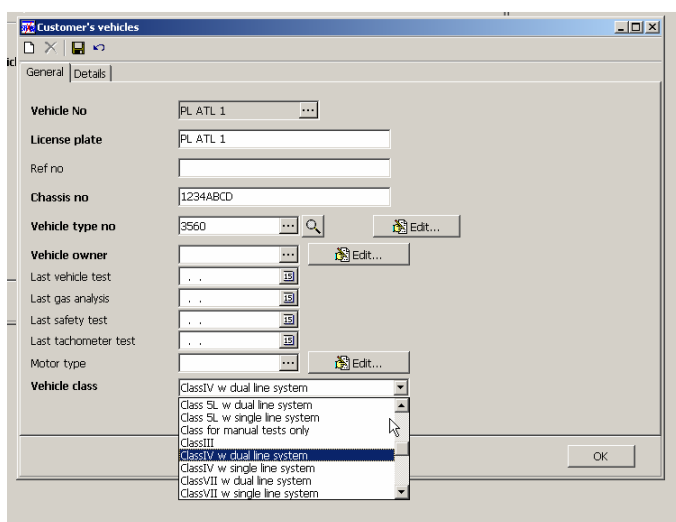


Input of vehicle owner:

If you enter a new vehicle owner in the related field in the vehicle information window and you press Tab key, then the vehicle owner information windows will pop up if the name is not yet in the database and at least a name information is required.

Press the "Save" button when done.

OK will bring you back to the vehicle information.



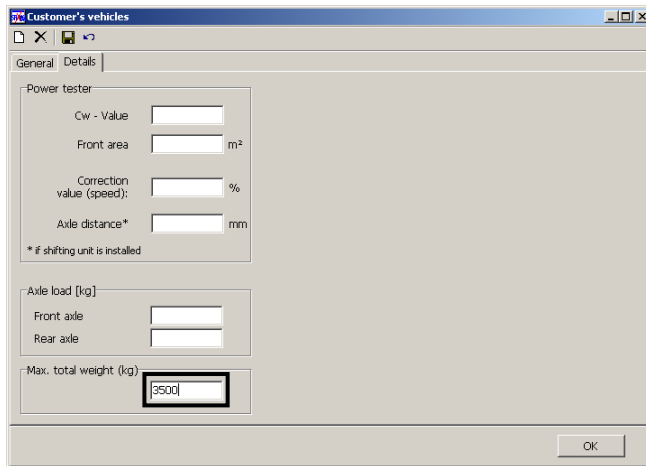
Select the relevant vehicle class:

Select one from the list!
It's mandatory for ATL testing.

Now the vehicle information is complete.

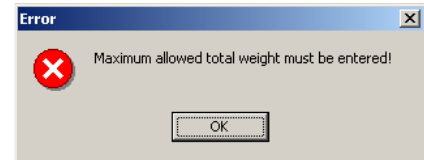
Press the "Save" button when done.

OK will bring you back to the order information.



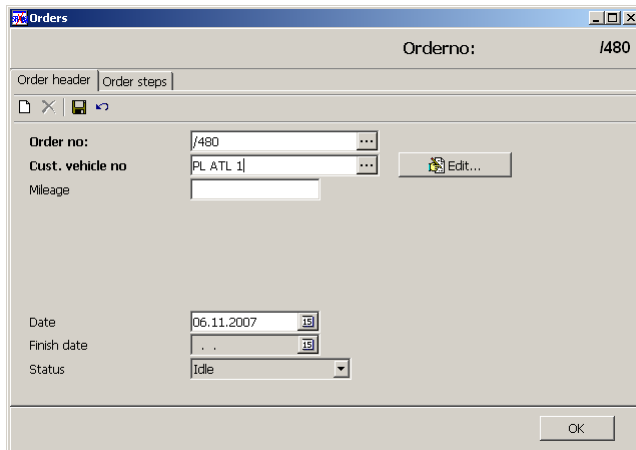
Input of DGW for class VII and 5L:

For class VII and 5L vehicles the design gross weight (DGW) is required. The program will display an error, if such a class is selected and the DGW figure is missing.



In that case select the "Details" tab and enter the "Max. total weight (kg)"

Don't forget to save by clicking the "Save" icon. OK if done.



Save the order:

You can input the value of the mileage counter of the vehicle.

Finally save the complete order by clicking the "Save" icon and close the order information window by clicking "OK".

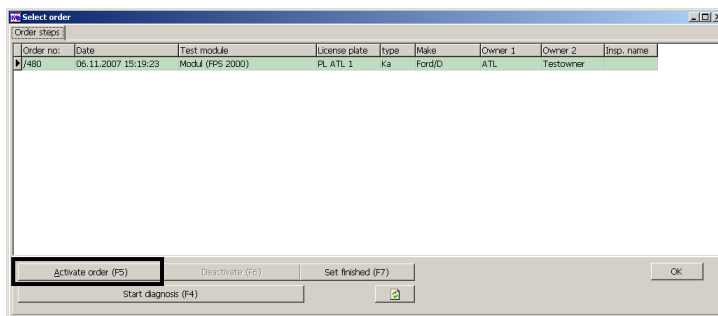
8.2.3 Activate the order



List of prepared orders:

Before working with an order it must be activated.

To see the list of available orders click "Test (F6)" in the main screen.



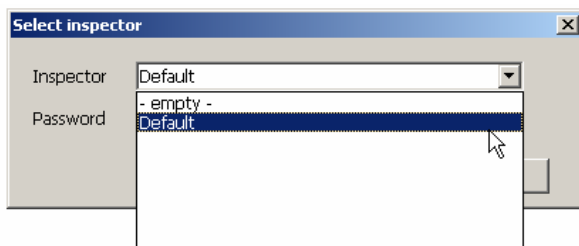
Activation:

Green lines are available for testing.

Orange lines are just active.

There can be only one active order at one time. If there is just a orange one: you can deactivate the order to bring him back to the waiting list i.e. for later repair or you can finish the order to remove him from the list.

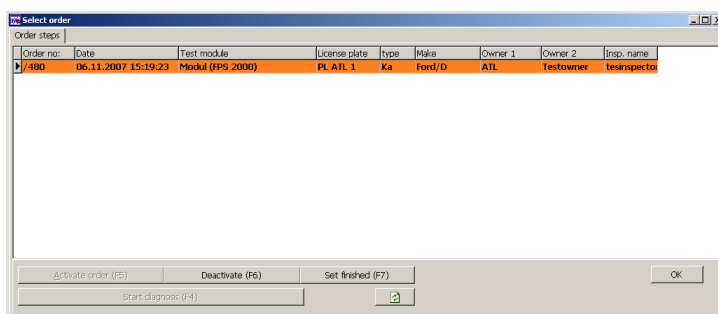
To activate an order mark the line and click the "Activate order (F5)" button.



Assign the inspector:

The system will ask to select an inspector.

Select one from the list and click "OK".

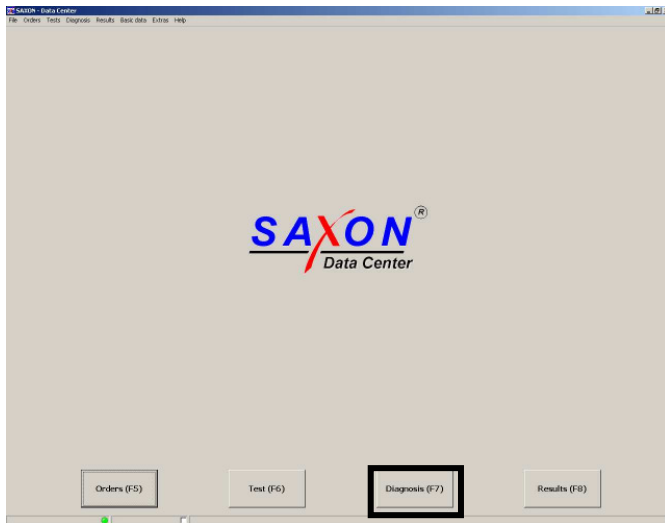


Close the list:

The order is now activated and should appear in orange.

Click "OK" to close the list of orders.

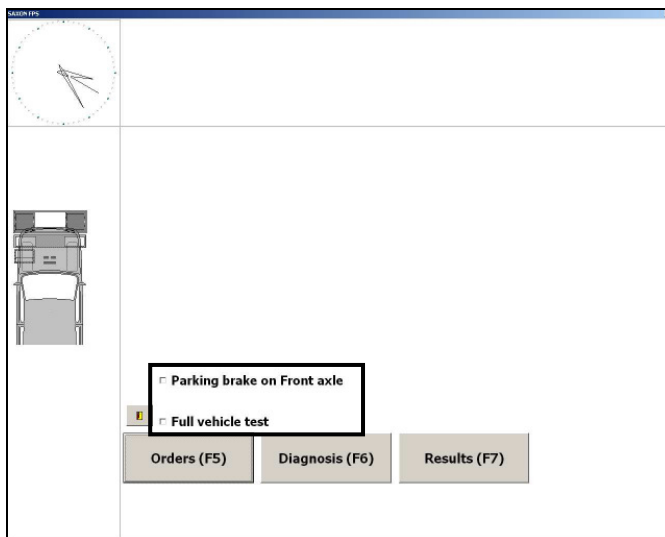
8.2.4 Perform the test



Start the test mode:

In the main screen, click "Diagnosis (F7)" and the diagnosis module will start.

Usually the diagnosis screen of the brake tester will be visible immediately.



Parking brake on front axle:

In case the vehicle has the parking brake on the front axle then this information has to be set in the program.

Press the ESCAPE key until the pre-diagnosis screen is visible.

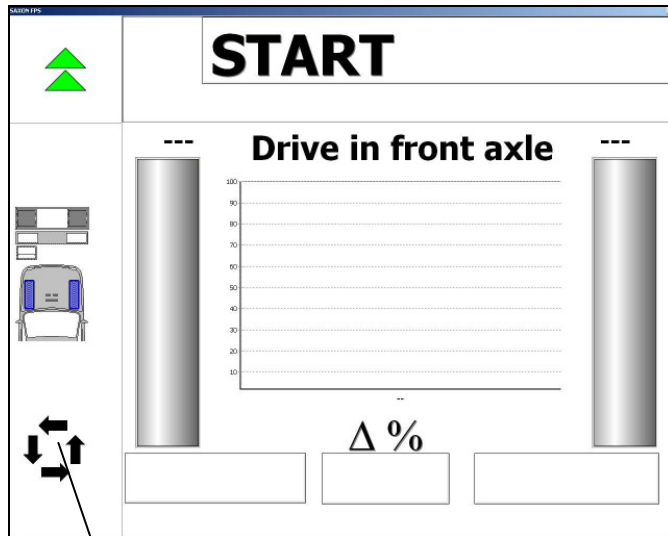
To set the position of the parking brake to the front axle, click the appropriate checkbox.

In case of a full vehicle test line with suspension tester tick the appropriate box.

Click "Diagnosis (F6)" and the diagnosis module will start again.

8.2.5 Test the vehicle according the machine's guidance

8.2.5.1 Service brake



Automatico mode active!

Activate automatic ATL test sequence:

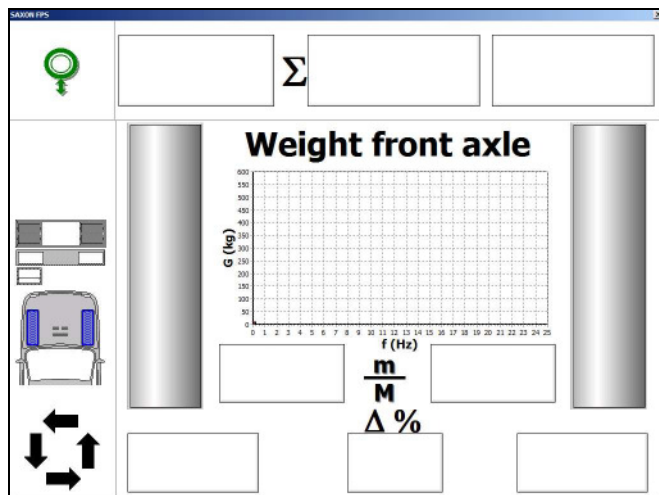
Press the "Automatic" key on the control cabinet or on the remote control.

The "automatic" symbol will be shown in the lower left corner of the screen.

Instructions will be shown above the diagram area.

Depending on the actual configuration the weighing will take place either on the integrated weighing system in the brake tester rollers - or - before the roller set on an external weighing system.

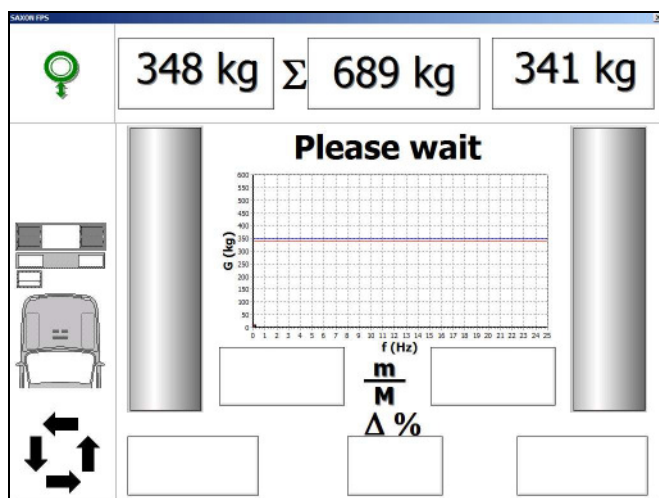
That's why the sequences for performing the test differ slightly.



Weight on front axle:

If an external weighing system is used the first step will be driving on the weighing system.

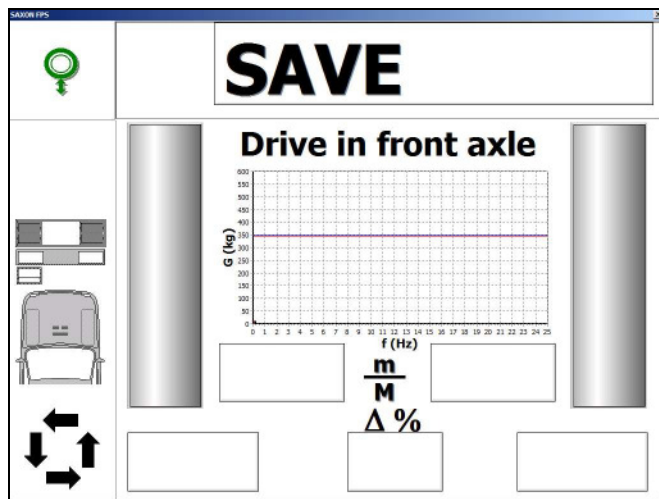
If an integrated weighing system is used, this step will not appear.



Measuring the weight:

Drive on the weighing system and wait until the weight has stabilized.

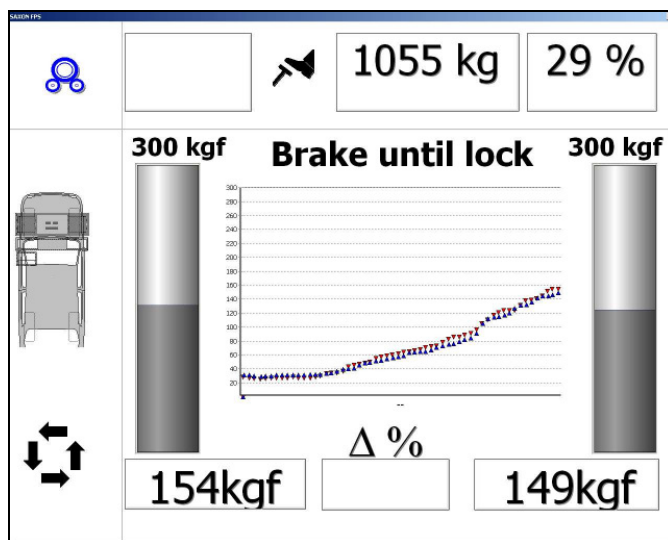
If an integrated weighing system is used, this step will not appear.



Saving of the weight:

If an integrated weighing system is used, this step will not appear.

After some seconds the system saves the weight and gives the instruction to drive into the brake roller set.



Brake test – First run – Front axle:

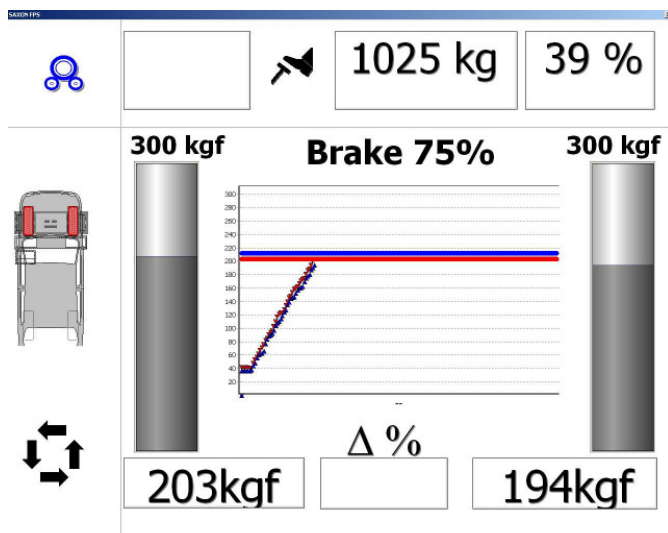
After the axle is in the roller set, the rollers will start automatically. Do not brake now!

Please wait until you are asked to brake!

For the first measurement run a braking until locking or to the maximum achievable brake force is required.

After locking the rollers will restart after some seconds.

If no lock occurred the rollers will turn off after some seconds with constant maximum brake forces and restart automatically afterwards.



Brake test – Second run – Front axle:

Do not brake before instructed!

Before starting to brake for the second run, check the bind.

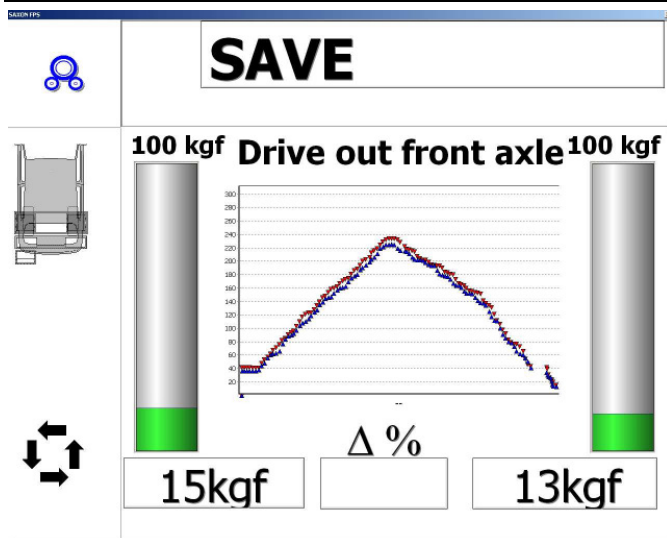
The second measurement run requires braking up to 75% of the maximum brake force determined during the first run.

To ease the use during this run two lines are displayed which represent the brake force required in this for each wheel.

Brake until each graph crossed their line.

Check brake judder and the increase of the brake forces here.

The max. imbalance is taken in that position.



Brake test – Second run – Front axle:

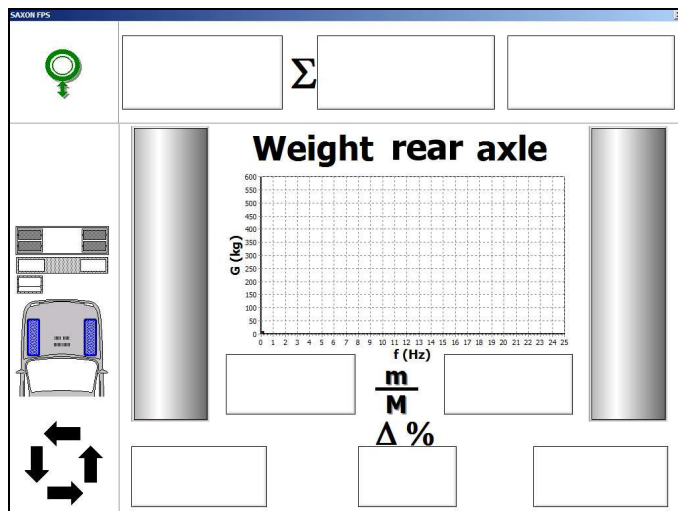
As soon as the 75% lines were crossed they disappear and the display bars turn green.

The instruction tells to release the brake.

Check the decrease of the brake forces here.

After the brake forces fall below 15% the instruction will tell to drive out of the roller set.

Always drive out in forward direction!



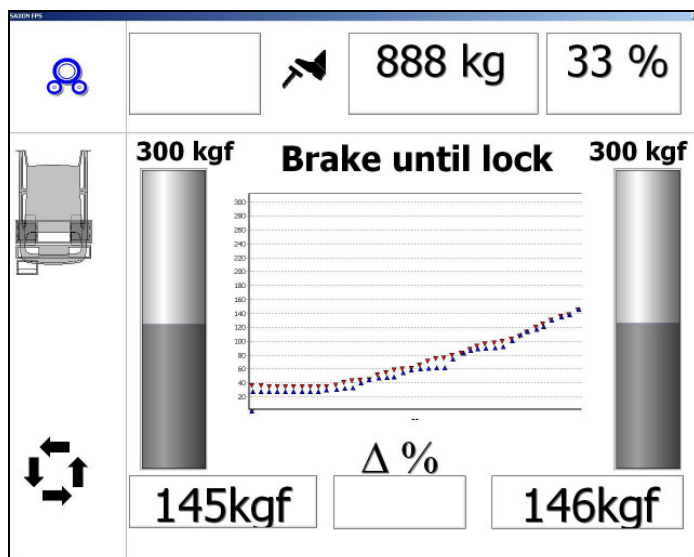
Weight on rear axle:

The next step, if the external weighing system is used, is to weigh the rear axle.

Drive on the weighing system, wait until the weight has stabilized and is saved.

If an integrated weighing system is used, this step will not appear.

Then, according to the instruction put the rear axle into the brake roller set.



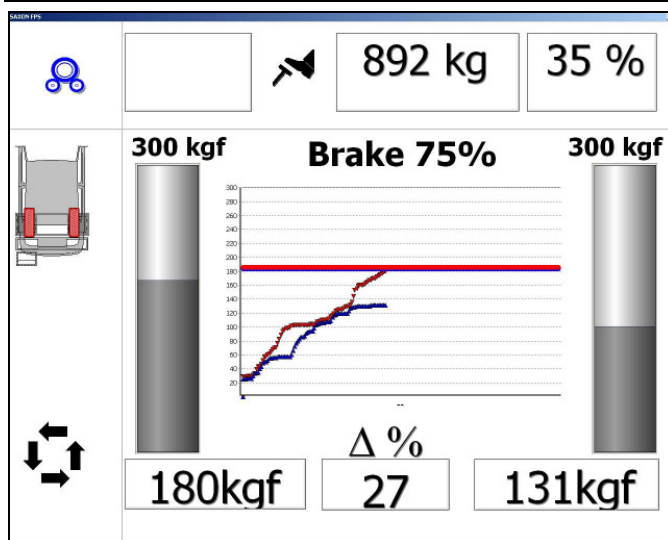
Brake test – First run – Rear axle:

Again two measurement runs are conducted.

Do not brake before instructed!

The first run aims for maximum brake force, if possible until locking.

If no lock occurred the rollers will turn off after some seconds with constant maximum brake forces and restart automatically afterwards.



Brake test – Second run – Rear axle:

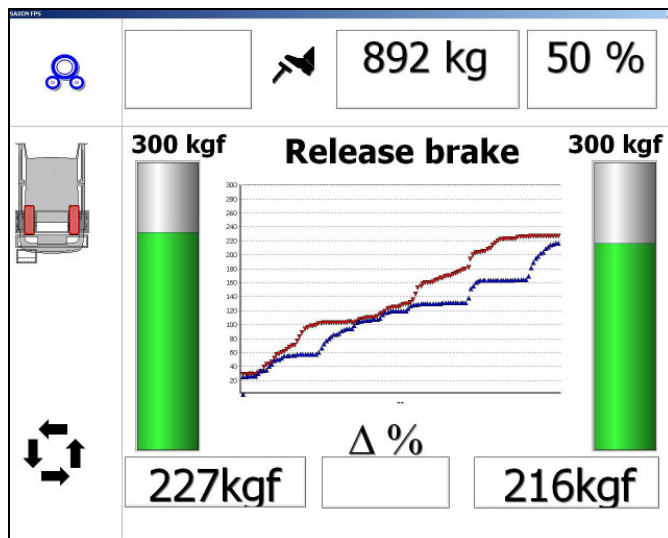
The second measurement run requires 75% of the maximum brake force.

Check bind before braking.

Brake until the two lines are crossed by the graphs.

Check brake judder and the increase of the brake forces.

The maximum imbalance is taken in that position.



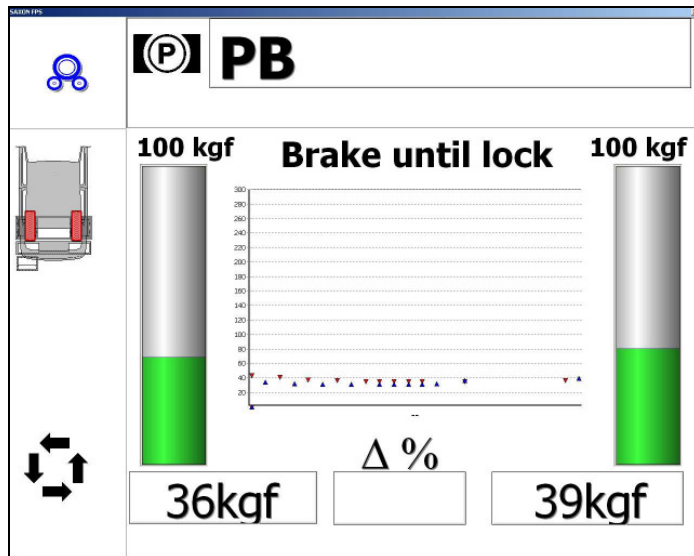
Brake test – Second run – Rear axle:

After the lines were crossed by the graphs release the brake and check the decrease of the brake forces.

After the brake forces dropped below 15% of the maximum forces the next instruction appears.

8.2.5.2 Parking brake

Depending of the layout of the vehicle the parking brake is checked after the service brake either on the front axle or the rear axle.

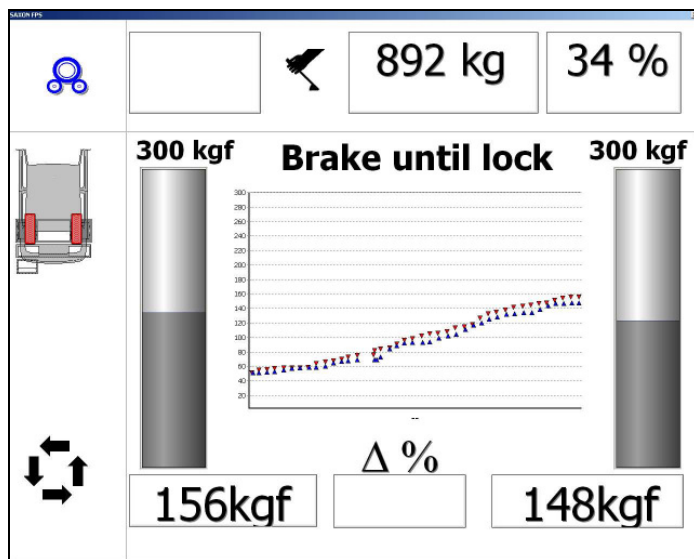


Changing to the Parking brake:

At the moment the system is switching the brake system under test, there will appear a message on top of the screen showing a parking brake symbol.

After that a smaller symbol will stay on screen.

Do not brake before instructed!



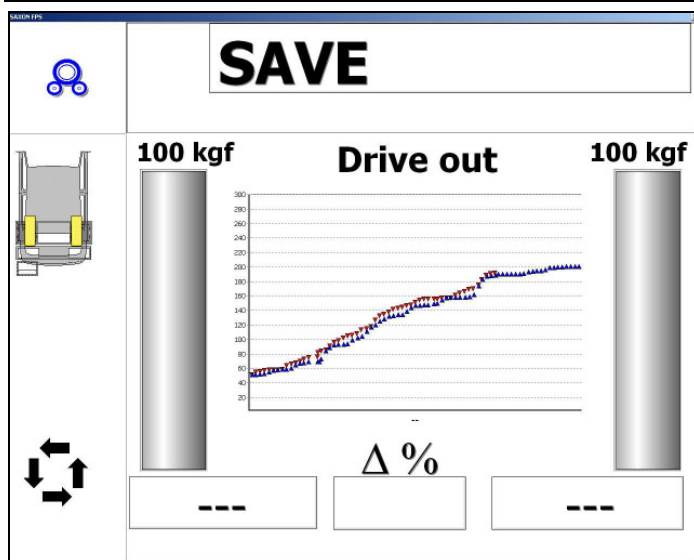
Brake test – Parking brake:

Parking brake is tested in a single measurement run.

Brake gradually until wheels lock or maximum brake force is achieved.

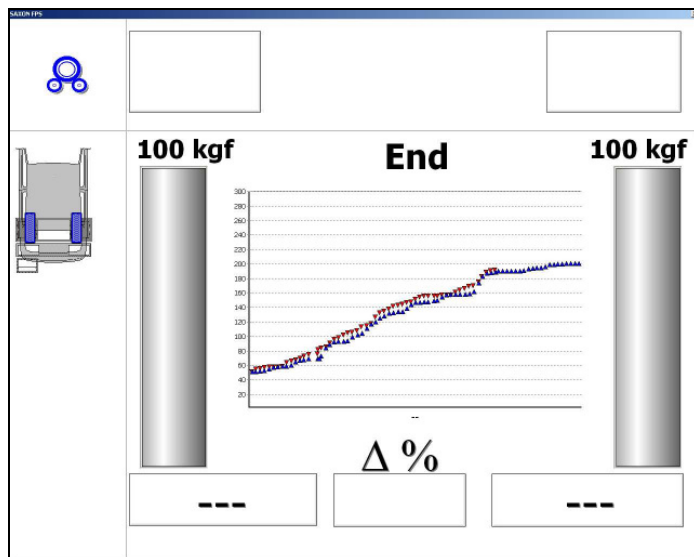
After locking the rollers will restart automatically.

If no locking rollers will turn off after some seconds with constant maximum brake forces and restart as well.



Drive out:

After all tests are completed the system gives the instruction to drive out of the roller sets.



Finish of the ATL test sequence:

At the end of the test "End" is shown in the instruction area.

Leave the vehicle and go to the control cabinet to see the results.

The following events result in an aborting of the ATL test sequence:

- Command of the computer: If the ESC key is pressed on keyboard to stop the test mode.
- Stop-button is activated: The brake tester immediately performs an emergency stop.
- Feeling roller monitoring: The two feeling rollers were not pressed within 4s.
- Wheel slip monitoring: When switching on the motors, slip developed between the wheel and the roller.
- Time monitoring: The braking force did not change for 60s during the brake test.

In that case you have to do the ATL test again or it is need to test the missing values in manual mode.

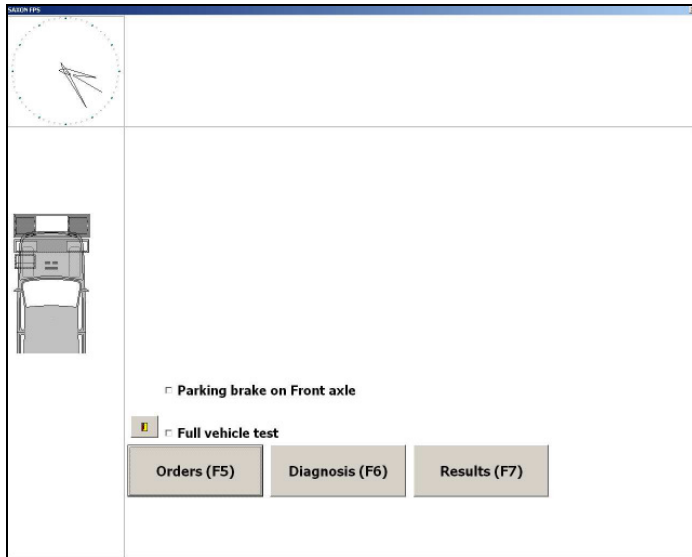
Important notes for ATL test mode:

Do not drive backward crossing the tester during the ATL test.

Do not start earlier the message "End" is on screen. If need stop the ATL mode using Stop key on remote control or keys on the cupboard.

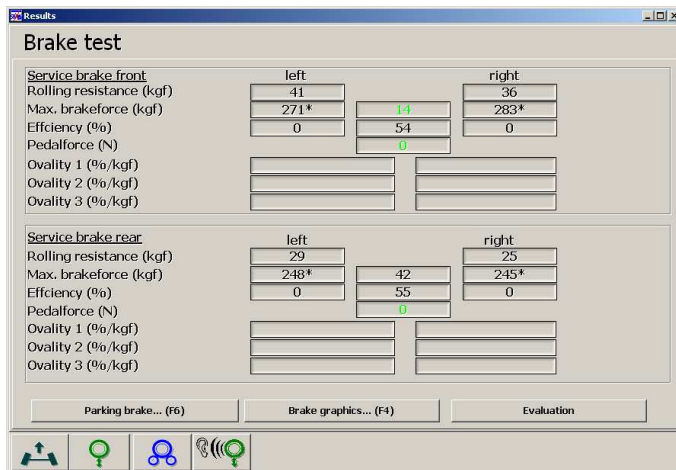
8.2.6 See the results

In order to leave the diagnosis screen, press the "ESC" key on the keyboard to return to the "pre-diagnosis" screen.



Check the results:

Click the "Results (F7)" button to open the results and evaluation window.



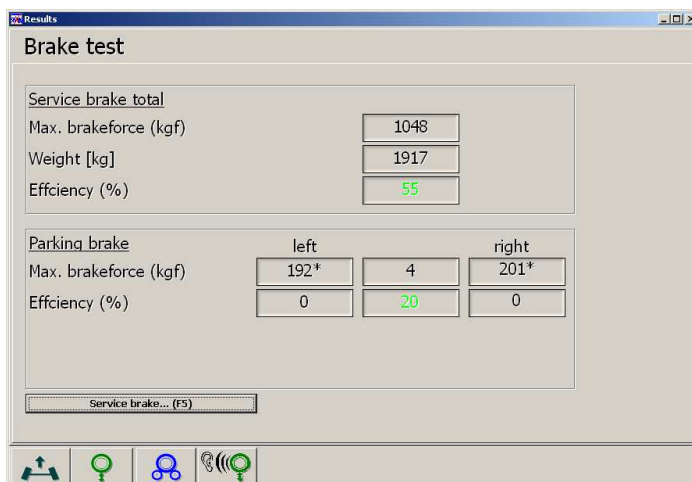
Test results – Service brake:

The result window is divided in the service brake section, a parking brake section, a graphics section and the evaluation section.

To switch the sections, use the appropriate buttons on the bottom of the section.

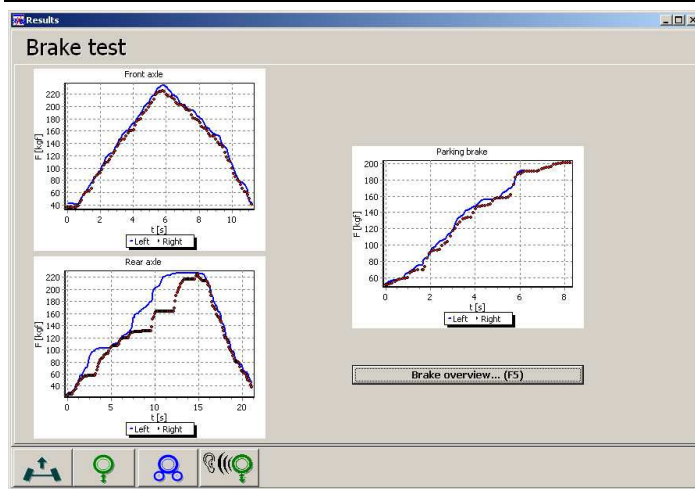
The brake results are shown with color coded evaluation where appropriate.

Brake forces marked with an asterisk (*) indicate that the associated wheel has locked.



Test results – Parking brake:

In this section the parking brake and the service brake total is shown.



Check the graphical test results:

The graphics section assists in evaluation of brake judder, imbalance and increase / decrease.

The graphics can be zoomed by selecting a rectangle around the area of interest. Start in the upper left corner and finish in the lower right corner.



To reset the zoom factor select a rectangle beginning in the lower right corner and finishing in the upper left corner.



8.2.7 Evaluate the results as required by ATL specification and close the order

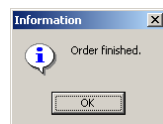
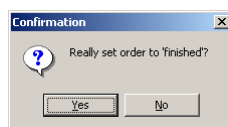
Manual evaluation by the inspector:

In the inspector's evaluation section manual evaluations can be entered. If necessary a comment can be given.

In general it is always possible to turn a PASS result into a FAIL result by manual override, but never possible to turn a FAIL results into a PASS result.

After all inputs are finished, click the "Finalize!" button to finish the evaluation and the order.

To leave the diagnosis module and to return to the order system, click the "Quit" button.

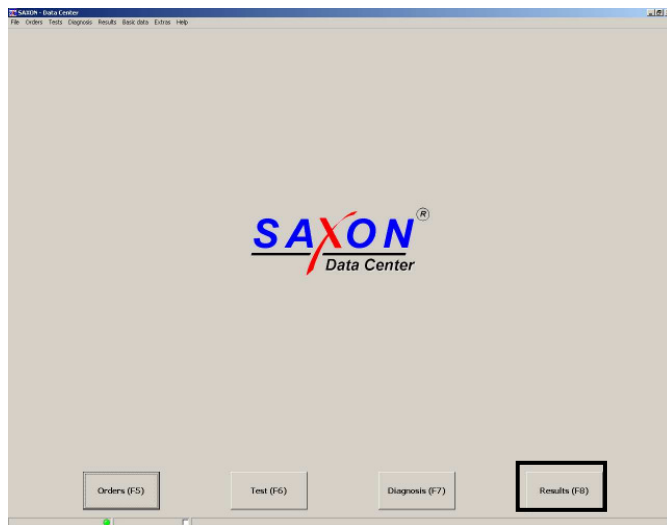


Close the order:

If you confirm with "Yes" the order will be set to finished. It will delete the order from the list of active orders and memorize the results in the database.

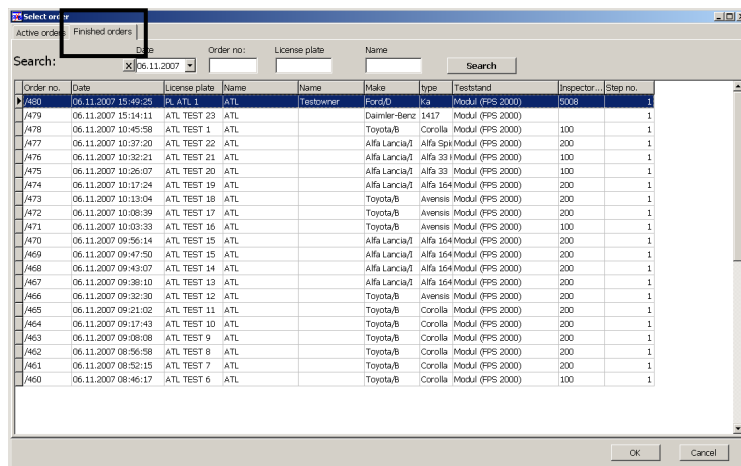
It may be to answer with "No" i.e. if urgent repairs are need on the brakes because low results. In that case the order remains open for further tests. So the brake tester can wait for the repair. Results can be overwritten with a new test of the same brake i.e. in manual mode.

8.2.8 Print the ATL test report



Open the database:

In the main screen of the order system click "Results (F8)"



Select a finished order:

Since the order is already finished, go to the "Finished orders" tab and locate the order.

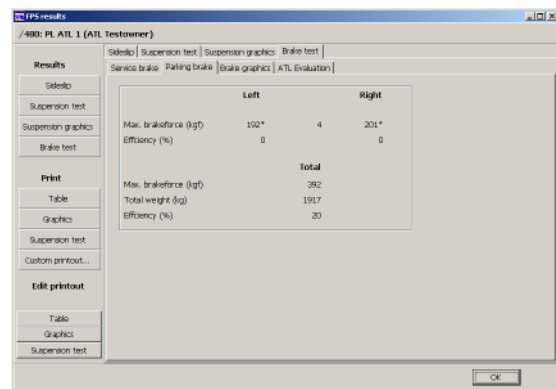
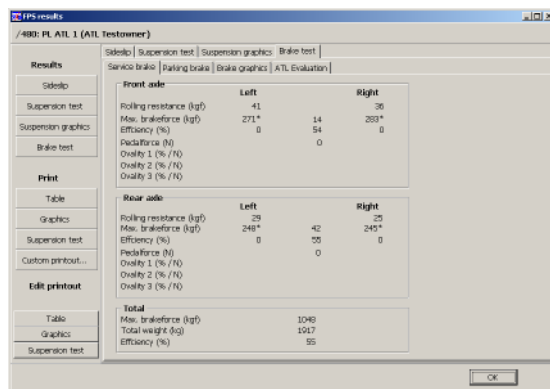
The latest order is always on the top line of the grid.

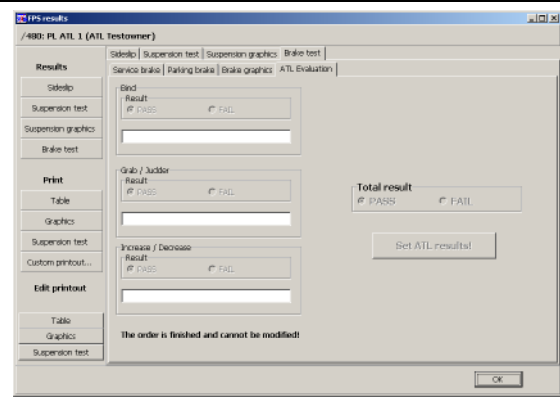
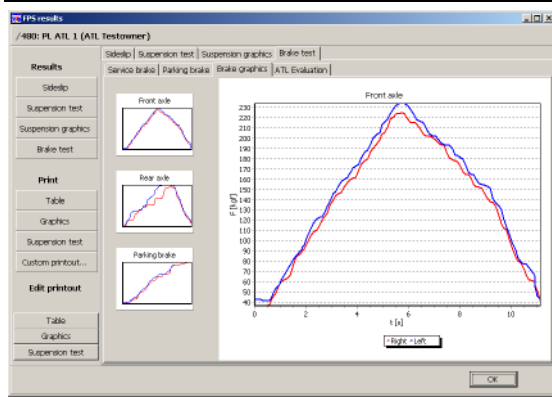
Select the desired order and click "OK"

Old orders can be selected using the search filters.

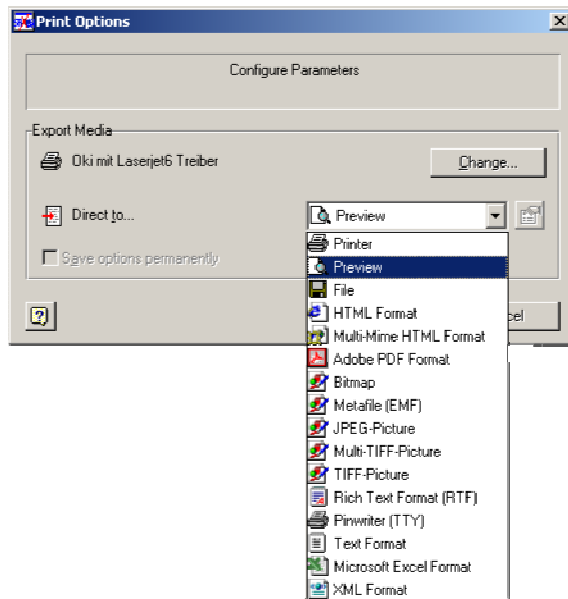
Check the results again if need:

The results window is divided in sections. Each tab represents a section. You can check the results of the selected test.





To start a printout, click the "Table" button in the "Print" area.



Select the printer:

A variety of printout destinations can be selected, e.g. Preview, PDF File, MS Excel or Bitmap file.

To get the report printed select "Printer".

Depending from the used test mode either automatic mode or manual mode one of the following reports will be printed fulfilling the statutory ATL requirements.

8.2.8.1 Example printout automatic mode

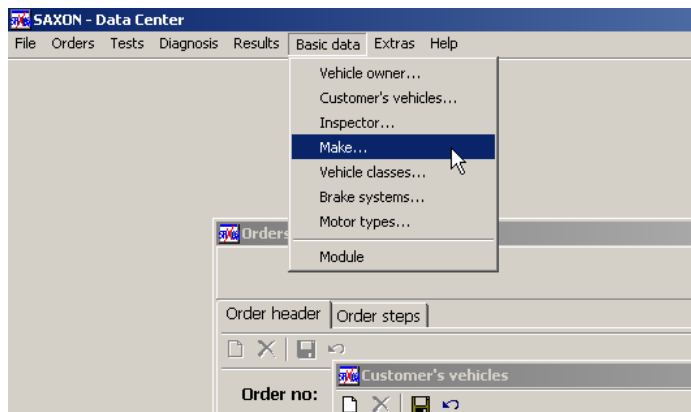
SAXON Vehicle diagnosis		SAXON Prüftechnik GmbH		SAXON®	
Date: 06.11.2007 15:49		Am Stadtwald 19/23 08525 Plauen			
License plate:	PL ATL 1	Order no.:	/480		
Owner:	ATL Testowner	Make / Model:	Ford/D / Ka		
Test mode:	Automatic mode	Vehicle category::	ClassIV w dual line system		
Inspector:	tesinspector	Signature:		
Toe test					
	Front axle (mm/m)				
	Rear axle (mm/m)				
Suspension test					
		left	difference	right	
Front axle	Static wheel load (kg)				
	Dynamic wheel load (%)				
	Frequency (Hz)				
	Weight relation (M/m)				
Rear axle	Static wheel load (kg)				
	Dynamic wheel load (%)				
	Frequency (Hz)				
	Weight relation (M/m)				
Brake test					
		left	difference	right	
Service brake:					
Front axle	Rolling resistance (kgf)	41		36	
	Max. brake force (kgf)	271*	14	283*	
	Wheel weight (kg)		1025		
	Efficiency (%)		0		
	Pedal force (N)				
	Ovality (%)	0 / 0 / 0		0 / 0 / 0	
	at avg. brake force (N)	0 / 0 / 0		0 / 0 / 0	
Rear axle	Rolling resistance (kgf)	29		25	
	Max. brake force (kgf)	248*	42	245*	
	Wheel weight (kg)		892		
	Efficiency (%)				
	Pedal force (N)		0		
	Ovality (%)	0 / 0 / 0		0 / 0 / 0	
	at avg. brake force (N)	0 / 0 / 0		0 / 0 / 0	
Total	Max. brake force (kgf)		1048		
	Total weight (kg)		1917		
	Efficiency (%)		55		
Parking brake:					
	Max. brake force (kgf)	192*	4	201*	
Total	Max. brake force (kgf)		392		
	Efficiency (%)		20		
Result Bind: PASS					
Result Grab / Judder: PASS					
Result Increase / Decrease: PASS					
Total result: PASS					

8.2.8.2 Example printout manual mode

SAXON Vehicle diagnosis		SAXON Prüftechnik GmbH		SAXON®	
Date: 06.11.2007 10:17		Am Stadtwald 19/23 08525 Plauen			
License plate:	ATL TEST 19	Order no.:	/474		
Owner:	ATL	Make / Model:	Alfa Lancia/I / Alfa 164		
Test mode:	Manual mode	Vehicle category.:	ClassIV w single line system		
Inspector:	Ingmar Fuchs	Signature:		
Toe test					
	Front axle (mm/m)				
	Rear axle (mm/m)				
Suspension test					
		left	difference	right	
Front axle	Static wheel load (kg)				
	Dynamic wheel load (%)				
	Frequency (Hz)				
	Weight relation (M/m)				
Rear axle	Static wheel load (kg)				
	Dynamic wheel load (%)				
	Frequency (Hz)				
	Weight relation (M/m)				
Brake test					
		left	difference	right	
Service brake:					
Front axle	Rolling resistance (kgf)	23		20	
	Max. brake force (kgf)	232	10	227	
	Wheel weight (kg)		858		
	Efficiency (%)				
	Pedal force (N)		0		
	Ovality (%)	0 / 0 / 0		0 / 0 / 0	
	at avg. brake force (N)	0 / 0 / 0		0 / 0 / 0	
Rear axle	Rolling resistance (kgf)	24		25	
	Max. brake force (kgf)	222	13	214	
	Wheel weight (kg)		795		
	Efficiency (%)				
	Pedal force (N)		0		
	Ovality (%)	0 / 0 / 0		0 / 0 / 0	
	at avg. brake force (N)	0 / 0 / 0		0 / 0 / 0	
Total	Max. brake force (kgf)		894		
	Total weight (kg)		1653		
	Efficiency (%)		54		
Parking brake:					
Total	Max. brake force (kgf)	201*	3	194	
	Max. brake force (kgf)		395		
	Efficiency (%)		24		
Result Bind: []PASS []FAIL					
Result Grab / Judder: []PASS []FAIL					
Result Increase / Decrease: []PASS []FAIL					
Total result: []PASS []FAIL					

In manual mode the PASS / FAIL decision must be done manually on the printed report.
There is no evaluation or color coding printed because the requirements of the ATL regulations!

8.2.9 Create a new basic data (Make, Models, Inspectors, Vehicle class)



Basic data:

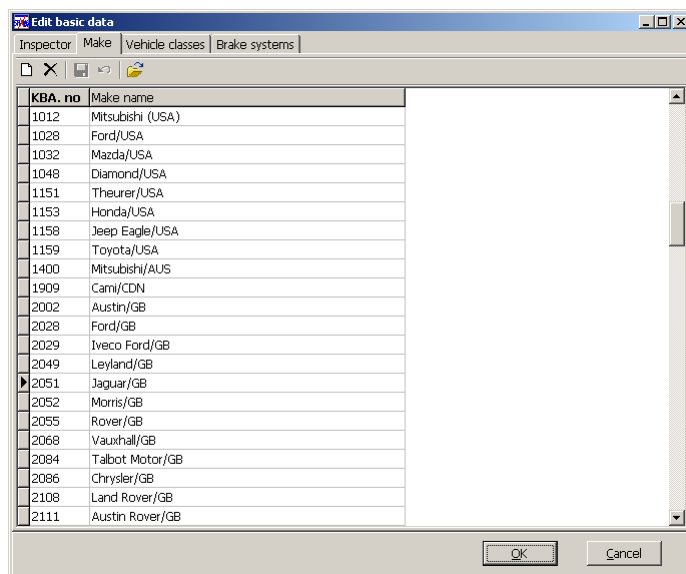
It is the database with basic information.

Some settings are need to be corrected during installation.

i.e. minimum one Inspector with correct name
We only can pre fill a default inspector!

Generally the adjustments are working similar with al points.

To create a new "Make" activate the following point.

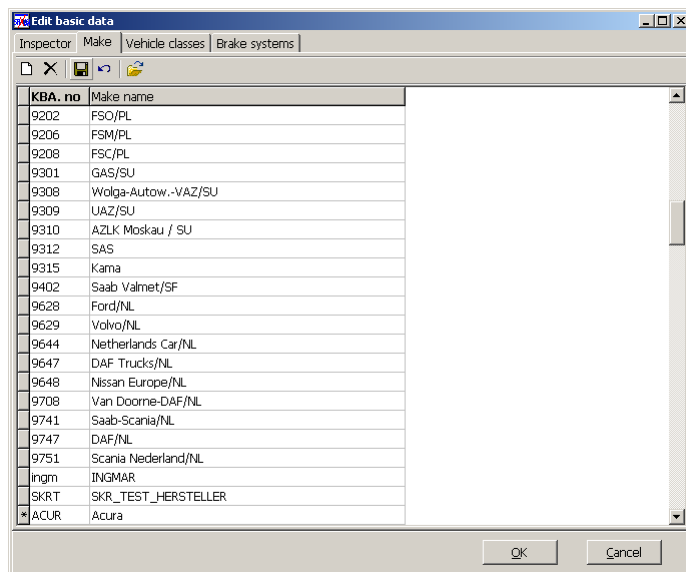


Database with makes:

In the main screen, open the menu item "Basic data → Make..."

A list of known makes will appear.

OK will bring you back.



Create a new make:

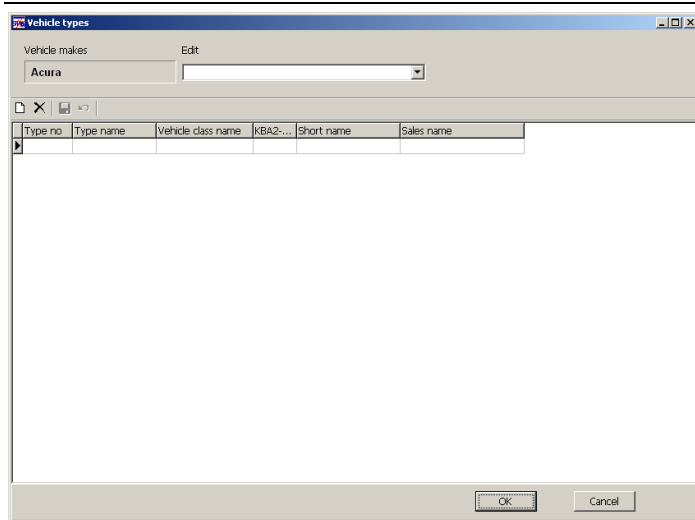
In order to create a new make, click the "insert icon"

Enter the short KBA.no. and the make name.

To open the make and see all the known vehicles models belonging to the selected make click the "yellow folder" icon.

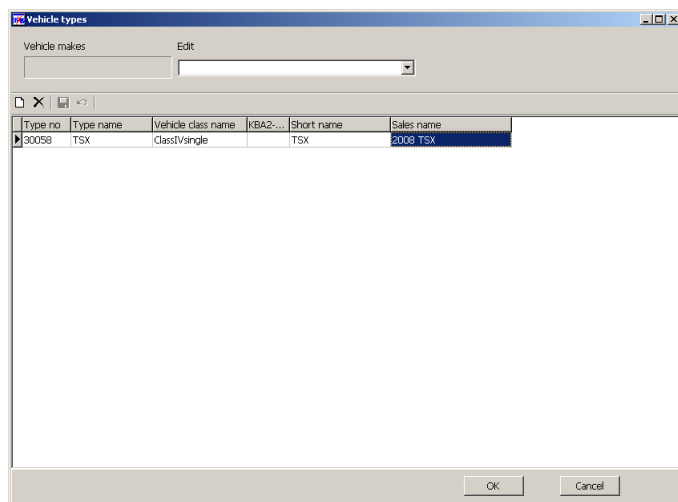
Click the "Save" icon when done.

OK will bring you back.



List of Models:

In case of a new created make it's still empty.



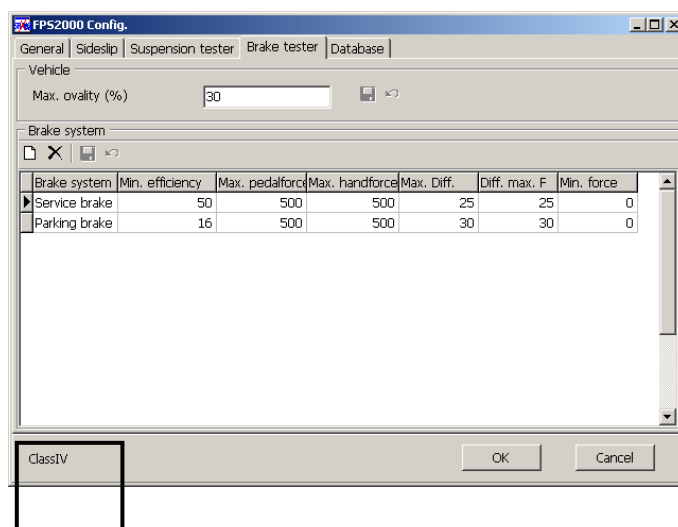
Create a new Model:

Click the "Insert" icon to create a new vehicle model associated with the currently active make.

The type number is created automatically, just fill the remaining fields.

Click the "Save" icon.

OK will bring you back!



Create a new vehicle class:

The vehicle classes are pre defined in the software. Normally it is not need to change.

To protect you against errors a password is required. Please ask your service.



In section general you can create or modify the name of the new vehicle class. The actual class you can see in the window in the bottom left corner (i.e. Class IV)

In section brake tester you can adjust the limits for the different brake systems of a vehicle. It should look like the sample left side.

9 Operating in manual mode

To start the brake tester in manual mode use the Diagnosis button from main screen of the Datacenter!

The brake tester will now perform a self-test.

9.1 Self test and start up procedure

If no errors have been detected on the brake tester, you will see the diagnosis screen of the last used tester. Your tester is ready now for use and you can start the tests either pressing the "AUTOMATIC –Bottom" to do a ATL test or you can use the remote control like described below.

Errors are displayed on the monitor in a special window with error codes and description. By clicking the ok-button or waiting longer than 10 seconds the start screen comes up.

If the error is such that it allows the brake test to be carried out, you reach the respective set test program. Your inspection lane is ready for use and you can start the tests.

Attention: It may be possible that some modules (brake tester, chassis tester or track plate) or your inspection lane have been switched off. In this case you should also note the error indication and contact your service technician. But you can start the brake test.

In the case of errors which make a test impossible the brake tester is positioned in the main menu after pressing the "diagnosis" button. The brake tester is not ready for use. You should write the error message down and contact your service technician.



9.1.1 Error codes at the start up

Error	Error code
Brake force left	EE01
Brake force right	EE02
Pedal force sensor	EE08
Sensor roller left	EE09
Sensor roller right	EE10
Track plate	EE19
Scale chassis tester left	EE20
Scale chassis tester right	EE21

9.1.2 Wrong manual entries

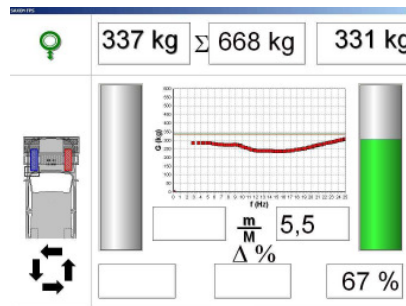
If you have entered a wrong command to the brake tester, the brake tester indicates this by displaying "Error" in the entry field. After about 2s the brake tester switches over again to normal operation and you can repeat the entry.



9.2 Side slip test (not required for MOT)

1. Set the program P1 using the remote control
2. Drive one vehicle axle over the track plate.
3. The maximal track value is displayed.
4. Save the measured value! Press the  button for the front axle
press the  button for the rear axle
5. After having measured both axles and saved the data, you can print the results using Data Center.


9.3 Chassis tester check (not required for MOT)

1. Set the program P2 at the brake tester.
2. Drive the vehicle onto the chassis tester.
3. Start the right chassis tester
The current ground pressure weight for the respective current frequency is displayed on the monitor.
4. Wait until the measuring process has been finished.
If the measuring process is finished, the ground pressure weight and the mass ratio m/M is displayed in the right monitor.



5. Save the measured value!
 - Press the  button for the front axle
 - press the  button for the rear axle
6. Repeat steps 3 to 5 for the left side.
7. Drive the rear axle of the vehicle onto the chassis tester.
8. Repeat steps 3 to 7 for the rear axle.
9. Print the results using Data Center






Short automatic:

Press the button . The right chassis tester starts. When the measuring process is finished, the left chassis tester starts automatically. After having finished the second measuring process, save the measured values to the respective axle.

9.4 Brake test for MOT

Please consider the test procedure detailed in the latest version of the relevant MOT Inspection Manual when carrying out a statutory MOT test!

9.4.1 Normal test process

1. Set the program P3 at the brake tester.
2. If you have carried out a chassis tester check or the weight facility is mounted below the rollers of the brake tester, jump to step 5.
3. Drive the vehicle onto the chassis tester (external weight facility).
4. Press the button  and then the button of the respective axle  for saving the wheel weights.
5. Drive the vehicle in the brake tester!
6. Start the sets of rollers. When the sets of rollers have started, this is displayed by a blue wheel at the top.
7. Wait until the brake tester is ready – blue wheel turns off.
8. Brake slowly until blocking. If no wheel locks, press the STOP button!
Check increase, decrease bind and judder during the test.
9. Save the measured value!
 -  button for the front axle
 -  button for the rear axle
 - press the  button for the hand brake
10. Attention:
Restart the set of rollers at the front axle and drive out of the brake tester in forward direction.
11. Repeat steps 1 to 11 for the rear axle.
12. Print the results using Data Center

9.4.2 Special operation steps

What must be done, if the wheel does not lock during the braking?

Loosen the brake and press the STOP-button on the remote control.

You can also drive out of the rollers.

Then the brake tester displays the highest measured value and you can save the results.

How can the latest measured value be called up again?

Press the S-button on the remote control.

The latest values are automatically cancelled when the rollers start again.

Ovality of brake discs and drums

Ovality is the variation of the brake force during one turn of the wheel.

It can have very high results in the case of very light vehicles.

Therefore measurements should only be carried out with at least 500N.

What must be done, when the vehicle is pulled out of the rollers?

In the display the maximum brake forces are displayed. If they are ok, save the measured values.

If you have not reached enough brake force, carry out the brake test in the single-wheel mode.

Means switch on only one side and memorize the result than switch on the opposite side and memorize again.

Remark for testing the hand brake on rear axle:

You can press the pedal of the service brake a little bit if higher forces of the hand brake is reached.

It will hold the vehicle on the rollers and will not increase the measured brake force because normally the service brake of the rear axle is with lower brake forces as the hand brake.


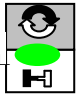


9.4.3 Testing vehicles with 4WD

The option 17679 – “4WD Equipment” is need to be installed on the roller brake tester to use this function!

General description:

The Option is made to test Off-road 4WD vehicles with permanent working drive on all wheels. The test is done by turning the wheels of one axle in reverse directions, to take car that the vehicle is not moving out from rollers. For testing a axle it is need do a separated test for each wheel! Only the forward rolling wheel is tested. The wheel on opposite side will turn in reverse direction. The function is available for use with the infrared remote control unit.

Switching on the rollers via remote control:

Button	Function	Description
 	4-wheel left	Press the “4-wheel left ON“ button to start the left roller set in normal forward test direction and the right roller set in backward reverse direction.
 	4-wheel right	Press the “4-wheel right ON“ button to start the right roller set in normal forward test direction and the left roller set in backward reverse direction.



The bottoms are to press in sequence!

Saving the results for printing:

Only the forward rolling wheel is tested during the test of one wheel.

To store the results use the remote control after the wheel has locked or the stop bottom has been pressed. You have to store the results for the complete axle separately for each tested wheel.

Means first switch on the rollers for by  , do the test and store the result for the axle.

Then switch on the rollers for by  , do the test and store the result for the axle again!

Don't worry, the opposite side will not be overwritten in 4WD mode!

Follow the steps of the manual test procedure, described in the operation manual of your tester.

Important remarks:

May be not all possible versions of 4WD can be tested using the option. Specially not if:

- The manufacturer has not allowed to test the brakes of that vehicle on a roller brake tester.
- The vehicle is equipped with automatic difference gearbox locking inside the axle. (Reverse rotations are not possible!)
- The vehicle is equipped with a viscous - coupling unit inside the axle.
- Special electronic controlled gearbox systems. (i.e. models of VW Syncro, Audi Quattro, 4-Motion,..)

The imbalance between left and right wheel should not be taken only comparing the maximum readings. The problem is, you have no information about the different forces on pedal during the two tests. To compare the results, a pedal force meter is need. It allows to compare the single tested wheels at the same operation force and get real accurate results. The result will be printed on the test report only.

9.4.4 Testing vehicles class I + II

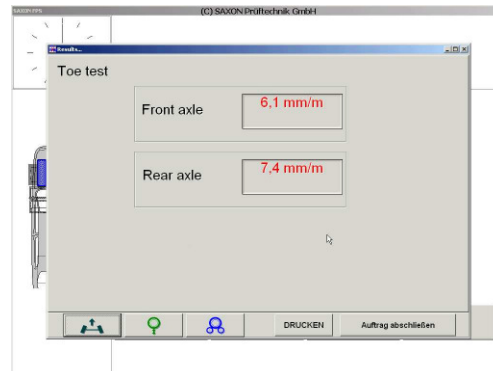
There is a separate description how to start up the tester to deactivate one roller side for safety operation. The special MC adaptor is need. The test is done in the normal manual mode.

10 Special evaluations for side slip and suspension tester

This function is actually not relevant for MOT (no regulation for UK existing) but may be important for checking the functions of the vehicles!

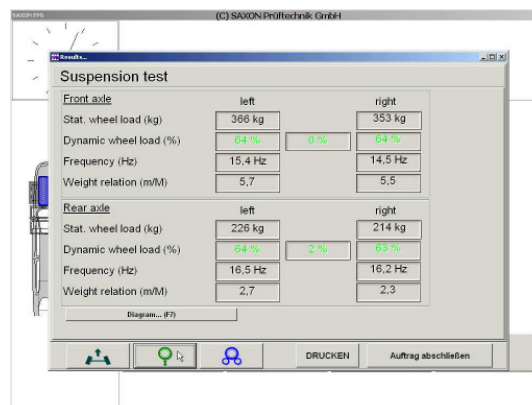
10.1 Side slip test evaluation

The track values must be checked with the indications of the manufacturer.



10.2 Chassis test evaluation

The following table serves for distinguishing between spring wear and shock absorber wear: It is need to know more about the result to understand is it good or a bar result.



Suspension test			
Front axle	left		right
Stat. wheel load (kg)	366 kg		353 kg
Dynamic wheel load (%)	64 %	0 %	64 %
Frequency (Hz)	15,4 Hz		14,5 Hz
Weight relation (m/M)	5,7		5,5
Rear axle	left		right
Stat. wheel load (kg)	226 kg		214 kg
Dynamic wheel load (%)	64 %	2 %	63 %
Frequency (Hz)	16,5 Hz		16,2 Hz
Weight relation (m/M)	2,7		2,3

Following the specification of the European manufacturers for shock absorber (EUSAMA) the test of a suspension system should measure the minimal dynamic grounding force when the wheel suspension swings through ground unevenness. That result is to set in relation to the normal static weight. That is called dynamic wheel load and given in percent.

On a special frequency (resonance) it reaches the minimum.

It is the realistically value if the weight what can used for steering, braking and driving on the read.

For evaluation of the result other points are important.

Not only the damper is tested! It is the complete suspension system with all components.

Following other influences are important:

1. The mass ratio (m/M) and the vehicle load the driver including. The tester supply's that value!
2. The air pressure of the tyre (needs to be adjusted to the required values of the vehicle)
3. The wear in all components of the axle (check manually with play detector)
4. The situation of the spring (can only be checked manually)

For the evaluation the mass ratio is particular important.

It is the ratio between the weight of the axle and wheel components (unsprung mass = m) and the weight of the chassis with motor and driver (sprung mass =M)

The mass ratio for small cars is approx. 3, for normal cars 6 and for Limousines of top class 9.

A result of 45% is very good for a small car and very bad for a heavy limousine.

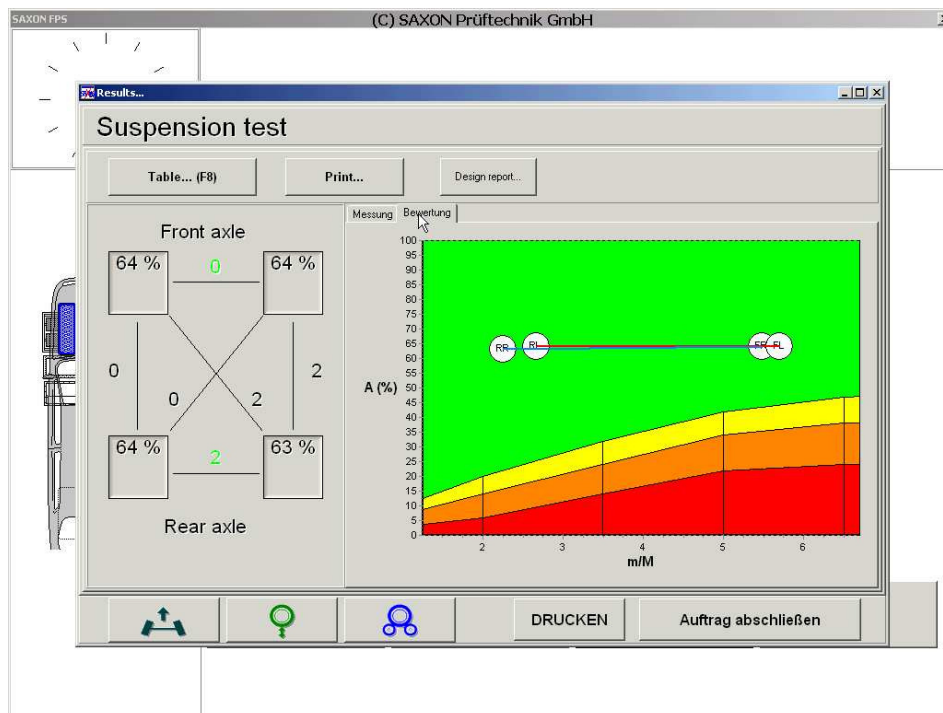
The reason is the mass ratio.

The coloured diagram is for judgment according to the mass ratio.

Depending on the mass ratio m/M the wear limits also differ; defective chasses have a negative impact on the driving safety.

- limit curve from green to yellow – important wear, still without negative impact,
- limit curve from yellow to orange – restrictions having an impact on safety,
- limit curve from orange to red – can no longer be used

The wheel graphic at the bottom left serves for judging the complete vehicle:



For a right adjustment in the diagram the brake tester establishes the mass ratio of each wheel.

It is important to note that the driver sitting on the left side is included in the measuring result (different results with drivers of different weight).

However, this does not have any effect on the graphic evaluation and is compensated by the graphs.

Beside the individual observation of each wheel suspension the total effect on the vehicle is important. While the same wear at all wheel suspensions has less impact, the deterioration of the dynamic vehicle stability is doubled with only one bad wheel suspension; a wear of the diagonally opposite wheel suspensions results in a deterioration which is four times higher. When the two connecting lines, left (red) or right (blue) cross each other, this means a special negative constellation between the four wheel suspensions. Not only the differences between left and right, front and rear are displayed, but – which is especially important – the diagonal differences are also indicated.

The wear is mainly influenced by the shock absorber effect and the spring characteristic (supposing that the tyres and air pressures are right).

A frequency of resonance leading to the bottom indicates a broken spring or strong fatigue. If the frequencies of resonance are the same, but the ground pressure value differs, normally the shock absorber is differently worn.

11 Maintenance, instrument test and customer service

11.1 Maintenance

The brake tester was basically designed for low maintenance.

Type of maintenance	Time intervals	Material required / maintenance work
lubricate chain	at least every six months according to service conditions	roller bearing grease (commercially available)
Check chain tension	every six months	readjust if necessary
Cleaning the set of rollers.	According to service.	without
Tightening the brake tester cover.	According to service.	Retighten fixing screws.
Track plate Cleaning build-in frame	According to service.	without

11.2 Instrument Test

Attention!

Your brake tester is a calibrated measuring device.
It is subject to statutory instrument testing!
The side slip plate and the chassis tester for weight
should be checked together with the instrument test!

Legal regulations require that the instrument testing every 6 month necessary for the admission to an official vehicle test must be carried out by a customer support service trained by the manufacturer. The test must be confirmed in a test record and by fixing a test label (with license number) and must be filed for 5 years. The test shall be performed by using a special testing device.

According to the currently applicable legislation, any repair at the measuring system must be followed by a renewed instrument test.

To ensure the operational reliability of the brake tester we recommend a maintenance operation once a year, which is enlarged by the instrument test every other year, and so saving costs.

Please find more detailed information in the test manual of your brake tester, which is supplied with the equipment.

11.3 Customer Service

Our customer service is at your disposal.

In case of problems your local distributor is always your first contact!

If no staff is available from your local distributor's customer support service, in urgent cases you may also directly address the manufacturer's

You can join us under the following addresses and numbers:

SAXON Prüftechnik GmbH
Am Stadtwald 19/23
D - 08525 Plauen

phone: +49 (0) 3741 5485-0
fax : +49 (0) 3741 523481
e-mail: info@saxon.de

12 Annex

12.1 Technical Data

Brake tester	B 67A-ATL	B67-ATL 1Phase	B 67.6-ATL	B 70A-ATL	B 60.6 VB-ATL
Approved vehicle class	IV + III + II + I			VII + VL + IV + III + II + I	
Max. axle load	kg	3000	4000	5000	
Weight facility up to	kg	5000			
Brake roller diameter	(mm)	200			
Brake roller coating		Plastic/corundum			
Interior test width	(mm)	800			
Exterior test width	(mm)	2200*		2600*	
Scale end – braking force	(kgf)	0...600		0...1300	
Test speed	(km/h)	5,5	5,0		
Motor output (worm gear motor)	(kW)	2 x 4		2 x 6,2	
Electrical power supply	V/Hz	3 Phase 400V / 50Hz	1 Phase 230V / 50Hz	3 Phase 400V / 50Hz	
Fuse protection	A	3 x 25 A slow		3 x 35 A slow	

* 300 mm for Motorcycle class I + II, test on one side only with special adaptor.

12.2 Installation

12.3 Electrical diagram

12.4 Spare part list

12.5 Declaration of conformity

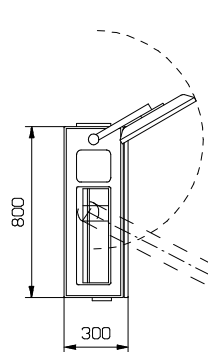
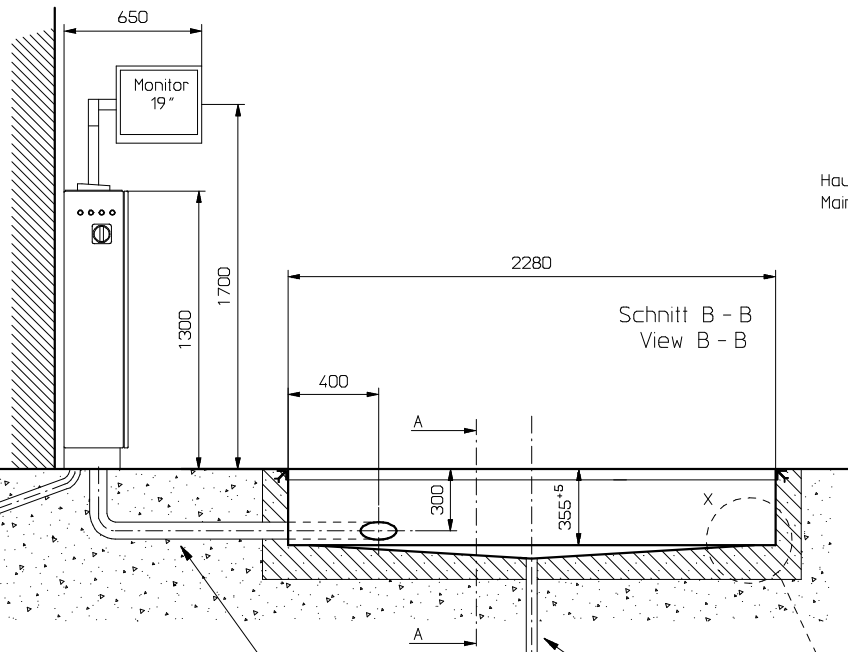
12.6 Certificate of acceptance

Aufstellung der Anzeige links und rechts möglich
 Platz für Bedienung des Hauptschalter und Lüftung vorsehen!

Installation of display unit possible left or right hand!
 Space for main switch operation and air ventilation is need!

E-Anschluß nach VDE 0660 kundenseitig!
 Kabel min. 5x2.5 mm²
 Anschluß 400V, 3~/PE/N 50 Hz
 Absicherung 3x25A T

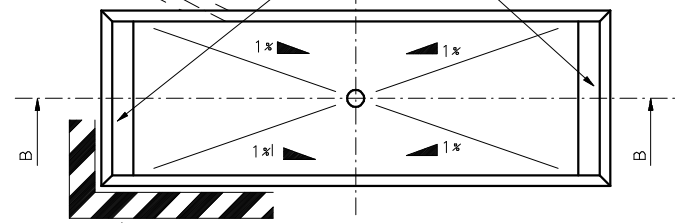
Main Power supply VDE 0660 provided by the customer
 Cable min. 5x2.5mm²
 Power 3Ph. 400V N/PE 50Hz
 Fuses 3x25A slow



Kabelrohr PVC 100mm mit Kabeldurchzugshilfe
 Cable pipe 100mm Plastic with twine

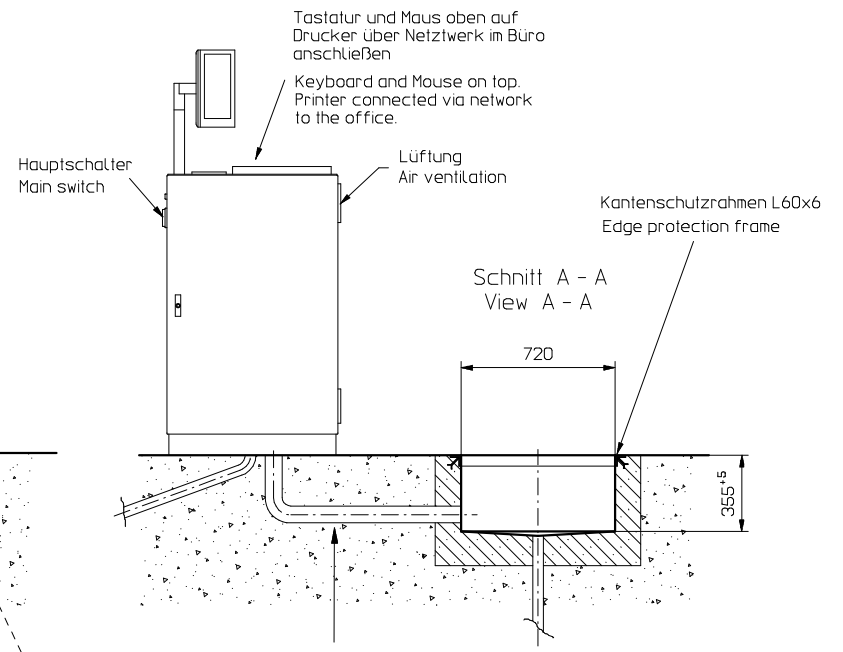
Wasserablauf min. NW 40
 water drainage min. 40mm

ebene Aufstandsfläche für die Waage
 straight beding for weight facility



Alle Maße in mm
 All Dimensions in mm

den Gefahrenbereich um den Rollenbremsprüfstand nach DIN 4844 T1 gelb schwarz kennzeichnen!
 Danger area marking DIN 844 T1 Black-Yellow



Tastatur und Maus oben auf Drucker über Netzwerk im Büro anschließen
 Keyboard and Mouse on top. Printer connected via network to the office.

Hauptschalter
 Main switch

Lüftung
 Air ventilation

Kantenschutzrahmen L60x6
 Edge protection frame

Schnitt A - A
 View A - A

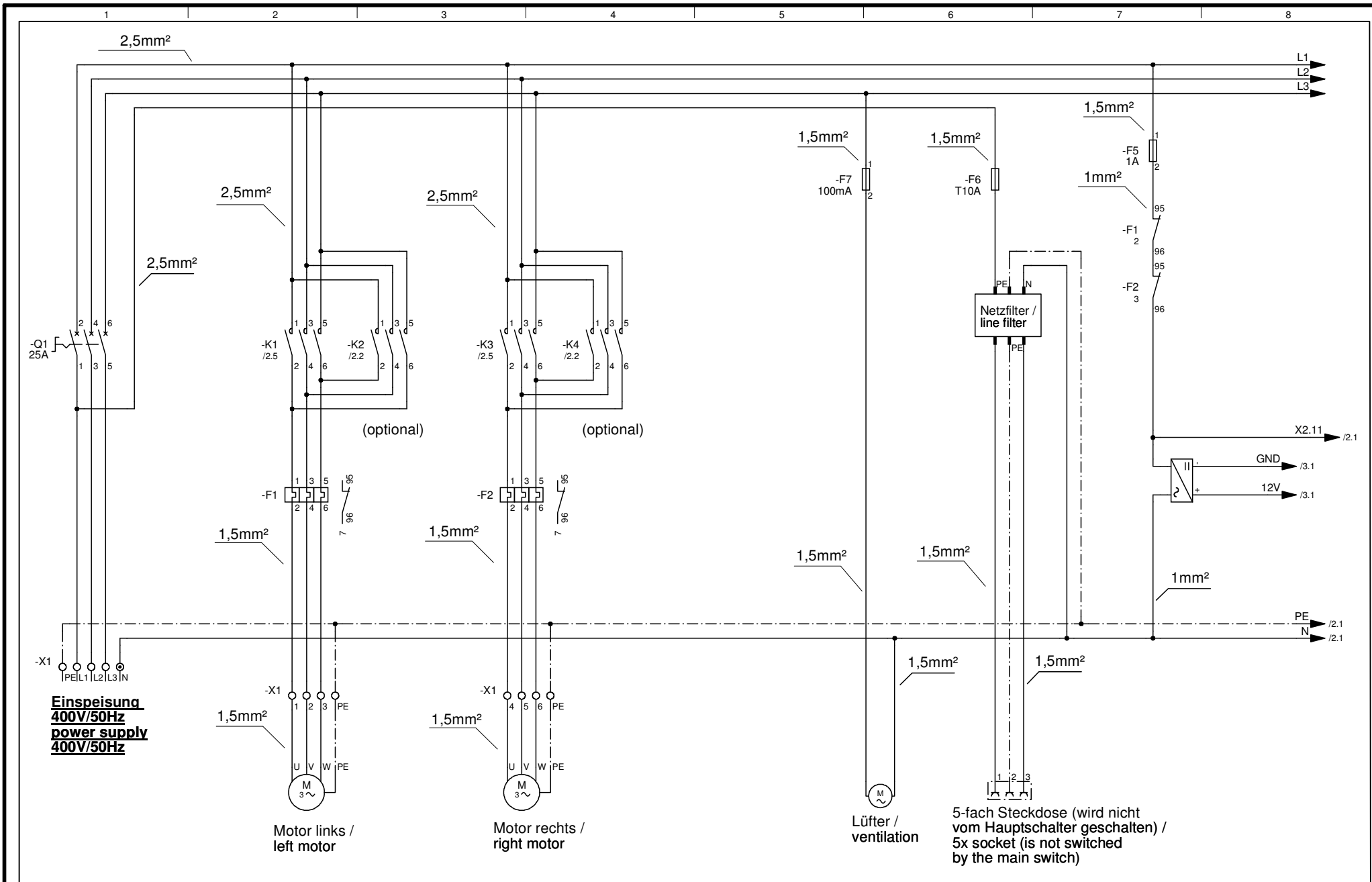
15m Kabel vom Rollensatz zur Anzeige in Lieferumfang
 15m Cable from roller set to the display prewired

Einzelheit X
 section X
 M 2:1

Das Fundament auf tragfähigen Boden gegründet und auf Frosttiefe geführt. Bemessung des Fundamentes den Bodenverhältnissen entsprechend. Belongüte nach DIN 1045 und Baustahlmatten entsprechend der max. Überfahrlast des Prüfstandes = 4000 kg

Beton quality: B 25 DIN 1045
 The foundation is to be designed as required to allow frost free conditions. Include wire weted fabric to allow max. load of 4000 kg.

Maßstab/Scale:	Index:	Änderung/Name	Datum	Verwendung:	Schutzvermerk nach DIN 34:	SAXON
1 : 25	A				Alle Rechte vorbehalten!	
	B				Ident. Nr.:	24649
	C				Blatt:	1
Datum	D				Zeichnungsnr.:	4756/1001
18.08.2007	E				Index:	
Name						
T. Maul						
Bezeichnung / Name:				Verkauf f.:		
Grubenplan B 676 ATL Foundation plan roller brake fester				Dimension:		
für Rollenbremsprüfstand				mit Waagevorbereitung incl. provision for weightbridge		
Ursprung:				Format: A4		
Freiße nach: DIN 7168 mit (tel.) DIN 8570 B						



05.09.2008	S. Müller	Datum	20.02.2001
		Bearb.	G. Müller
		Gepr.	
Änderung	Datum	Name	Norm



Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

Laststromkreis / highpower circuit

Art.: 24651

Znr.: 4752/08-00

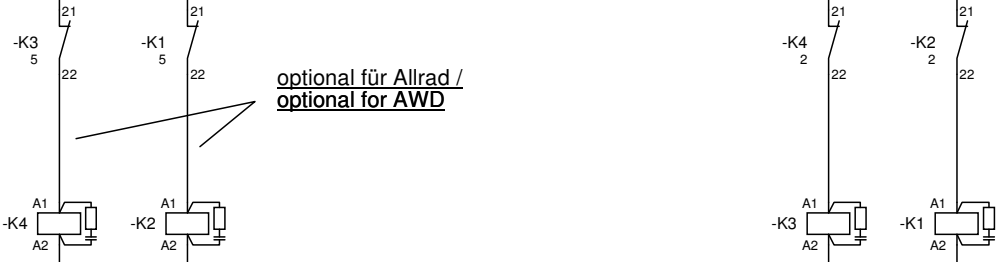
Anlage
Ort
Blatt-Nr. 1
Bl von Anz. 1/8

Relaisausgänge / relay output

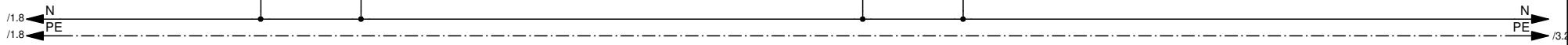
mze030

X18

1 2 3 4 5 6 7 8 9 10 11



optional für Allrad /
optional for AWD

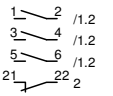
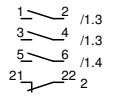
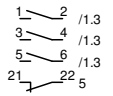
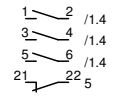


rückwärts rechts /
right backward

rückwärts links /
left backward

vorwärts rechts /
right forward

vorwärts links /
left forward



	03.09.2008	S.Müller	Datum	17.10.2006
			Bearb.	S.Müller
			Gepr.	
Änderung	Datum	Name	Norm	



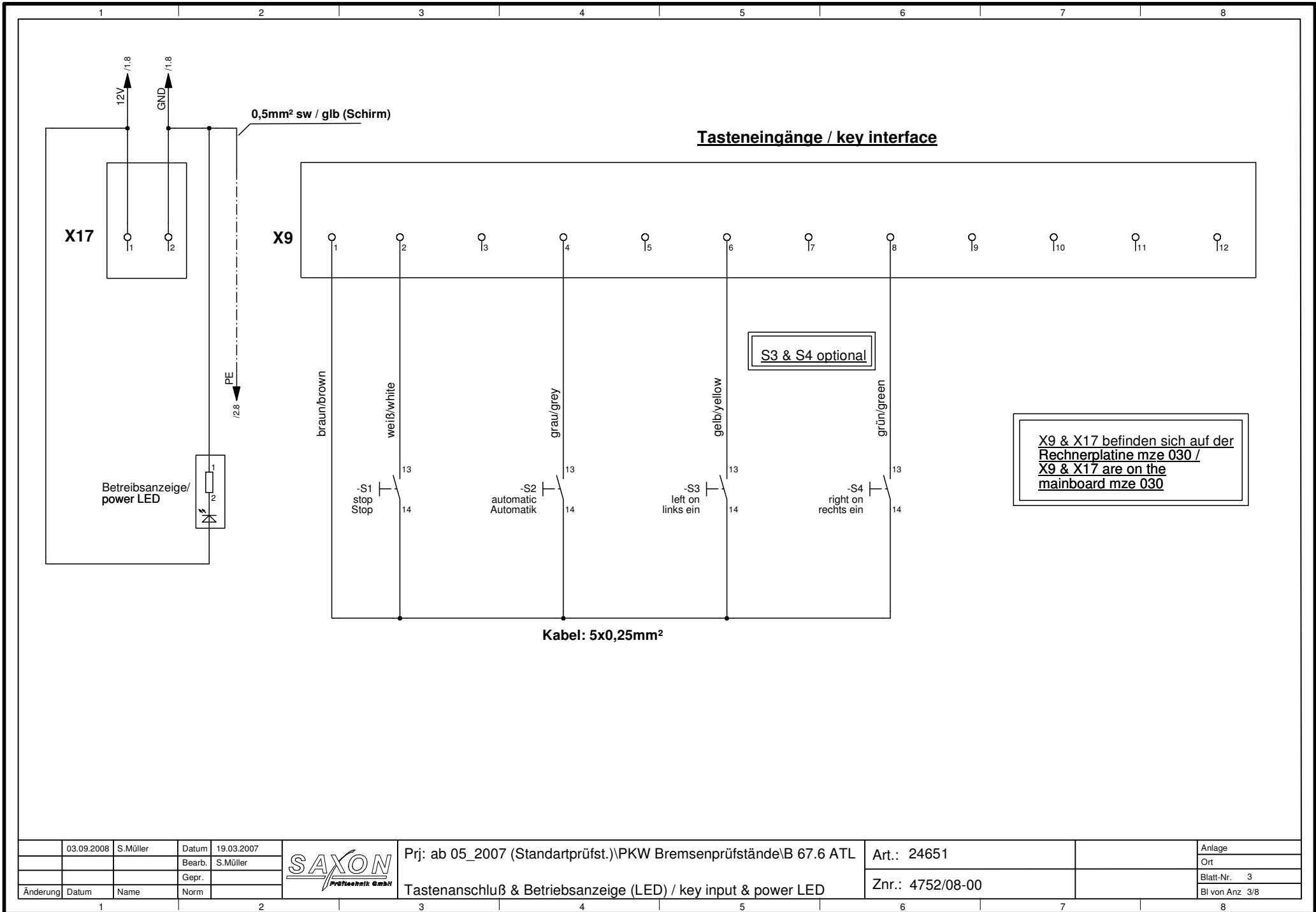
Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

Steuerstromkreis /control circuit

Art.: 24651

Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 2
Bl von Anz. 2/8



	03.09.2008	S.Müller	Datum	19.03.2007
			Bearb.	S.Müller
			Gepr.	
Änderung	Datum	Name	Norm	



Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

Art.: 24651

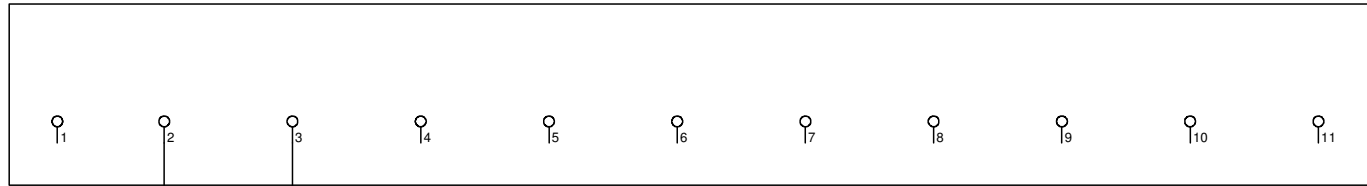
Tastenschluß & Betriebsanzeige (LED) / key input & power LED


Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 3
Bl von Anz 3/8

Eingänge Motordrehzahl / input motor speed

X22



	03.09.2008	S.Müller	Datum	13.02.2002		Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL	Art.: 24651	Anlage
			Bearb.	Torsten Maul		Anschluß Sensorren Motordrehzahl / connectio sensors motor speed	Znr.: 4752/08-00	Ort
Änderung	Datum	Name	Norm					Blatt-Nr. 4
								Bl von Anz 4/8

1

2

3

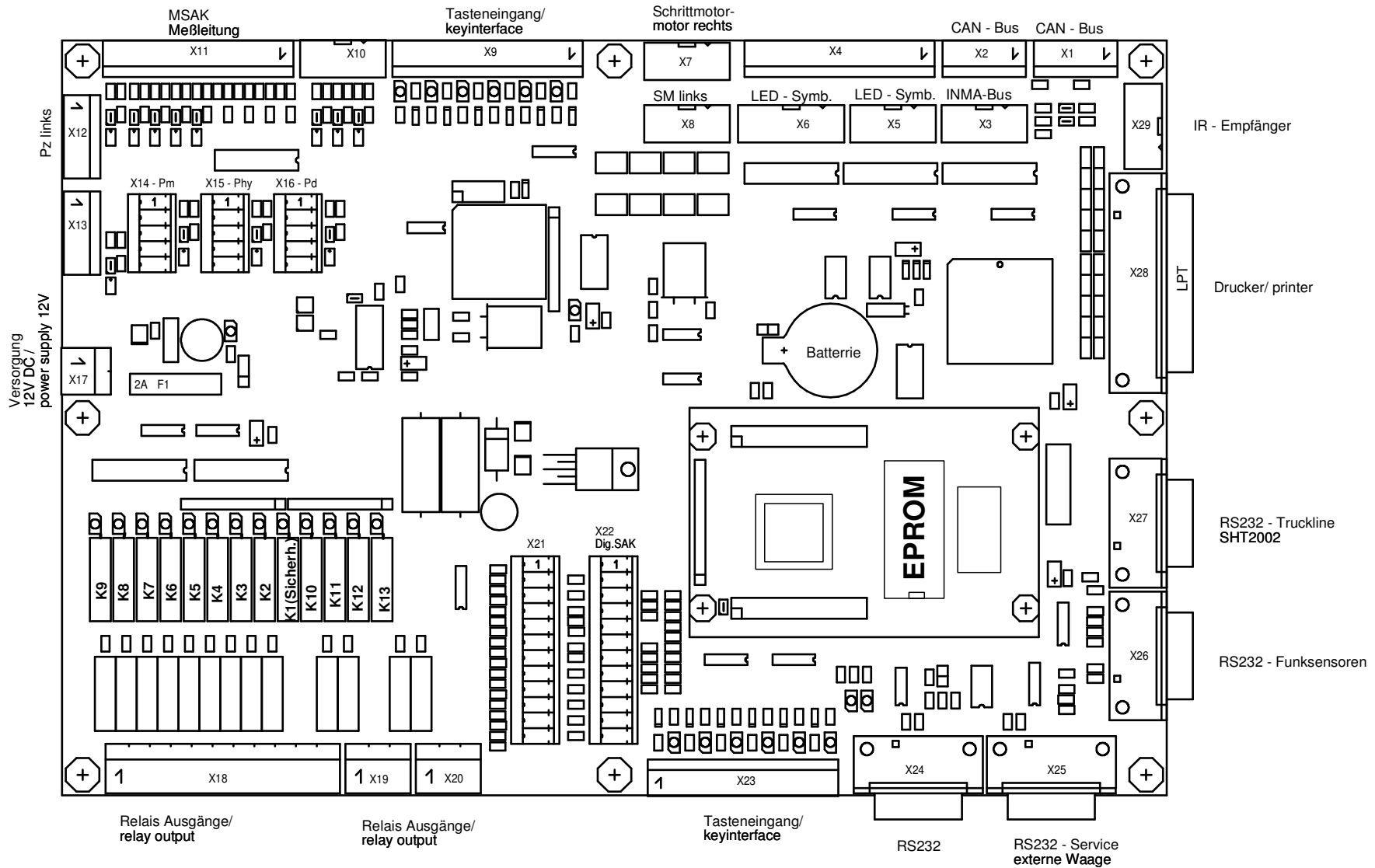
4

5

6

7

8



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Änderung	Datum	Name	Norm	

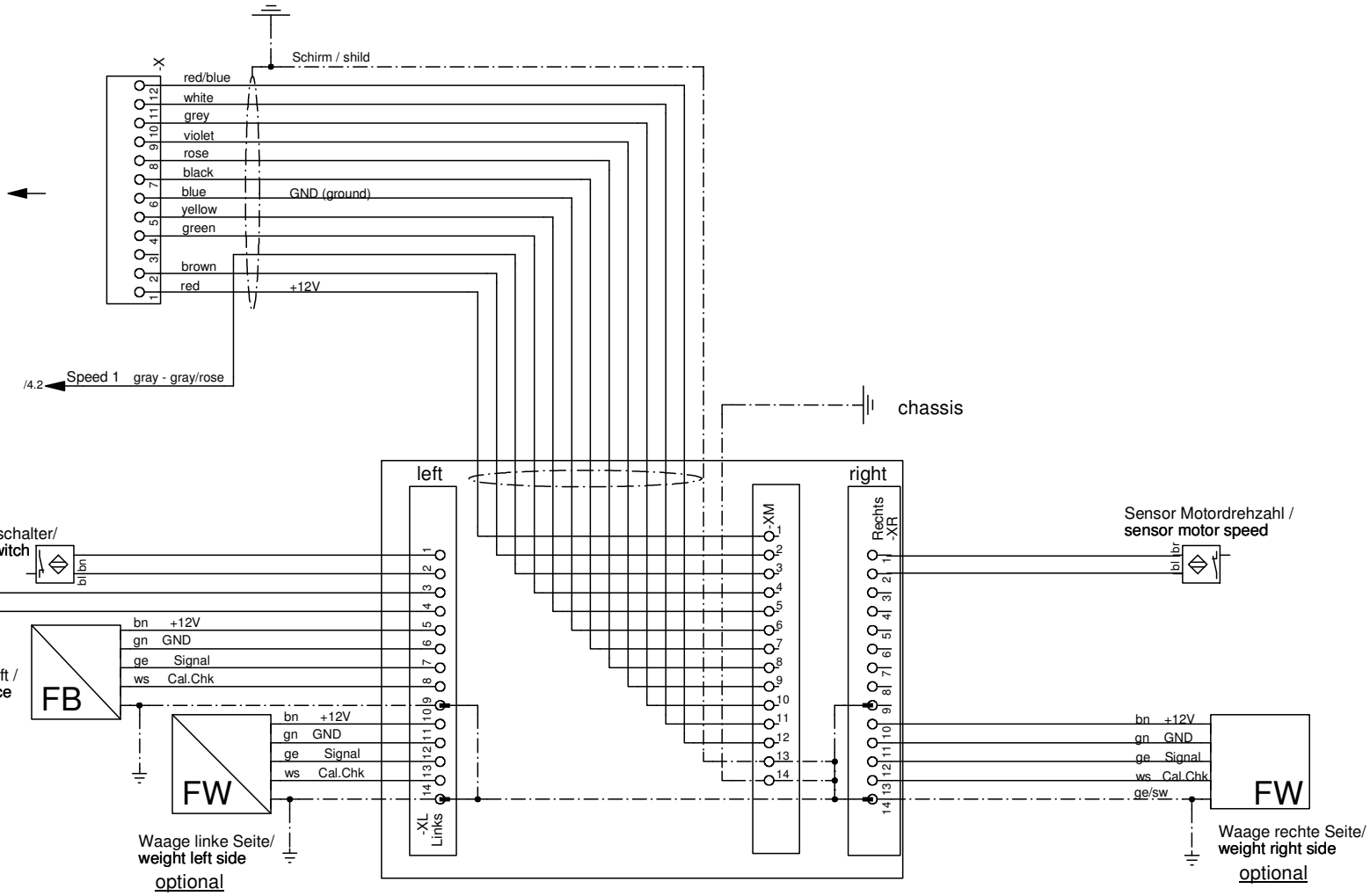


Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL
MZE 030

Art.: 24651
Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 5
Bl von Anz 5/8

MSAK-Verteiler
Bremse links/
MSAK-distributer
left roller



MSAK-Box linke Mechanik /
MSAK-box left rollers

	03.09.2008	S.Müller	Datum	07.12.2006
			Bearb.	S.Müller
			Gepr.	
Änderung	Datum	Name	Norm	



Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

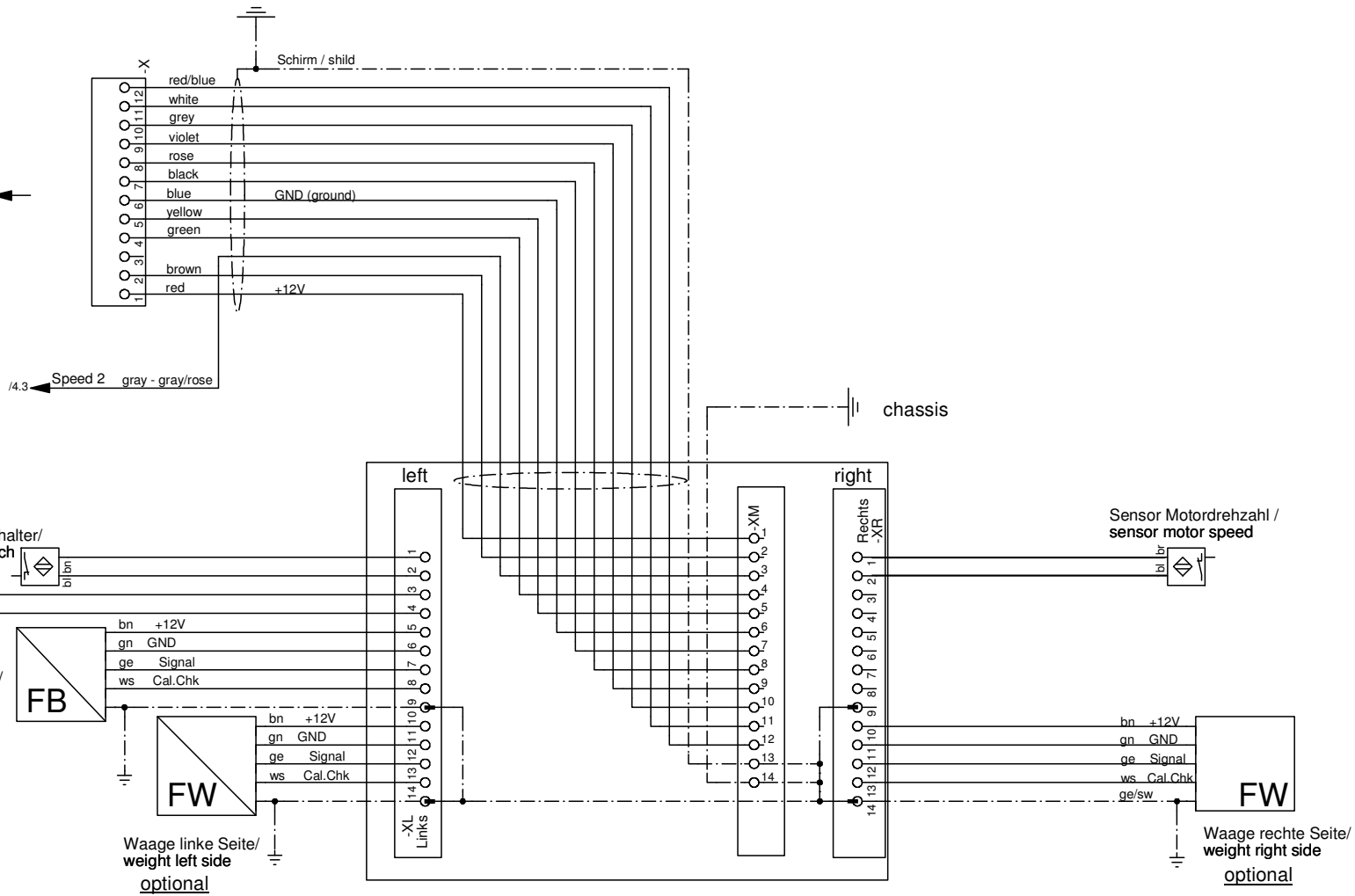
MSAK-Dose linke Mechanik / MSAK left rollers

Art.: 24651

Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 6
Bl von Anz 6/8

MSAK-Verteiler
Bremse rechts/
MSAK-distributor
right roller



MSAK-Box rechte Mechanik /
MSAK-box right rollers

	05.09.2008	S.Müller	Datum	03.09.2008
			Bearb.	S.Müller
			Gepr.	
Änderung	Datum	Name	Norm	



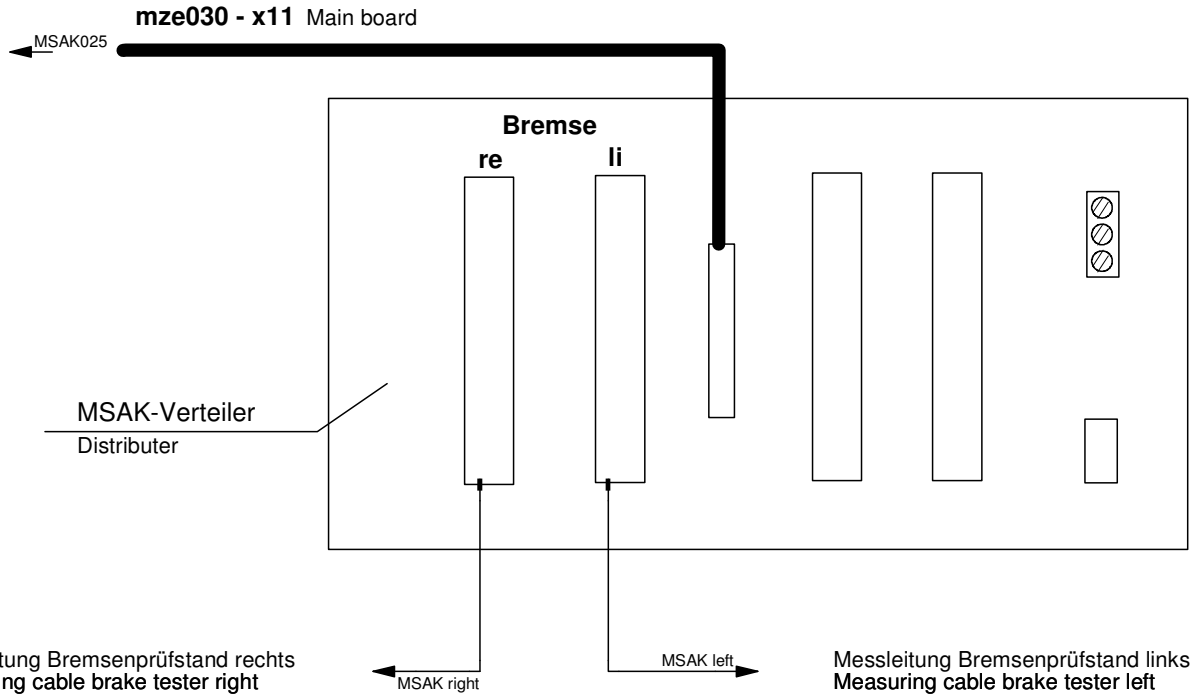
Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

MSAK-Dose rechte Mechanik / MSAK right rollers

Art.: 24651

Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 7
Bl von Anz 7/8



	03.09.2008	S.Müller	Datum	07.09.2004
			Bearb.	P.Schmidt
			Gepr.	
Änderung	Datum	Name	Norm	



Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

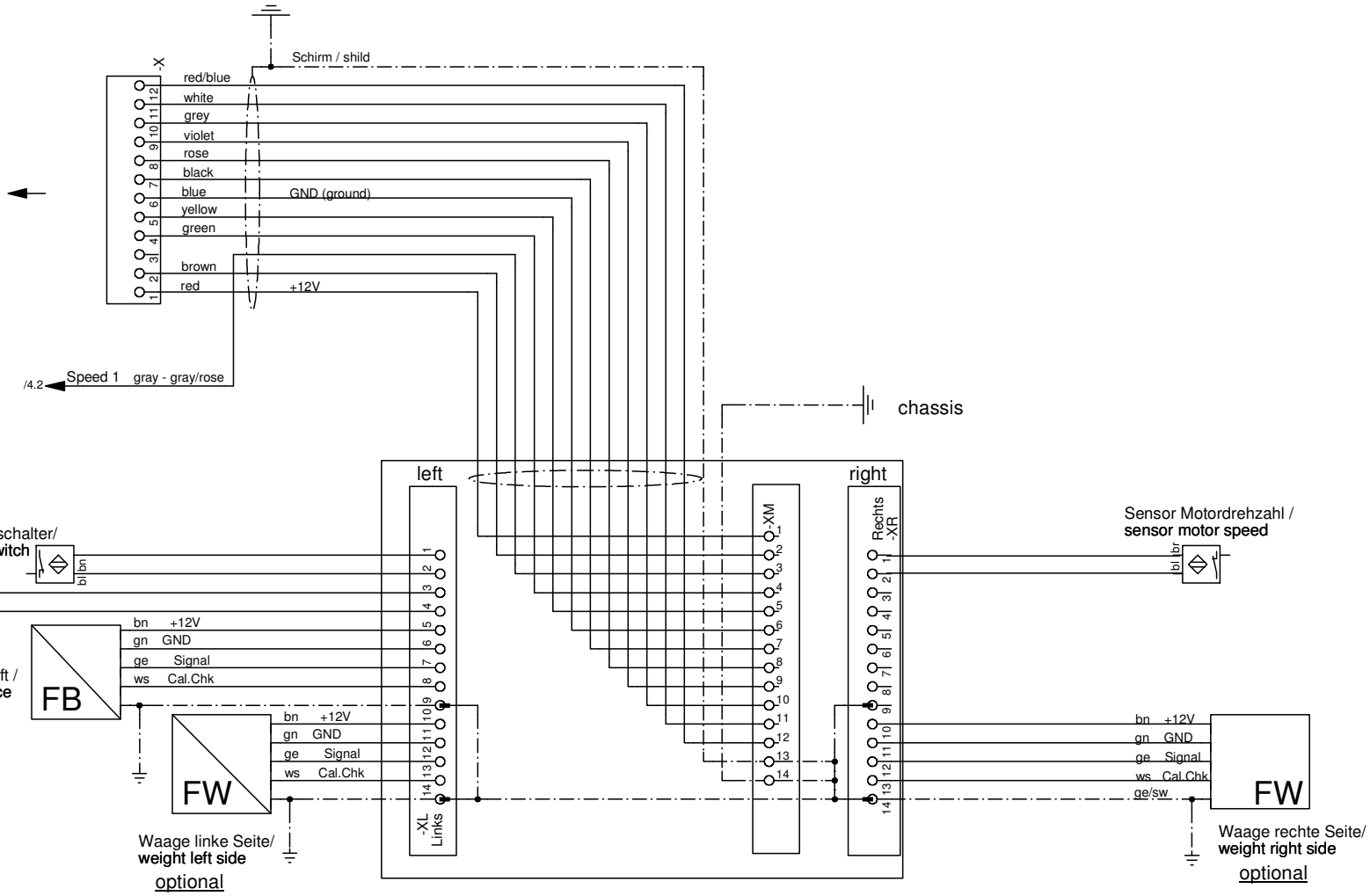
MSAK Verteiler / MSAK splitter

Art.: 24651

Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 8
Bl von Anz 8/8

MSAK-Verteiler
Bremse links/
MSAK-distributer
left roller



MSAK-Box linke Mechanik /
MSAK-box left rollers

	03.09.2008	S.Müller	Datum	07.12.2006
			Bearb.	S.Müller
			Gepr.	
Änderung	Datum	Name	Norm	



Prj: ab 05_2007 (Standartprüfst.)\PKW Bremsenprüfstände\B 67.6 ATL

MSAK-Dose linke Mechanik / MSAK left rollers

Art.: 24651

Znr.: 4752/08-00

Anlage
Ort
Blatt-Nr. 6
Bl von Anz 6/8

B 67.6 - ATL

Ersatzteilliste Spare Part List

24649

Hersteller
Manufacturer:

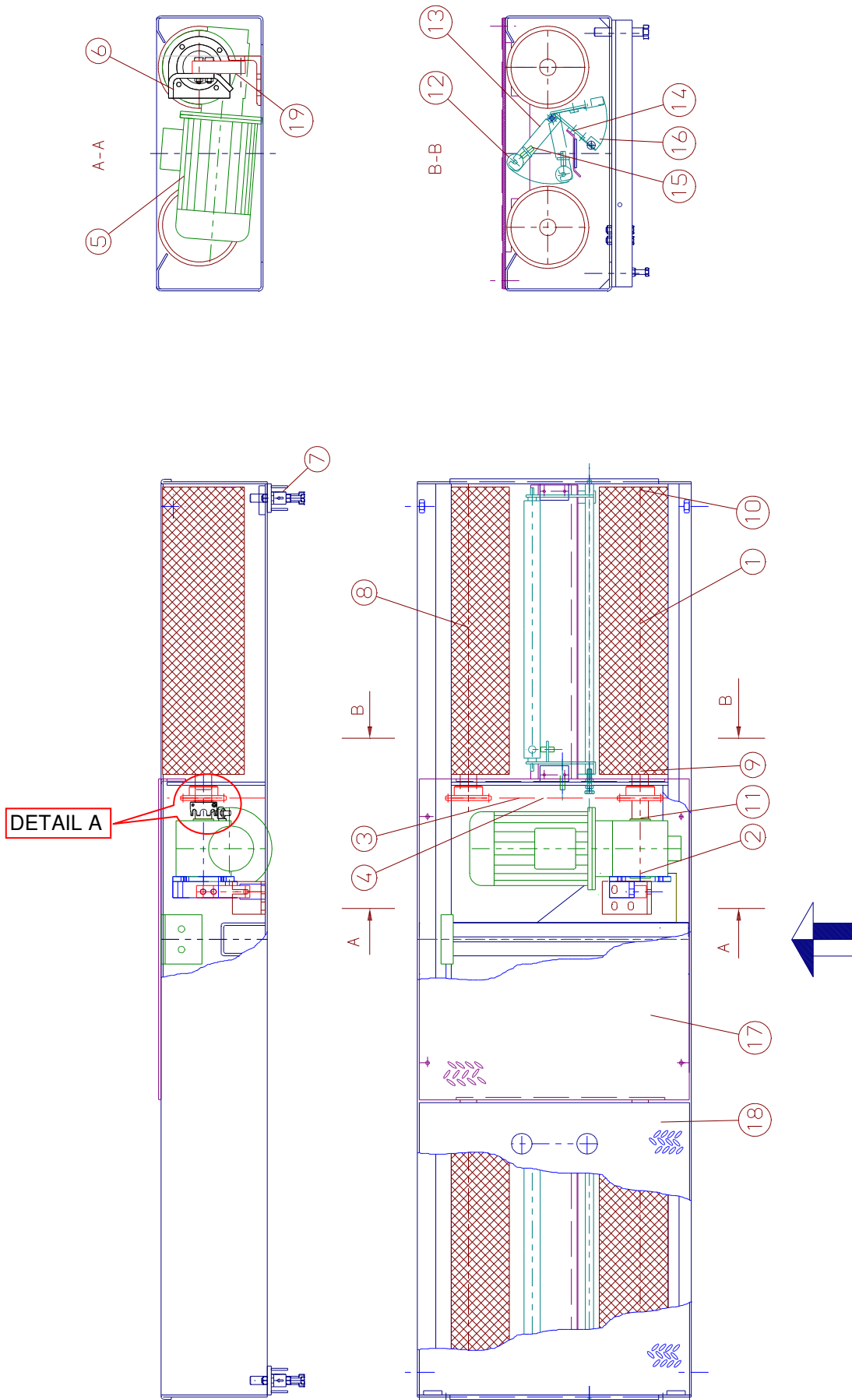
SAXON Prüftechnik GmbH
Am Stadtwald 19/23
D -08525 Plauen

Tel.: +49 (03741) 54 85-0
Fax.: +49 (03741) 52 34 81

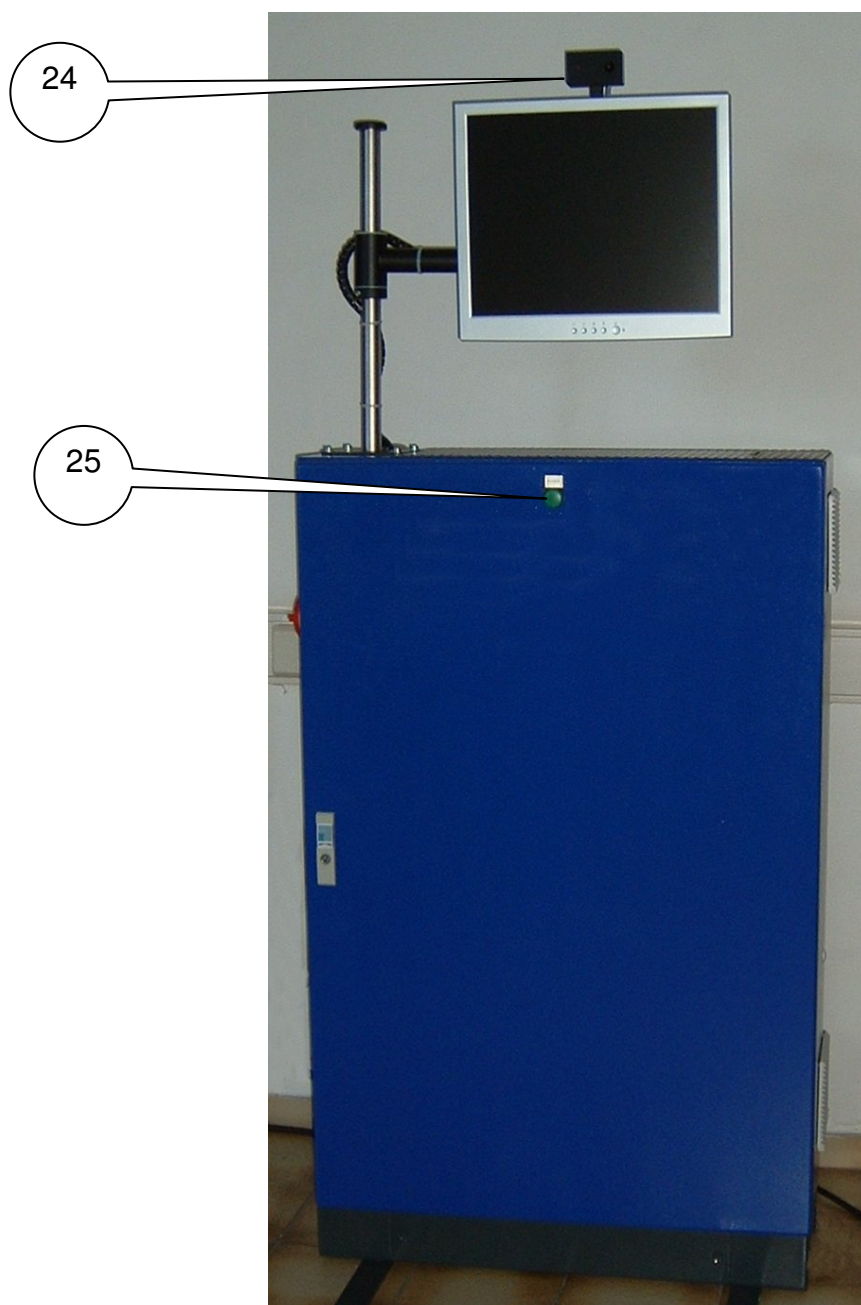
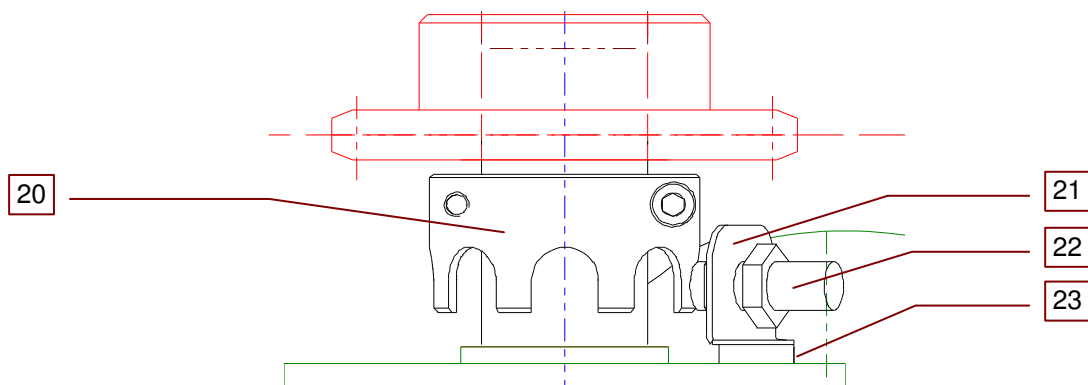
Pos.	Nr. / No.	Bezeichnung / Description	Menge / Quality	
1.	17147	Bremswalze Antrieb Brake roller (driven)	2	
2.	13925	Paßfeder Parallel key	2	
3.	6201263	Einfachrollenkette Chain	2	
4.	13855	Steckglied gekröpft Connecting link craked	2	
5.	15801/4	Antrieb drive system	2	
6.	20453	Drehmomentenstütze Torque support left	1	
7.	10461	Scherkraftaufnehmer SKA 1250 kg force sensor SKA 1250 kg	1	
8.	17148	Bremswalze Stütze Brake roller	2	
9.	14077	Flanschlager Flanged Housing Units	4	
10.	14079	Flanschlager M18 Flanged Housing Units M18	4	
11.	13925	Paßfeder Parallel key	4	
12.	14981	Tastrolle Safty roller	2	
13.	19925	Drehhebel Pivot	2	
14.	6299096	Gummipuffer Rubber buffer	4	
15.	11407	Impulsgeber induktiv Inductive switcher	2	
16.	13482	Zugfeder Spring	2	
17.	17173	Mittelabdeckblech Middle cover	1	
18.	15067	Rollenabdeckbleche Cover for rolls	2	
19.	11221/2	Scherkraftaufnehmer Force sensor	2	
20. ⁽¹⁾	24819	Schlupfimpulsgeber Slipe pulse generator	2	
21. ⁽¹⁾	24978	Schlupfsensorblech Slipe sensor plate	2	
22. ⁽¹⁾	11407	Impulsgeber induktive Pulse generator inductively	2	
23. ⁽¹⁾	24820	Distanzring Distance ring	4	
24.	14100 ATL	IR- Empfänger infrared receiver	1	
25.	22008	LED Betriebsleuchte LED Power On	1	
26.	18177	STOP – Taste STOP – switch	1	
27.	15308 + 15274	Automatik – Taste Automatic – switch	1	

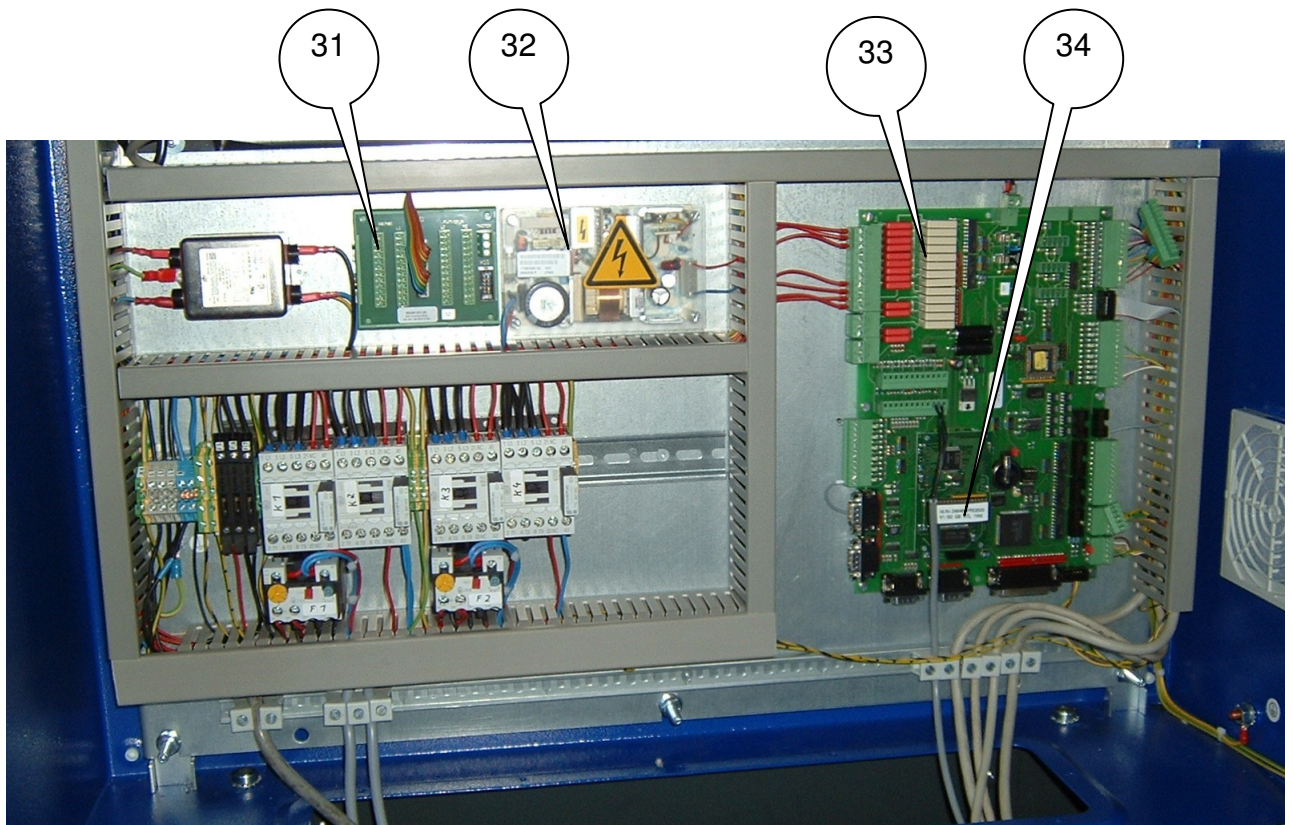
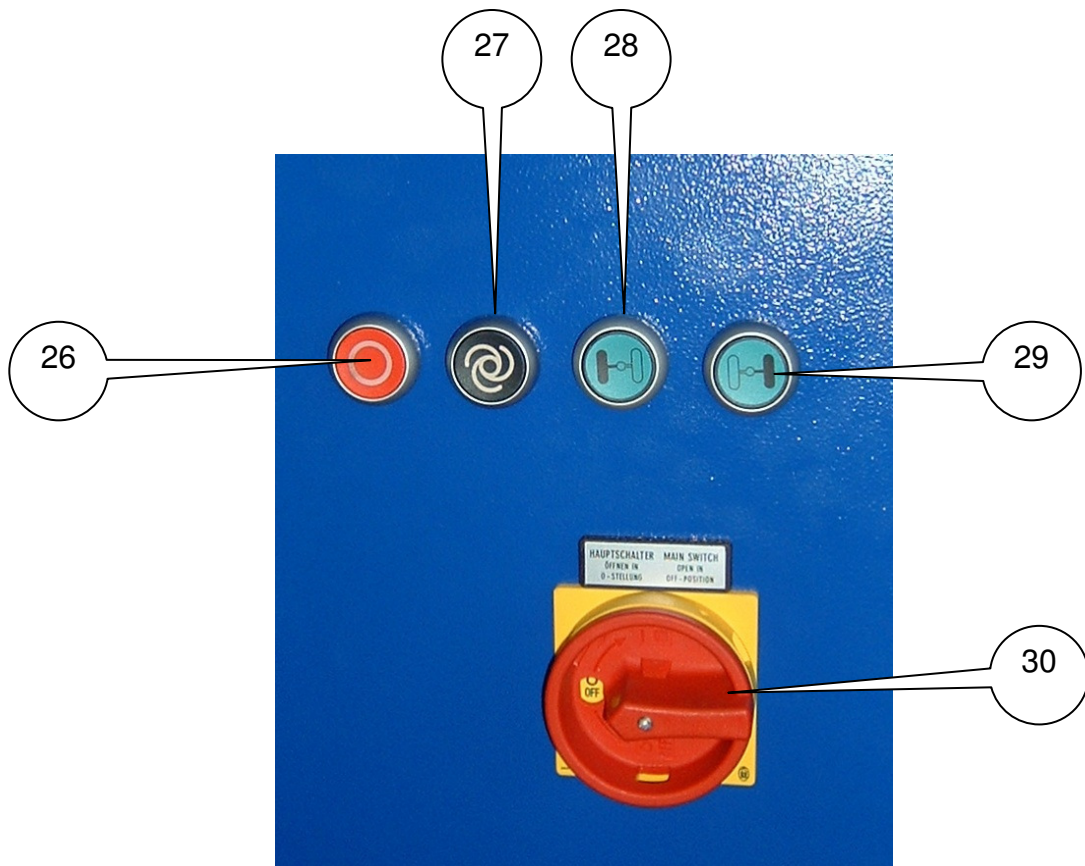
Pos.	Nr. / No.	Bezeichnung / Description	Menge / Quality	
28.	11203	Taste linkes Rad switch left wheel	1	
29.	11203	Taste rechtes Rad switch right wheel	1	
30.	12501	Hauptschalter Main switch	1	
31.		Adapter BPS adapter BPS	1	
32.	14093	Schaltnetzteil Power supply	1	
33.	11273	Zentralrechner CPU	1	
34.	24846	EPROM EPROM	1	
35.	21123	FB - Sender infrared sender	1	
36.	21805	Frontfolie IR-Sender B1.2 sticker for remote control IR-sender B1.2	1	
37.	14102	Batterie IR-Sender 6V battery infrared sender	1	

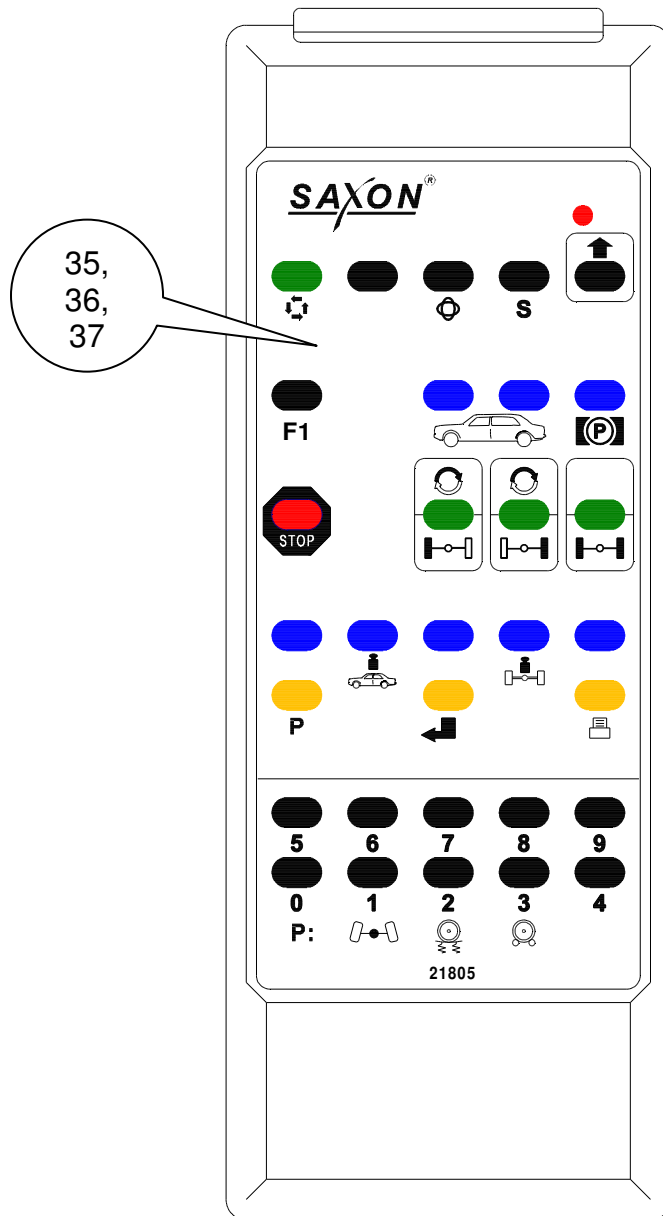
⁽¹⁾ nur verfügbar in UK- Version
only available for UK- Version



DETAIL A









EG-Konformitätserklärung

Declaration of Conformity
Déclaration de Conformità
Dichiarazione di Conformità

Hiermit bescheinigt SAXON Prüftechnik GmbH die Konformität des Produktes
The company SAXON Prüftechnik GmbH herewith declares conformity of the product
La societ  SAXON Prüftechnik GmbH declares que le produit
La societ  con la presente dichiara la conformit  del prodotto

Gegenstand / Object /Oggetto:	Typ / Type /Tipo:	Ident.-No.:
Bremsenpr�fstand Roller brake tester Banc de freins � rouleaux Banca prova freni	B 67.6-ATL	24649

mit den folgenden Richtlinien:
with applicable regulations below:
est conforme aux dispositions suivi vantes valables en la mati re:
con le seguenti disposizioni in materia:

EG-Richtlinie:	2006/42/EG
EC directive:	2004/108/EG
Directive CE:	73/23/EWG
Direttiva CE:	

Angewandte harmonisierte Normen :	EN 61000-6-3
Harmonized standards applied:	EN 61000-6-1
Normes harmonisees appliquees:	
Norme armonizzate applicate:	

Datum / Date / Data : 01.04.2011

Unterschrift / Signature / Firma :
Technischer Leiter / CE - Beauftragter
Technical management / CE Representative
Direction technique / Mandataire - CE
Direttore tecnico / Incaricato - CE



Am Stadtwald 19/23 Telefon (0 37 41) 54 85-23
D-08525 Plauen Telefax (0 37 41) 54 85-43
T. Maul



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tel: +44 (0) 1327 312616

email: info@gea.co.uk

fax: +44 (0) 1327 312606

website: www.gea.co.uk

CERTIFICATE OF ACCEPTANCE

ROLLER BRAKE TESTER (RBT)

RBT Make and Model:

Saxon B67.6 - ATL

Software Version:

1.0.3 or higher

Vehicle Weighing Device:

Built-in or transferred from Suspension Tester

Suitable to test:

Class IV ATL, Class III non-ATL

This is to certify that the above Brake Tester meets the requirements of the VOSA 2005 RBT Specifications, including annexes 1, 2 and 3, for the Classes listed above. It is therefore acceptable for performing brake tests and can be used as part of an Automated Test Lane (ATL).

Chief Executive

9 January 2008

Date

For and on behalf of the Garage Equipment Association (GEA), administrators of the VOSA 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



WE SUPPORT **Ben**

Registered in London No. 2891852