

Manual for Mobile Monitor System, Driver Management System, XYZ-Rail



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1 General information

1.1 Purpose of this operating manual

This „operation manual for XYZ-Rail“ describes the function and structure of a XYZ-Rail. With this XYZ-Rail it is possible to position a monitor free within a roller dynamometer. This XYZ-Rail has been developed and built by the Company S. Bleyer GmbH.

1.2 User Group

This „operation manual for XYZ-Rail“ refers to all operator of roller dynamometers with technical knowledge.

1.3 Version

The current version and print date is printed on every page in the footer. The current version of this operating manual is also free for download at the website www.s-bleyer-gmbh.de.

1.4 Safekeeping

Make sure that you keep the operating manual safely!

1.5 Copyright

© 2015 S. Bleyer GmbH, 73614 Schorndorf, Germany

All rights reserved. Reproduction of this manual, even in parts, no matter by which process, is prohibited without prior written approval from S. Bleyer GmbH.

The content of this release was carefully checked for correctness. Nevertheless, errors cannot be completely excluded.

Subject to change without prior notification.

Design and text: S. Bleyer GmbH. All photos and drawings are the property of S. Bleyer GmbH. Photos and drawings need not represent the current production status as long as the function illustrated is the same.

Printed on 100% recycled paper.

1.6 Language of the Operation Manual

The original version of this operation manual has been written in the company language of the manufacturer. Translations in other languages are translations of the original version.






1.7 Address of Manufacturer

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 73614 Schorndorf
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 info@s-bleyer-gmbh.de
 www.s-bleyer-gmbh.de

1.8 Explanation of Symbols

Levels of danger are labelled according to ISO 3864 and ANSI Z535.4.

 Danger	The triangular danger sign together with the signal word "danger" stands for an <i>imminent danger</i> , that definitively leads to <i>serious injuries</i> or <i>death</i> .
 Warning	The triangular danger sign together with the signal word "warning" stands for a <i>possibly dangerous situation</i> , that may lead to <i>serious injuries</i> or <i>death</i> .
 Caution	The triangular danger sign together with the signal word "caution" stands for a <i>possibly dangerous situation</i> , that may lead to <i>slight or marginal injuries</i> . The triangular danger sign together with the signal word "caution" also stands for a <i>dangerous situation</i> in which the product or a surrounding object is damaged (<i>material damage</i>).
 Notice	The round danger sign together with the signal word "notice" stands for a <i>possibly dangerous situation</i> in which the product or a surrounding object may be damaged (<i>material damage</i>).
 Important	The hand with the signal word "important" gives advice and hints for use.

2 EG-Manufacturer's declaration for XYZ-Rail

(accordance with annex IIA of the machinery directive)

We,
Company S. Bleyer GmbH
Steinbeisstraße 20
73614 Schorndorf
Germany

Declare under our sole responsibility that the product:

Description: XYZ-Rail for roller dynamometer
(function)

to which this declaration relates is in conformity with the following guidelines and standards or other normative documents:

2006/42/EG	machines		
2006/95/EG	low voltage		
2004/108/EG	electromagnetic compatibility		
EN ISO 12100	2010	EN ISO 13850	2008
EN ISO 13849-1	2008+AC:2009	EN 60204-1	2006

S. Bleyer GmbH, Steinbeisstraße 20, 73614 Schorndorf, Germany

(Name and address of the person who is authorized to compile the relevant technical documentation)

Name of the signatory

Last name: Bleyer

First name: Stefan

Position: Manager

Germany

Schorndorf, 01.12.2014

Place and Date



Sign

3 Liability and Warranty

The general terms and conditions of the S. Bleyer GmbH apply. You will find them at www.s-bleyer-gmbh.de. These general terms and conditions are part of the contract. The S. Bleyer GmbH does not accept any liability for damage of material or persons which occur as a result of the following items:

- Overloading the rail system or the lifting column when parts of the XYZ-Rail have changed.
- Ignoring the warnings and information of the operation manual.
- Improper or dangerous use, mounting, maintenance or cleaning of the XYZ-Rail.
- Using of the XYZ-Rail when parts are damaged or when parts are not proper in function.
- Unauthorized changes of the XYZ-Rail.
- Unauthorized repairs of the XYZ-Rail.
- Inadequate control of the rail system and the lifting columns which are wearing parts.
- Damage of parts of the rail system, lifting column or electrical system.
- Disasters caused by external impact and Force Majeure

This operation manual assists you to

- avoid danger,
- avoid down times
- and increase the live-time of this product.

The operation manual must be read and used from all persons who work with this product.

4 Safety instructions

The S. Bleyer GmbH has built this XYZ-Rail according to the current state of the art and existing safety regulations. Nonetheless, this XYZ-Rail may pose risks to persons and property if these are used incorrectly or not for the intended purpose or if the safety instructions are disregarded.

Skilled operation guarantees high performance and availability of this XYZ-Rail. Faults or conditions which can impair safety are to be rectified immediately.

Any person having anything to do with the installation, use operation or maintenance of this XYZ-Rail must have read and understood the assembly instructions.

This includes

- understand the safety instructions in the text and
- become familiar with the arrangement and function of the various operating and application options.

Only nominated persons may use, install and operate this XYZ-Rail. Work on and with the XYZ-Rail may only take place in accordance with these instructions. It is therefore essential that these instructions are ready to hand in the vicinity of the XYZ-Rail and kept in a safe place.

The general, national and company safety regulations must be observed. Responsibilities for the use, installation and operation of this XYZ-Rail must be regulated and observed unambiguously, so that there cannot be any ill-defined competences with regard to safety. Before any commissioning, the user must be sure that no persons or objects are in the XYZ-Rail area. The user should only operate the XYZ-Rail in perfect condition. Any change is to be reported to the nearest line manager immediately.



Wear the necessary personal protective equipment (PPE) at all times during work.

Please read the operation manual before using the XYZ-Rail or the roller dynamometer.

The operation manual must be stored accessible for public domain.



Danger

Danger for live and material in the area of the dynamometer in case of improper use!

In event of improper use S. Bleyer GmbH is no longer liable and its general operating license will expire.

5 Productinformation for XYZ-Rail

5.1 Intended use

The XYZ-Rail must exclusively used for a free positioning of a monitor in the 3 dimensions of an indoor room or in a similar way.

The XYZ-Rail is used in the automotive industry in roller dynamometers. The rail system is mounted at the ceiling and a lifting column could position a monitor on all 3 axis in the room within the roller dynamometer. The monitor shows the performance data and driving programs of the test run. As the monitor could be positioned in front of the windshield outside of the car the driver can read out the data while driving.

Besides the monitor a holder for a remote control and a trackball could be fixed. Also it is possible to integrate supply lines of other manufacturers for measurement or instrument leads for example. All cables could be added to the energy chain and are available at all positions in the room.

The accident hazard is greatly reduced through the easy mobility, cable strain relief, anti-kink device and pinch protection, electrical safety and shielded cables. There are no pitfalls because all cables are conducted from above.

5.2 Drive Ways General

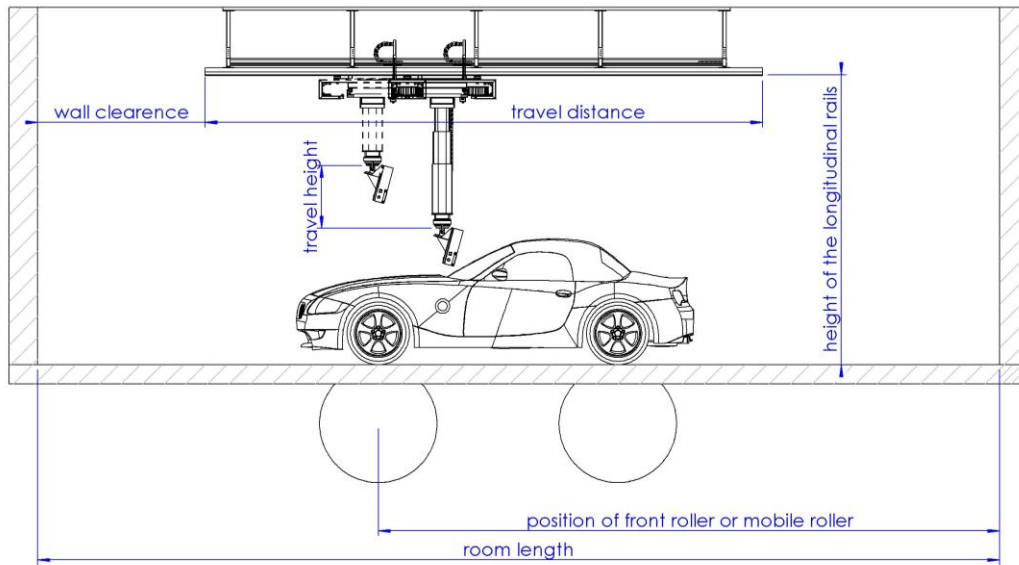
The possible range of drive ways for the rail system depends on the size of the room, the height of the ceiling and customer wish.

The standard drive ways:

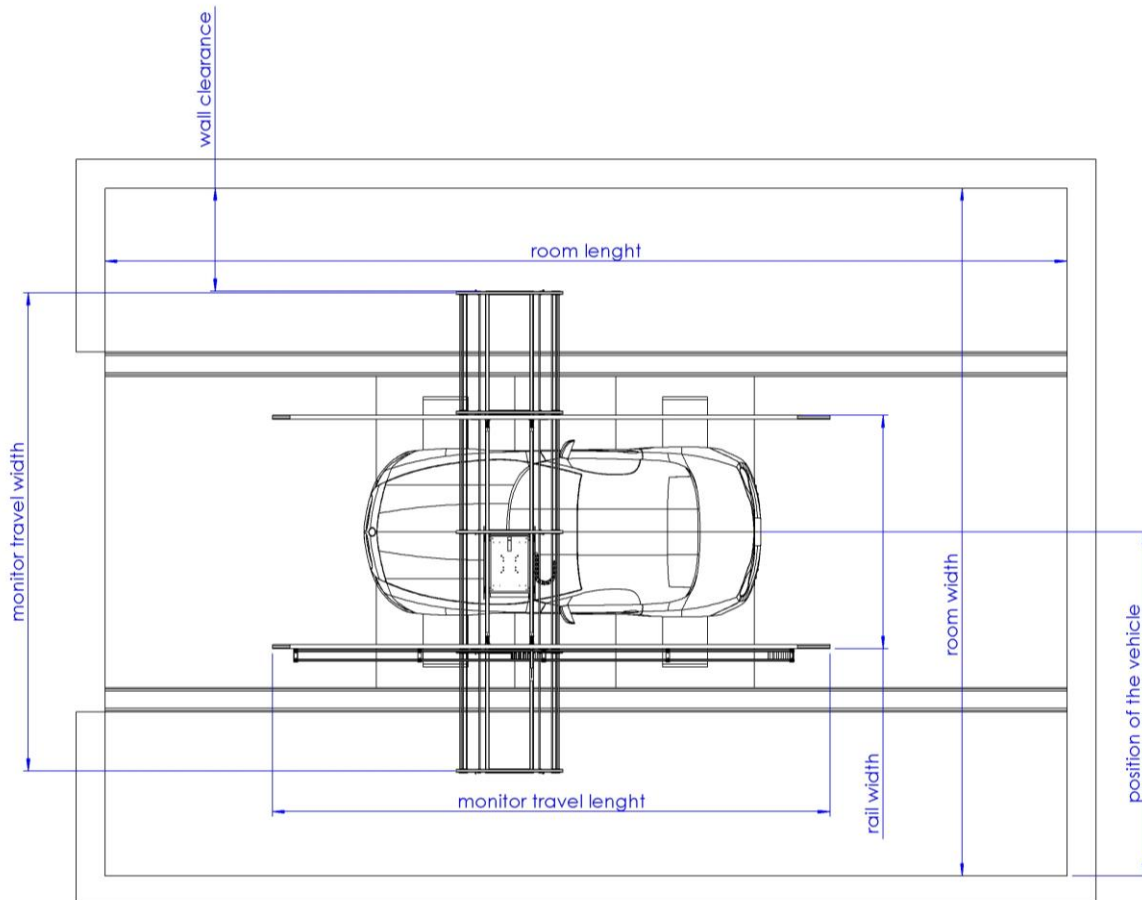
Length = 6000mm

Width = 5000mm

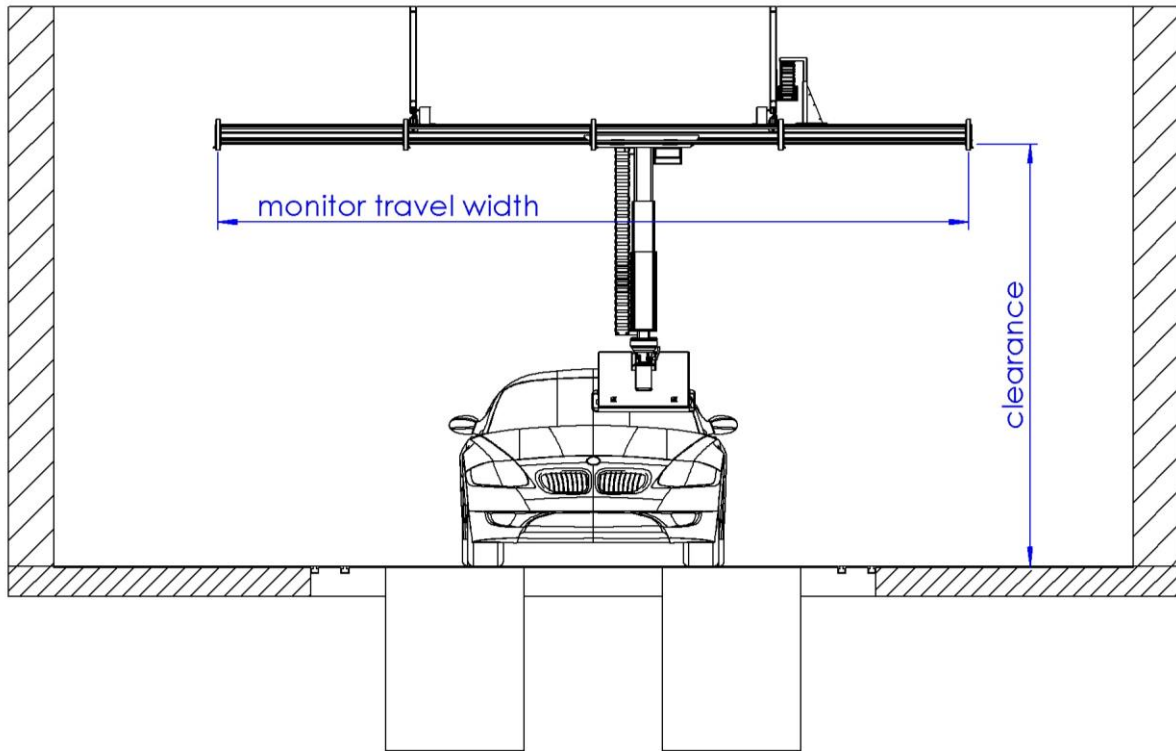
Height = 700mm



Side view: The dimensions written in blue are dependent on the premises and customer wishes.



Top view: The dimensions written in blue are dependent on the premises and customer wishes.



Front view: The dimensions written in blue are dependent on the premises and customer wishes.



The monitor system can be moved anywhere in the entire test area.



Mobile monitor system in operation with open engine bonnet.

5.3 Technical Data

Description	XYZ-Rail
Bleyer Product No.	XYZ-Rail
Supplier	S. Bleyer GmbH
Electrical connection:	220-230 V alternating current Fused with 16 A
Lifting column	120 W
Temperature	-20°C up to +60°C
Measure	According to customer order
Drive ways	According to customer order
Weight	Depending on the version between 200 – 300 Kg

5.4 General information about the manufacturer's declaration

The XYZ-Rail generally consists of the following components for which a manufacturer's declaration is stipulated according to EU directives:

- Lifting column
- Transformer controller
- Rocker switch (up-down-controller)

Optional:

- Thermoelectric modules
- VGA splitter
- Monitor
- Wind deflector

Depending on the version of the XYZ-Rail, some of the above-mentioned components are supplied by the customer at the construction site. The company S. Bleyer GmbH merely installs these components into the carrier system. The customer must request the manufacturer's declarations from the respective manufacturer for these supplied components if required.

You can request corresponding manufacturer's declarations from S. Bleyer GmbH for all components not supplied at the construction site by the customer, but specifically ordered and installed by S. Bleyer GmbH (usually only electrically operated lifting columns).

6 Life Cycle

6.1 Mounting and installation

Installation is carried out exclusively by employees of the S. Bleyer GmbH.



There are no explicit safety regulations for third parties.

6.2 Components – Scope of Delivery

Scope of delivery of the XYZ-Rail are the following components:

Supporting construction at the ceiling:



This construction holds the energy chain which conducts the cables for the monitor or any other technical modules.

Also it contains the rail system on which the length slide and a pneumatic break is installed. The pneumatic break holds the length slide on his current position.

Length slide:

The length slide is positioned on the rails of the supporting construction and holds the monitor cart. On the length slide optionally a second additional cart can be installed.

Monitor cart:

The monitor cart is installed on the length slide and holds the lifting column.

Lifting column with monitor box:

At the lifting column is a pin joint and on the pin joint is a pivot joint installed. It is possible to tilt the monitor with the pin joint for 45° in both directions and rotate the monitor with the pivot joint 360° horizontal.

All cables which are necessary for the monitor and other modules could be lead from the cross slide along the lifting column inside an energy chain.

Depending to the testing room on the monitor box is an adapter plate installed. This adapter plate is plugged on to the monitor mount of the monitor box and gives a secondary possibility to tilt the monitor.

Push Button:

On both sides of the monitor box there is one push button for loosening the breaks for the length slide and the monitor cart. Then the monitor box can change place in X- and Y-direction in the room.

Rocker switch:

On both sides of the monitor box there is a rocker switch which controls the height adjustment.

Not contained in scope of delivery are the following items:

- Different cables (graphics, power, ...)
- Additional cart (for example for measurement technology)

6.3 Operation

Moving the carrier in X- and Y-direction:

On the right and on the left side of the monitor box is a push button.

- Pressing one of the push buttons releases the break of the length slide and the monitor cart.
- Holding the push button pressed and the monitor box can be moved freely in the room.
- Release the push button activates the breaks and they hold the monitor box in the current position in the room.

Moving the monitor box up and down (Z-direction):

On the right and on the left side of the monitor box there is a rocker switch. They give the possibility to lift the monitor box up and down.

- Pressing one of the rocker switches starts the up or down movement.
- Holding the rocker switch pressed and the monitor box goes on moving.
- Release the rocker switch and the up or down movement stops.

Turning the monitor box around:

With the pivot joint the monitor box could horizontally turn around for 360°.

- Release the toggle screw and turn the monitor box.
- Tighten the toggle screw again and the monitor box holds in the current position.

Tilting the carrier backward and forward:

With the pin joint the monitor box could be tilted 45° to the front and 45° to the back.

- Release the toggle screw and tilt the monitor box.
- Tighten the toggle screw again and the monitor box holds in the current position.

Tilting the monitor on the monitor box (depending on version):

Additional ability to tilt the monitor some degrees or move it up and down.

6.4 Change of Spare Parts

Unauthorized conversions of or changes to the XYZ-Rail are not permitted for safety reasons. Only employees of the S. Bleyer GmbH are allowed to change parts.

6.5 Maintenance and Cleaning

Maintenance and cleaning of the XYZ-Rail could be done from the customer on his own.

Basically the XYZ-Rail is maintenance free. Anyway it could be useful to clean the rails with a smooth cloth and WD-40 Aerosol.

6.6 Inspection

An inspection of the XYZ-Rail is only permitted for employees of the S. Bleyer GmbH.

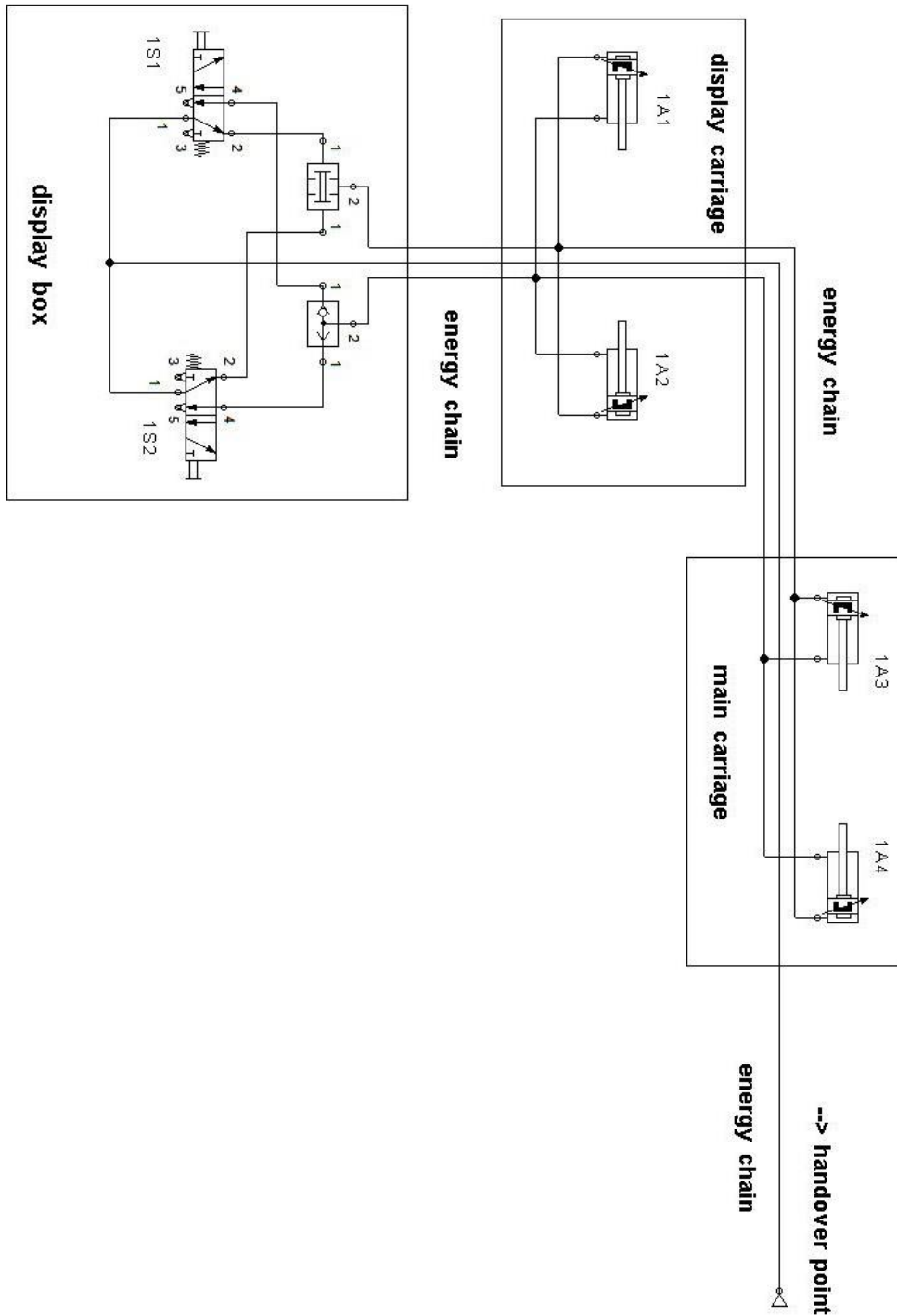
The S. Bleyer GmbH suggests an inspection every year.



An inspection done by customer or other persons is not permitted.

7 Appendix

7.1 Pneumatic Diagram



7.2 Circuit Diagram for Terminal and Display Box

