

Installation instructions

Rathgeber wire cable

with device series

door operator

TSG

Documentation history

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Langer & Laumann Ing.-Büro GmbH
Wilmsberger Weg 8
48565 Steinfurt
Germany

Phone: +49 (2552) 92 7 91 0

E-mail: info@LuL-Ing.de

Web: www.LuL-Ing.de

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1 Essential information

1.1 Value of assembly instructions

The product assembly instructions are provided by the manufacturer or supplier to provide the information required by the customer or fitter to ensure proper, safe and reliable assembly. These brief assembly instructions serve to clarify the basic steps of mechanical assembly. The electrical connection, commissioning and settings of the TSG are explicitly not part of these instructions.

1.2 Copyright protection

We reserve all rights for this technical documentation. It may not be duplicated, made accessible to third parties or otherwise used in an unauthorised manner without our prior consent. Any changes require our explicit and prior written consent.

1.3 Instructions in the assembly manual

All instructions in the assembly manual must be followed without exception.

1.4 Informal activities performed by the fitter

The system fitter is personally responsible for participating in a training course. He or she must inform the manufacturer/supplier without delay of any missing or defective parts in the delivery.

1.5 Requirements for assembly personnel



Persons responsible for installation and maintenance must be instructed regarding generally applicable safety and labour health requirements. They must be familiar with Langer&Laumann products. Installation tools must be fully functional and measuring instruments must be subject to continuous monitoring.

2 Activity performed

Replacement of the Rathgeber door operator with a  **Langer & Laumann Ing. Büro GmbH TSG door drive.**

The purpose of the conversion is to replace the existing Rathgeber drive with a TSG drive.

3 Advantages

- Very economical package.
- Quick and easy replacement with a TSG from  **Langer & Laumann Ing. Büro GmbH .**
- **Just a few** mechanical attachments are required.
- All necessary parts are included with delivery.
- Conversion can be performed **very quickly** and **easily**.
- The electrical wiring can also be performed by **less experienced fitters**.
- **No hand-held** terminal is required for setting parameters. All parameters can easily be adjusted on the device.
- **Measurements can be performed very easily.**
- The conversion kit is available from  **Langer & Laumann Ing. Büro GmbH** as **warehouse inventory**.

4 Tools required

Metal drill bits 6, 9, and 11 mm
Fork wrenches size 8, 10, 13, 17
Allen wrench set
Screwdriver
Side cutter

5 Conversion instructions



NOTE:

The order of assembly listed here is simply a recommendation. There is no claim of completeness.

1. Removal of the existing drive motor including wire cable
Caution: The 2:1 transmission ratio between the door panels must be retained with a door that opens on one side.
2. Removal of the existing damper.
3. Assembly of the "hat" combination bracket on the opening side of the door machine (see Fig. 3: TSG drive - installed in door machine / page 8).
4. Assembly of the (large) deflection roller on the door machine (see Fig. 5: TSG drive with deflection roller - installed in door machine / page 9).
5. Assembly of the counter roller on the opening side of the door machine. Make certain the heights of the rollers are aligned to each other.
6. Assembly of the counter roller on the closing side of the door machine (see Fig. 9: TSG in Rathgeber - closing side (still without buffer stop) / page 13). Make certain the heights of the rollers are aligned to each other.
7. Set the TSG toothed belt in place, connect it with the TSG toothed belt lock and clamp it. The bottom of the toothed belt must be parallel to the running rail.
8. Assembly of the door panel carrier on the door panel (see Fig. 13: TSG in Rathgeber – door panel carrier on door panel / page 16).
9. Assembly and adjustment of the end stops (see Fig. 6: TSG stop - installed in door machine / page 10 // Fig. 10: TSG in Rathgeber - closing side with buffer stop / page 14 // Fig. 11: TSG in Rathgeber - closing side with buffer stop / page 15).
10. For electrical commissioning see the TSG operating instructions.

6 Illustrations



Fig. 1: Rathgeber door machine with wire cable (original)

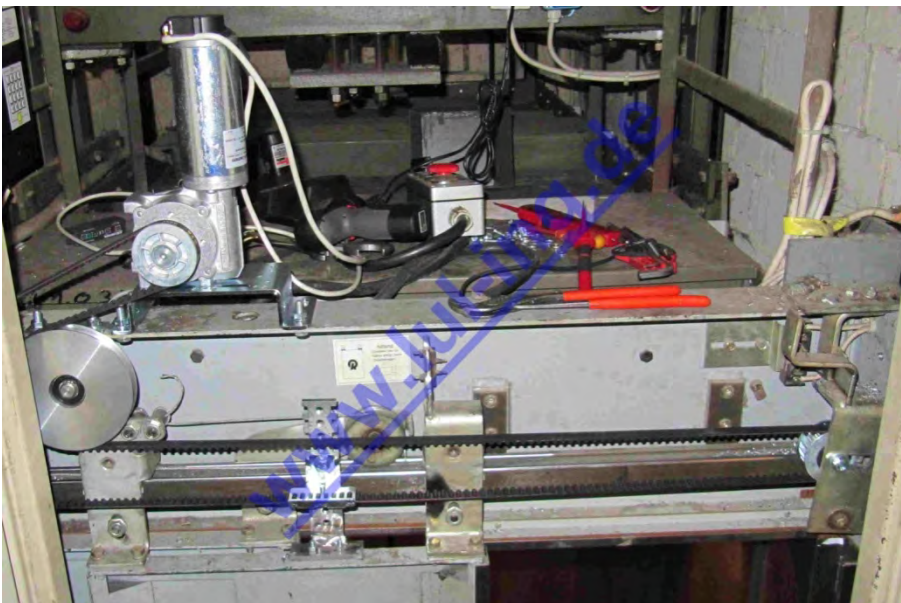


Fig. 2: Rathgeber converted with TSG toothed belt



Fig. 3: TSG drive - installed in door machine

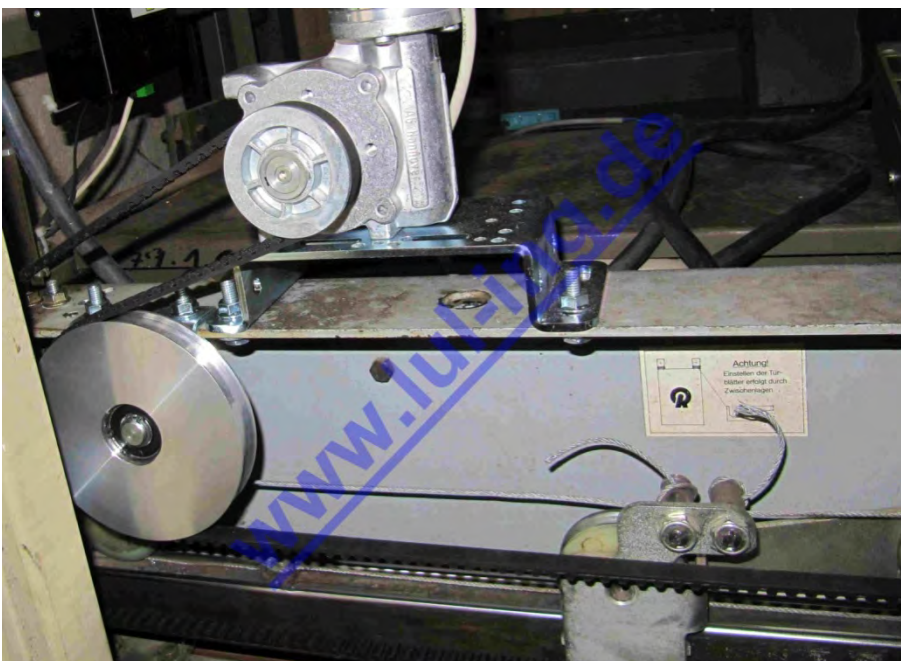


Fig. 4: TSG drive with deflection roller - installed in door machine



Fig. 5: TSG drive with deflection roller - installed in door machine



Fig. 6: TSG stop - installed in door machine



Fig. 7: TSG toothed belt system - view from above of opening side

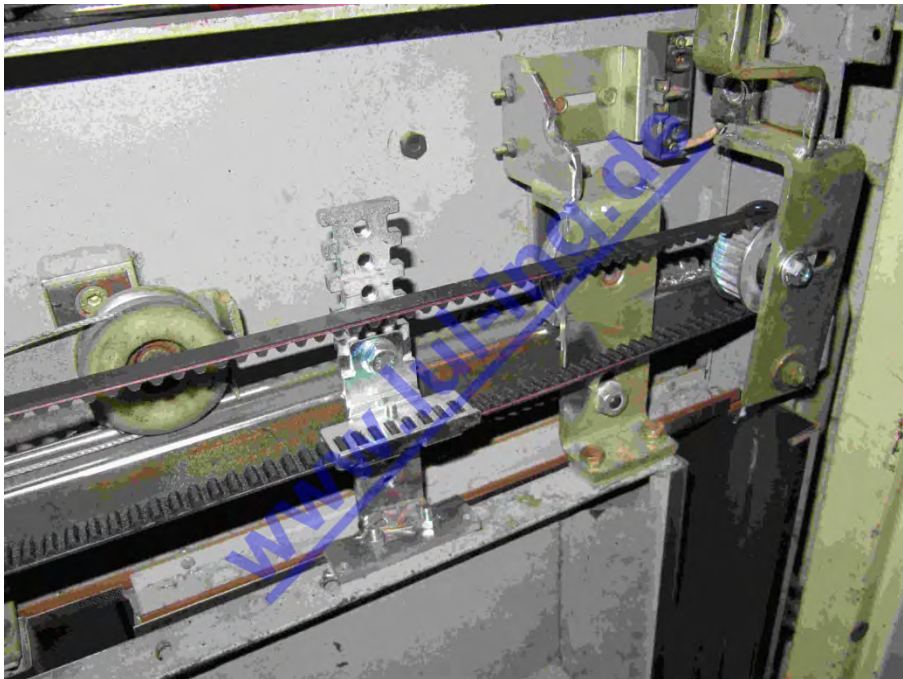


Fig. 8: TSG in Rathgeber - closing side



Fig. 9: TSG in Rathgeber - closing side (still without buffer stop)



Fig. 10: TSG in Rathgeber - closing side with buffer stop



Fig. 11: TSG in Rathgeber - closing side with buffer stop



Fig. 12: TSG in Rathgeber - closing side



Fig. 13: TSG in Rathgeber – door panel carrier on door panel

7 Contact

If you have questions or are not certain about something, we can be reached at the following address:

***Langer & Laumann Ing.-Büro GmbH
Wilmsberger Weg 8
48565 Steinfurt
Germany***

Phone: +49 (2552) 92 7 91 0

E-mail: info@LuL-Ing.de

Web: www.LuL-Ing.de