

Conversion instructions

Sematic 900H

with device series

Door control unit

TSG

Documentation history

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5	1.4	03.12.21	CSA



Fordern Sie die Umbauanleitung **auf Deutsch** an,
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Demandez les instructions d'instruction de
montage **en français**, en scannant le code QR.

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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 Sematic 2000 Sematic 900H door operator with a  **Langer & Laumann Ing. Büro GmbH TSG door drive.**

The purpose of the conversion is to replace the existing Sematic drive with a TSG drive. The mechanics including toothed belt remains intact.

3 Advantages

- Very economical package.
- A faulty Sematic 2000 Sematic SDS AC-VVVF brushless door operator can be quickly and easily replaced 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

Fork wrench 13
 Socket wrench 8, 10
 Allen wrench set
 Screwdriver
 Side cutter

5 Parts list

Tabelle 1: parts list

Item	Article number	Name	Quantity
1	1.20.92295	Double belt sprocket 80 mm, height: 48 mm, for Sematic Tx / 900H	1
2	1.20.92293	Adapter plate for TSG drive (version K)	1
3	8.20.40003/2.K1	Motor, Large Left/Right and gearbox	1
alternative	8.20.50400.K1	TSG400 drive PLG	1
4	1.20.61045	Toothed belt for special drive endless 480 mm	1
5	1.20.61050	Toothed belt for special drive endless 440 mm	1
6	1.20.61075	Toothed belt for special drive endless 520 mm	1
7	1.20.61080	Toothed belt for special drive endless 560 mm	1
8	1.20.61090	Toothed belt for special drive endless 584 mm	1
9		Various screws, washers, nuts	1
10	8.20.00101.04	TSG electronics in housing	1
11	1.20.92286	Documentation for conversion to Sematic	1
12	1.20.91000	TSG manual	1

6 Conversion instructions



NOTE:

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



NOTE:

The manual describes the conversion of a telescoping left-opening door. For a telescoping right-opening door the material must be installed in mirror image.

1. Disassembly of the existing Sematic drive. The toothed belt and mechanics remain intact.
2. Release the counter roller so that the toothed belt can be removed from the large belt sprocket.
3. Removal of the large belt sprocket.
4. Place the double belt sprocket included with delivery on the existing axle and fasten it in place by turning the screw into the axle.
5. Insert the TSG drive (without toothed wheel) with adapter plate through the door machine onto the existing old motor fastening and fasten it in place with screws. The two oblong holes can be used later to be able to tension the toothed belt.
6. Assemble the TSG toothed wheel on the TSG drive axle and screw it tight.
7. Place the TSG endless toothed belt on the double belt sprocket and TSG drive. Turn the TSG drive to tension the toothed belt and tighten the screws on the drive.
8. Place the existing toothed belt of the door machine on the double belt sprocket and adjust the counter roller to tension the belt.
9. Measure the TSG electronics unit. Make certain there is a fixed stop in both the open and closed positions. For the remainder of commissioning and electrical connection process, please refer to the TSG manual.

7 Recommended parameters



NOTE:

The parameters, listed in Tabelle 2: Recommended parameters / page 7 are recommendations. In individual cases, the parameters can be adjusted differs.

Tabelle 2: Recommended parameters

	Function	Note	Value
P2	Max. Open speed		40
P3	Max. Close speed		25
P4	Locking and unlocking speed	Creep speed shortly before Door Closed end position	05
P5	Acceleration and bracking in Open direction		02
P6	Acceleration and bracking in Close direction		05
P7	Locking and unlocking distance	Creep distance shortly before Door Closed end position	02

8 Illustrations



Fig. 1: Sematic 900H before conversion: TL



Fig. 2: Sematic 900H before conversion: TR



Fig. 3: Sematic 900H before conversion: centre

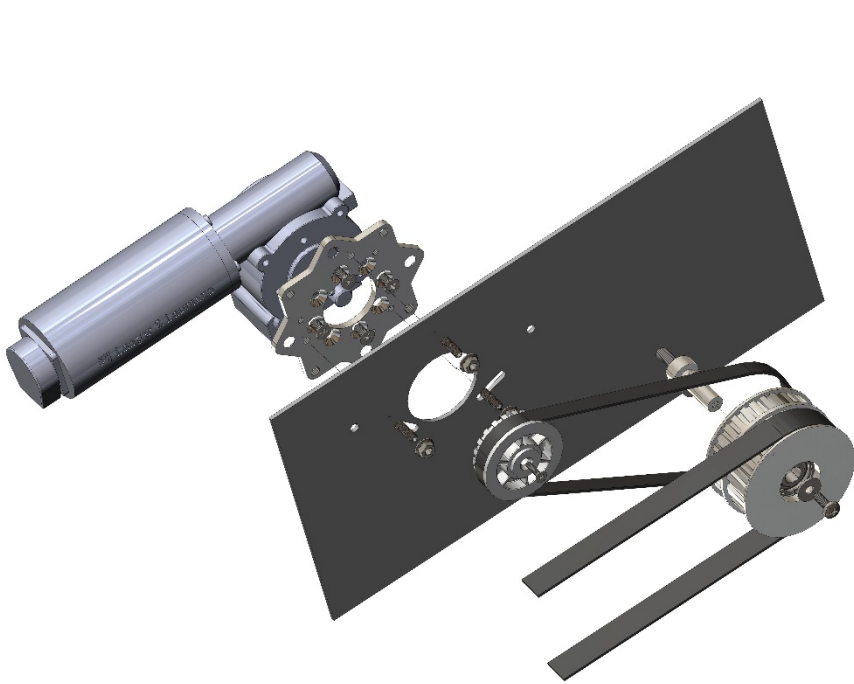


Fig. 4: TSG motor with worm gear

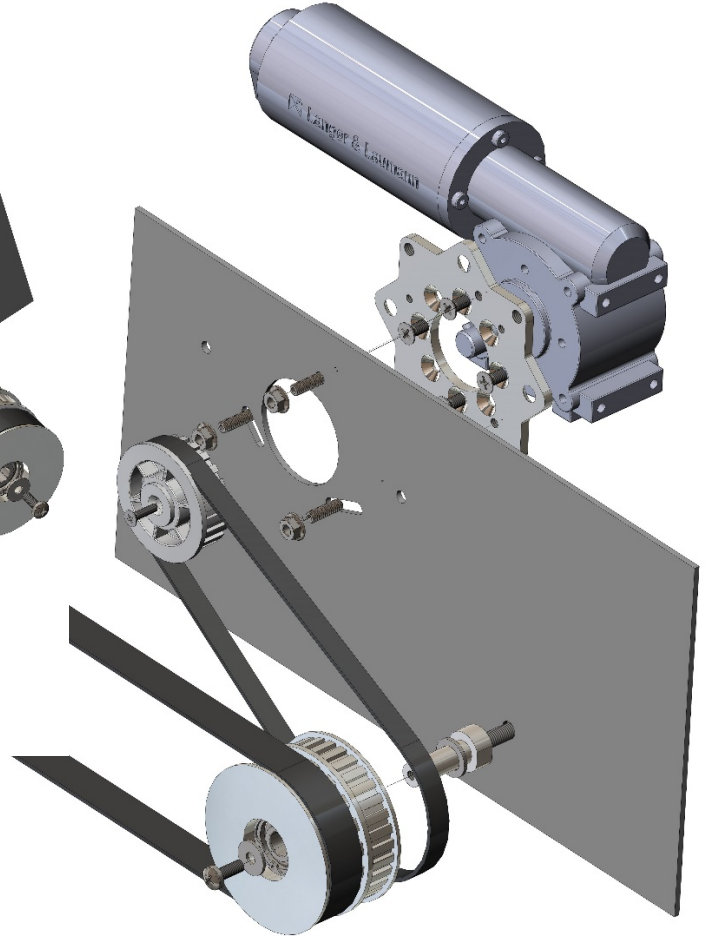


Fig. 5: TSG motor with worm gear

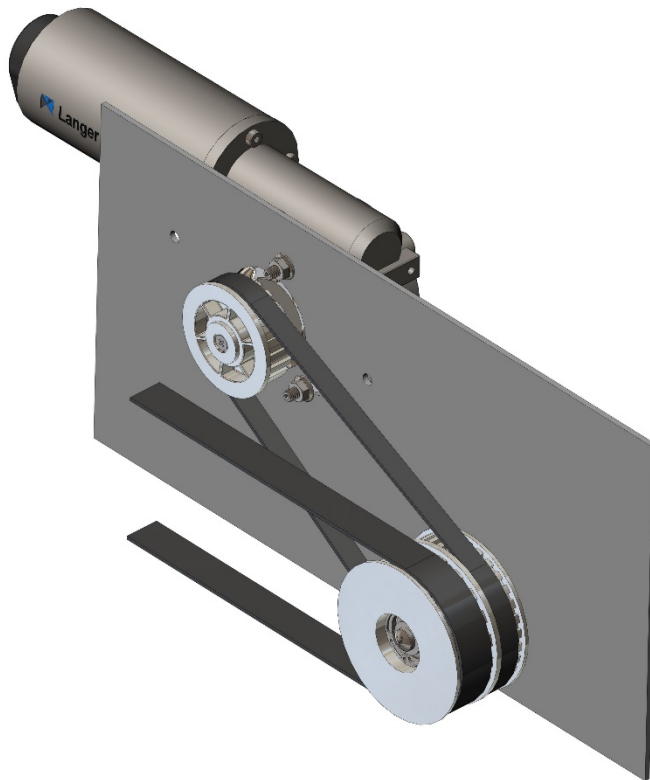


Fig. 6: TSG motor with worm gear

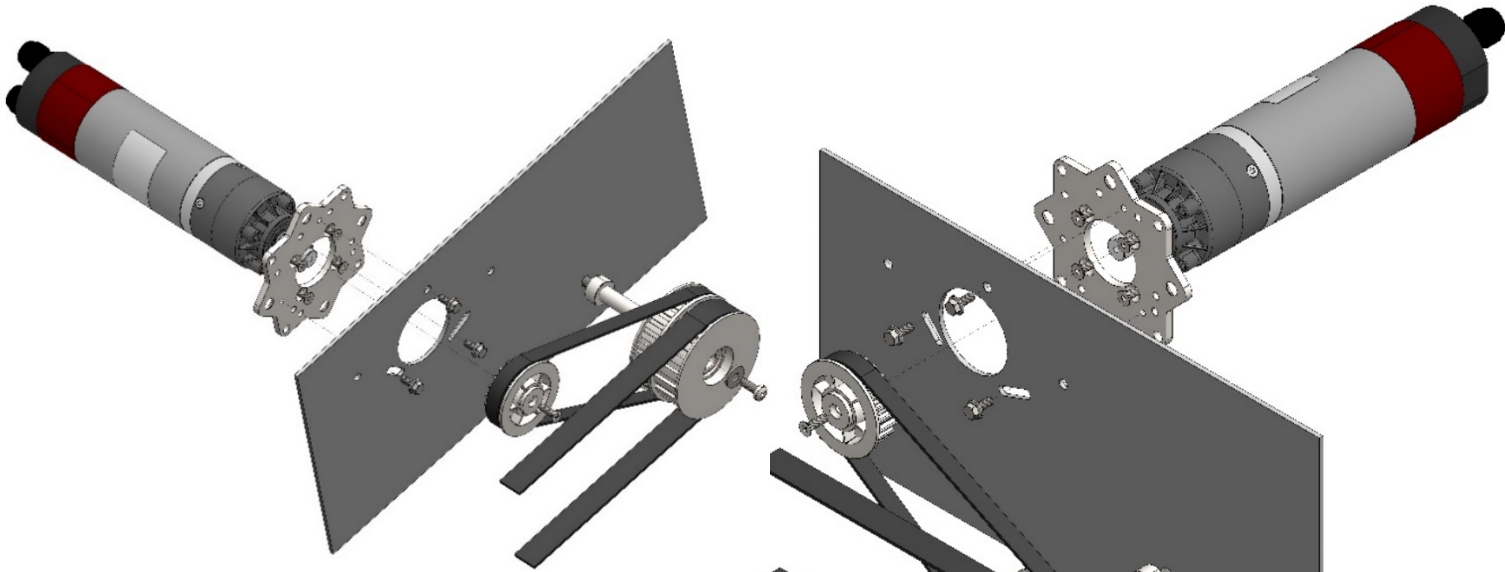


Fig. 7: TSG motor with planetary gear

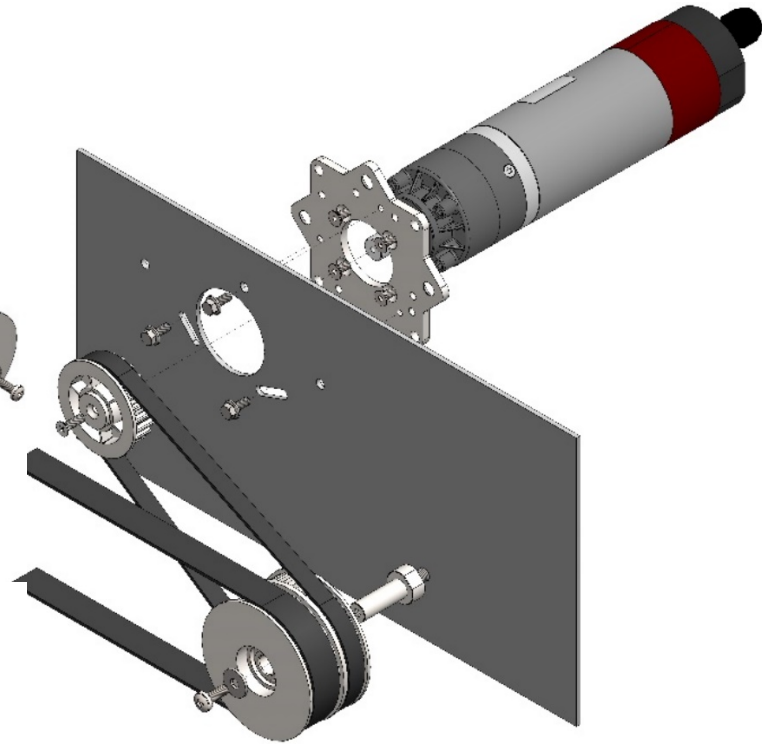


Fig. 8: TSG motor with planetary gear

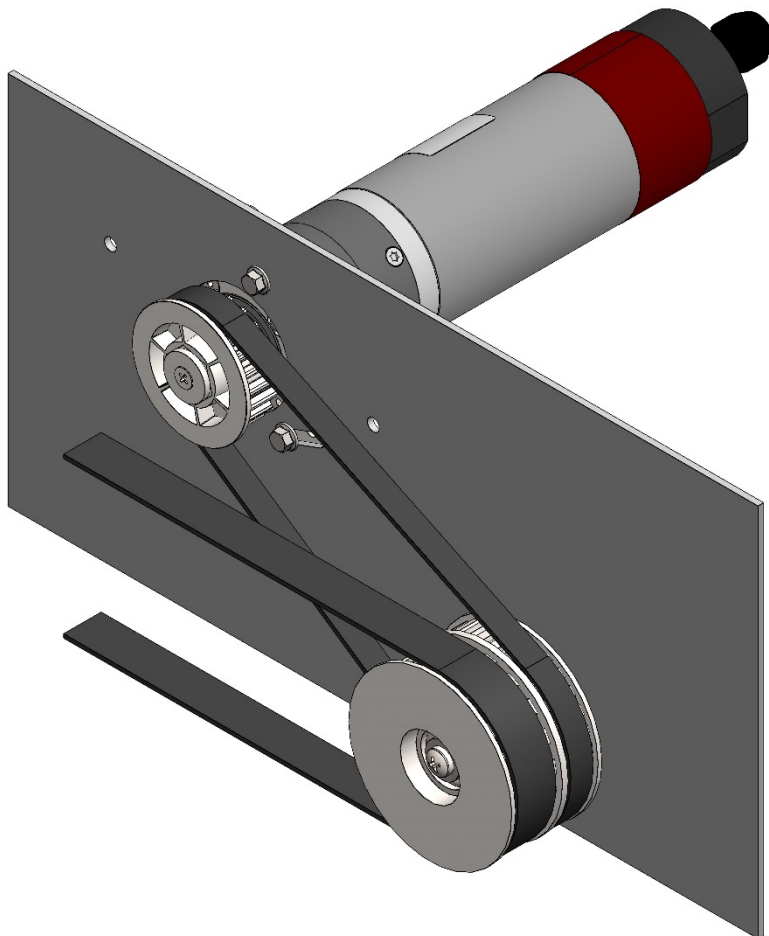


Fig. 9: TSG motor with planetary gear

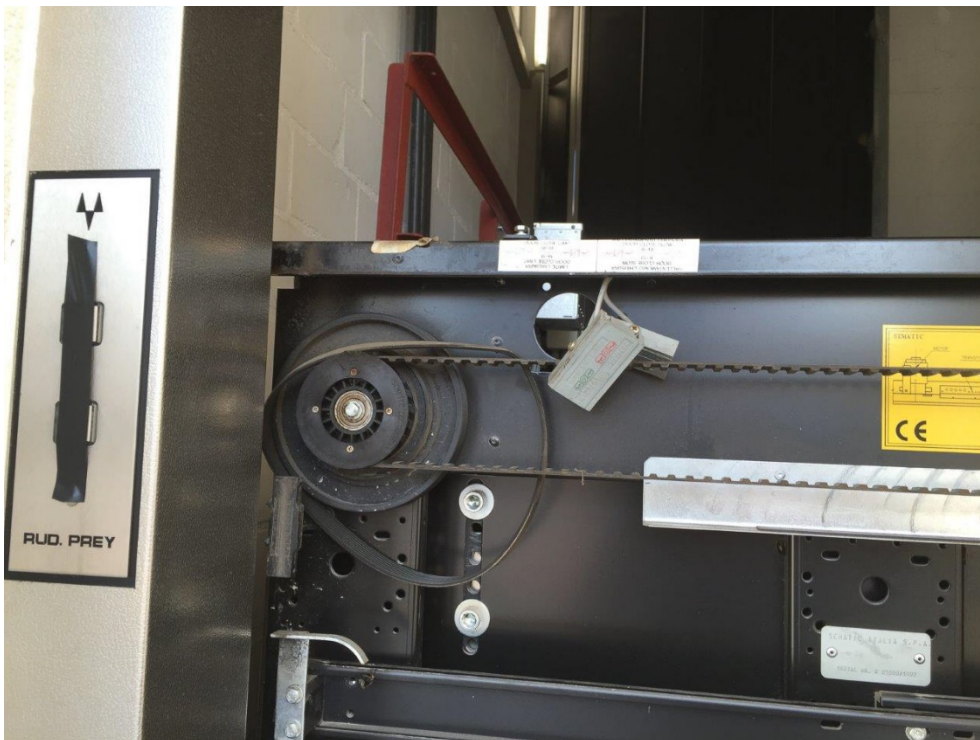


Fig. 10: Sematic door operator before conversion (with dismantled Sematic drive)

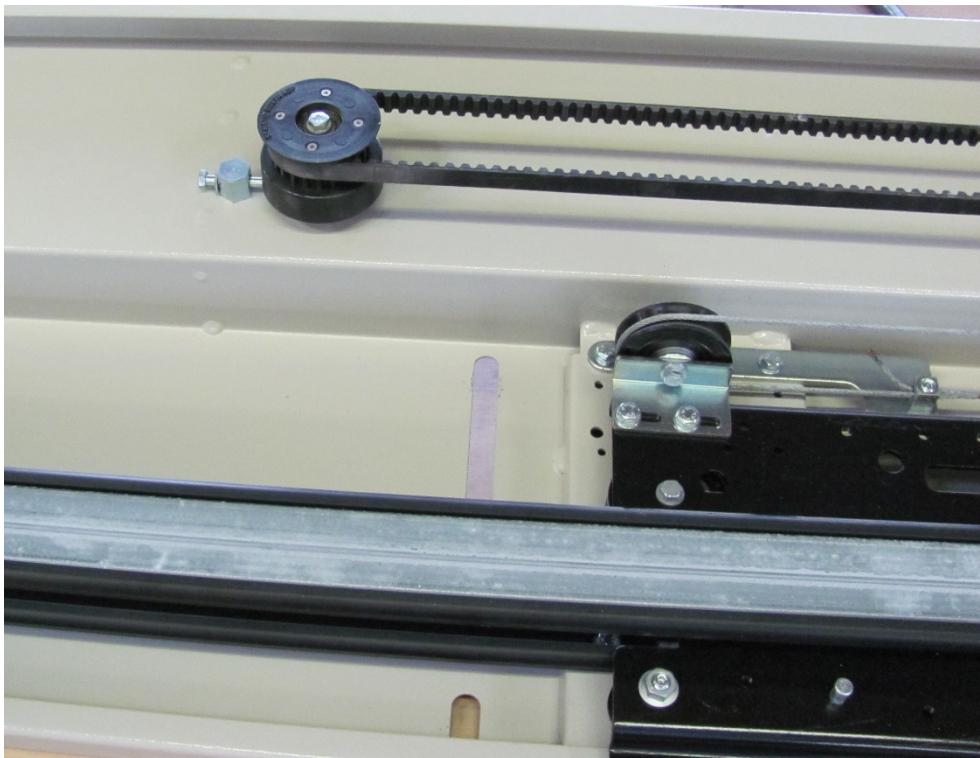


Fig. 11: Counter roller for loosening the toothed belt

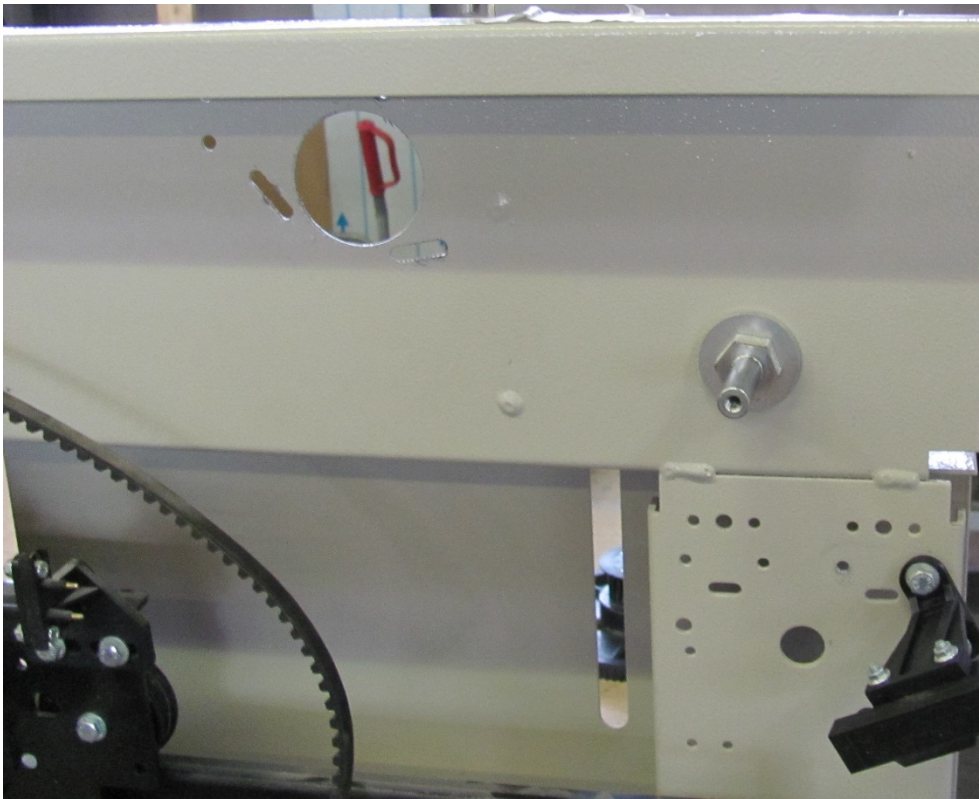


Fig. 12: Drive and large belt sprocket after removal



Fig. 13: New double belt sprocket, mounted and TSG drive (still without pinion)

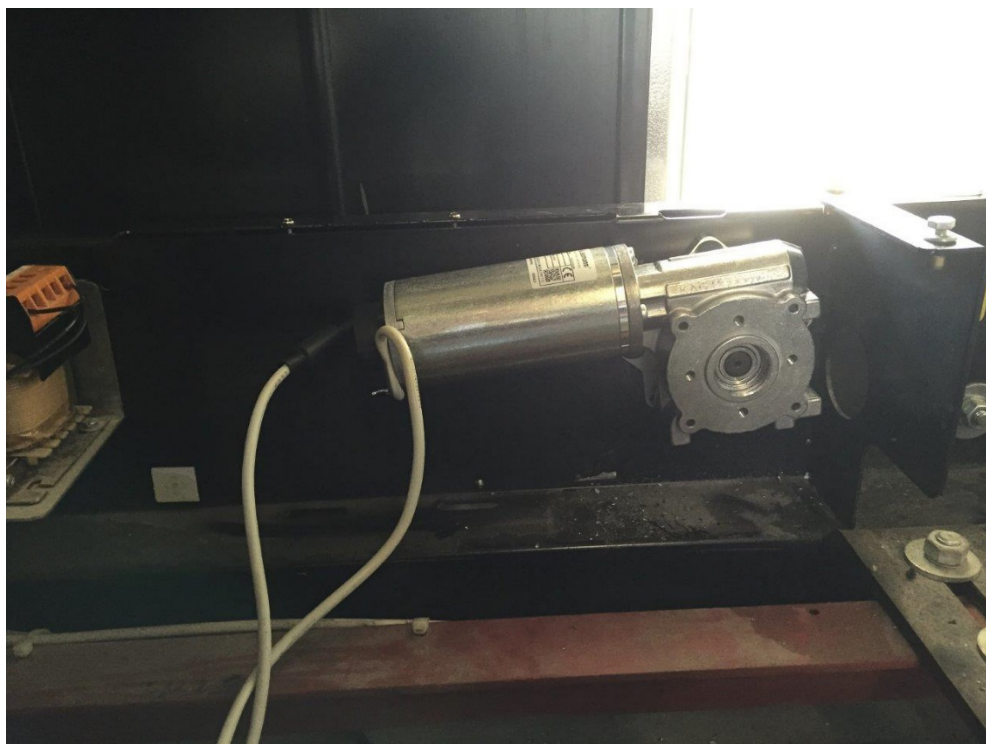


Fig. 14: TSG drive, mounted, view from back

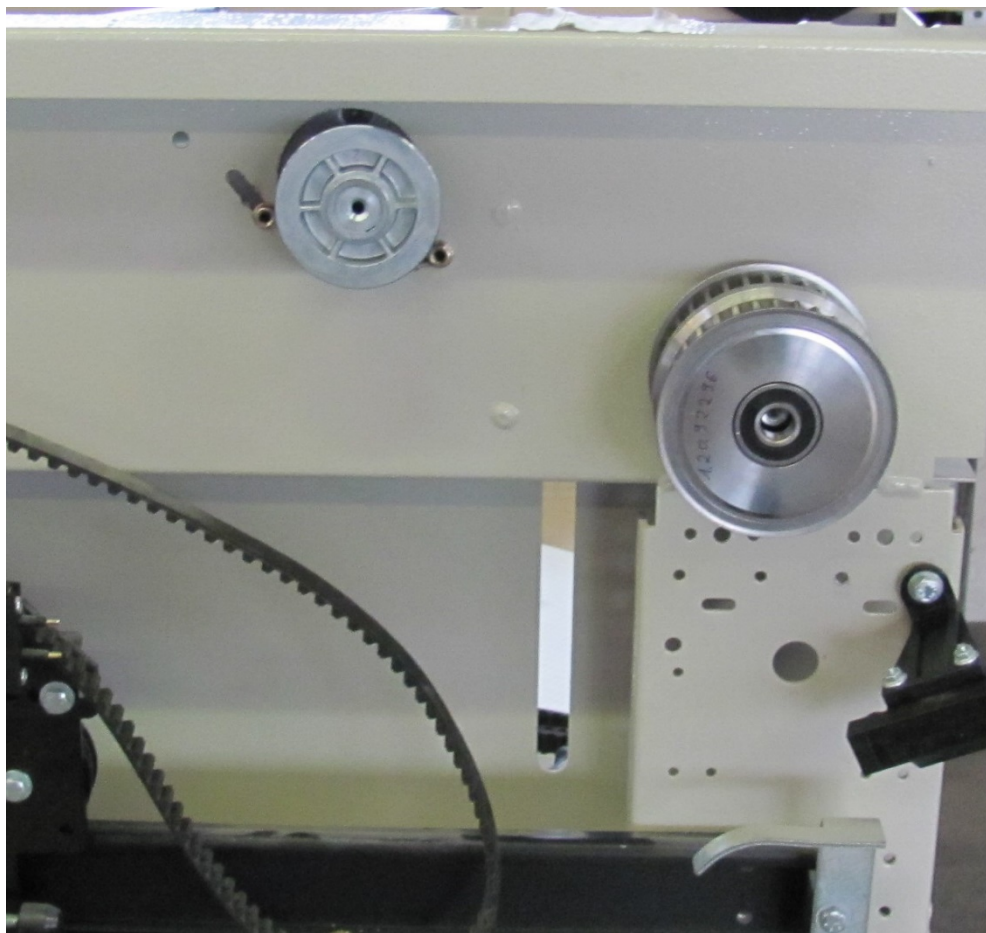


Fig. 15: TSG drive with pinion and double belt sprocket mounted



Fig. 16: fully assembled door operator with TSG (telescoping right opening)

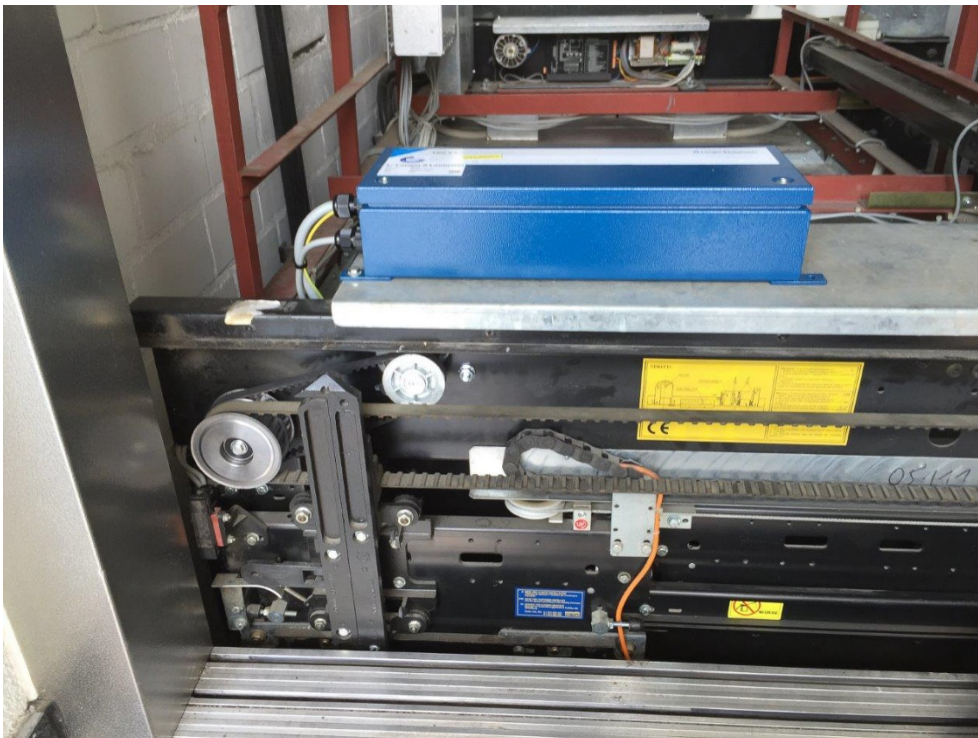


Fig. 17: Door machine with TSG, completely mounted (telescoping right opening)



Fig. 18: Door machine with TSG, completely mounted (centre opening)

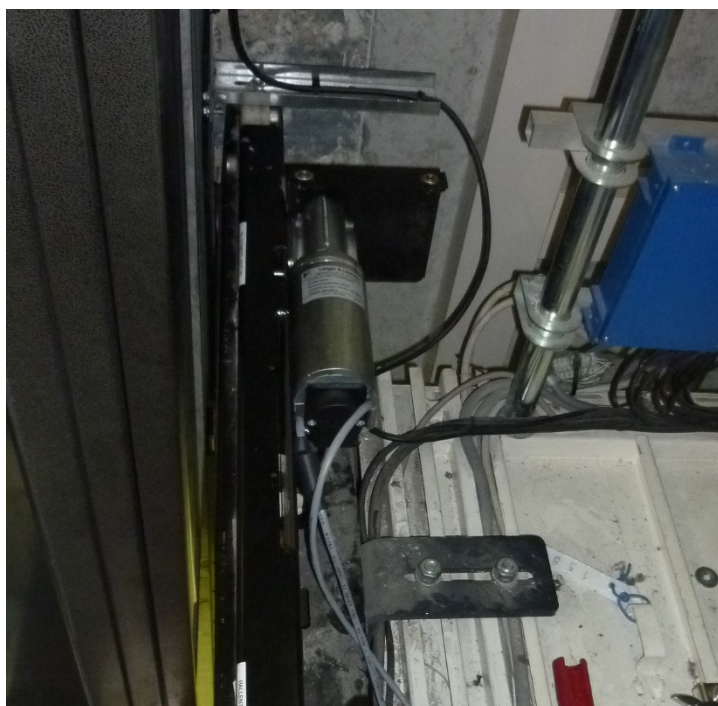


Fig. 19: Door machine with TSG, completely mounted (centre opening)

9 Contact

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