

Installation instructions

Monitor 99VF

with device series

Door operator

TSG

Documentation history

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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 Monitor 99VF door drive with a  **Langer & Laumann Ing. Büro GmbH TSG door drive.**

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

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 sizes 8, 10, 13, 17
 Allen wrench set
 Screwdriver
 Side cutter

5 Parts list

| Item | Article number | Name | Quantity |
|------|----------------|---|----------|
| 1 | 1.20.31020 | TSG pulley for monitor 99VF | 1 |
| 2 | 1.20.31010 | TSG motor support for monitor 99VF | 1 |
| 3 | 8.20.40000 | Motor, large left and gearbox 24V/2.8A/1:15 | 1 |
| 4 | 1.20.61070 | Endless belt | 1 |
| 5 | | Various screws, washers, nuts | 1 |
| 6 | 8.20.00101 | TSG electronics in housing | 1 |
| 7 | 1.20.31000 | Documentation for conversion of TSG to monitor 99VF | 1 |
| 8 | 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.

1. Disassemble the existing drive including belt transmission as a unit (see also Fig. 3: Removed motor with belt transmission / page 8).
2. Undo the outer screws of the belt transmission and unfold the belt transmission (see also Fig. 4: Removal of belt transmission housing / page 8).
3. Remove the drive disk (see also Fig. 5: Removal of drive disk / page 9).
4. Remove the tenon block from the shaft and pull out the shaft together with the pinion (see also Fig. 6: Removed shaft with pinion and tenon block / page 9).
5. Insert the bearing bushing in the new support bracket and screw it together tightly. Then insert the shaft again (see also Fig. 7: Screwing the bearing bushing into the new support and inserting the shaft again / page 10 and Fig. 8: Back: shaft with pinion / page 10).
6. Insert the TSG drive in the support bracket and tighten the endless toothed belt (see also Fig. 9: Inserting the TSG drive with toothed belt in the support / page 11).
7. Tension the toothed belt and tighten the TSG drive (Fig. 10: Clamping the toothed belt and tightening the screws for the TSG drive / page 11).
8. Screw the new belt transmission into the door machine again, set the toothed belt in place and tension it (see also Fig. 11: TSG drive ready mounted in the door machine / page 12).
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 Illustrations



Fig. 1: Monitor for 99VF door machine, original (here: centrally telescoping)



Fig. 2: Monitor for 99VF door machine, back



Fig. 3: Removed monitor motor with belt transmission



Fig. 4: Removal of belt transmission housing



Fig. 5: Removal of drive disk



Fig. 6: Removed shaft with pinion and tenon block



Fig. 7: Screwing the bearing bushing into the new support and inserting the shaft again



Fig. 8: Back: shaft with pinion



Fig. 9: Inserting the TSG drive with toothed belt in the support



Fig. 10: Clamping the toothed belt and tightening the screws for the TSG drive



Fig. 11: TSG drive ready mounted in the door machine



Fig. 12: TSG drive ready mounted in the door machine

8 Contact

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

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