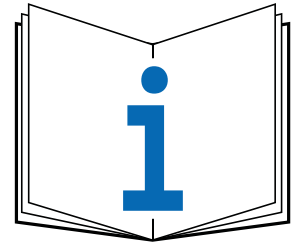


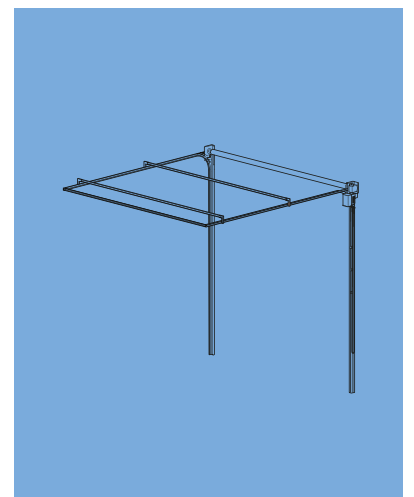
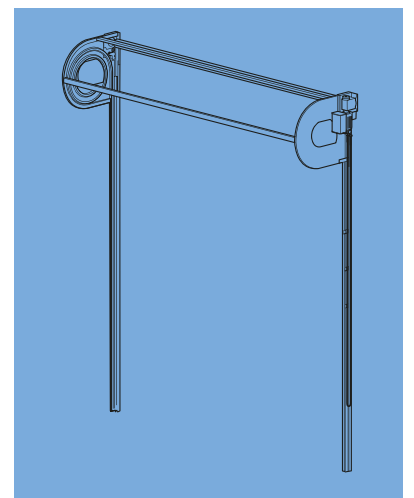
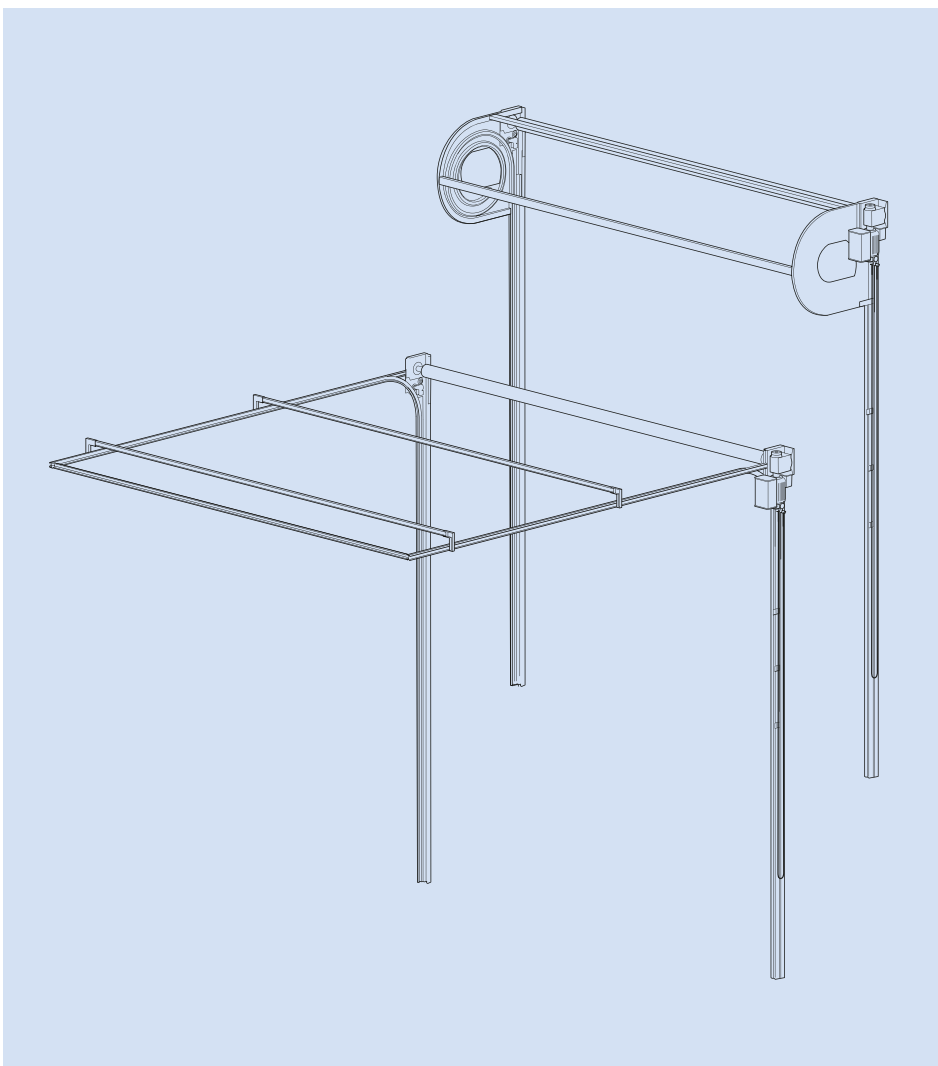


Intelligent Door Solutions



Maintenance instruction

GB NovoSpeed Thermo / S600



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About this document

Purpose of this document

This document describes methods and actions for maintaining the Thermo and S600 speed door.

Introduction – important!

- Maintenance of the electric drive may only be carried out by authorized personnel. When commissioning the door, the qualified expert responsible for performing the work must check for potential hazards and satisfy himself that the door is functioning properly and can be operated by hand (EN 12604 and EN 12453).
- The area of application of this sectional door is set out in EN 13241-1. Installation, repair, maintenance and dismantling of the door must be carried out by a qualified expert, in accordance with EN 12635.

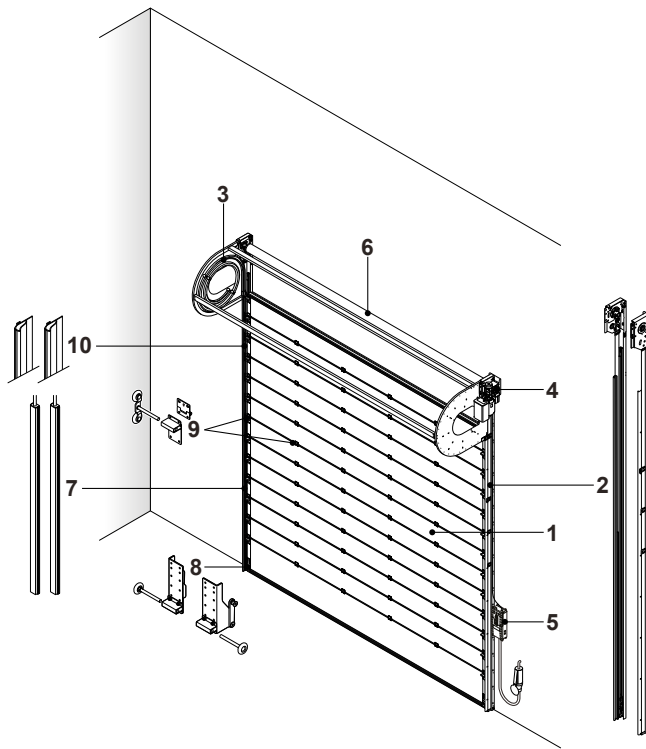
Related documents

- Thermo User Manual
- Thermo Assembly Instructions
- Instruction video Thermo

Safety

- Personal safety equipment must be available and used as required, like gloves, safety shoes, helmets, etc.
- Depending on the accessories ordered with the door, there may be additional manuals, for example for door control. Please read the contents carefully, make sure you follow the safety instructions and take note of the warnings in these manuals.
- When making electrical connections, ensure that all electrical circuits are safely isolated.
- Switch the power off before carrying out any maintenance which may involve contact with components that are normally covered.
- Put up “maintenance in progress” signs.

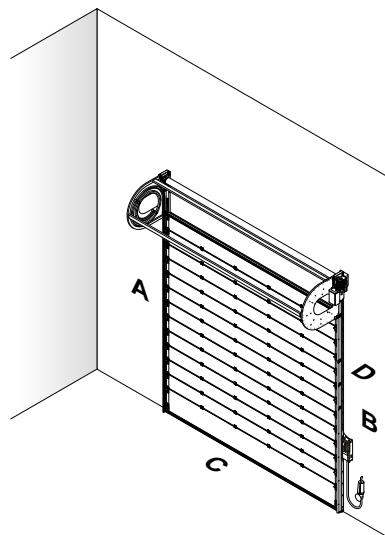
Main components (in the order of installation)



Position	Description
1	Door leaf
2	Vertical tracks
3	Spiral guides
4	Motor
5	Control box
6	Torsion tube
7	Light curtain
8	Bottom Bracket
9	Rollers and Hinges
10	Side Seals

Door orientation

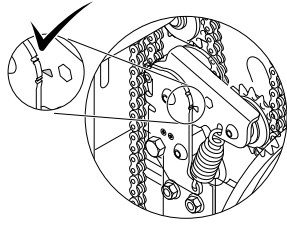
The door is shown viewed from the inside:



A	Left
B	Right
C	Inside
D	Outside

Recommended replacement intervals

The door requires maintenance every year or 40,000 cycles!

Check	Maintenance action
Hinges.	<ul style="list-style-type: none"> • Always grease (multi-purpose). • When cracks, replace the hinges product code 29992020.
Chain tensioner.	Always grease (multi-purpose).
Chain tensioner position lever. 	Shorten chain with special set, 2990560.
Torsion tube end connections: check for wear, abnormal noise, excessive play.	Always grease (multipurpose), if there is excessive play between connecting parts, replace product code 2990580.
Side seal:	Replace if damaged, product code 8010244L.
Bottom seal:	Replace if damaged, product code 8000011 -64.
Side Rollers:	Replace if damaged. Single roller product code 2994612.
Vertical tracks and spiral guides: check for damage.	Replace if damaged. product code 2990100 based on the door production number, see sticker on side of the door.
Motor leakage, unwanted play at the motor.	Replace, check motor type and order similar motor.
In case of damage	Service kit available - art. no. 2990801

Door maintenance guidelines

Door leaf

Step	Action	Standard
1	Visually inspect the door sections to detect damage or deformation.	The door sections must be in good condition (no bending, deformation or damage).
2	Check hinges and rollers for abnormal noise and visible damage.	The hinges and rollers should not be noisy. Play of more than 1 mm represents excessive wear.
3	Check bottom bracket fixings.	No horizontal and vertical movement of the bracket is permitted during door operation.
4	Check that the bottom bracket fasteners are still tight.	No movement is permitted at the bottom bracket fasteners during door operation.
5	Check horizontal position of the door leaf using a laser beam.	The vertical height difference between the left-hand and right-hand side of the door leaf may not exceed 2 mm.
6	Check bottom seal.	The bottom seal must be in good condition (no sign of wear or damage).

Door spiral

Step	Action	Standard
1	Check the guides for cracking, especially at the ends.	Check the guides for cracking, especially at the ends.
2	Damage to aluminum profile.	If there is deformation and bending, replace them with service kit nr. ???
3	Check side gaps between door leaf and guides.	Check side gaps between door leaf and guides.

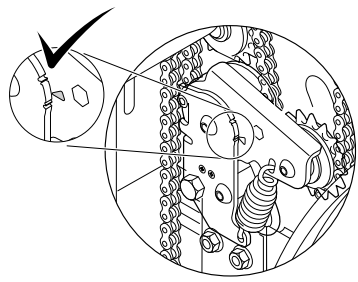
Motor

Step	Action	Standard
1	Check motor operation by opening and closing the door.	The motor may not make any abnormal noises, show unexpected movement or vibrate.
2	Check that the wiring connections are tight and the cables intact.	The wiring must be properly connected.
3	Check if there is any oil leakage from the motor.	The motor must be clean, without signs of oil or grease leaks.

Control box

Step	Action	Standard
1	Check the control box fixings.	The control box must be properly fixed.
2	Ensure that the wiring and plugs are connected to the PCBs.	The plugs and wiring must be securely connected.
3	Check that the control box is closed.	The control box unit is closed.

Chain and steel cable

Step	Action	Standard
1	Close the door. Check the chain and sprockets for damage.	No rust and damage on the chain and sprockets.
2	Check the condition of steel cable at the bottom of the vertical track by opening the door.	No visible damage to the cable when inspecting the individual strands of the steel cable.
3	Check the position of rollers, the angle should be perpendicular to the aluminium rail	Replace rollers if needed. Follow the service instructions
1	Check the position of the chain tensioner lever.	The lever position should be between the marks. 



NOTE: if the sprockets or chain are damaged, replace the complete vertical guide arrangement.
If a steel cable is damaged, fit a new set of steel cables.

Recommends speed of Thermo

	Parameter	Door Dimensions		
		3000x3000	4000x4000	5000x5000
Open output speed	4.1	10.0	8.5	7.0
Close output speed	4.2	5.0	4.5	4.0
Open acceleration	4.5	2.0	2.5	3.0
Close acceleration	4.6	2.0	2.5	3.0
Open deceleration	4.7	2.0	2.5	3.0
Close deceleration	4.8	3.0	3.0	3.0

Checklist

		Checked and OK	Not OK
Door leaf	Panels		
	Windows		
	Hinges		
	Rollers		
	Bottom brackets		
	Bottom seal		
	Top seal		
Track system	Vertical tracks		
	Rubber side seals		
	Aluminum Powertrain guide		
	Horizontal tracks (if fitted)		
	Gap between door leaf and guides		
Spiral	Guides		
	Gap between door leaf and guides		
Safety	Light curtain		
	Position of chain tensioners		
	Other safety devices		
Drive system	Torsion tube		
	Steel cables		
	Chain		
	Sprockets		
Motor	Controls, correct parameters		
	Leaks from the motor		

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