

Normstahl

**USER MANUAL
NORMSTAHL ID40P WITH SERVOX
OPERATING SYSTEM**

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The Normstahl brand has been a reliable partner and producer of premium entrance systems for the private and industrial sector since 1946. In collaboration with its network of distribution partners, Normstahl has become a leading provider of entrance solutions within Europe.

About this Manual



All users and owners of the door operated by a chain hoist or a Servox must read, understand and obey the information and instructions in this manual. Failure to do so may result in damage to, or failure of the equipment, and possible injury to persons. Save these instructions.

This manual contains information and user instructions for a door that is operated by the Servox.

When information or instructions are applicable to all the methods of operation or models, there are no operation types or model numbers in the title.

When information or instructions are applicable to specific methods of operation or models, the applicable operation type or model numbers appear in the title.

To identify the model installed with the door, see section 2.

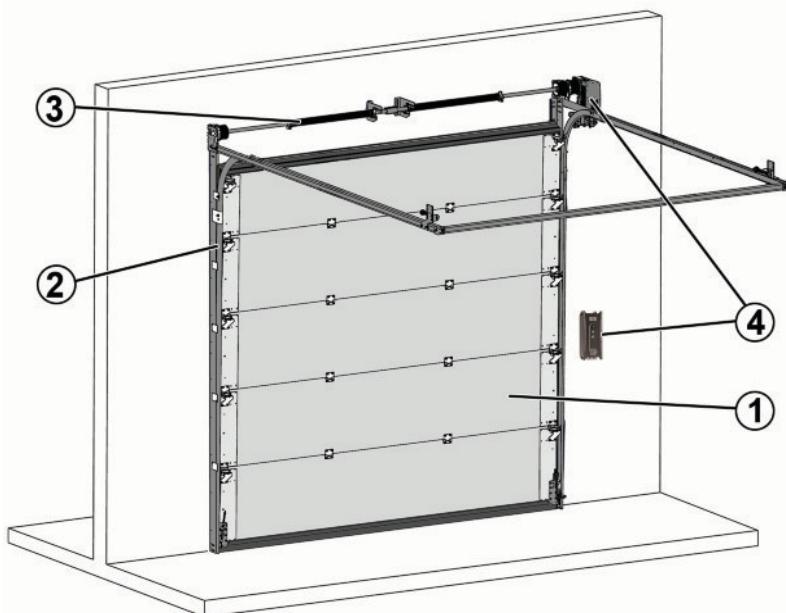
Introduction on page 5 and the cover of the Servox installed with the door.

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1 Introduction

The overhead sectional door is designed to enable easy access to and from buildings. The door leaf is made of insulated panels, or a combination of insulated panels and acrylic windows. The door leaf moves along tracks installed at each side of the door leaf. It can be operated manually, or by a chain hoist or an electrical door control system.



The door has 4 primary parts:

1. Door leaf
2. Track set
3. Balancing system
4. Operating system

1.1 Door leaf

The door leafs are an assembly of horizontal sections connected together via hinges. The outer hinges of each section have rollers that engage in the tracks to enable easy opening and closing of the door. Glazed sections can be installed in the sandwich panels if required.

Seals installed on the sides, top and bottom of the door leafs improve the insulation of the working environment. The bottom seal also acts as a shock absorber when the door closes.

A pull-down rope and a handle are installed on the door leaf to enable easy opening and closing of the door. A door lock is also installed on the door for extra security of the working environment.

1.2 Track set

The track set supports the door leaf. The rollers on the door leaf move along the track set when the door is opened and closed. Different track sets can be installed dependent on the structure of the building and the space available.

1.3 Balancing system

The balancing system balances the weight of the door to enable easy opening and closing of the door. It also enables the door to stay in a partly open position if necessary.

The system is installed on the top of the track set and consists of torsion springs installed on a shaft that has a cable drum at each end. Cables on the cable drums are connected to the bottom corners of the door leaf.

When the door is opened, the torsion springs turn the shaft with a force equal to the weight of the door and this pulls the door up as far as necessary.

A spring break device is installed for each torsion spring on the shaft. If a torsion spring breaks the spring break device prevents the door closing.

An optional cable break device can also be installed to prevent the door closing if a cable breaks.

1.4 Operating system

1.4.1 Integrated chain hoist

The Servox has an integrated chainhoist to allow the door to be opened in case of power failure.



1.4.2 Servox

The Servox permits opening and closing of the door via a push-button control unit. It is also possible to enable use of Access and Automation functions.

The primary parts of the operating system are the mechanical unit (electric motor) that is installed on the balancing shaft, and the door control system.

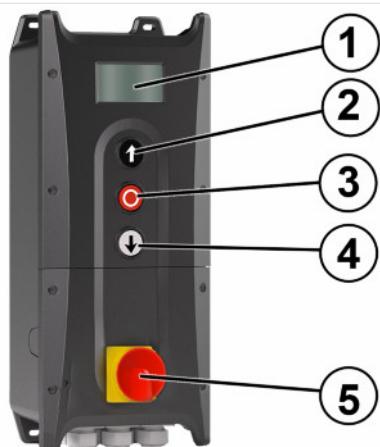
Control unit



Motor



Hold-to-run open and close, stop functions, impulse open and close and digital display for troubleshooting and maintenance. It can also be connected to Access and Automation functions.



- 1) Digital display for troubleshooting and maintenance
- 2) Up button
- 3) STOP button
- 4) Down button
- 5) Emergency mains switch

1.4.3 Technical specifications

Classification	IP54 motor, IP54 control unit (Excluding the CEE-plug which is IP44)
Supply voltage Operator	220-240V 1~ 50 Hz
Power consumption	0,75 KW
Temperature range	-20 °C to +50 °C.
Operating factor Operator	ED = 40 %, S3 10 min, non-continuous, equals 60 cycles an hour
Atmospheric humidity	0-80 % relative, not condensing

2 Safety

2.1 General safety statements

The door has been designed to meet all operational and safety requirements in the European Directives and the standards issued by the European Standardization Committee, CEN.

2.2 Safety instructions



Important safety instructions.

- *It is important for the safety of persons to follow these instructions. Save these instructions.*
- *Only authorized persons are permitted to operate the door.*
- *Make sure there are no persons or equipment in the working area of the door before you operate the door.*
- *This door is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the door by a person responsible for their safety.*
- *Children should be supervised to ensure that they do not play with the door or controls. Keep remote controls away from children.*
- *Frequently examine the installation for imbalance and signs of wear or damage to cables, springs and mounting. Do not use the door if repair or adjustment is necessary. Report defects immediately.*
- *When the door cannot be opened, with the operator and/or manually, do not try to open the door with a forklift, jack or similar. Report defects immediately.*
- *Electrically disconnect and immobilize the door before you do maintenance on the door.*
- *Do not use the door leaf or track set to support a ladder when you do maintenance on a door. Always use ladders as specified in local health and safety instructions.*
- *Do not operate the door after the date of the next scheduled maintenance. The date of the next scheduled maintenance is shown in the logbook.*
- *If one of the safety devices has been activated, take the door out of operation and contact the service center immediately.*
- *If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service center.*
- *Do not remove or immobilize safety equipment installed on or near the door.*
- *Activation of the manual release may cause uncontrolled movement of the driven part due to mechanical failures or an out-of-balance condition.*

- Do not modify, adjust or disassemble any part of the overhead sectional door, including the door cables, balancing system and cable attachments. Unauthorized modification can cause danger to people and affect the function and safety of the door.
- Do not attempt to balance the door yourself. Forces in the system can cause serious personal injury.
- Always obey local health and safety regulations when you operate or do maintenance on the door.

2.3 Safety symbols used in this manual

The following safety symbol is used in this manual:



Indicates a general warning

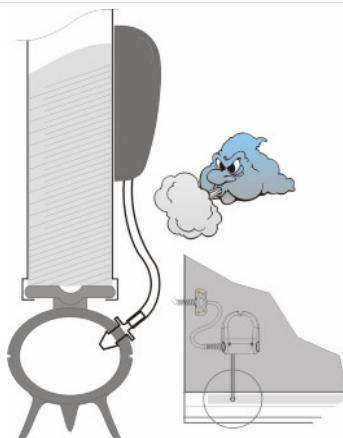
2.4 Pneumatic edge



To avoid injury during operation of the excitation unit, monitor the door's closing movement until the door is closed.

The bottom sealing is connected to a pneumatic switch via a hose. If the sealing is compressed while the door is on its way downward, the circuit in the control unit reacts by reversing the door (during the last 50 mm before closed position, when the torque monitor works as safety, it will only stop). The safety edge is supervised. This means that the safety edge is tested each time the door is closed. If the door leaf has passed the lower limit without detection of a pulse from the pneumatic switch, the control unit goes into hold -to-run function. The door can now only be closed by pressing the close-button continuously.

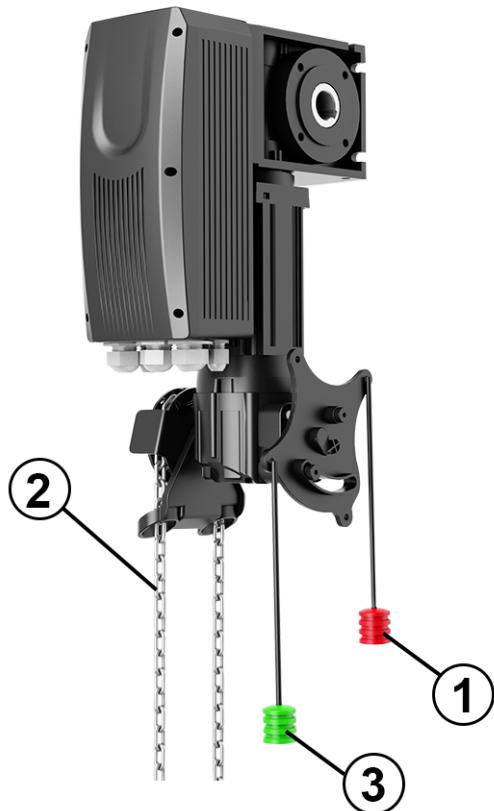
The safety edge can be reset automatically if the safety edge is working and issues a signal at the lowest position (< 50 mm from the floor) during hold-to-run operation downwards.



2.5 Emergency Stop Procedure

In case of emergency, the motor can be disengaged. This prevents the motor applying opening or closing force to the door and it enables manual operation with the chain. It does not disconnect the transmission from the shaft.

- To disengage the motor, pull the red cord (1). You will hear a click. The chain wheel (2) will turn slightly.
- To manually open or close the door, pull the chain one way and observe if the door moves in the desired way.
- To engage the motor, pull the green cord (3). You will hear a click. The chain wheel (2) will turn slightly.



3 Operating Instructions

3.1 Daily Start Procedure

1. Make sure there are no obstructions or obstacles in the vicinity of the door so that the door can move freely.
2. Examine the door for damage on the door leaf, lifting cables, tracks and spring balancing.
3. If damage is found:
 - Put suitable warning signs around the door.
 - Contact the applicable person.
4. Electrical operation:
 - Switch on the electrical supply to the door.
 - Reset the emergency stop button (if applicable) and enable normal operation of the door.
 - Check that the 'stop'/'emergency stop' is working: press and hold the 'stop'/'emergency stop' button and try to open the door. The door should not open.
 - If the power was switched off, normal operation is performed after the door has reached its upper position.

3.2 Daily Stop Procedure

1. Examine the door for damage on the door leaf, lifting cables, tracks and spring balancing.
2. If damage is found:
 - Put suitable warning signs around the door.
 - Contact the person responsible.

3.3 Open and close the door (hold-to-run)

3.3.1 Open the door



Make sure there are no persons or equipment in the working area of the door before operating the door.

1. Make sure the Daily Start Procedure has been done.
2. Make sure the pass door is closed correctly.
3. Release the door lock.
4. Press and hold the  button and make sure the door moves to the fully open position.
5. To open the door to a reduced height, release the  button at the desired position.

3.3.2 Close the door



Make sure there are no persons or equipment in the working area of the door before operating the door.

1. Press and hold the  button until the door is closed.

2. Fasten the door lock.

3.4 Open and close the door (impulse)

3.4.1 Open the door



Make sure there are no persons or equipment in the working area of the door before operating the door.

Do not open or close the door if the maintenance indicator is on.

1. Make sure the Daily Start Procedure has been done.
2. Release the door lock.
3. Press and release the  button and make sure the door moves to the fully open position.
4. To open the door to a reduced height, press the  button at the desired position.

3.4.2 Close the door



Make sure there are no persons or equipment in the working area of the door before operating the door.

1. Press and release the  button and make sure the door moves to the fully closed position.
2. Fasten the door lock.
3. Do a functional check of the additional safety features such as photocell, magnetic loop, radar, etc.

4 Maintenance

In this chapter you find the maintenance tasks that you as a user can perform. With the exception of inspections and maintenance tasks explicitly described in this manual as being performable by the user, all other maintenance tasks, as described in the Logbook are rated advanced and can only be carried out safely by a competent person. Contact your local Service Centre.

4.1 Preventive maintenance schedule

Frequency	Part	Tasks
Daily	Door complete	Do the Daily Start Procedure.
		Do the Daily Stop Procedure.
Monthly	Door complete	If necessary, clean the door leaf
		Do the monthly examination of the door
Every two months	Door complete	If necessary, clean the door leaf
		Do the monthly examination of the door
	Balancing system	Test the balancing system

4.2 Preventive maintenance procedures

4.2.1 Clean the door leaf



Do not use the door leaf or the track set to support a ladder when you do maintenance on a door. Always use ladders as specified in local health and safety instructions.

1. Do the Daily Stop Procedure.
2. Use a soft clean brush and mild detergent to clean the inside and outside of the door leaf.
3. Examine the painted surfaces of the door leaf for damage to the paint.
4. If damage is found, contact the local service centre for repairs.

4.2.2 Monthly examination of the door



Do not use the door leaf or the track set to support a ladder when you do maintenance on a door. Always use ladders as specified in local health and safety instructions.

After every maintenance check, remove all tools and equipment from the area and do the Daily Start Procedure.

4.2.2.1 Mandatory monthly check

- Check if the additional safety features (photocell, magnetic loop, radar, etc.) work.

4.2.2.2 Recommended monthly maintenance

- Visually check the door for loose screws, bolts or nuts on the door leaf or the track set. If necessary tighten all loose screws, bolts and nuts.
- Visually check the door leaf hinges, door seals, rollers and roller holders for damage. If damage is found, contact the local service centre for advice.
- Visually check the door cables for damage and corrosion. If damage or corrosion is found, contact the local service centre for advice.
- Use a soft brush and a mild detergent to clean the track set and the door seals.
- Lubricate the metal door-leaf hinges with oil (SAE 20).

5 Test the balancing system

5.1 Electrical

1. Make sure the Daily Start Procedure has been done.



Make sure there are no persons or equipment in the working area of the door before operating the door.

2. Make sure the door is in its closed position.
3. Place your foot on the step handle.
4. Pull the red rope to disengage the operator clutch.
5. Release the door lock.
6. Carefully pull up on the handle until the door is open approximately 50cm.
7. The door should stay in this position.
8. If the door does not stay in the correct position: Contact the local service centre for advice.
9. Carefully pull down on the handle to close the door.
10. Pull the green rope to engage the operator clutch.

5.2 Integrated chain hoist operation



Make sure there are no persons or equipment in the working area of the door before operating the door.

Pulling on the wrong side of the chain hoist when the door is closed can cause serious damage. Always make sure that you are pulling on the right side of the chain.

1. Make sure the Daily Start Procedure has been done.
2. Make sure the pass door is closed correctly.
3. Release the door lock.
4. Carefully pull up on the rope or the handle until the door is open approximately 50 cm.
5. The door should stay in this position.
6. If the door does not stay in the correct position:
 1. Carefully pull down on the rope and the handle to close the door.
 2. Contact the local service centre for advice.

6 Troubleshooting

Check for an error code on the controller. Consult the manual for the controller.

6.1 Introduction

This chapter contains troubleshooting information for users of this door. If a fault is not described in this chapter, contact your local Service Centre for assistance.

6.2 Electrically operated door

6.2.1 Door does not go up or down correctly

Possible Cause	Solution
Damage to door or track set	Do the monthly examination of the door.
Balancing system not operating correctly	Test the balancing system
No main electrical supply	Switch on electrical supply
Emergency stop button pressed in	Make sure the Daily Start Procedure has been done.
Error code displayed on control unit	Refer to the error codes list and do the applicable action.
Operator clutch disengaged	Engage the operator clutch as follows: 1. Pull the red rope to disengage the operator clutch. 2. Pull the green rope to engage the operator clutch. 3. Press and release the  button and make sure the door moves to the fully open position.

6.2.2 Error codes

The following troubleshooting provides possible solutions for each of the error codes. Try the solutions from first to last. If none of the solutions solve the problem, contact your local Normstahl service organisation.

Error code	Error description	Solution
4	The door is stuck	<ul style="list-style-type: none">Check if the motor is jammed. It will make noise.Check if door panel is damaged or bentCheck if the tracks are damaged or bent.
7	The door is stuck	<ul style="list-style-type: none">Check if the motor is seized. It will not make any noise.Check if door panel is damaged or bent.Check if the tracks are damaged or bent.
32	The door keeps returning when closing.	<ul style="list-style-type: none">Check if there are any obstructions in the door opening.Check if the photocells are blocked or dirty.

Error code	Error description	Solution
36	Motor speed exceeds the limit	<ul style="list-style-type: none">• Disconnect the mains supply and reconnect to reboot the motor and the software.• Disconnect the mains supply and reconnect to reboot the motor and the software.
37	Motor overload	<ul style="list-style-type: none">• The door balancing may be changed.
38	Counting error	<ul style="list-style-type: none">• Disconnect the mains supply and reconnect to reboot the motor and the software.
48	Regeneration circuit abnormality	<ul style="list-style-type: none">• The door balancing may be changed.
50	Momentary pause alarm	<ul style="list-style-type: none">• Disconnect the mains supply and reconnect to reboot the motor and the software.
52	Overheating	<ul style="list-style-type: none">•
58	Motor safety chain alarm. The emergency mains switch is set to "0".	<ul style="list-style-type: none">• Turn the emergency mains switch to "1".

6.3 Manual or chain hoist operated door

6.3.1 Door does not go up or down correctly

Possible cause	Solution
Damage to door or track set	Do the monthly examination of the door.
Balancing system not operating correctly	Test the balancing system

7 Recycling the Operator



*The power has to be switched off before any work on the product.
The battery must be removed from the appliance before it is scrapped.
The appliance must be disconnected from the supply mains when removing the battery. The battery has to be disposed safely.*



Disposal of Waste Electrical and Electronic Equipment (WEEE)

This symbol on the product or its packaging indicates that this product shall not be treated as household waste. Instead, it should be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling.

For more detailed information about the recycling of this product, please contact your local authority, your household waste disposal service, or the retailer where you purchased the product.

For business users in the EU: Contact your supplier or dealer for disposal arrangements.

For business users outside the EU: This symbol is only valid in the European Union. For disposal outside the EU, consult local regulations.



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