AVR1001F BRUGERMANUAL

Operation, maintenance and use of High Speed door AVR1001F

DAN-doors A/S | Industrivej 19 | 8660 Skanderborg - Danmark | Tel: +45 87 93 87 00 | www.dan-doors.com | dd@dan-doors.dk

CONTENT

1. PRODUCT INFORMATION

1.1 About High Speed Doors:

A High Speed Door consists of 2 stainless steel frame legs, a top roller, a door curtain, covers and a control system.

DAN-doors manufactures various types of High Speed doors for different purposes, different environments and temperature control requirements.

High Speed doors are characterised by their very fast opening and closing cycles. This high speed not only helps optimise efficiency in high-traffic areas, but also minimises the time the door remains open. This is particularly beneficial in environments with significant temperature differences, as every opening results in a loss of either cold or warm air.

High-speed doors can be operated in different ways. As standard, the doors are delivered with a pull cord switch, but a wide range of automated operation options is also available.

For more information, see Chapter 3 on control systems.

1.2 About AVR1001F:

AVR1001F is developed for high-traffic freezer rooms. The door features an ultra-fast opening speed of 1.5 metres per second and a fast closing speed of 0.5 metres per second.

It is insulated with 100 mm PE foam, which offers outstanding thermal performance and does not absorb moisture.
The system is designed to eliminate thermal bridges and features an intelligent construction that ensures optimal insulation is maintained at all times – even under wear and tear or fluctuating temperatures.

The AVR1001F is ideal for cold storage or freezer rooms with heavy traffic, as it meets the demand for both fast, smooth forklift access and effective insulation to minimise costly temperature loss.

The AVR1001F can operate independently in freezer environments down to -30°C and does not require additional night-time protection. It is a robust door solution that can withstand impacts without damage, meaning no unexpected service costs or downtime.

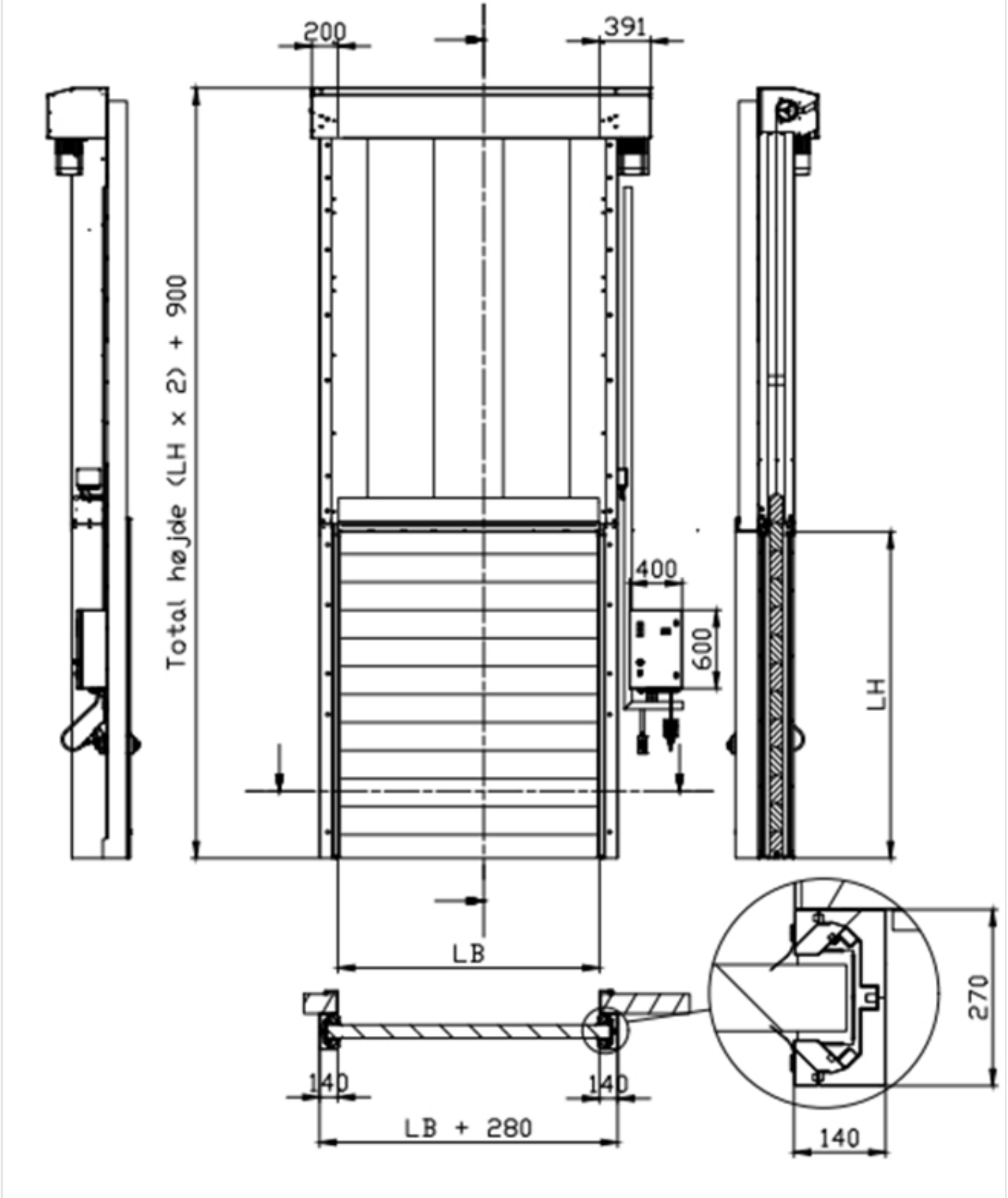
1.3 Options for AVR1001F:

Control options	▪ Remote control ▪ Photocells ▪ Radar ▪ Induction loop ▪ Traffic light
Safety	▪ Access control ▪ Reduced opening ▪ Battery backup

1.4 Technical specifications:

BENEFITS	▪ 100 mm high-insulated door leaf. ▪ Lightening-fast opening and closing speed. ▪ Stand-alone solution. Does not require a night shutter door. ▪ Reliable construction that withstands hard collisions. ▪ Unique slat system that prevents thermal bridges.
OPERATING TEMPERATURE	▪ -30° to +40°.
U-VALUE	▪ 0,037 W/m 2 x k.
EXPECTED SERVICE LIFE	▪ 30 years.
WARRANTY	▪ 24 months with reference to our terms of sale and delivery.
DIMENSIONS	▪ Max. width: 3500 mm. ▪ Max height: 3500 mm. ▪ If you would like a price for a solution that exceeds the maximum dimensions, please contact us!
AUTOMATICS	▪ Power supply: 3 x 400 V 50-60 Hz, 10 A, 4 potential-free relay outputs for external equipment. ▪ Comes with professional door control that includes positioning setting options and speed control via frequency converter. The automation unit is mounted on the wall next to the frame.
OPENING AND CLOSING SPEED	▪ 1,5 m/sec. - 0,5 m/sec.
FRAMES	▪ 1 mm and 2 mm stainless steel.
DOOR LEAF	▪ 100 mm thermal canvas insulated with PE foam LD25. ▪ The canvas runs in rails in the frame. ▪ Side guides makes it easier to manually reposition the door leaf after a collision. ▪ The canvas is kept tight by the built-in springs of the top box. ▪ Standard colour (Contact us for other colours): Blue RAL 5002
TOP COVER	▪ 1 mm polished stainless steel AISI 304 (optional).
SAFETY	▪ Light sensor with dynamic blanking fitted in the frame legs. Door stops and returns to open position using a presence detection. ▪ Motor equipped with built-in handle for use in the event of power outage, to roll the door up manually. ▪ Can be supplied with backup power system. ▪ Control panel with emergency stop is standard.
HEAT CABLES	▪ 230V heat cables in the frame.

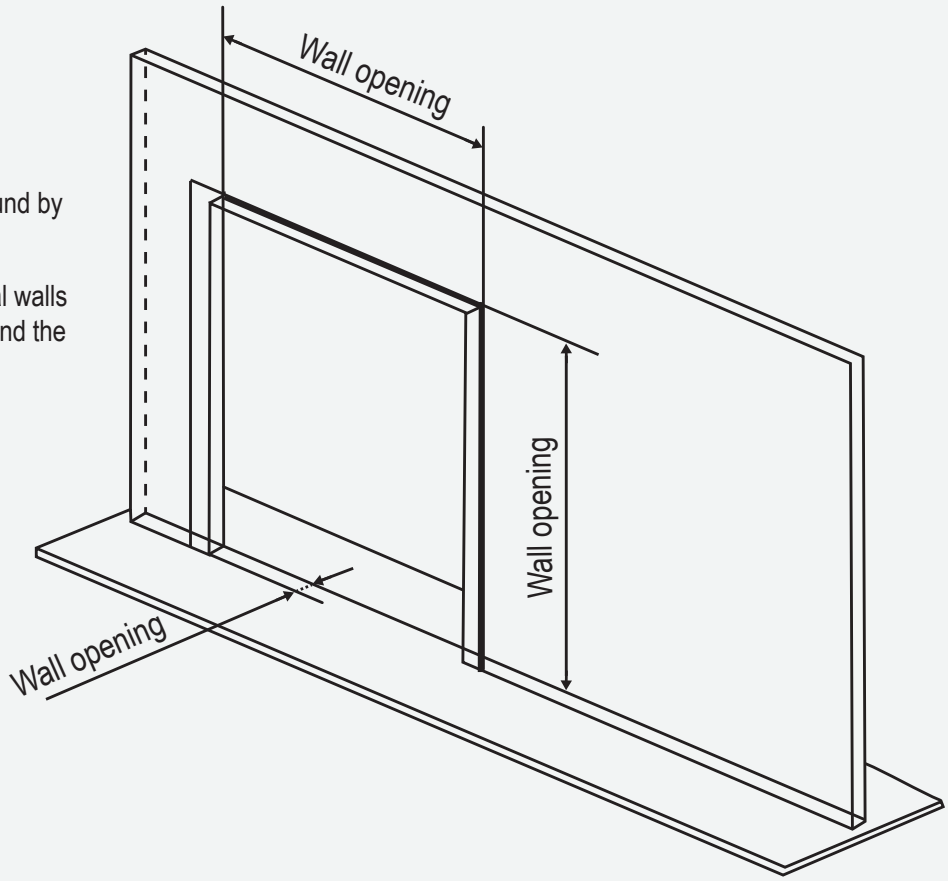
1.5 Drawing:


200
391
Total højde (LH x 2) + 900
400
600
LH
LB
140
140
LB + 280
270
140

1.6 How to find structural opening and clear opening dimensions:

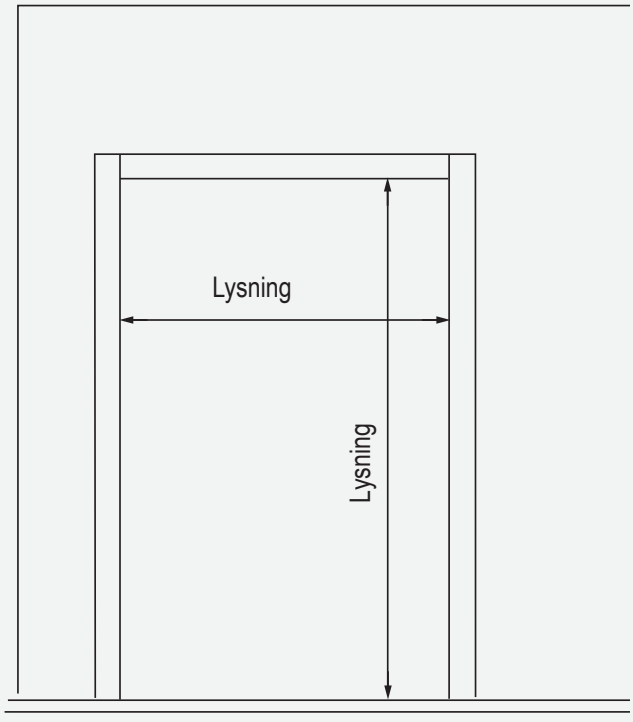
Structural opening dimensions are found by measuring:

- The distance between the 2 vertical walls
- The distance between the ceiling and the floor
- The wall thickness



The clear opening refers to the visible, open space within the doorway It is found by measuring:

- The distance between the 2 vertical frames
- The distance between the top frame and the floor (doorstep)



2. GENERAL SAFETY PRECAUTIONS

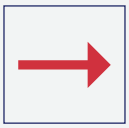
2.1 General information:

This user manual applies to automatic High Speed door AVR1001F.

The manual should be read carefully before using the door, paying particular attention to precautions and safety information.

Users of the door should be carefully instructed in how to operate the High Speed door.

Adhering to the service intervals will extend the life of the door by up to 15 years



Please note that annual inspection of High Speed doors is required by law.

2.2 Warnings:

Certain points of attention will be highlighted with warning symbols.
These points require special attention for personal safety or when operating the equipment.

The following warnings are used:

Caution
Potentially hazardous situation where the consequences are minor injuries.
The door or nearby objects may be damaged.

Warning
Potentially hazardous situation where the consequences may be bodily injury or serious damage to the equipment.

Attention
Important information that requires special attention.

2.3 Operation and use:

The High Speed doors fast opening and closing speed makes it attractive for room separation i all types of indystry with the need to limit the opening time of the door. This could, for instance, be to reduce the cold loss between spaces with temperature differences, or to reduce draughts or odoeurs.

There are no restrictions on how many openings the door can be exposed to.
Service and inspection intervals vary depending on how much the door is running.

The door is operated via push-button signal or via signal from various remote controls.

The door opens and closes vertically and must only be installed vertically.

Modifications or changes to the door that affect the safety of the door are not permitted.

Warning:
Do not stay in the doorway as the door will close
if the photocells are not activated.

2.4 Unpacking:

The doors are usually delivered in a box wrapped in plastic.

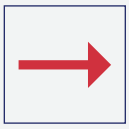
If the door is not to be installed upon delivery, it should be stored indoors and protected from humidity and temperature fluctuations.

Check that the packaging is intact before unpacking the door. If it is not intact, thoroughly inspect the contents of the package for damage.

In case of damage, both the transport company and DAN-doors must be informed, and the damage must be documented by means of a report and photos, which must be sent to DAN-doors immediately.

2.5 Installation:

In cases where installation is not carried out by DAN-doors' own fitters, installation instructions are included.



It is the customer's responsibility to ensure that the structural opening dimensions correspond to what is described in the order confirmation, unless DAN-doors has made the measurements.

2.6 Starting up:

See separate manual "DAN-doors door control", which is included.

2.7 Disposal:

Disposal of the door must be done in accordance with applicable national environmental laws and regulations.

3. OPERATION

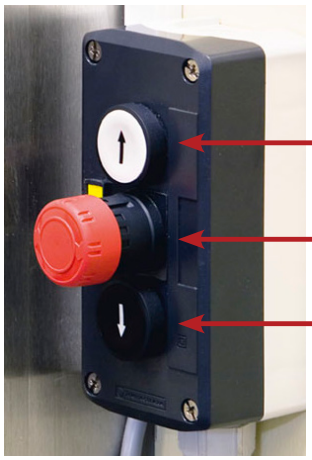
3.1 Control panel:

An automatic High Speed door comes with a control panel. The panel is placed on the wall next to the door and is a box with push buttons to open, close and activate the emergency stop.

Pressing the close button causes the door to close from fully open to fully closed.

In this process, it can only be stopped by activating photocells or the emergency stop.
Pressing the open button causes the door to open from fully closed to fully open. This is not stopped by activating photocells.

Push button located on the front of the door

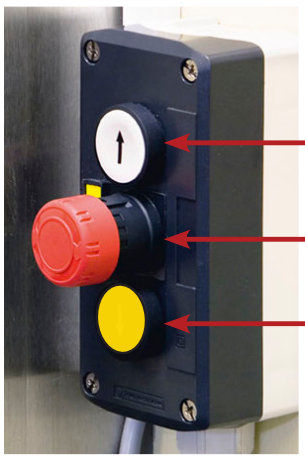


White button: open

Red button: emergency stop

Black button: close

Push button located on the back of the door



White button: open

Red button: emergency stop

Yellow button: close

If the button is lit, it indicates a shutdown outside of normal operation.

If the emergency stop has been activated, turn the knob clockwise to release the stop again.

3.2 Adjusting automatics:

Default setting at delivery: Opening speed: 1.5 metres per second Closing speed: 0.5 metres per second

Operating timer:

The operating timer is set so that under normal circumstances the door can move to the fully open/closed position before the operating timer kicks in. If there is an external impact on the door during opening or closing that prevents the door panel from moving and therefore does not stop, the motor will be switched off by the operation timer after a preset time.
Shortly afterwards, the door will attempt to continue opening or closing itself.

Closing time timer:

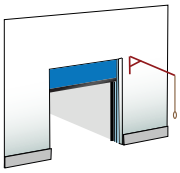
The time the door is in the open position before it automatically closes without further action can be adjusted.

The automation is equipped with a frequency converter that makes it possible to set it to open and close faster or slower than the default settings. Changes to the door settings may only be made by DAN-doors or a partner recommended by DAN-doors.

It must be strongly emphasised that, for security reasons, the closing speed should not be increased where there is person access.

3.3 Automatic control options:

AVR1001F is available with with various automatic operation options:

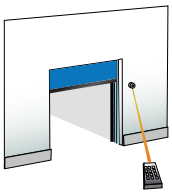


3.3.1 Pull switch:

The door is opened by pulling the cord and closes automatically after a given time set in the timer.

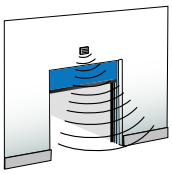
To avoid accidents when closing the door, the pull cord must be activated every time the door is passed, even if it is already open.

The pull switch can also be set with a tilt function, which means that the pull switch must be activated to open the door and activated to close the door.



3.3.2 Remote control:

The door can be controlled using a remote control, which is popular in areas with forklift traffic.



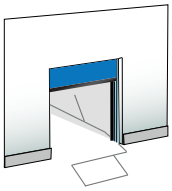
3.3.3 Radar:

The radar can be used either as a safety measure or to activate the door.

If the radar is used as a safety measure, the door will always open when there is movement in front of it.

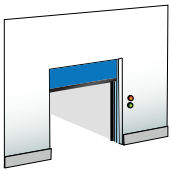
If the radar is used as an automatic operation, the door will open when there is movement within the radar's 'field of view'. The door will close again after a period of time set in the timer.

It is possible to equip the door with a safety radar on one side and a radar to open and close the door on the other side, which improves safety and minimises the risk of damaging equipment and people.



3.3.4 Induktion loop:

Induction loop is a magnetic field that is embedded in the floor. It detects when metal enters the area, which activates the opening of the door. The door closes automatically after a set period of time, which is set in the timer.



3.3.5 Traffic light:

The door can be equipped with traffic lights, which is relevant in areas with frequent traffic through the door in both directions.

4. OPERATION AD MAINTENANCE

4.1 Genal operation and maintenance:

The door's construction and choice of materials are designed with particular emphasis on minimising maintenance.

However, for the functionality and safety of the doors, as well as legal requirements, it is important to carry out regular inspections.

Following the inspection schedule below will optimise the operating conditions of the doors and the lifetime of the door components. The doors have a life expectancy of up to 30 years. The inspection should be performed continuously and at least at the intervals indicated.

It is the end user's responsibility to maintain and inspect the door as described below.

Automatic doors are required by law to be serviced by a qualified person at least once a year.

The gear is lubricated for life with 90 ml Shell Tivela Oil WA.
(alternatively: BP Energol SG 150, or Mobil Glygoyle 22, or Texaco Synlube SAE 90).

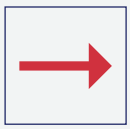
4.2 Cleaning:

The door canvas must be cleaned with soap mix.

Caution: Cleaning agents containing solvents must NEVER be used.

Frame legs and other parts of stainless steel are resistant to water, weak acids and alkalis. They have a smooth surface and are therefore easy to keep clean.

Parts of stainless steen are cleaned with all-purpose cleaner. Limescale deposits can be removed with limescale rem-over, rubbed with a nylon cloth and rinced with water.



Attention: Stainless steel is not resistant to prolonged exposure to salt water, hydrogen chloride, chlorides, sulphuric acid or hydrochloric acid. Please refer to the resistance table for steel grade AISI 304.

4.3 Maintenance checklist:

	TOPIC / COMPONENT	CONTROL POINT	FREQUENCY					
			VISUALLY	YEARLY	HALFWAYS	QUARTERLY	MONTHLY	DAILY
1	Sealing strips	If sealing strips are damaged so that they do not close tightly against the frame or bottom rail, they should be replaced.	X				X	
2	Light curtain	Check that the light curtain is working by holding something in front of the photocell to return the door to open position.	X					
3	Frame	In case of icing on the frame, the ice must be removed	X					X
4	Heating cables	Check that the heating cables are functioning by touching the frame. The frame should be free of ice.	X					X
5	Battery backup	Should be checked every six months by turning off the power.			X			
6	Collision or similar impact	If the door is subjected to a collision or similar impact, it may damage the safety devices and pose a risk to personal safety. Therefore, an inspection must be carried out.	X					
7	Mandatory inspection	Automatic and manual doors, including their components, must be maintained according to the supplier's instructions. According to the guidelines of the Danish Working Environment Authority, the following inspections are generally required: **Full inspection at least every 12 months** unless otherwise specified by the supplier. Full inspection before commissioning after any reinstallation or relocation. **DAN-doors recommends that all service inspections be carried out by a qualified DAN-doors service technician. For service, please contact DAN-doors Service Department at: +45 87 93 87 00**		X X X				
8	Operating issues	In the event of an operating issue: Check the error message on the display and consult the manual "DAN-doors Door Control", or contact DAN-doors A/S.						
9	Spare parts	Please provide the door number when ordering spare parts. The door number is located on the ID label attached to the door.						
10	Cleaning	Cleaning should be carried out using a soft brush and a mild soap mix, followed by rinsing with clean water. Wiping dry is necessary. Under no circumstances should cleaning agents containing solvents (such as gasoline, thinner, alchohol, or similar), abrasive or polishing agents, or wax treatments be used, as these may reduce the products life span. For thourough cleaning, a cleaning product suitable for stainless steel and aluminium is recommended.						
11	Lubrication	After washing, apply an acid-free oil, suitable for stainless steel and approved for use in the relevant industry, where the door is installed.						
12	Before commissioning	After installation, remove the protective film from the frames and apply acid-free oil until the steel is saturated. This prevents flash rust and other contaminants from adhering. This treatment should be repeated after each cleaning, as the oil may be washed off.						

If you have any doubts or questions regarding operation and maintenance, please contact the DAN-doors service department at +45 87 93 87 00.

5. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	TROUBLE SHOOTING
The door will not open/close	No power	Check whether the control unit is connected to power. If not, switch it on.
	Emergency stop may have been activated	Release the emergency stop by turning the red button clockwise.
	Safety functions may be blocked	Check whether the light curtain in the frame and bottom bar is properly positioned and free from dirt or obstructions.