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AV70 ▪ SV ▪ S

Instruction manual

SVALSON

Manufacturer

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Importer/Dealer

The type designation and serial number are specified both on the machine and at the end of this manual.

1 CONTENTS

2 INTRODUCTION

Thank you for choosing the Svalson Sliding Window.

The automatic Svalson Sliding Window reduces dramatically the risk of wear injuries to the shoulders and joints of users such as receptionists and cashiers.

When you ordered the Svalson Sliding Window, you assured yourself of the reliable engineering which is the hallmark of all Svalson AB products. Svalson AB has been making the Svalson Sliding Window since 1980, and is now Europe's largest manufacturers of automatic reception windows.

2.1 Where Should I Start If I Am …

2.1.1 … The User (Operator)?

Being the user of the Svalson Sliding Window, you should become well acquainted with the contents of this instruction manual. Read the whole of the instruction manual.

- Read Section 4 (Operation) and Section 7 (Functional checks).
- Run a functional check as described in Section 7.
- Read Section 8 (Care and maintenance) so that you will know the measures that you may have to take.
- Check that the installer has filled in the log sheet (Appendix 4).
- Carefully read the remainder of the instruction manual so that you will become acquainted with it and will be able to find quickly any information you may need. The type designation and serial number are specified both on the machine and at the end of this manual.

2.1.2 … An Installer?

The quickest way of getting started is to do everything correctly right from the start. If you allow yourself 15 minutes to read this instruction manual, it may save you hours later on.

- Read Section 4 (Operation), 5 (Installation) and 7 (Functional checks).
- Read A Section 8 (Care and maintenance) and Section 9 (Fault tracing and repairs). This section may be of great assistance if you encounter problems during the course of the installation work.
- Carefully follow the instructions during the installation work. Bear in mind that incorrect installation may restrict the terms of the guarantee as described in Appendix 2 (Guarantee).
- Fill in the log sheet (Appendix 4) after completing the installation work.

2.1.3 … A Repair Technician?

The quickest way of getting started is to do everything correctly right from the start. If you allow yourself 15 minutes to read this instruction manual, it may save you hours later on.

- Read Sections 4 (Operation), 7 (Functional checks), 8 (Care and maintenance) and 9 (Fault tracing and repairs).
- Carefully read Section 5 (Installation) and Appendix 2 (Guarantee).

- Fill in the log sheet (Appendix 4) after completing the repair work.

3 DESCRIPTION

Svalson Sliding Window is designed for use indoors, e.g. in receptions. Some Svalson Sliding Windows are also suitable for use outdoors, e.g. windows with double glazing.

Note: This instruction manual describes Svalson Sliding Windows of type 6307, 6318, 7007, 7018, 8107, and SV. The manual also describes some Svalson Sliding Windows of type S, that is similar in construction to these types.

The frame sections of the Svalson Sliding Window can be provided with a variety of surface finishes. It can also be fitted with a wide variety of glass types.

The Svalson Sliding Window can be manufactured in both automatic and manual performance. Automatic windows are very simple to operate by means of a control box. Most Svalson Sliding Windows are provided with a mechanical lock, which automatically locks the movable window in closed position. Some windows are also provided with an intermediate locking mechanism which also locks the movable window in intervals along the entire opening height.

Some Svalson Sliding Windows are provided with an alarm relay. The alarm relay automatically closes the Svalson Sliding Window after activation by, for example, a fire alarm or an assault alarm.

Both automatic and manual Svalson Sliding Windows can be equipped with key locks (e.g. ASSA) which locks the movable window in the closed position.

All Svalson Sliding Windows are matched to the customer's specific requirements. The dimensions are entirely optional, and several different versions are available, e.g. built-in side sections.

4 OPERATION

Automatic Svalson Sliding Windows are normally operated by means of a control box and/or a pedal. To make this instruction manual easier to read, the term 'control box' will be used here to denote both the control box and the pedal. The Sliding window can be opened or closed by pressing the appropriate button on the control box. The drive motor for the Sliding window will keep running as long as the button is depressed, and will stop when the button is released. Don't keep the button depressed unnecessarily long after the movable window has reached the end of its travel, since this would cause unnecessary wear of the motor.

All Sliding windows are equipped with some form of unloading system which will come into operation if anything should prevent the window from moving freely. However, children and sensitive people may sometimes experience discomfort if struck by the movable window. So don't move the Sliding window to the closed position until you have checked that there are no persons or objects in the window opening. Always be particularly observant when there are children in the vicinity.

The Sliding window can also be equipped with other types of control devices. Instructions for such devices are delivered separately.

Manual Svalson Sliding Windows are normally equipped with a handle which makes operation of the window simple.

5 INSTALLATION

IMPORTANT NOTE. Read carefully the <u>whole</u> of the installation instructions <u>before</u> starting the installation work.

The movable window is suspended by a cord. If the cord should fail, an emergency brake will prevent the movable window from dropping down. <u>Incorrect installation may render the emergency brake inoperative and may thus lead to injury if the cord should break.</u>

For the Sliding window to operate smoothly, it must be correctly installed in accordance with the manufacturer's instructions. <u>Under no circumstances may holes be drilled in the frame sections of the Sliding window, since electrical parts and moving parts are contained inside the frame sections.</u> Modifications and alterations to the Sliding window, and also incorrect installation will restrict the terms of the guarantee.

See Appendix 1 for installation instructions.

6 DISMANTLING AND RECYCLING

Proceed in the reverse order to that described in Section 5 (Installation).

Materials recovery has been taken into account in the production of the Sliding window. Most of the material included in the Sliding window can be recovered. For instructions, please get in touch with the manufacturer or the importer/dealer.

WARNING! The side posts of the Sliding window contains counterweights to balance the movable window. On some Sliding windows these counterweights are made out of lead (Pb). Lead is a substance that is very dangerous for the environment and it must be taken care of. Always use protective gloves when handling lead.

7 FUNCTIONAL CHECKS

Run the Sliding window up and down a few times and check that it runs smoothly, without any scraping sounds.

If a gap should appear between the support surface and the movable window, this indicates that the Sliding window has been incorrectly installed.

Most automatic Sliding windows are equipped with a latch which automatically locks the movable section. To check that the lock performs as intended, run the Sliding window to the closed position and check that it is locked.

Many Sliding windows are equipped with key locks (e.g. ASSA). Check that they are functional.

8 CARE AND MAINTENANCE

The Sliding window needs no lubrication or periodic maintenance. However, to make sure that the Sliding window will perform well, all dust and dirt must be excluded from bearing tracks and sliding surfaces.

If a Sliding window that had been running freely becomes stiff to operate, this is usually due to settlement of the building. In such cases, the Sliding window mounting must receive attention.

9 FAULT TRACING AND REPAIRS

Maloperation may be caused by electrical and mechanical faults. To investigate electrical faults, an electrical measuring instrument, such as a universal meter, may often be necessary. Certain electrical and mechanical faults can generally be detected after certain functional checks.

THE MOST COMMON REASON FOR THE SLIDING WINDOW NOT OPERATING IS THAT THE POWER SUPPLY CABLE HAS BEEN DISCONNECTED FROM THE WALL SOCKET. So always start the fault tracing by making sure that the power supply cable is plugged into the socket and that all other cables are securely connected.

9.1 Motor

Although some Sliding windows have two motors, most have only one. These instructions describe a Sliding window with one motor, although they are also applicable to a Sliding window with two motors.

The motor is mounted in the top frame section and can be removed from the Sliding window as follows:

Remove the bar secured to the top frame section and release the hose clip nearest to the motor.

Make a note of the cables that are connected to one another on the motor, and then disconnect them.

Since the motor shaft is not centrally located on the motor, check the direction in which the motor shaft faces, and then remove the motor.

To refit the motor, proceed in the reverse order.

Replace the motor and the motor cover. Turn the motor shaft in the same direction as it was originally. Tighten the hose clip and connect the cables to the motor.

Test the Sliding window and make sure that the movable window travels in the right direction. If not, transpose the supply cables to the motor.

9.2 The Motor Fails to Run Even Though the Button is Depressed

Check that the wall socket is live.

Check with a universal meter:

- that the voltage on the secondary side of the transformer (or the back-up battery) agrees with the rated voltage.

- the voltage (reversible DC) at the connector from the control box to the Sliding window. Note that you must press the open or close button before there is a voltage across the connector.

- the voltage (reversible DC) at the cable connections at the motor (see Section 9.1). Note that you must press the open or close button for the supply to be live across the connections.

The part that does not conduct current is faulty and must be changed.

If there is a DC voltage at the connection to the motor but the motor still fails to run, the motor is presumably faulty and must be changed. A simple way of checking the motor and its connections is to turn the drive wheel with the round pins separated and with the pins short-circuited. The motor should be stiffer to turn when the round pins are short-circuited. If the motor is equally easy to turn in both cases, either the round pins make poor contact, or else the motor is faulty

9.3 The Motor Buzzes when the Button is Depressed, but the Movable Window Remains Stationary

When the open or close button is depressed, the electromagnet (normally located in the left-hand pillar viewed from inside) should release the latch and the motor should start and drive the cord via the bearing block. One end of the cord is connected to the counterweight and the other is secured to the movable window.

Press the close button and check that the latch performs satisfactorily. A clear clicking sound should then be heard when the electromagnet operates the latch. Then press the open button.

If the Sliding window operates after the buttons have been depressed as described above, the fault was due to the fact that the movable window had stopped hard up against the latch so that the latch could not be lifted because it was wedged against the movable window. This will occur if someone should try to open the Sliding window by hand when it is locked.

If the Sliding window still fails to operate in spite of the clicking sound being heard, the fault is not in the electromagnet. The fault is then presumably in the drive (see Section 9.3.1).

If no clicking sound is heard, the fault is presumably due to the electromagnet being faulty or the supply voltage to it being too low.

Remove the bar secured to the pillar containing the latch (normally the left-hand pillar viewed from the inside). Then remove the screws retaining the cover in front of the latch.

Check that the voltage (DC) up to the electromagnet is correct when the open or close button is depressed. If the voltage to the electromagnet is correct but the electromagnet does not react, this indicates that it is defective and the entire latch (including the electromagnet) must be changed.

9.3.1 Drive Mechanism is Faulty

Press the open or close button and check that the rubber hose rotates.

If not, check that the hose clips have not worked loose and that the hose is not damaged. If the hose is damaged, it must be changed.

If the hose is not damaged, the fault is in the gearbox and the entire motor unit must changed.

9.4 The Sliding Window Fails to Lock or Fails to Open from the Closed Position

Check that the Sliding window has been installed at right angles. If the angle is incorrect, the latch may not be in the right position on the movable window.

Also check that the distance between the pillars is the same at a number of different heights (a difference of 1 - 2 mm may cause the latch to be in the incorrect place on the movable window).

If any dimension is incorrect, the installation of the Sliding window must be corrected so that these dimensions agree.

9.5 The Sliding Window Moves in Only One Direction

The control box is faulty and must be changed.

10 TECHNICAL SPECIFICATIONS

The following specifications apply as standard for automatic Sliding windows. See separate instructions if the Sliding window is delivered with non-standard equipment.

Power supply	12-24 V AC or DC transformer or battery backup
Motor	Reversible DC motor with gearbox
Drive	Line
Sound level	The equivalent continuous A-weighted sound pressure level will not exceed 70 dB(A) on normal operation (25%)

APPENDIX 1

Installation instructions

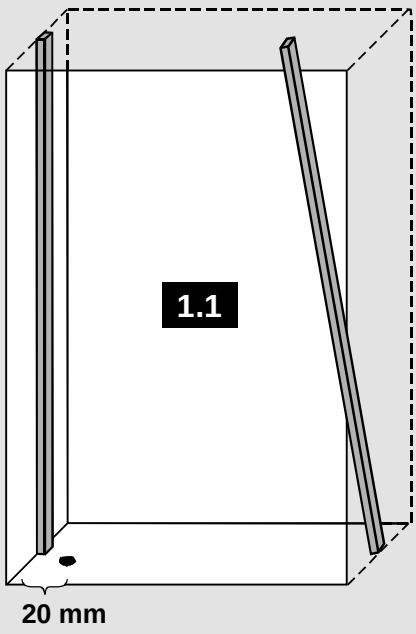
IMPORTANT NOTE. Read carefully the whole of the installation instructions before starting the installation work.

The movable window is suspended by a cord. If the cord should fail, an emergency brake will prevent the movable window from dropping down. Incorrect installation may render the emergency brake inoperative and may thus lead to injury if the cord should break.

For the Sliding window to operate smoothly, it must be correctly installed in accordance with the manufacturer's instructions. Under no circumstances may holes be drilled in the frame sections of the Sliding window, since electrical parts and moving parts are contained inside the frame sections. Modifications and alterations to the Sliding window, and also incorrect installation will restrict the terms of the guarantee.

If the Sliding window is installed, for instance, in a wall opening or between other sections, it is important for its outside dimensions to be somewhat smaller than the dimensions of the opening. Under no circumstances should the Sliding window be forced into an opening which is too small, since the sections will then be distorted or compressed.

1 Installation



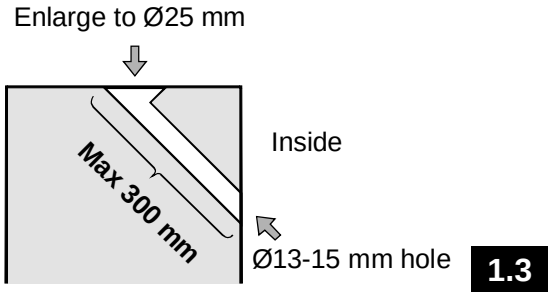
Fit the outer mounting strips (the mounting strips are not included in the delivery of the Sliding window).

The mounting of the Sliding window should be designed so that there is no risk of the Sliding window falling out of its mounting if a load is applied to it. Pay attention to possible wind pressure.

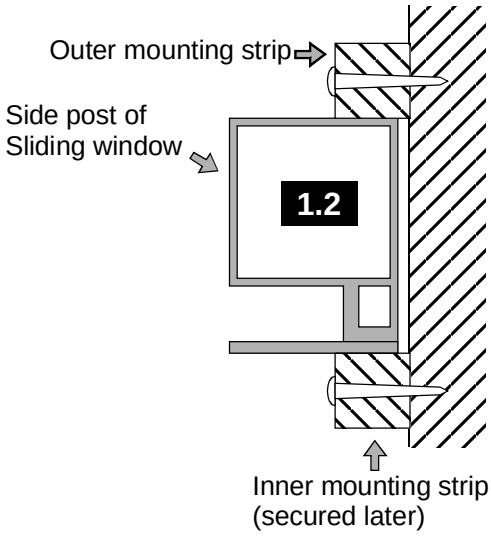
Installation shall be carried out so that the Sliding window will be easily accessible for service. It must be possible to remove the entire window.

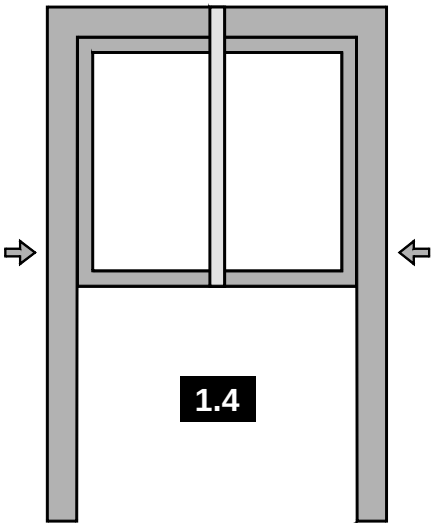
If the Sliding window is installed in unattended premises, avoid securing it with screws which are accessible from the outside, since these could then be removed by unauthorized persons. It is important to bear in mind any security requirements (e.g. protection against assault, burglary or fire) when securing the Sliding window.

Other examples of methods of securing the Sliding window are given in section 3.



Drill a Ø13-15 mm hole for the motor cable about 20 mm from the edge (see large drawing above). Open out the top end of the hole (to Ø25 mm) to avoid nipping the cable.

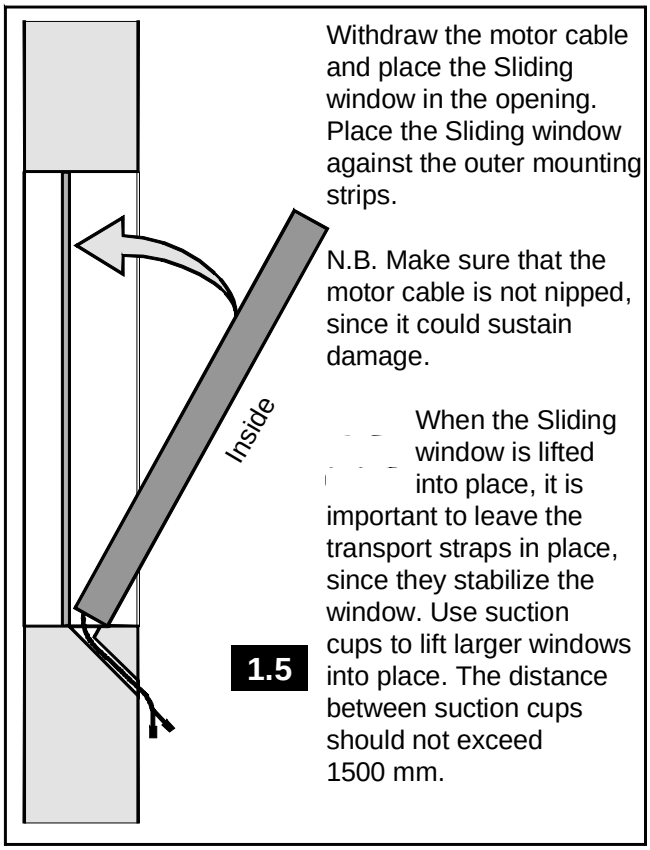




Most Sliding windows are equipped with a transport lock in the form of one or several screws in the side wall of the side pillar.

Other Sliding windows may not have such transport lock at all, due to the design being different.

If your Sliding window is equipped with such screws, they must be removed.



Withdraw the motor cable and place the Sliding window in the opening. Place the Sliding window against the outer mounting strips.

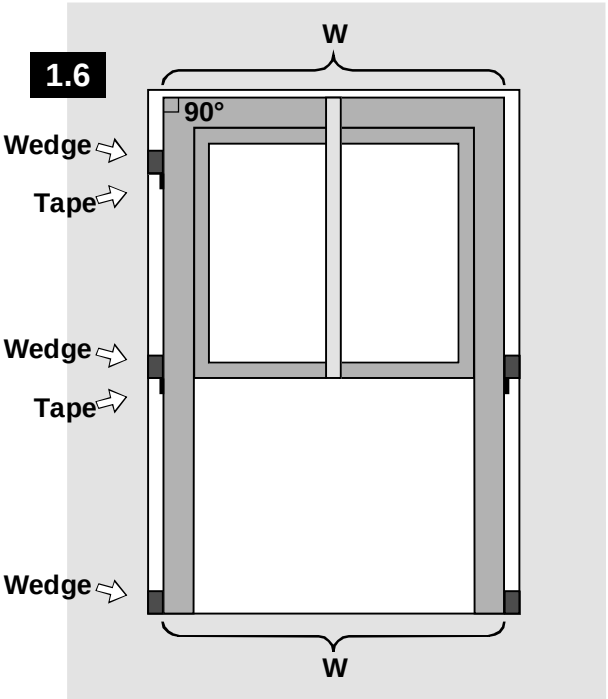
N.B. Make sure that the motor cable is not nipped, since it could sustain damage.

When the Sliding window is lifted into place, it is important to leave the transport straps in place, since they stabilize the window. Use suction cups to lift larger windows into place. The distance between suction cups should not exceed 1500 mm.

Wedge the Sliding window in position so that it will be at right angles. To make sure that the wedges will not drop down, place them above the pieces of tape on the side pillars.

It is very important to ensure that the bottom wedges do not force the side pillars towards one another. Check the widths at the top and bottom to make sure that they are the same. Measure the diagonals to make sure that they are the same.

Remove the transport strap.



A - Motor cable (from the window)
B - Connecting cable terminal
C - Control box
D - Transformer/Battery back-up

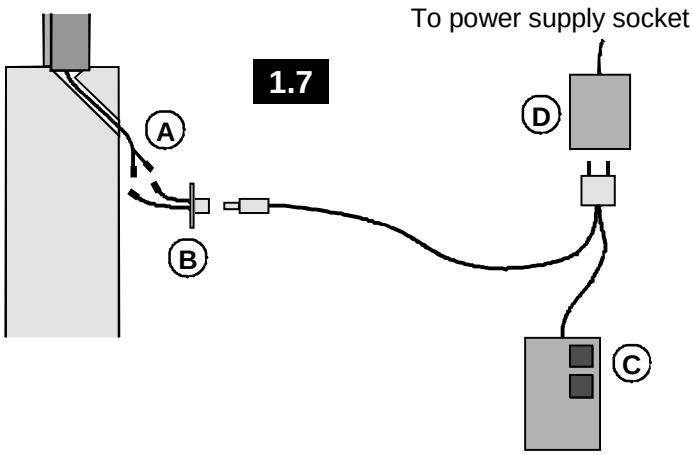
Connect the connecting cable terminal to the motor cable, and use screws to secure the connecting cable terminal over the hole.

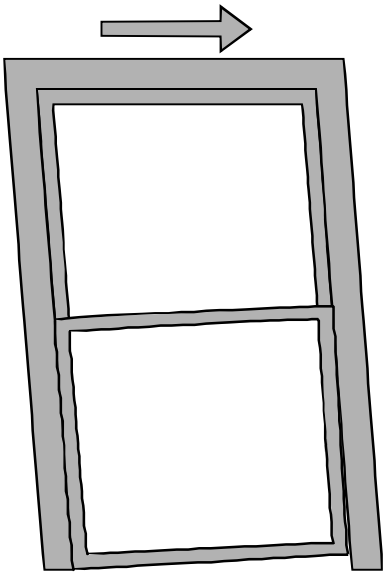
Suspend the transformer/battery back-up on the wall and connect the control box both to the transformer/battery back-up and to the connecting cable terminal.

Connect the transformer/battery back-up to the power supply socket.

If the Sliding window is delivered with extra equipment, see separate instructions.

1.7





1.8

Test the Sliding window and check that it performs well.

If there is a gap between the support surface and the movable window, the Sliding window has not been installed square. Push the top part towards the side on which the gap has occurred and refit the wedges.

Secure the mounting strips and test the Sliding window again.

Note: On some Sliding windows (type 6318 above all), the movable window has two ball bearings which roll against the side pillars. If the bars on the side pillars are removed, the slope of the movable window can be adjusted by means of these ball bearings.

2 Functional Checks

Run the Sliding window up and down a few times and check that it runs smoothly, without any scraping sounds.

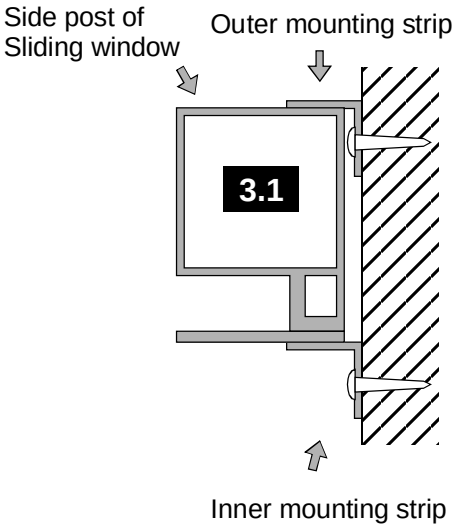
If a gap should appear between the support surface and the movable window, this indicates that the Sliding window has been incorrectly installed.

The Sliding window is equipped with a latch which automatically locks the movable section in the closed position. To check that the lock performs as intended, run the Sliding window to the closed position and check that it is locked.

Many Sliding windows are equipped with key locks. Check that they are functional.

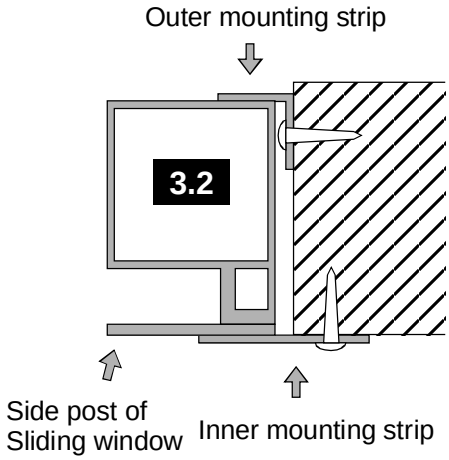
3 Examples of Alternative Methods of Mounting

Example of mounting with angle strips and without screws on the outside.

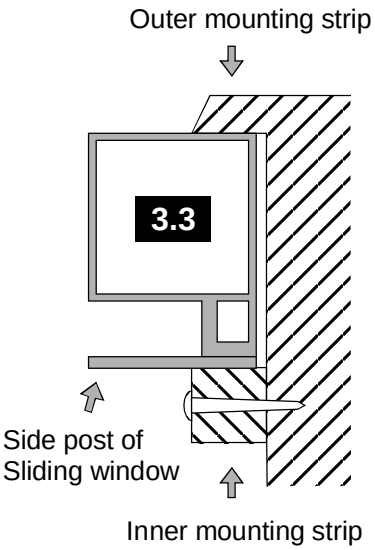


Example of mountingwith angle strips and without screws on the outside.

This variant is suitable for installation in thin walls/sections.

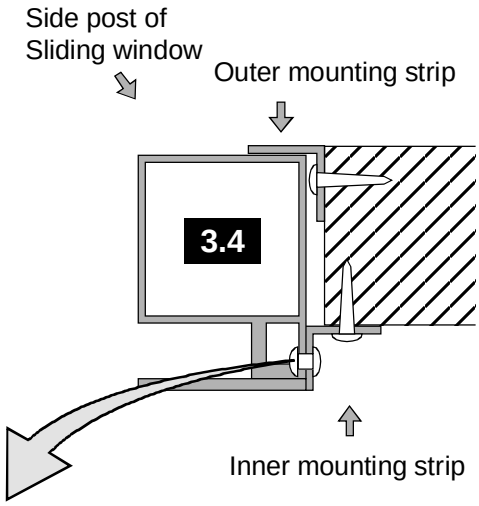


Example of mounting in a wall/section with fixed flange.



Example of mounting with angle strips and without screws on the outside.

This variant is suitable for installation in thin walls/sections.



Note that no holes may be drilled in the Sliding window since electrical parts and moving parts are mounted in these sections. The angle strip must therefore be secured to the Sliding window by the manufacturer.

APPENDIX 2

Guarantee 50-00001

In order for the guarantee to be valid, conditions A–C must be satisfied:

A) In connection with a guarantee claim, the Vendor is to be contacted for an assessment of the claim in relation to the guarantee. The Vendor must confirm that the nature of the fault is such that it is covered by the guarantee.

Any interference with or measure involving the window which does not go through Svalson's claims department will invalidate the guarantee and is entirely the responsibility of the person who carries out or orders the work.

B) In connection with a guarantee claim, the serial number of the window is to be given.

C) In the event of replacement of parts, the parts replaced are to be returned without fail to the Vendor. They must be returned within fourteen days from the date of delivery of a part by the Vendor, unless otherwise agreed. Failing this, the customer forfeits his right to compensation under the guarantee.

The guarantee does not cover:

Faults arising from defective assembly (installation) of the window.

Removal of the lining, e.g. strips, in order to gain access to the window, and replacement of the lining on completion of work.

Other guarantee provisions:

1. In accordance with the provisions of items 2–13, the Vendor is obliged to rectify by means of replacement or repair all faults in the product that are due to shortcomings of design, materials or manufacture.

2. The Vendor's liability relates only to faults which become apparent **within two years** of the date of delivery of the product. Should the product be used more intensively than agreed or could have been foreseen at the time the agreement was entered into, the period of liability will be reduced correspondingly.

3. In the case of parts that have been replaced or repaired in accordance with item 1, the Vendor is liable for two years following the date of their delivery.

4. The Purchaser must make a written claim regarding a fault to the Vendor without unreasonable delay after the fault has become apparent, and in any event not later than two weeks after the expiry of the liability period agreed in item 2 and in item 3. The claim must contain a description of what form the fault takes. Should there be cause to assume that the fault may entail a risk of damage or injury, a claim must be made immediately.

If the Purchaser does not make a written claim regarding the fault within the time limits specified in this item, he will lose the right to make a claim based on the fault.

5. After the Vendor has received a written claim according to item 4, he will rectify the fault with the degree of promptness called for by the circumstances. The Vendor will bear the costs of rectification in accordance with the rules in items 1–13. Rectification will be carried out on the premises of the Purchaser, unless the Vendor judges it to be advisable for the defective part or the product to be sent to him so that he can repair or replace it on his own premises. If dismantling and assembly of the part requires special technical knowledge, the Vendor is obliged to carry out such dismantling and assembly. If no such specialist knowledge is required, the Vendor will have fulfilled what is required of him by reason of the fault when he delivers to the Purchaser a duly repaired or replaced part.

6. If the Purchaser makes a claim according to item 4 and there turns out to be no fault for which the Vendor is liable, the Vendor will be entitled to compensation for the work and the costs he has incurred as a result of the claim.

7. If dismantling and assembly involve interference with something other than the product, the Purchaser will be liable for any work and costs thereby caused.

8. The Purchaser will bear the additional costs of rectifying a fault that are incurred by the Vendor as a result of the product being other than in the location specified in the agreement or – where no such location has been specified – the place of delivery.

9. Faulty parts which are replaced in accordance with item 1 are to be made available to the Vendor and will become his property.

10. The Vendor's liability does not include faults caused by materials supplied by the Purchaser or by a design prescribed or specified by the Purchaser.

11. The Vendor's liability covers only faults which arise in the working conditions envisaged in the agreement and in connection with the correct use of the product.

This liability does not cover faults caused by circumstances which arise after the risk for the product has passed to the Purchaser. It does not cover, for example, faults due to defective maintenance or incorrect assembly by the Purchaser, modifications made with the written consent of the Vendor or repairs incorrectly carried out by the Purchaser. Finally, it does not cover normal wear and tear or deterioration.

12. Notwithstanding what is laid down in items 1–11, the Vendor is not liable for faults in any part of the product for more than two years from the start of the liability period stated in item 2.

13. The Vendor is not liable for faults over and beyond what is laid down in items 1–12. This applies to any loss that the fault may cause, such as production shortage, loss of profit or other financial consequential loss.

APPENDIX 3

Declaration of Conformity EN 45014

[1] Svalson AB
Box 584
S-943 28 Öjebyn
Sweden

[2]

[3] EN 50 081-1, EN 50 082-1

[4] 89/336/EEC, 89/392/EEC

We [1] declare under our sole responsibility that the product [2] to which this declaration relates is in conformity with the following standard(s) or other normative document(s) [3] following the provisions of Directive [4].

APPENDIX 4

Log sheet

Date	Name / Company / Telephone	Service work / Repair

Log sheet

Date	Name / Company / Telephone	Service work / Repair

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