

SOLAR Basic



Operating instructions for electronic high-security locks





DS4650 Millenium Duplex Instructions

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General notes







- Please read these instructions carefully before making any adjustments to the lock.
- The lock acknowledges every press of a button with an acoustic signal. Concluded or cancelled procedures are displayed by the illumination of the LED, together with acoustic signals. (see signal overview)
- Input pauses of more than 20 seconds between buttons will interrupt the ongoing input. In case of input errors, each procedure can be cancelled by pressing the button .
- We recommend regularly inspecting the safe and the control unit for signs of manipulation. In case of suspicious marks, contact your dealer immediately to rule out possible manipulation.
-  The following codes are preset from the factory and must be changed for security reasons. Perform all changes only with the door open and the locking mechanism closed (bolts extend from the door).

	Code
Opening code	1 2 3 4 5 6
SUPER	1 1 1 1 1 1

Function and use of the super code, see item 4

- The lock must first be opened to change the settings.
-  The lock is locked and unlocked by a motor. When the motor is moving, the LED above the keypad is illuminated. Never pull the handle of the locking mechanism while the motor is moving the bolt. This can lead to lock damage.
- Only use alkaline batteries in accordance with the technical specifications in the appendix to these instructions.

Symbols and their meanings

x sec	Hold X seconds		Long tone
 x sec	Wait X seconds		LED illuminates / blinks
	Short tone		
	Lock open		Lock closed

Functional overview and description

Opening code

The lock uses an individual user code, which makes opening, changing the code, and reading out the protocol possible.

Super code

The super code is an emergency code and can reset the lock to the factory settings.

Manipulation block

If four invalid opening codes are entered, three long tones sound with simultaneous illumination of the red LED. Operations are blocked for five minutes, which can be seen by the 8-second blinking interval of the red LED. If an incorrect entry is again made after the duration of the blocking period, the five-minute blocking period begins once more. This is only overridden by the entry of a valid code.

Emergency power

If the battery is completely discharged and the lock can no longer be opened, the lock can be supplied with power externally. For this, read item 5, sub item 2, emergency power.









Restart


If entries cannot be made as usual, the operating system of the lock can be restarted. All codes and settings are retained during this.


1. Opening / Closing


1.1 Opening

Example with factory code.

Button	Signal	Description
 <div style="display: flex; justify-content: space-around; width: 100px;"> 123456 </div>		Code input
	 3sec  	 Correct  
		 Incorrect





 After correct entries, the handle of the locking mechanism can be moved and the safe opened.


 Only pull the handle once the lock has been completely opened (LED blinks 1x).

 After an incorrect entry, the procedure can be repeated three times. Then, a blocking period of 5 minutes goes into effect (manipulation block).

1.2 Closing

Ensure that the handle of the locking mechanism is completely in the closed position.

Button / example	Signal	Description
 <div style="display: flex; justify-content: space-around; width: 100px;"> C </div>		Closing
	 3sec  	Closed


 After pressing the button C, the handle of the locking mechanism may not be pulled until the lock has locked. After locking, you must check whether the container is closed by pulling the handle of the locking mechanism.


2. Changing the code


Example with factory code with an opened lock.

 In opened lock condition

Button	Signal	Description
* 3sec		Start programming
1 2 3 4 5 6		Code
? ? ? ? ? ?		Enter new code
? ? ? ? ? ?		Repeat new code
*		Confirm and close
	  Changed   Error	

 In case of a long, acoustic signal, the code has not been changed due to an incorrect entry. The old code is still active. You must repeat the procedure.


 After successfully changing the code, the new code must be tested by opening and closing numerous times with the door open and the locking mechanism closed.









 For security reasons, set codes should not be written down.

3. Retrieve opening protocol

The lock saves the last 32 openings and events. This protocol can be retrieved by the user. Output is made by means of a different number of acoustic and optical signals in accordance with the table below. The latest event is output first.

In opened lock condition

Button	Signal	Description
* 3sec		Start programming
1 2 3 4 5 6		Code
4		Start output
*		Confirm and start

Signal	Description	Signal	Description
1x  	User	3x  	Mechanical blocking
2x  	Super code	4x  	Battery low voltage
1x  	Separates users / events		




























4. Super code functions


The super code is preset from the factory at **1 1 1 1 1 1 1** (7x1). It can open the lock and reset the opening code.

4.1 Change super code

The super code can be changed with the opening code.








In opened lock condition

Button	Signal	Description
 3sec		Start programming
     		Code
     		Enter new super code
     		Repeat new super code
	   Changed    Error	

 The super code is not a regular opening code and is only intended for emergencies. The factory setting must be changed for security reasons. Even if it is only used in exceptional cases and is therefore difficult to remember, this code may not be written down.

4.2 Opening with the super code














If the opening code is lost or the blocking period is active, the lock can be opened with the super code.


Button	Signal	Description
 *	6sec	Start super code opening
1 1 1 1 1 1 1		Super code
	3sec    Open	   Error

4.3 Resetting the opening code by means of the super code

If the opening code is lost, this can be reset with the super code.

In opened lock condition

Button	Signal	Description
 *	6sec	Start reset
0	3sec   	
1 1 1 1 1 1 1	3sec   	Super code
0		
1 1 1 1 1 1 1		Super code
*		Confirm and close
	   Changed	   Error

 After a successful reset, the opening code is set to **1 1 1 1 1 1** and must now be changed again.

5. Power supply

5.1 Changing the battery

Power is supplied by a 9V-block battery (Caution: only use alkaline or lithium batteries). The battery compartment is accessible when the door is open and is visibly installed in the door frame or directly on the interior of the door, depending upon the type of safe (when changing the battery, pay attention to correct battery polarity). It is necessary to change the battery if a long signal sounds before the short tone after the lock opens. The battery must be changed as soon as possible, because sure operation is no longer guaranteed after approximately ten further activations.


5.2 Emergency power

If the battery is completely discharged and the safe is closed, proceed as follows.

1. Remove the keypad from the bracket by carefully prying with a flat, dull screwdriver on the edge of the keypad between 4 and 7, above the LED and between 6 and 9






2. Pull the keypad out approximately 5 cm with both cables and lift it.
3. Clip the new 9V battery into the two poles (large to small, small to large) on the back. Here, provide support with your fingers on the front of the keypad between 0 and 9.
4. Now, proceed in accordance with the operating instructions, item Opening, and open the safe.
5. Open the battery compartment on the inside, carefully remove the new battery from the back of the keypad, and exchange it for the dead battery.
6. Push the keypad cables carefully back into the door and snap the keypad back into the bracket.

 Prying the keypad from the bracket on the sides will leave marks on the bracket. This is intentional and protects you against illegal manipulation of the lock by unauthorized third parties. If necessary, you can order a new bracket from the manufacturer.

6. Restart

If the lock is inoperable in spite of sufficient battery power, the lock can be restarted.

Button	Signal	Description
 30sec		Initiate restart
 30 sec		Restart concluded

Restarting the lock does not change any codes or delete other settings.

7. Signal table

Function	Short	Long	LED	Sound
Functions of the input				
Input of numbers	1 x			x
Star button upon conclusion of a correct entry	1 x		x	x
Star button upon conclusion of an incorrect entry		1 x	x	x
Star button at the beginning of programming	3 x		x	x
Star button at the beginning of super code entry	3 x		x	x
Functions of the system monitoring				
Battery dead		1 x	x	x
Lock opens (as long as the motor runs)			x	
Lock open	1 x		x	x
Lock closes (as long as the motor runs)			x	
Lock closed	1 x		x	x
Motor mechanically blocked		2 x	x	x
Start of the manipulation block		3 x	x	x
Functions of the manipulation block				
Manipulation block running (every 8 seconds for 5 minutes)	1 x		x	
End of the manipulation block	2 x		x	x
Functions of the opening protocol output				
Event output	n+1 x		x	x
Separator between 2 events		1 x	x	x

8. Technical data and certification

The lock is designed for indoor use.

Temperature: 10°C – 40°C

Relative humidity: 30% - 85%

No-load current: < 0.1mA

Battery supply: 9V nominal (min. 3V with a load of 0.5A / max. 12 V at all load levels)

Batteries: 9V alkaline or lithium block battery

Useful life of the battery in normal operation: approximately 2 years





Maximum locking force: 25 N




Lock class II (B), approval number M103343

Tested by VdS-Köln in accordance with VdS 2344:2005-12, VdS 2841: 2005-12, and EN 1300: 2004-06



9. Quick guide SOLAR Basic

	<p>1 2 3 4 5 6</p>	<p>3sec</p>	
	<p>C</p>	<p>3sec</p>	

	<p></p> <p>1 2 3 4 5 6</p>	<p>3sec</p>	
	<p>* 3sec</p> <p>1 2 3 4 5 6</p> <p>? ? ? ? ? ?</p> <p>? ? ? ? ? ?</p> <p>*</p>		