K12

Installation & User Manual

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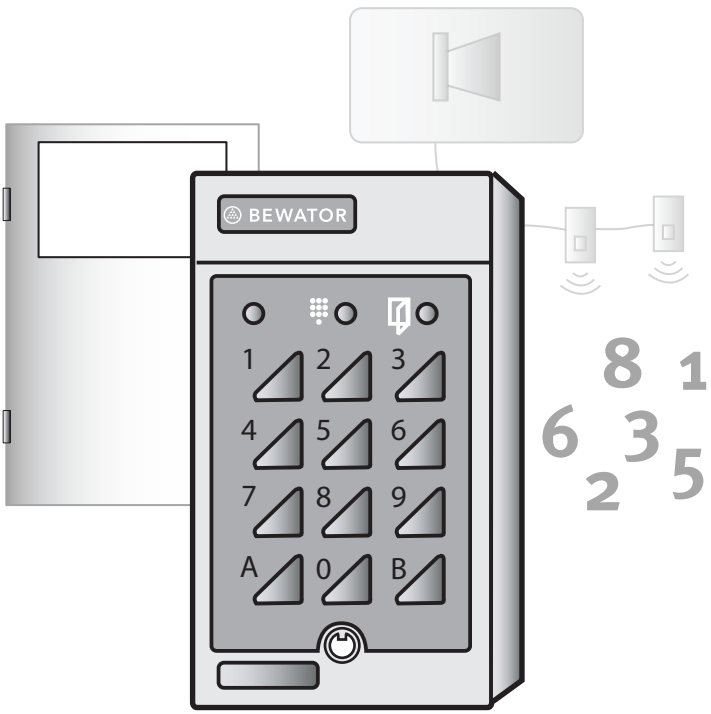

BEWATOR

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Content

What is K12 ?

K12 is a compact, multifunctional alarm by-pass unit with two relay outputs. This makes K12 capable of controlling both an intruder alarm and a door. In both cases either a four- or a six-digit code can be used. All programming is done from the keypad.

Deactivate an alarm and unlock a door using one code

The advantage of using two relay outputs is that two functions can be activated at the same time, using only one code. For example, the code can deactivate an intruder alarm and open the lock at the same time.

For every code you can decide:

- Control an alarm by-pass relay and a door relay.
- Control only a door relay.
- Control only an alarm by-pass relay.

Different codes for alarm and door

If unique codes are used for alarm control only they are programmed for this and cannot unlock the door. Separate codes have to be used for that.

Alarm Control

K12 can be used for either monostable alarm by-pass – or bistable intruder alarm control. What method used is programmable. Factory setting is monostable function.

Monostable

Monostable function will (beside opening relay) also activate the alarm by-pass relay when a code or exit button is used. Maximum time is opening time + door held warning time. If the door is closed during this time both relays are deactivated. Note that this requires that door monitor contact be connected. See also section Door Control.

Bistable

Using bistable function allows activating an intruder alarm with **Code + B**. Any codes for only door opening as well as remote opening will be disabled. Note that the alarm relay will change immediately.

Deactivation of the alarm is done with **Code + A**. If the code also should activate the opening relay a delay of one second is used. It is also possible to use door monitoring together with bistable alarm control. See *Door Control*.

Alarm activation with button or timer

K12 allows that a bistable alarm can be activated using a button or an external timer connected to an input in the K12.

Red LED Control

To indicate that the alarm is on, the red LED on the front can be lit. This is controlled by an external signal connected to the K12.

Disable the codes whenever needed

K12 offers the possibility to disable codes at certain times. For example, the cleaning staff's access to the building can be limited to certain hours, while tenants/staff can have access to the door 24 hours a day.

By connecting two time clocks to K12, three different time zones can be used to control the codes: one controlled by time clock 1, one controlled by time clock 2 and one that is valid 24 hours a day, i.e. no time control.

Duress or alert

K12 is equipped with an output that can be activated for one of the following reasons:

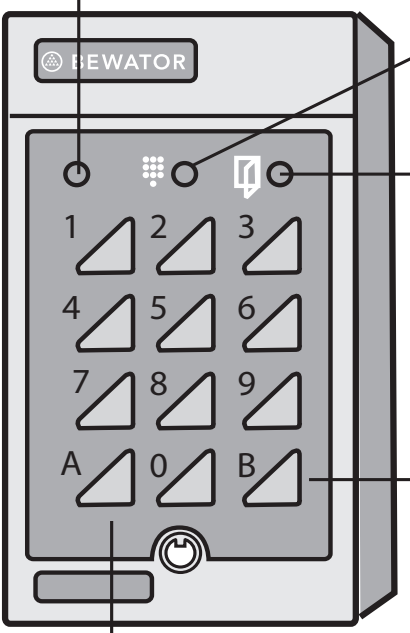
- A user enters a duress code (see the Duress output on/off section)

  or

- The door held warning time expires or the door is forced open (see the Alert output on/off section)

Choose which alternative to use. Then connect e.g. a burglar alarm or similar to the output.

Keypad



Red LED
For optional use, e g to indicate Alarm on.

Yellow LED
Indicates key presses.

Green LED
Lit when lock is open

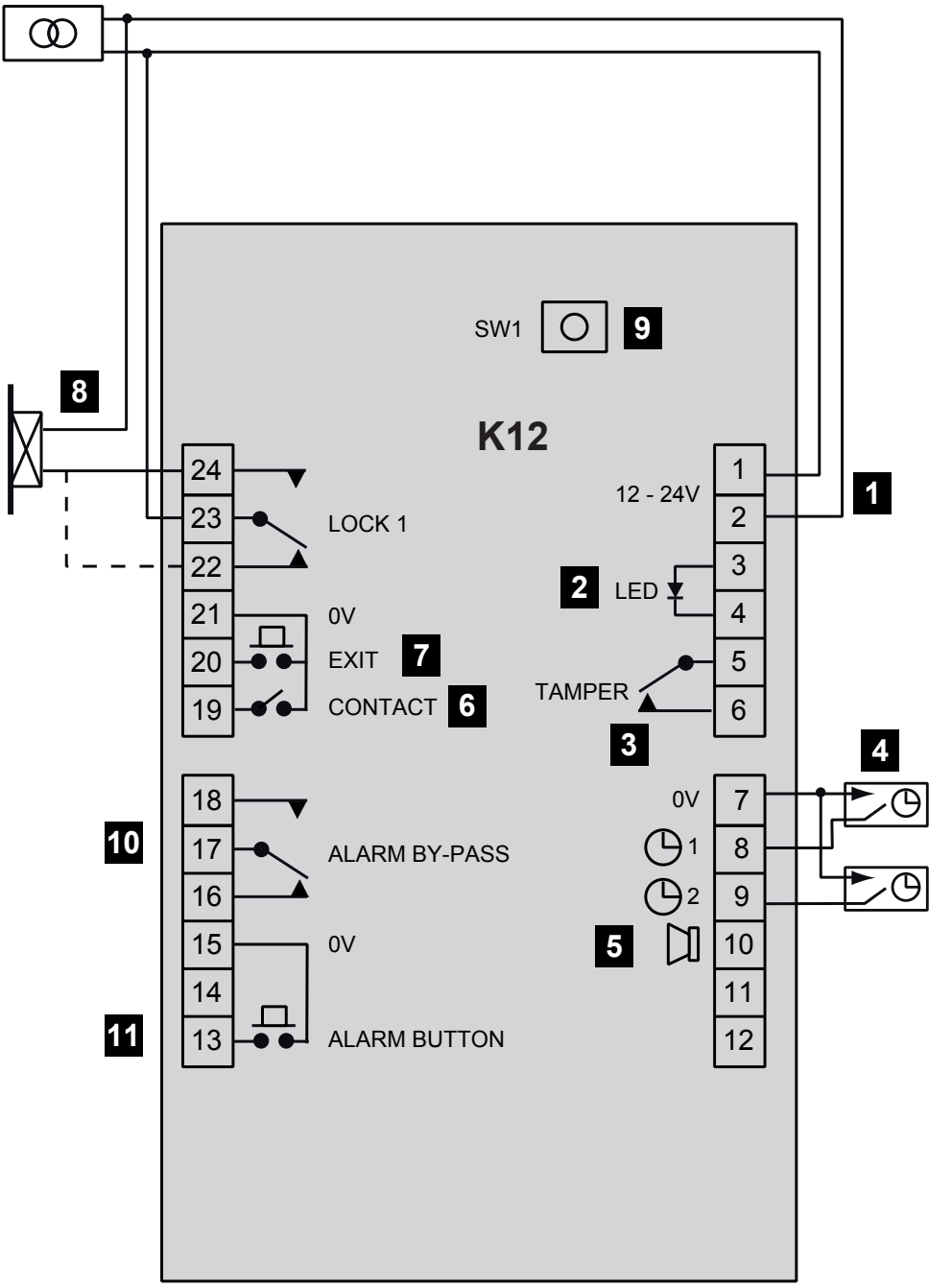
B
Press B and enter the 6-digit password to programme the K12.
B is also used when activating an intruder alarm.

A
Used when deactivating an intruder alarm and for programming of the K12.
E g A21 to programme codes.

Wiring

The numbers refer to the diagram on the right.

1	Power in, terminal nos 1(+) and 2. 12-24 V.
2	Input for extra LED (red), terminal nos 3 and 4. 10-35 V DC.
3	Tamper switch, terminal nos 5 and 6. Closed when the housing is closed.
4	Code disabling from external time clock. Input 1: Close terminal nos 8 and 7. Input 2: Close terminal nos 9 and 7.
5	Output for alert or duress. Use E7 relay. Connect between terminal nos 10 and 1(+).
6	Input for door contact. The contact is closed when the door is closed. Terminal 19 and 21.
7	Exit button. The door opens on closing terminal nos 20 and 21.
8	Electric locking device. Dashed line refers to locks with fail-safe function.
9	SW1 push button. Used when choosing password and erasing memory.
10	Alarm By-pass relay. Monostable or Bistable mode (shown in OFF position)..
11	Alarm button: Close terminal nos 13 and 15 (The alarm by-pass relay will change directly).


SW1
9
8
K12
24
23
22
21
20
19
LOCK 1
0V
EXIT
7
CONTACT
6
12 - 24V
1
2
3
4
5
6
2
LED
TAMPER
3
1
4
18
17
16
15
14
13
10
ALARM BY-PASS
0V
11
ALARM BUTTON
0V
1
2
5
7
8
9
10
11
12

Programming

Before you start programming K12, make a note of the codes to be used, to what timing group they should belong and which relay output they should control. At the back of this manual you will find a chart designed for this purpose. Look at the chart as you program K12 according to the instructions below.

Buzzer and LEDs

During programming you will be guided by the buzzer and the LEDs.

In programming mode before a function is chosen: Green and yellow LED flashes.

During programming: Yellow LED goes out. Green LED is lit.

Correct instruction: Confirmed by a rising signal consisting of two quick beeps.

Faulty instruction: Confirmed by a falling signal consisting of two quick beeps.

NOTE! During programming mode, if a button is not pressed within 20 seconds, the code lock goes back to normal operation.

Choose password

The first thing to do before you can start programming is to choose a password.

1 Press and hold the SW1 button on the code lock's circuit board. Both LEDs are lit.

2 Enter a 6-digit password.

3 Make a note of the new password in the chart at the back of the manual.

Change password

1 Press B and enter the current password.

2 Enter **A27**.

3 Enter the new password. A warning tone is heard.

4 Enter the new password once again.

5 Press B to leave programming mode.

6 Make a note of the new password in the chart at the back of the manual.

Select Alarm by-pass relay mode

The alarm by-pass relay can be used in both monostable and bistable mode. Choose mode as follows:

1 Press B and enter the password.

2 Press **A81**.

3 Choose mode

0 = Monostable
1 = Bistable

4 Press B to leave programming mode.

Note that if monostable alarm bypass mode is chosen, the alarm by-pass relay will change automatically when the door relay is activated by a correct code.

If the Alarm button input is activated (when in bistable mode) the relay will change immediately without any warning time.

Program codes

1 Press B and enter the password.

2 Enter **A21**.

3 Enter the desired code location using two digits (01-30).

4 Enter the code for the current code location (four digits for code location 01-20 or six digits for code location 21-30).
Note! The four first digits in a 6-digit code must not be the same as the digits in a 4-digit code and the other way around.

5 Choose whether or not the code should be disabled from a time clock.

0 = No time control
1 = Code disabled from time clock 1
1 = Code disabled from time clock 2

6 Choose which relay output to control

0 = Both relay outputs
1 = Door relay. Always used in monostable alarm by-pass mode
2 = Alarm by-pass relay.

7 Program the next code by continuing from step 3 or press B to exit.

8 Press B (leaves programming mode).

Erase codes

1 Press B and enter the password.

2 Enter **A22**.

3 Enter the current code. If it is a 4-digit code, enter A after the last digit.

4 If it is a 4-digit code, enter oooo. If it is a 6-digit code, enter oooooo.

5 Enter oooo (oooooo) again.

6 Enter o.

7 Enter o once again.

8 Erase the next code by continuing from step 3 or press B to exit.

9 Press B to leave programming mode.

Change codes

1 Press B and enter the password.

2 Enter **A22**.

3 Enter the current code. If it is a 4-digit code, enter A after the last digit.

4 Enter the new code using four or six digits.

5 Enter the new code once again.

6 Choose whether or not the code should be disabled from a time clock.

- 0 = No time control
- 1 = Code disabled from time clock 1
- 1 = Code disabled from time clock 2

7 Choose which relay output to control

- 0 = Both relay outputs
- 1 = Door relay. Always used in monostable alarm by-pass mode
- 2 = Alarm by-pass relay.

8 Change the next code by continuing from step 3 or press B to leave code programming.

9 Press B to leave programming mode.

Set opening time

The opening time determines for how long the lock should remain open following a correct entrance code. When K12 is delivered the opening time is 7 seconds for both relays.

1 Press B and enter the password.

2 Enter **A28**.

3 Enter the desired opening time (01-99) using two digits, e.g. 09 for 9 seconds.

4 Press B to leave programming mode.

Set door held warning time

If the door is still open when the opening time has expired, a buzzer sounds as to remind the visitor to close the door immediately – or the alarm output will be activated. The buzzer sounds until the door is closed.

Note that door contacts must be connected and that Door control must be activated for this to work.

This is how to change the door held warning time, if needed:

1 Press B and enter the password.

2 Enter **A29**.

3 Enter the desired door held warning time (01-99) with two digits, e.g. 09 for 9 seconds.

4 Press B to leave programming mode.

Door control on/off

If door contacts are used and this function is activated, a warning signal sounds during the time set as door held warning time, i.e. when the opening time has expired and the door is still open.

If the door held warning time expires and the door is still open, the alert output is activated (if the Alert function is activated). This also happens if the door is forced open.

This is how to activate Door control:

1 Press B and enter the password.

2 Enter **A67**.

3 Enter 1.

4 Press B to leave programming mode.

To deactivate Door control, press 0 in step 3 instead.

Alert output on/off

When K12 is delivered, the alert output is to be activated if the door is open too long or if the door is forced open.

Note that door contacts must be connected and that Door control must be activated for this to work.

This is how to deactivate the alert function:

1 Press B and enter the password.

2 Enter **A69**.

3 Enter 1. (By doing this, the Duress output function is activated).

4 Press B to leave programming mode.

To reactivate the function, enter 0 in step 3 instead. (By doing this, the Duress function is deactivated).

Duress output on/off

With the Duress function activated, a user can enter a special code if he or she is forced to open the door under threat. It is important to have a plan for what action to take when a duress code is entered.

This is how to activate the Duress function:

1 Press B and enter the password.

2 Enter **A69**.

3 Enter 1. (By doing this, the Alert output function is deactivated).

4 Press B.

To deactivate the function, enter 0 in step 3 instead. (By doing this, the Alert output function is reactivated).

The Enter duress code section describes how a user should enter the duress code.

NOTE! If Duress is activated, make sure you have not programmed codes with consecutive digits. Code 1234 must not exist with codes 1235 and 1233. Code 5679 must not exist with codes 5670 and 5678.

Buzzer on/off

This is how to deactivate the buzzer if sound on key presses and door opening is not desired. Note that the buzzer will keep sounding during programming.

1 Press B and enter the password.

2 Enter **A65**.

3 Enter 0.

4 Press B to leave programming mode.

To reactivate the buzzer, press 1 in step 3 instead.

Background lighting on/off

This is how to turn off the keypad's background lighting, if needed.

1 Press B and enter the password.

2 Enter **A60**.

3 Enter 0.

4 Press B to leave programming mode.

To reactivate background lighting, press 1 in step 3 instead

Erase the memory

This is how to erase all programmed information (including the password):

1 Press B and enter the password.

2 Press SW1 on K12's circuit board.

3 Enter **112186**.

4 Enter **112186** once again. The memory is now erased and K12 goes back to the factory settings.

5 Press B.

Following are the default factory settings:

Password:	112233.
Opening time:	7 seconds.
Door held warning time:	20 seconds.
Background lightning:	ON.
Buzzer:	ON.
Duress	OFF (=Alert ON).
Alarm by-pass mode:	Monostable.

Using K12

Entrance

To open the lock, a 4-digit (or 6-digit) code should be entered on the code lock's keypad.

K12 is blocked if a visitor performs 12 key presses without finding the correct code. To release the blockage, enter a correct code twice in succession.

Activating an intruder alarm

1 Enter code (four or six digits).

2 Press B – to activate.

Codes only for door unlocking will now be disabled and the red LED lit (if external LED control is installed).

Deactivating an intruder alarm

1 Enter code (four or six digits).

2 Press A – to deactivate.

Codes for door unlocking will work and the red LED turns off (if external LED control is installed).

Enter duress code

This is how to activate the alarm output when forced to open the door under threat:

Enter the usual entrance code, only add 1 to the last digit in the code.

Example 1: If the entrance code is 1234, enter 1235 instead.

Example 2: If the code is 1239, enter 1230 instead.

When a duress code is entered, the door will open at the same time as the duress output is activated. It will remain activated until reset by somebody entering programming mode.

Technical data

Power supply:	8-24 V AC 10-35 V DC
Power consumption:	90 mA with background lightning on. 60 mA without.
Maximum load over the relay contacts:	2 A 28 V DC
Dimensions (HxWxD):	140x80x40 mm
Suitable height	1200-1400 mm from ground to bottom edge

If needed, complete the installation with flush mounting kit BB3.

Always start by pressing B and entering the password. Exit: Press B.						
Function	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
New code	Enter A21	Enter code location (2 digits).Code locations 21-30 = 6-digit codes.	Enter code(4 or 6 digits)	Enter timing group 0 = none 1 = group 1 2 = group 2	Enter relay output 0 = Both 1 = Door 2 = Alarm	**Next code:** Proceed from step 2. **Exit:** Press B (back to programming mode).
Change code	Press A22	Enter old code. **4-digit code**: Enter code + A	Enter new code (**twice**)	Enter timing group 0 = none 1 = group 1 2 = group 2	Enter relay output 0 = both 1 = Door 2 = Alarm	See above
Erase code	Press A22	See above	Enter 0000 (00) (**twice**)	Press 0	Press 0	See above

Function	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Change password	Press A27	Enter new code (6 digits)	Enter new code again			
Change opening time	Press A28	Enter seconds (01-99)				
Change door held warning time	Press A29	Enter seconds (01-99)				
Background lighting on/off	Press A60	0 = off 1 = on				

Always start by pressing B and entering the password. Exit: Press B.						
Function	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Step 5**	**Step 6**
Buzzer on/off	Press A65	0 = off 1 = on				
Door control on/off Alert/Duress	Press A67 Press A69	0 = off 1 = on 0 = alert on, duress off 1 = duress on, alert off				
Alarm by-pass mode	Press A81	0 = Monostable 1 = Bistable				
Erase memory	Press SW1	Enter 112186	Enter 112186			

Password:			
Loc	Code	Timing group	Relay *)
01		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
02		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
03		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
04		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
05		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
06		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
07		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
08		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
09		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
10		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
11		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
12		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
13		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
14		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
15		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
16		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
17		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
18		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
19		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
20		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
21		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
22		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
23		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
24		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
25		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
26		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
27		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
28		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
29		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐
30		None ☐ 1 ☐ 2 ☐	1 ☐ 2 ☐

*) Relay 1 = Opening relay and Relay 2 = Alarm by-pass relay.