Lösungen für mehr Sicherheit

TwinLock 7220
Manual

EN 1300

M 105361 / M 102309	High Security Lock - Class 3
G 105133 / G 102013	IAS – ACE Switching Element- Class C
G 106016 / G 106015	IAS – ACE Locking Element - Class C

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Errors excepted. Subject to technical changes
Date: May 09
Version: 1.08A

... this document

The manual contains detailed information for the operation and the programming of the high-security lock **TwinLock 7220** and is mainly intended for the system MASTER responsible for the system configuration and administration.

For users, we recommend the Quick Reference Guide. The concise document contains all important information required for normal system operation in short form.

The document ASSEMBLY INSTRUCTIONS has been created to assist with the installation of the system. This contains all information for the implementation of the TwinLock system.

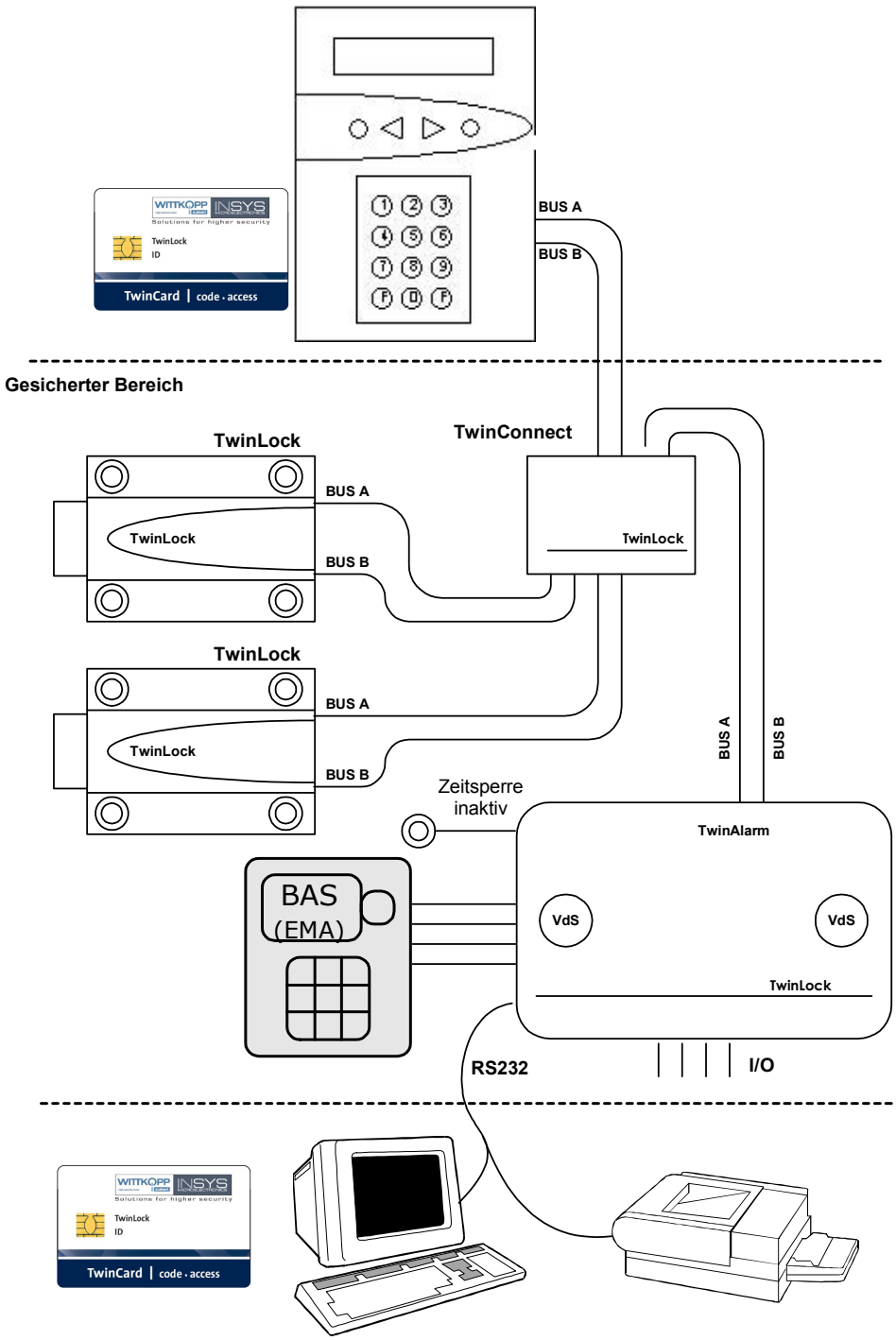
Sections marked with this symbol contain important notes regarding the safe, damage-free operation of this product. Please read these sections carefully.

Contents

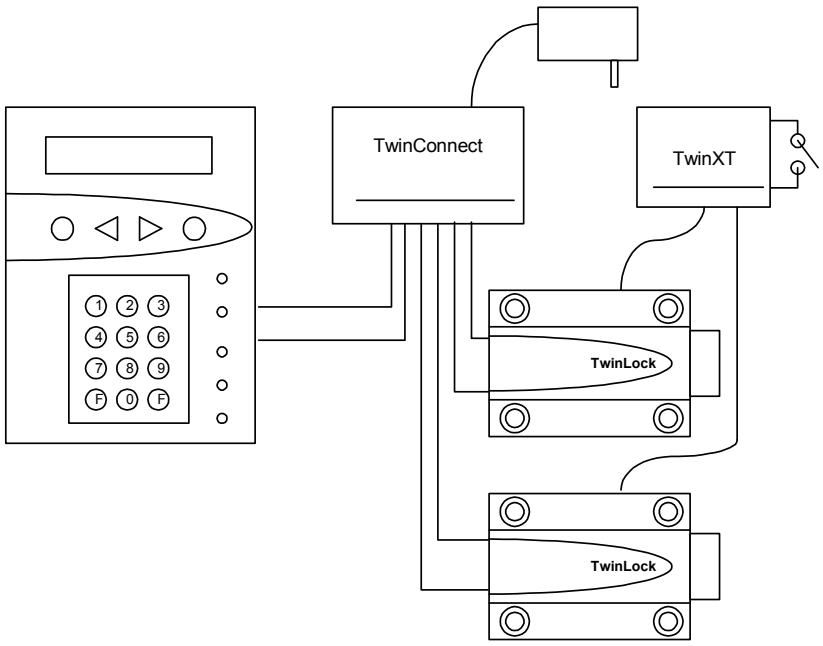
Revision History

1. System Diagram

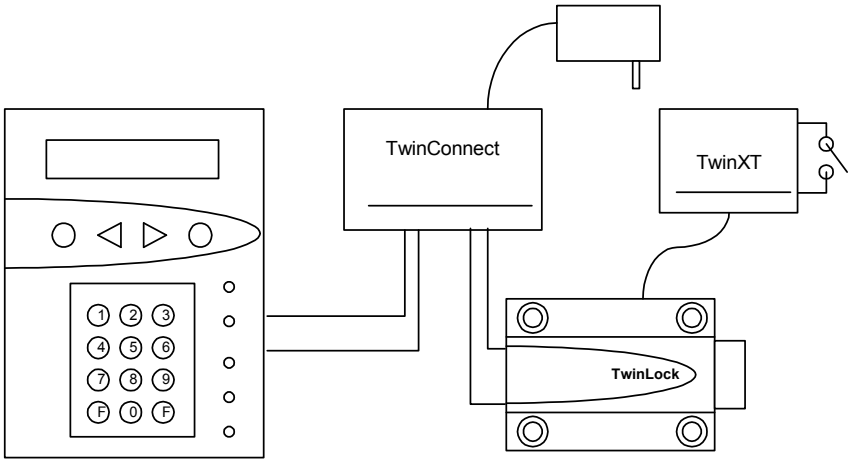
TwinLock 7220 - Alarm



TwinLock 7220 base system 2.1 FlatControl (2 lock system with XT)



TwinLock 7220 base system 2.1 FlatControl (1 lock system with XT)



2. System Description

TwinLock 7220 - Alarm is an electronic high security lock system with integrated arming device for a burglary alarm system class 3/C. It is a modular system. Up to 14 locks and 2 control units can be connected.
The security-relevant system parts are designed fully redundant.

The system consists of the following components:

1…2 Control units = Terminals
1..3 Locks
1 Arming device = BAS connection, distributor
1 Bus distributor = Connector for the individual components (hub)
1...7 Extension units TwinXT

2.1. Input Unit: FlatControl

The input unit is mounted on the outside of the safe (see assembly of the input unit) and is used to control and operate the locking system (code input, programming, etc.), as well as to arm or disarm a burglary alarm system using a physical code (chip card).

2.2. Lock: TwinLock

The locks are mounted within the secured area of the safe (see assembly of locks). The mnemonic codes are stored and evaluated inside the locks.

2.3. Bus distributor: TwinConnect

The bus distributor TwinConnect enables the connection of the individual system components.
The system is connected by means of a redundant bus system (BUS A and BUS B). This bus system allows the entire system to be upgraded to 3 locks

TwinConnect allows the connection of the input unit, the arming device, and up to 3 locks. There is also the possibility to cascade several bus distributors, i.e. to connect several TwinConnect units in series, to be able to connect several locks.

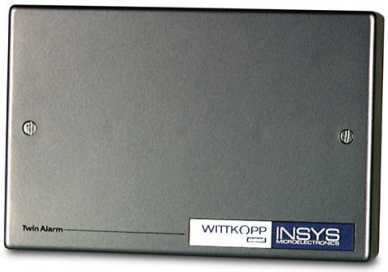
In addition, TwinConnect has a power supply unit (12 VDC), which can supply the TwinLock lock system. (When the arming device is connected, however, the system must be supplied through the BAS).

2.4. Extension Unit: TwinXT

The TwinLock system can very easily be extended by 4 inputs and 2 outputs by means of the extension unit **TwinXT.** Basically, a TwinXT can be connected to each lock in the system. Consequently, each lock can be specifically locked or released, and each lock can have a bolt system contact.

2 switching inputs (release/bolt system contact) for lock 1
2 switching inputs (release/bolt system contact) for lock 2
2 relay outputs (status/silent alarm) (30V/1A)
Power supply 12 VDC
Antitamper loop with tamper switch

2.5. Arming Device: TwinAlarm



The arming device TwinAlarm is mounted inside the safe and is used as a connecting link between the terminal TwinControl or FlatControl (input unit) and the locks and a burglary alarm system (BAS), as well as to connect a serial printer/PCs, and as a distributor for the burglary alarm system (bolt contacts, door contacts, resistance monitoring, etc.).
Soldering terminals for the mounting of resistors for resistance monitored lines are available. The inputs can be customized in various ways, using jumpers.

In **TwinAlarm,** the electronic keys (chip cards) as well as the input signals of the burglary alarm system are evaluated.

The TwinAlarm housing is protected against sabotage by the means of a tamper switch and protection on all sides, and it is secured with a sealing adhesive label.

BAS Inputs:

BAS READY	Prevents the BAS from being armed (Customization by jumper and software).
DISARM BLOCK	Prevents the BAS from being disarmed (Customization by jumper and software).
RELEASE	Prevents the unlocking of the locks (customization by jumper and software).
ACKNOWLEDGEMENT	Evaluates the arming acknowledgement of the BAS (Customization by jumper and software).

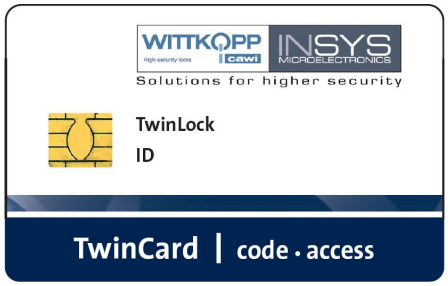
Other Inputs:

NO TIMEOUT	Enables the interruption of the timer programs (weekly programs, special days, blocking time), so that, for example, persons locked into the safe may be freed during an active timer program.
CENTRAL CONTACT	The central contact prevents the shutting of locks when the bolt system is open. **-> Bolt system contact**

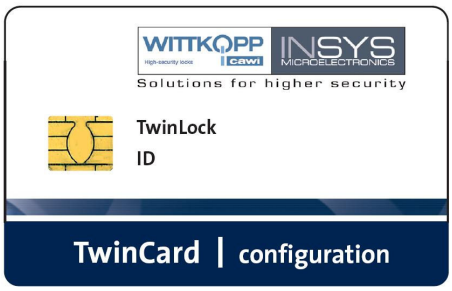
Outputs:

ALARM	The relay switches, when a ‘silent alarm’ was triggered during the code input at the TwinControl/FlatControl device. (last code digit +1). The relay is triggered for 2 seconds. All relay contacts are directed to the screw terminals. Resistors for resistance monitored lines may be employed.
ARMED/DISARMED	The Relay is used to arm or disarm the burglary alarm system. All relay contacts are directed to the screw terminals. Resistors for resistance monitored lines may be employed.
STATUS	The relay is used to indicate the status of all locks in the system. All relay contacts are directed to the screw terminals. Resistors for resistance monitored lines may be employed.

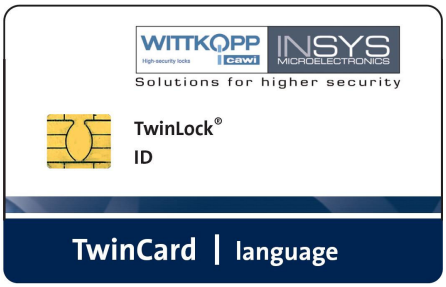
2.6. Chip Cards (TwinCard)



TwinCard code access
Chip card as ‘physical code’ to disarm a BAS.
The code is changed continuously.



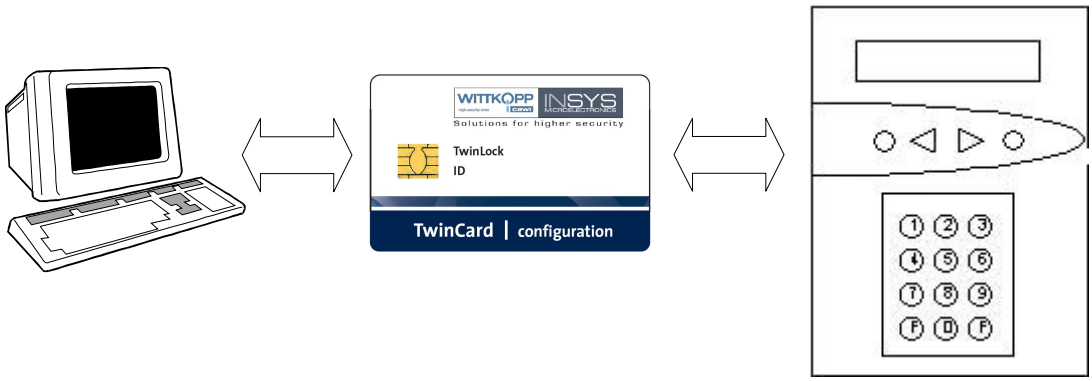
TwinCard configuration
Chip card for the system configuration and the event log. In cooperation the with PC software TwinComm, the configuration can be imported or exported and the log can be read out.



TwinCard language
Chip card for the configuration of the system language. (German, English, Czech, Portuguese…)

2.7. Configuration Set TwinComm

The TwinLock system can be configured fast and conveniently using the program TwinComm in connection with the chip card reader of the configuration set and the chip card **TwinCard configuration**. All settings and the event log can be displayed, printed and saved.



3. Function Description

Function Overview

Code and Locking Functions

1 Master code per lock
1 System code
35 User codes per lock
Status indicator for programmed user codes
Unlock & lock by entering the security code
Forced Sequence
Parallel code
Lock & Code
Automatic lock with door switch
Code linking (Four-eye code/six-eye code)
Silent alarm
Code manipulation detection
Quick unlocking code

Timer Functions

Weekly program
Special days
Blocking time
Partial blocking times
Express blocking
Timer program interruption
Time delay
Alarm/sabotage delays
Automatic switching to daylight savings time

Service Functions

Event log 768 events
Import/export of the configuration via chip card
System language can be configured using the chip card
Reset of the individual system components
Query of the system component version
System components login/logout
Step-by-step operation for motor test
System line free configurable
System status indicator
Voltage monitoring

Arming Device and BAS Connection

Activate arming/disarming
Distributor
BAS Inputs: BAS ready, block disarming, release, acknowledge, timeout, bolt system contact
BAS Outputs: Silent alarm, armed/disarmed, state
Connection facility for 2 more bolt system and door contacts each
Antitamper loop with area sensor and cover contact
Control points for resistance monitoring
RS232-Port

3.1 Code and Locking Functions

Master code

Each lock has a master code (user ID = 00 + 8-digit master code).
The master code has the authorization to program lock-specific procedures (e.g. time delay, user codes, etc.) or to unlock, respectively.
The master code can not be deleted or deactivated.

ATTENTION:

The default code for the user 00 (= Master) of each lock is the pre-programmed code 1 2 3 4 5 6 7 8. The user codes no. 01…35 of the individual locks have been deactivated by the manufacturer.
For security reasons, the master codes of the individual codes must be changed IMMEDIATELY!
When programming the code you must see to the new unlocking code being checked repeatedly while the safe is open.
Do not use personal data when programming unlocking codes!

Loosing a master code can have very costly consequences!!!

Enter system

The system code is identical to the master code of lock 01 (user ID = 00 + 8-digit system code).
In addition to having lock master privileges, the system master is also authorized for system programming. The system code can not be deleted or deactivated.

User code

Each lock has 35 user codes (user ID 01 – 35 + 8-digit user code).
The user codes are programmed or deleted by the according master code. A user can reprogram his/her user code autonomously. Otherwise, the user only has an unlocking authorization.
A user code can be assigned the possibility for “Quick unlocking” (= quick unlocking code) without time delay expiration (see timer programs).

Status indicator for programmed user codes

For each lock, the programmed user codes can be displayed. The programming status, i.e. OK or NOK is displayed. The display can only be activated by the according lock master.

Unlocking & Locking
The unlocking is tied to at least one code entry. This always takes place via the menu keys (see prevention against sabotage). Unlocking can be prevented by several functions (timer programs…).
Locking is usually not tied to a code entry, and is either initiated by the menu item 'Lock' or by a switch which is connected to the lock.

Forced Sequence
When a 'forced sequence' is activated, the locks can only be opened in a certain sequence (lock 01, 02, ...). When locking the system, the sequence is reversed.
The system is only unlocked and accessible for configuration and service after all locks have been opened.

Lock & Code
When this function is activated, the locking process is tied to the entry of a valid code. This means that the system can only be locked by authorized persons. The user number is recorded in the log.
This function can only be configured via the PC software TwinComm.

Automatic lock with door switch

The system can be locked automatically using a door switch or a bolt system contact, which is either connected to a TwinAlarm or TwinXT system, depending on the system variant.
This function can only be configured via the PC software TwinComm.

Code linkage
For the entire system, the function 'Four-eye code' or 'Six-eye code' can be programmed. A lock can thus only be unlocked by entering 2 or 3 user codes respectively. Programming can only be performed by the system master. If a four-eye or six-eye code has already been programmed, the system master can perform the programming only in connection with other users of lock 01.

Parallel code
For a **2 or 3 lock system**, the function 'parallel code' can be programmed.
This function can only be configured via the PC software TwinComm.
In this case, the unlocking codes apply to 2 or 3 locks, e.g. the user does no longer need to select a lock, and he is not bound to a specific lock. In all locks, however, the same codes must be programmed for the according users, e.g.

User 08:		Code: Lock 1: 08080808
		Code: Lock 2: 08080808
	Or	Code: Lock 3: 08080808

Keyboard entry

A simplified code entry for programming processes can be defined to enter the code via the key pad. The code entry via the menu keys for an unlocking process, however, is maintained. The definition can only be performed by the system master.
This function can only be configured via the PC software TwinComm.

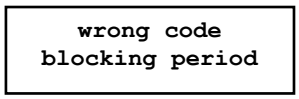
Silent alarm

During a threatening situation, a special alarm code may be entered when locks are opened and closed, to trigger a silent alarm.
The alarm code consists of the normal user access code where the last number is increased by **+1** (9 switches to 0!).
The system now acts exactly like for the normal opening procedure for the user (and the intimidator), but at the same time a silent alarm signal is sent to the BAS.
Furthermore, an individual opening time delay may be defined for the case of an alarm. The lock can only be opened after the set waiting period has expired (see also timer programs).
The defined release time of the “normal” time delay is used as release time.

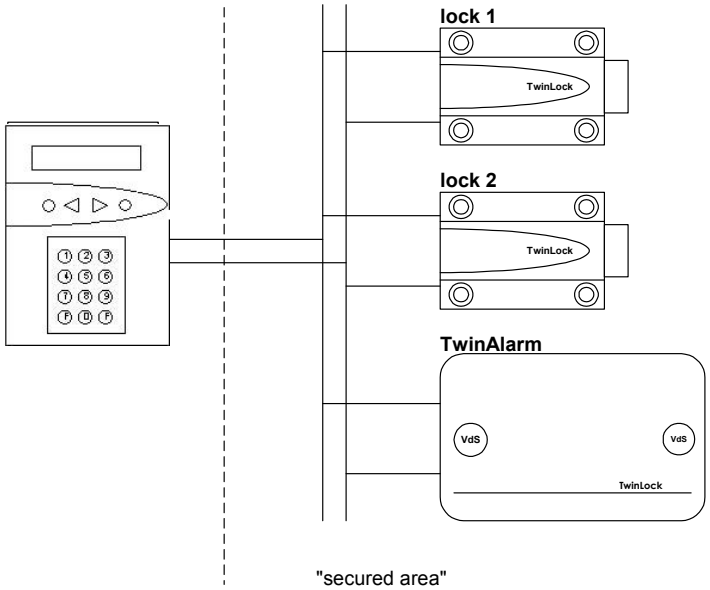
Example:
Unlocking code: 1-2-3-4-5-6-7-**8** >> Alarm code: 1-2-3-4-5-6-7-**9**

Code Manipulation

When the code has been entered incorrectly for four times, a blocking period of 1 minute is activated. During this blocking time, no opening procedure may be performed. Each further incorrect code entry increases the blocking time by one minute. The maximum blocking period is 15 minutes.
(see also timer programs and prevention against sabotage)



Code distribution in the TwinLock 7220 system



1 systemcode =
1 mastercode
35 usercodes
mnemonic codes

1 mastercode
35 usercodes
mnemonic codes

35 Codes
TwinCard code access
physical codes

3.2. Timer Functions

Weekly program
There are 2 definable opening periods for each weekday (Monday to Sunday). The system can only be unlocked within the set time window. The individual weekdays can also be completely locked (e.g. on weekends). The programming is performed using the system code.

Special days
30 definable days, on which the system can not be unlocked (e.g. public holidays). The programming is performed using the system code.

Blocking period
Period (up to three months) during which the system can not be unlocked.
Programming of the start time (date / time) and the end time (date / time) is done using the system code (e.g. company holidays).

Partl lock time
Two time periods for each of the seven days of the week are available, during which the system may be partially locked. The partial locking is only designed for two lock operation. Within the part lock time, only lock 2 is closed; lock 1 remains open.
The part lock time may be combined with the function “automatic locking” via door switch.

Express blocking
Period, during which a lock is blocked, i.e. can no longer be unlocked. The programming of the end time (date / time) is performed using the according lock master code. The express blocking starts with the programming time and must be performed individually for each lock.

Timer program interruption
A person locked in the secured area can deactivate an active timer program (weekly program, special days, blocking period, part lock time) with a key to enable opening the system from the outside by entering an unlocking code. Afterwards, the timer program is resumed.
The key is connected to TwinAlarm. It can not be connected to TwinXT.

Time delay
Unlocking delay, individually configurable for each lock (00 - 99 min.). A release time (00 - 99 min.) can be programmed for each unlocking delay. After the time delay expiration an unlocking code must be reentered.
The programming is performed using the according lock master code.
A user can be assigned a quick unlocking code function to bypass this program.

Alarm/sabotage delays
When the unlocking code was entered incorrectly 4 times, a time delay of 1 minute starts. For each further attempt with a wrong code the waiting period is extended by 1 minute, up to a maximum of 15 minutes.
When a silent alarm is triggered, a waiting period with a set duration will start.
These special programs can not be bypassed or interrupted.
(see also code functions and prevention against sabotage)

Blocking time interruption

A running timer program (weekly program, special days, blocking period, part lock time) can be interrupted by entering the quick unlocking code.
This code is entered in the system menu with the following sequence:
Press the key: F2 -> Press the key: 2
Now the quick unlocking code for lock 1 must be entered.
The timer program is now interrupted for one unlocking process.
The unlocking process can be performed.
The entering of the quick unlocking code and the blocking period interruption are logged.
The owner of the quick unlocking code also has the opportunity to trigger a “silent alarm”.

3.3. Service Functions

Event Log
The latest 768 events (programming processes, hardware errors, and certain status messages, manipulation and sabotage attempts) are logged in chronological order, including date and time (perhaps the user number).

The event log can be displayed online, i.e. each log entry is immediately transmitted to a printer/PC connected via TwinAlarm.

There is also the possibility to transfer the entire event memory to the TwinCard configuration. Display and printing of the event memory take place with the PC software TwinComm.

The clear text display of events in the set language is identical to the messages at the control unit TwinControl/FlatControl or with the messages in the PC software TwinComm.

Configuration import/export
An entire configuration profile can be swapped out to the chip card Twin Card Configuration. This profile can then be edited with the PC software TwinComm and reimported or saved. The above-described event log is also written to the card and can be displayed, printed and saved using TwinComm.

System language
The system language can be transferred using the chip card TwinCard language. This card is available in several languages and must be requested separately.

More functions
Reset of the individual system components
Query of the system component version
System components login/logout
Step-by-step operation for motor test
Operation of several control units

3.4. Arming Device and BAS Connection

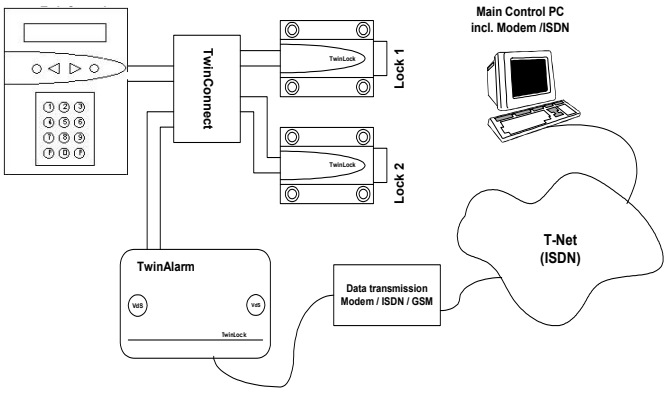
Activate arming/disarming
The main task of the arming device is to arm or disarm a connected BAS. Disarming is basically an unlocking process, which requires an additional physical code in form of a chip card. Up to 36 different card users can be logged on. The user management is performed by the system master. The current codes of the logged on cards are saved in TwinAlarm and change after each use. The BAS arming procedure can also be tied to a physical code to avoid arming by an unauthorized person.

I/O distributor

BAS Inputs:	BAS (EMA) ready, block disarming, release, acknowledge (BAS adjustment via configurable inputs)
BAS Outputs:	Silent alarm, armed/disarmed
Other Inputs:	Timeout, bolt system contact
Other outputs:	Status

Connection facility for two more bolt systems and door contacts each
Antitamper loop with area sensor and cover contact
Control points for resistance monitoring

RS232-Port
This port enables the connection of the system to a PC, a serial printer or a modem. The protocol or individual online log entries can be sent, for example.
Interface parameters: 1200 baud, data format 8N1, no handshake.
It is possible to release or block the system via modem/ISDN/GSM. This functionality is identical to the release signal function via an input contact.
For a remote release, the arming device must be configured accordingly (see assembly instructions).



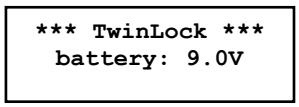
Release procedure:
Dialup and connection establishment to the TwinLock system
Identification requirement -> send from 'TwinAlarm'
Response:
Requirement: Release
Response: OK or NOK
Termination

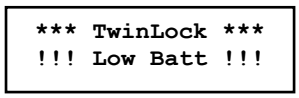
As soon as the system reports OK, the release time starts to run. The system may now be unlocked. After 120 seconds, the system is locked again.

3.5. Operational Safety

Redundancy
A dual bus system and a dual electronic and mechanical locking system in the locks guarantee high system stability. The two identical system parts are completely independent from each other and can therefore function individually.

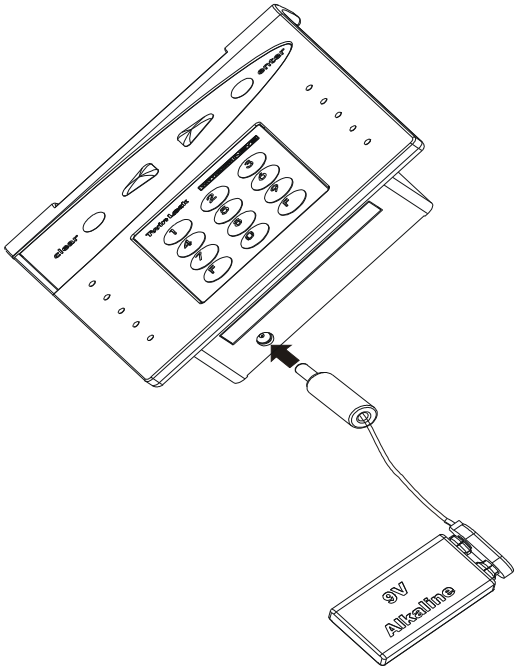
Voltage monitoring
When the power supply is applied or when the system recovers from energy saving mode, the state of the battery (system voltage) is checked. When the system falls below a set warning threshold, an entry is made in the log and a message is displayed. Press F2 to display the system voltage from the system menu.





Every time the system is restarted (battery replacement) or when the system is activated, the battery voltage is measured and checked. If the battery voltage falls below the set warning limit, the message
'!!! Low - Batt !!!' is displayed and also stored in the event memory.

Power Failure
The FlatControl receives its power supply via each of the two bus cables. When a voltage failure occurs, an emergency current feed for the entire system is possible via a jack at the bottom of the keyboard.
For this, an adapter cable 7237-101-0 and a 9 volt block battery (alkaline type) is required. For the connection of the adapter cable, see figure.



Real time clock
The date and the time are generated by a specially buffered real time clock and will survive even if the system receives no current for several days.
If a real time clock still happens to be deleted, the system will be in an undefined state.

More functions
Protection against locking the locks while the bolt system is open.
Constant self-diagnosis of the bus lines and system components.
Log entry of all warning and error messages.
Validity check of entered times and dates.

3.6. Prevention Against Sabotage

Input unit FlatControl
The input unit in the unsecured area is secured by different measures.
Opening the case (battery compartment) is immediately detected and displayed until an authorized user unlocks the system lock properly.
A person standing next to the authorized user cannot watch the entering of the code. A special film in the view window of the terminal prevents the reading of the display from a lateral position.
Besides that, the opening code is not entered via the keyboard, but via the arrow keys above a digit selection on the display. After each entry of a digit, the cursor will be displayed at a randomly selected new position.

Arming device TwinAlarm
The arming device case is protected against unnoticed intrusion by means of a tamper switch and protection on all sides.
All sabotage and control lines to the BAS can be equipped with a defined line resistance. Soldering spots for resistance-supported performance control are available.

More functions
All codes are saved and evaluated within the secured area.
Log entry of all security-relevant events.
Blocking times when a wrong code is entered repeatedly.
(see code programs, timer programs)
Configuration only possibly for unlocked systems after entering the system codes.

3.7 Other Functions

Automatic switching to daylight savings time.

System line freely configurable. When the system is activated, the company name is displayed, for example.

System status indicator. The condition of the individual locks can be queried.

3.8. Certifications

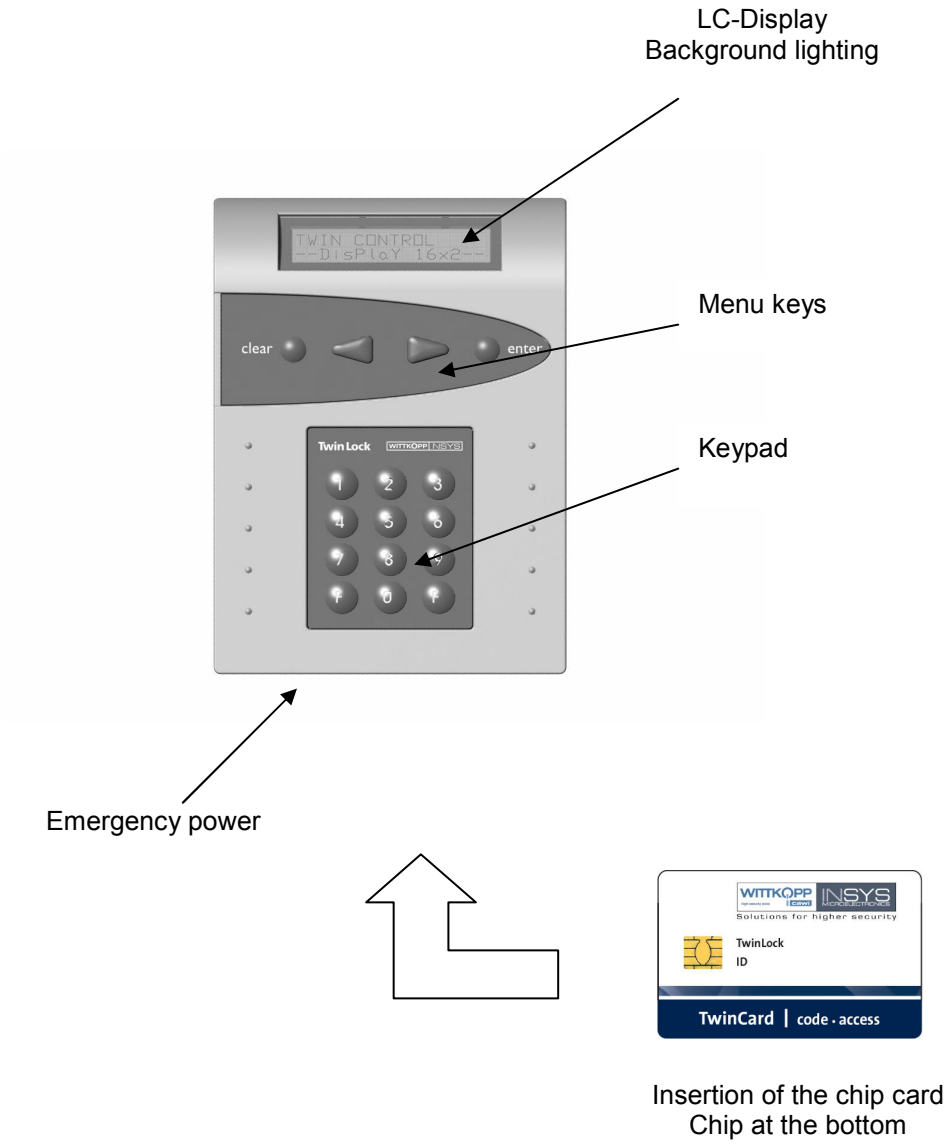
The TwinLock 7220 system is VdS approved for locks as BAS locking and arming devices, classes 3/C.

3.9. PC Support with Configuration Set TwinComm

Basically, the TwinLock 7220 system also works without PC support, but using the software simplifies the configuration and enables easy reading of the event log.
The exchange of data with the lock system takes place with the chip card **TwinCard configuration** and the service function **'Import/Export'** at the control unit.
Read-out configuration profiles can be saved, printed, or modified and reimported.
All timer programs and system settings can be programmed.
When the system settings are read out, the event log is also written to the chip card.
The protocol can be displayed and printed with TwinComm.
The menu manager enables the blocking of individual menu items of the terminal to disable the selected functions at the terminal.

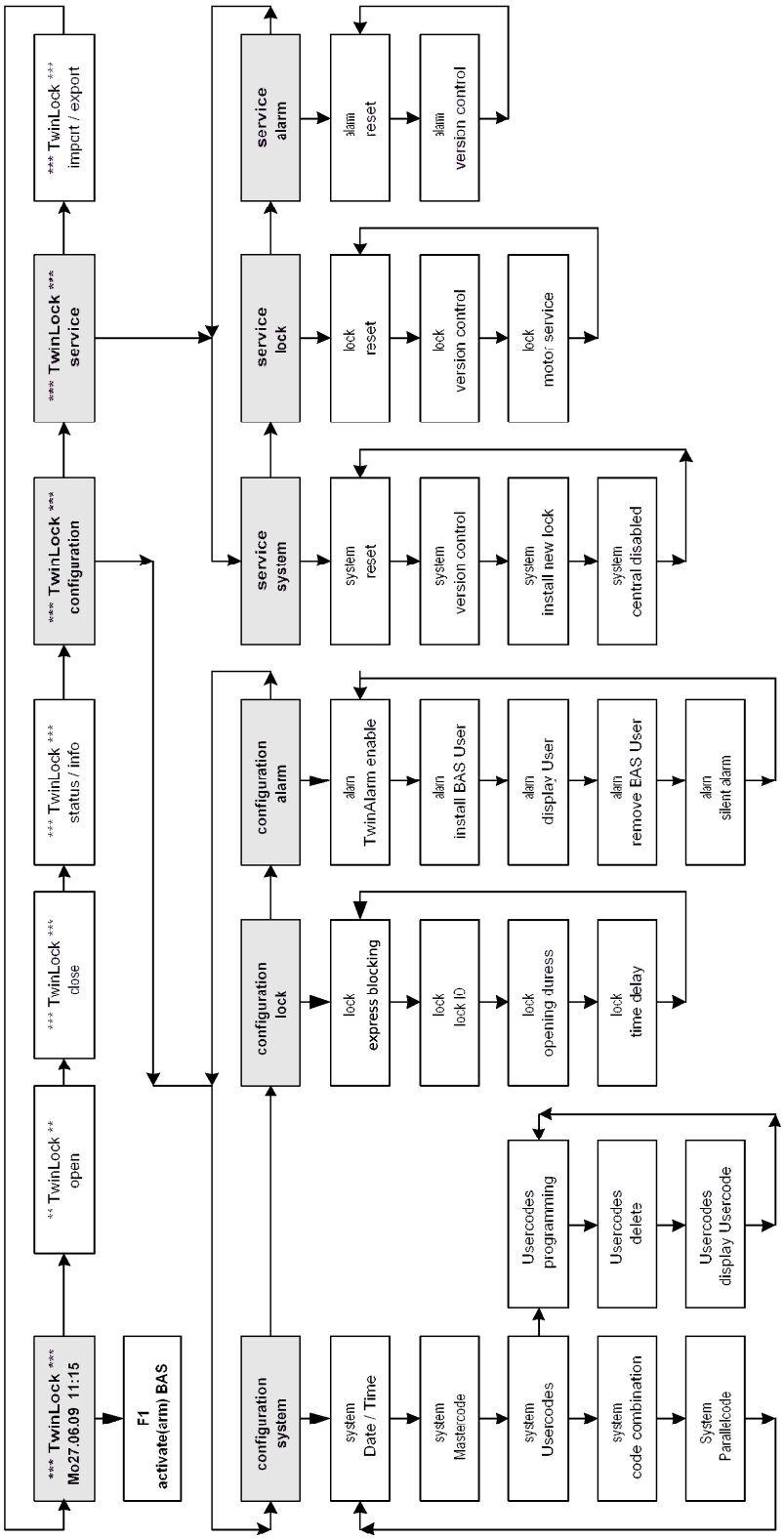
4. Operation

4.1 Display and Control Elements of the Input Equipment



Insertion of the chip card
Chip at the bottom

4.2. Menu Navigation



4.3 General Operating Instructions

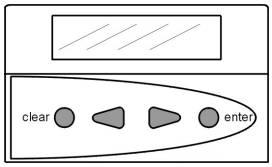
System Activation

When idle, the TwinLock System is activated by operating a menu key at the control unit. After the activation, a system check is performed and the individual states of the connected locks, of the burglary alarm system (EMA or Einbruchmeldeanlage), and of the TwinLock system are displayed.

system check lock opened 01	system check BAS armed	system check system locked

Key Functions

Menu Keys:



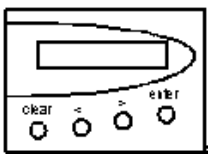
>	Menu navigation to the right, i.e. next menu item
<	Menu navigation to the left, i.e. previous menu item
enter	Selection or confirmation
clear	Cancel, return to previous menu item (press 2 seconds = return to system menu)

Key Pad:

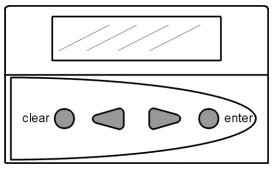
0...9	Numeric keys to enter timer programs, etc.
F1	Arming a BAS (only possible in the system menu)
F2	Display of the current battery voltage (only possible in the system menu)

Code input

Unlocking and locking codes may only be entered via the menu keys.
Using the arrow keys, the cursor is placed over the desired digit and selected with the enter key.
As an alternative, the code can also be entered in the configuration and service area using the keyboard. This function must be activated in the menu “Settings/System/General” (see manual).



TwinControl



FlatControl

Entering the code using the menu keys.
Menu Navigation

Entering the code using the numeric keypad

System Menu

The start page of the menu structure is called system menu
. The system menu consists of one editable line (line 1 = system line, which can contain individual text), and the current date/time display (line 2).

```
*** TwinLock ***
Th 21.05.09 12:00
```

Programming the Code

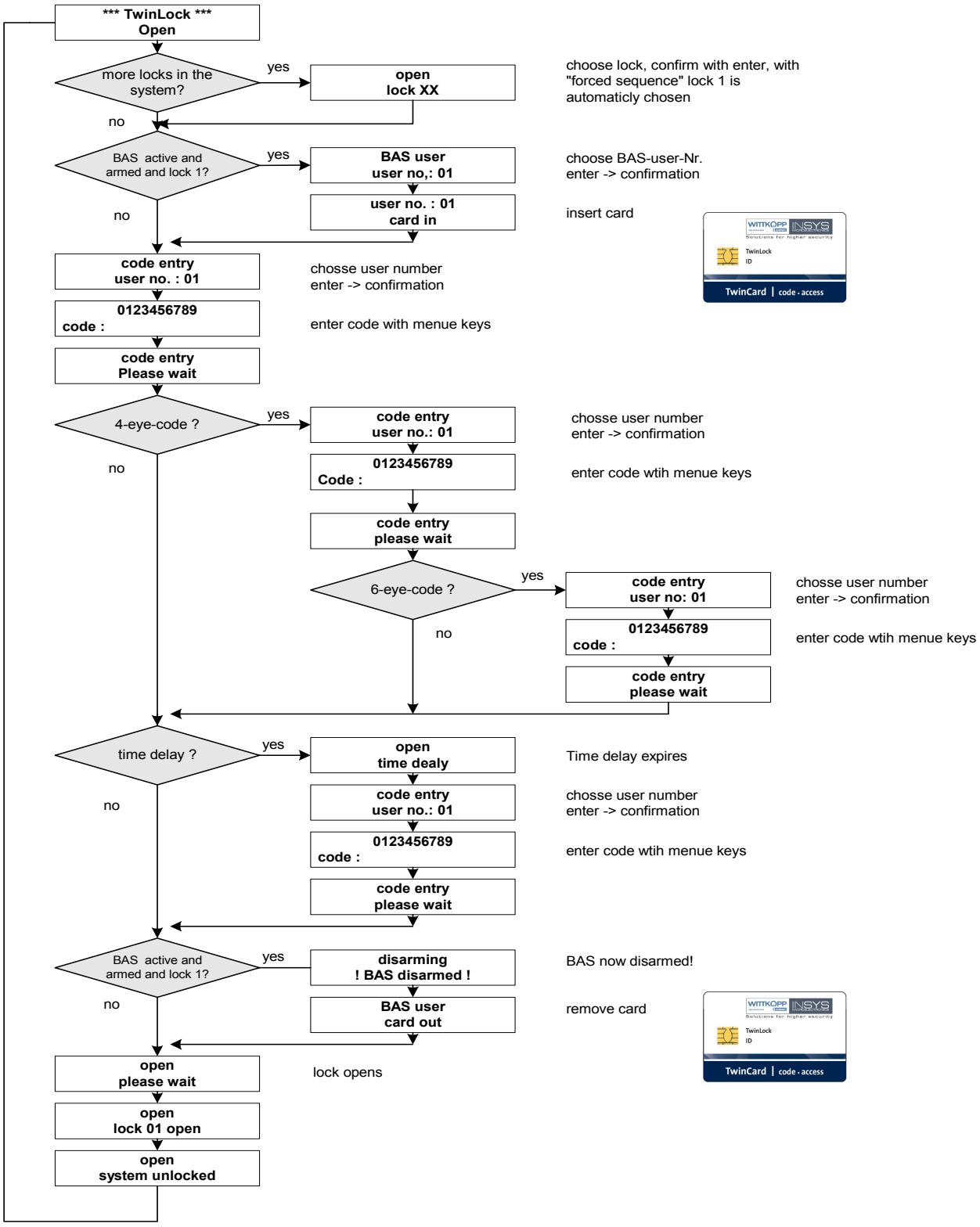
Important notes regarding the programming of the code

* **For security reasons, switch the system code or the master code of the individual codes immediately after Installation. The default code 1 2 3 4 5 6 7 8 is pre-programmed for the user no. 00 (= master/system master). The user codes no. 01…35 of the individual locks have been deactivated by themanufacturer.**

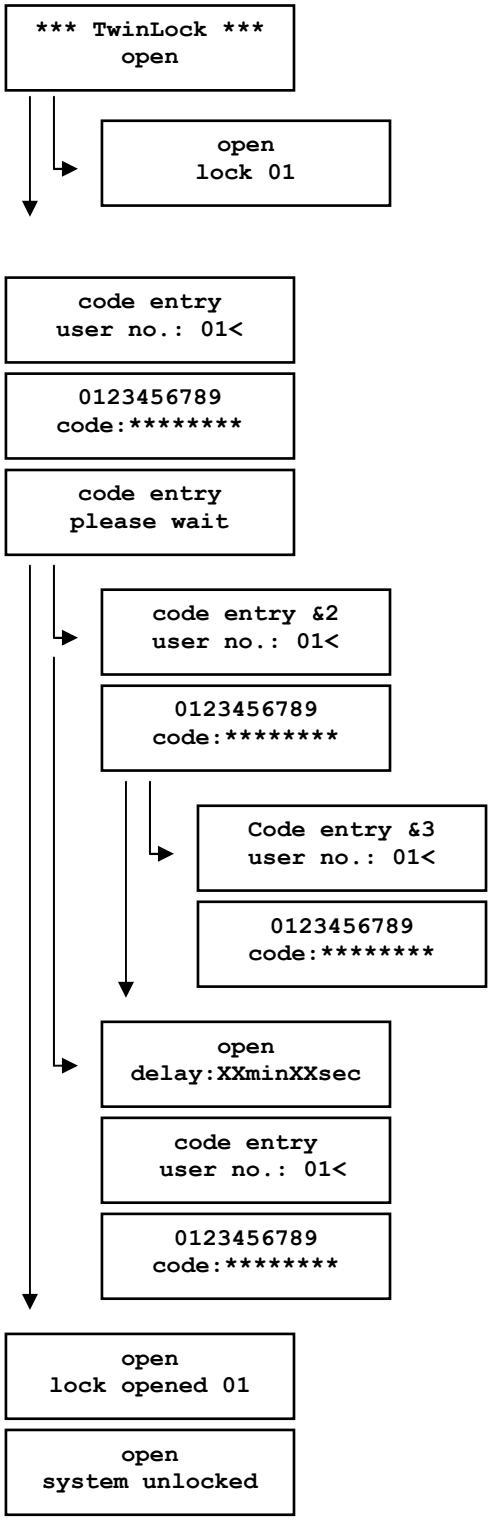
* **When programming the code you must see to the new unlocking code being checked repeatedly while the safe is open!**

* **Do not use personal data when programming unlocking codes!**

5. General Operation Processes



5.1. Unlocking a Lock



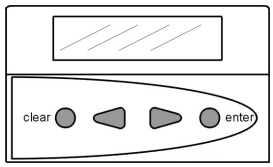
Automatic return after 3 seconds

Select the menu item '**Unlock**'.
(see menu plan 4.2)

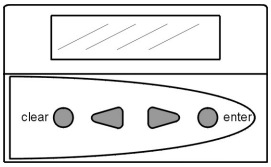
When several locks are available in the system, select one lock. When 'Forced Sequence' is selected, lock #01 is unlocked first.

Select the user number

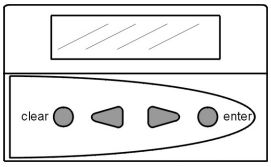
Enter the unlock code



Enter a further unlock code, when the four-eye code is activated.

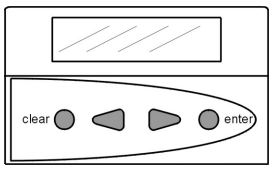


Enter a further unlock code, when the six-eye code is activated.



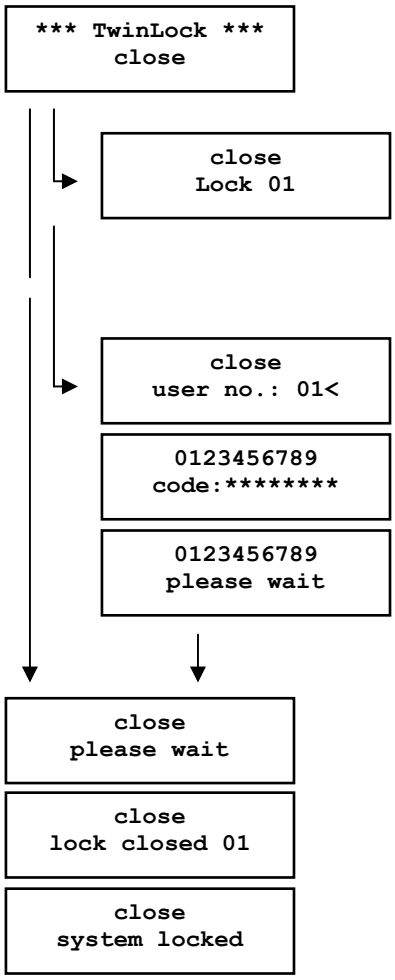
When time delay is activated
Display of the remaining time delay

After the time delay has expired the release time starts. Within this time window a further unlocking code must be entered.



After the system lock has been unlocked, the system may be configured.

5.2. Locking a Lock



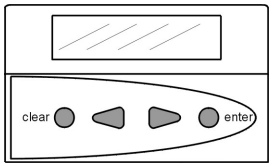
Automatic return after 3 seconds

Select the menu item '**Lock**'
(see menu plan 4.2)

When several locks are available in the system, select one lock. When 'Forced Sequence' is selected, all locks are automatically closed.

For 'Lock & Code':
Select the user number

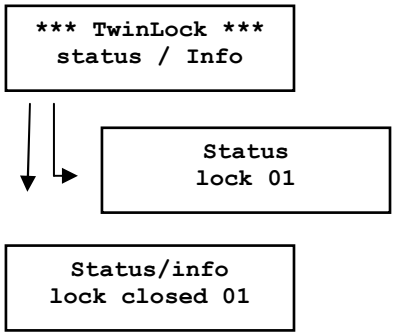
Enter the code



Lock locks

When the system lock (01) was locked, the system can no longer be re-configured.

5.3. Status Request of a Lock

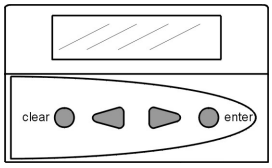


Automatic return after 3 seconds

Select the menu item '**Status**' (see menu plan 4.2)

Selektion lock if there are more Locks in the system.

The status of the selected component is displayed.



5.4. Responses

Unlocking Messages

`open time lock week`	No unlocking possible, because the current time is not within the time window defined in the weekly program.
`open time lock day`	No unlocking possible, because the current date coincides with the date of a defined special day.
`open blocking period`	No unlocking possible, because the blocking time program is active.
`open part lock time`	No unlocking possible, because the system is in part lock time mode.
`open system blocked`	No unlocking possible, because the input RELEASE at the arming device is not active.
`Open cancel Blocking time`	An active timer program is cancelled by activating the input TIMEOUT in the secured area.
`open terminal switch`	The control unit was switched or re-initialized.
`open ! manipulation !`	At the last code entry, a user entered a wrong code more than three times. ! Attention!
`restart or voltage drop`	The system was either restarted or there was no power supply, or the battery compartment was opened (only for TwinControl).

Status messages

system check failure Bus A	Lock can no longer be addressed at bus A. **Please call customer service !**
system check failure Bus B	Lock can no longer be addressed at bus B. **Please call customer service !**
system check failure motor A	Final bolt position of the lock at bus A is not accessible. **Please call customer service !**
system check failure motor B	Final bolt position of the lock at bus B is not accessible. **Please call customer service !**
System check failure motor AB	Final bolt position of the lock is not accessible at bus A or bus B. **Please call customer service !**
Status DMS XX Error	General lock fault. **Please call customer service !**

General Error Messages

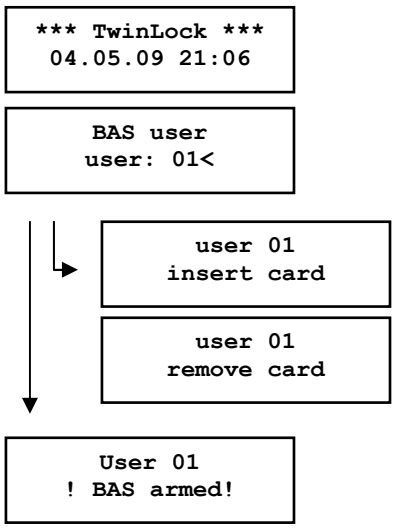
. . . . . . invalide code	Code entry incorrect. Please enter correct code!
. . . . . . invalide input	Incorrect or invalid entry. Check entry and retry!
. . . . . . failure BUS A	Addressed component at bus A does not respond. **Please call customer service !**
. . . . . . failure BUS B	Addressed component at bus B does not respond. **Please call customer service !**
. . . . . . failure motor AB	Error when unlocking/locking a lock. **Please call customer service !**
. . . . . . COM - Error	Error during communication between control unit and lock. **Please call customer service !**
. . . . . . Error Serial No.	Error during communication between control unit and lock. Control unit serial number does not match the lock. **Please call customer service !**

5.5. *Operation with a Burglary Alarm System (BAS)*

5.5.1. Arming the Burglary Alarm System

The system TwinLock 7220 can arm a connected BAS using the arming device TwinAlarm. The arming may only occur when,

1. **The system lock is locked**
   (usually lock #1, for the forced sequence for all locks)
2. **At least one physical code (chip card) has been logged on.**
3. **The connected BAS is activated.**

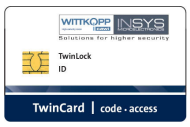


Arming using
the key <F1> in the system menu

F1

Select the BAS user number
(chip card number)

When the function ‘Arm & Card’ has been activated, the chip card TwinCard code access is required for the arming procedure.



The BAS is now armed.
(an acoustic signal is emitted)

Automatic return after 3 seconds

Note:

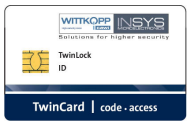
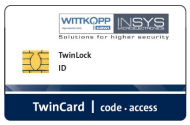
We recommend to activate the function ‘Arm & Card”, as otherwise the BAS could be armed by a non-authorized person.
The BAS user numbers are only linked to the logged-on chip cards and have nothing to do with the user numbers of the individual locks.

Error messages:

..... Error Armed !	Burglary alarm system could not be armed, because BAS was perhaps not acknowledged.
..... BAS not ready	The input “BAS ready” at the TwinAlarm is not set by the BAS, so arming is disabled.
..... Wrong card ID	The selected EMA user number is not identical to the user number of the code card.
..... Error code card	The code on the code card is wrong, i.e. the code card is invalid!
..... Disarm code ??	No code card was logged in yet, i.e. the BAS cannot be armed!

5.5.2. Disarming the Burglary Alarm System

The system TwinLock 7220 Alarm can disarm a connected BAS using the arming device TwinAlarm. The disarming procedure is linked to the unlocking procedure of the system lock (lock 01, for the forced sequence for all locks) and is enabled by entering the mnemonic code during the unlocking procedure, plus the additionally required physical code (TwinCard code access).
If an unlocking procedure is not possible due to an active timer program or the like, no disarming will take place.

`*** TwinLock *** open`	Select the menu item '**Unlock**'. (see menu plan 4.2)
`open lock 01`	When several locks are available in the system, select one lock. When 'Forced Sequence' is selected, lock 01 is unlocked first.
`BAS user User no.: 01<`	Select the BAS user number (card number)
`user: 01 insert card`	Insert card into the control unit with the chip facing downward. 
`Unlocking see unlocking a lock`	Codelinkage, time delay for unlocking … See also 'Unlocking a Lock'
`disarm ! BAS disarmed !`	The BAS is now disarmed (an acoustic signal is emitted)
`BAS user remove card`	Remove code card. 
`open please wait`	The lock is opened
`open lock open 01`	
`open system unlocked`	After the system lock has been unlocked, the system may be configured.

Attention:

The disarming procedure can only take place with the code card and the mnemonic code!
The BAS user numbers are only linked to the logged-on chip cards and have nothing to do with the user numbers of the individual locks.
The BAS is disarmed before the locks are unlocked.
Remove the code card only when the system asks the user to do so!

Error messages:

..... Disarm error !	The BAS could not be disarmed.
..... Disarm block !	The input “Disarm Block” at the TwinAlarm is set by the BAS, so disarming is disabled.
..... Wrong card ID	The selected EMA user number is not identical to the user number of the code card.
..... Error code card	The code on the code card is wrong, i.e. the code card is invalid!

Emergency shutdown of the BAS control

If it is no longer possible to disarm the BAS control via TwinLock, because the available code cards are faulty or other technical errors have occurred, the BAS control may, also for closed systems in this special case, be deactivated via the system code.

Please note that this procedure will trigger an alarm as soon as the locks are opened!

*** TwinLock *** 21.05.09 1200	In the system menu, first the key F2, then key 4 is pressed

Now enter the system code.
More see Chapter: „*6.11. Activate Arming Device TwinAlarm*
In this case, the arming device must be deactivated.

6. Programming the System with the Control Unit

The following functions and settings can be performed using the control unit:

- Reprogram master and system codes
- Program user codes
- Delete a user code
- Display a programmed User code
- Activate/deactivate code linkage
- Date/Time
- Program unlocking delay
- Program silent alarm
- Activate lock I/O, TwinXT
- Program forced sequence
- Program parallel code
- Write configuration and log to chip card
- Read configuration from chip card
- Import new system language

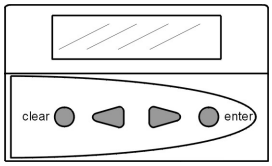
Some of these functions and all others can be implemented by means of the **Configuration Set TwinComm**.

6.1. Reprogramming a Master / System Code

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Master codes

System Master codes	Select the menu item '**Master Codes**' (see menu plan 4.2 / see above)
Master codes Lock 01	When several locks are available in the system, select one lock
Master code Code:********	Enter the master code of the selected lock
Master code Please wait	Evaluate the entry
New M code Code:********	Enter the new master code of the selected lock
Confirm code Code:********	Reconfirm the new master code once more
New M code Please wait	Save the new code
New M code Saved	Action completed



Automatic return after 3 seconds

Besides the normal unlocking authorization, the master code is also authorized to configure the lock, for quick unlocking, and single unlocking with four-/six-eye code. The master code of lock 01 is at the same time the system code for system configuration and service functions.
When entering the code, the user = 00 is the master.

ATTENTION:

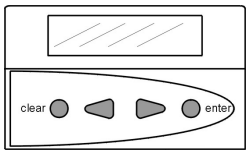
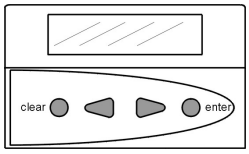
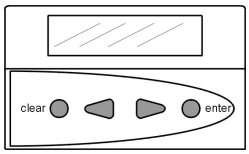
The default code 1 2 3 4 5 6 7 8 is pre-programmed for the master of each lock. The user codes no. 01…35 of the individual locks have been deactivated by the manufacturer.
For security reasons, the master codes of the individual locks must be changed immediately.
When programming the code you must see to the new unlocking code being checked repeatedly while the safe is open.
Do not use personal data when programming unlocking codes!

Loosing a master code can have very costly consequences!!!

6.2. Programming and Reprogramming of a User Code

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System User codes

system usercodes	Select the menu item '**User Codes**' (see menu plan 4.2/ see above)	
usercodes programming	Select programming	
programming lock 01	Select the lock	
programming user no.: xx	Enter the user number.	
old M/U code code:********	Enter the old unlocking code (user codes/user code) or master code	
programming user no.: xx	Enter the user number of the user code to be programmed	
new usercodes code:********	Enter the new unlocking code	
confirm code code:********	Re-enter the new unlocking code	
usercodes please wait	The new user code is saved	
usercode xx saved		

Automatic return after 3 seconds

User codes

A user can reprogram his/her user code autonomously. Otherwise, the user only has an unlocking authorization.

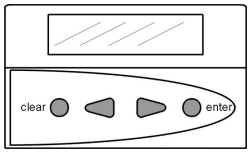
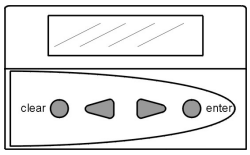
Attention: **When you program a user code for the first time, you must first enter the master code.**

When programming the code you must see to the new unlocking code being checked repeatedly while the safe is open.
Do not use personal data when programming a code

6.3. Delete a user code

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Usercodes

System usercodes	Select the menu item '**User Codes**' (see menu plan 4.2/ see above)
usercodes delete	When several locks are available in the system, select one lock.
delete lock 01	
Code entry user no.: 00	Enter the user number 00 For the master code
old M/U code code:********	Enter the master code of the selected lock
delete user no.: 01	
delete please wait	Select the user (e.g. 01) to be deleted
usercode 01 deleted	
	The selected user is deleted
	Action completed

Automatic return after 3 seconds

Only the according owner of the master code can delete user codes. This action is saved in the event log.

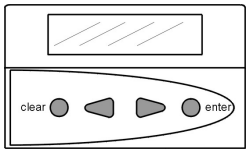
The function itself can only be performed at the control unit.

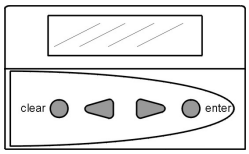
6.4. Display the Programmed User Codes

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Usercodes

usercodes display usercode	Select the menu item '**Display User Code**' (see menu plan 4.2/ see above)
display usercode Lock 01	When several locks are available in the system, select one lock.
master code Code:********	Enter the master code of the selected lock
master code please wait	Evaluate the entry
prog. U codes 03 Usercode 01: OK	Navigate through the user numbers Use the arrow keys (< >) Terminate with ENTER/CLEAR





Display the Programmed User Codes

For each lock, the users can be displayed, which were entered in it. This means that not the codes themselves are displayed, but the status (programmed, not programmed).

The display of a programmed user code can only take place by entering the according master code of the lock.

Prog.U-Codes 03 Usercode 01: OK

Comment:

1. line: Number of programmed user codes for this lock

e.g. progr. u codes 03: Three user codes are programmed all in all

2. line: Displays which user code is programmed:
OK = programmed
NOK = not programmed

e.g. u code 01: OK
User code 01 is programmed

6.5. Code combination Programming (Four-/Six-Eye Code)

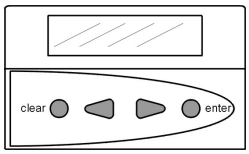
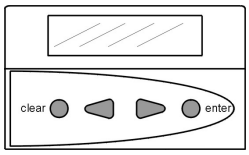
When code linkage was selected (four-eye code/six-eye code), the lock can only be unlocked or programmed by entering 2 or 3 codes. The arrangement of the 2 or 3 codes is random.
The function applies to the entire system, i.e. each lock must be unlocked with 2 or 3 codes, when code linkage is activated.
The programming of this function can only be performed by the owner of the system code and is saved in the event log!

Note:

The code combination / - linkage can only be programmed if 2 or 3 user codes are programmed.
User codes can only be deleted when the code linkage was deactivated beforehand.

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Code combination

system code combination	Menu item '**Code combination**' select (see menu plan 4.2/ see above)	
system code code:********	Enter system code	
system code Please wait	Evaluate the entry	
code combination *=1 *=2 *=3	Select the linkage type	
code combination deleted	code combination saved	Action completed
1 user	2/3 user	

Automatic return after 3 seconds

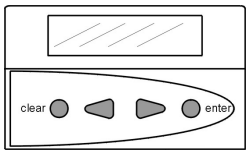
Code combination (code linkage)
Comment:
Selection by means of arrow keys and ENTER
1: Single code (normal)
2: Four-eye code (2 users)
3: Six-eye code (3 users)
This function can also be configured via the PC software TwinComm.

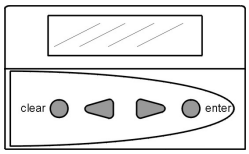
6.6. Setting the Date, Time and Weekday

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Date/Time

system date/time	Select the menu item **'Date/Time'** (see menu plan 4.2)
system code code:********	Enter system code
system code please wait	Evaluate the entry
time: 10:01 Mo date: 20.12.02	Select time-date/weekday Display current settings
time: 12:00 Mo date: 18.08.02	Reenter date, time or weekday
date/time saved	Action completed





Date/Time

The date/time/weekday can only be changed by the owner of the system code. This action is saved in the event log.

Attention:

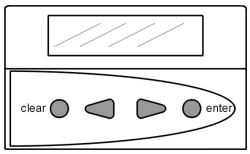
The correct setting of the date/time/weekday is the basis for all timer programs in the system or the event log to run properly.

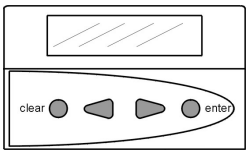
6.7. Program Express Blockings

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Lock	Lock Express blocking

lock express blocking	Select the menu item '**Express blocking**' (see menu plan 4.2/ see above)
express blocking Lock 01	When several locks are available in the system, select one lock.
Master code code:********	Enter the master code of the selected lock
Master code please wait	Evaluate the entry
express blocking E:00:00 00.00.00	Display current settings Start the entry with ENTER.
express blocking E:21:06 04.05.09	Enter the new end time
express blocking saved	Action completed





Automatic return after 3 seconds

Express blocking
Express blocking can be programmed for each lock. Express blocking is active from the time when it was programmed and stays active until the specified end time.
During this period, the according lock can not be unlocked.

The express blocking programming can only be performed by the owner of the according master code of the respective lock and is saved in the event log.

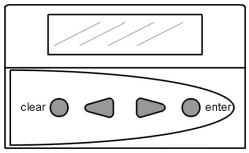
Default express blockings: 00:00 00.00.00
This function can not be programmed via the PC software.

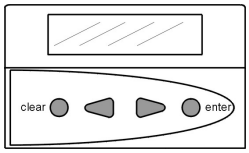
6.8. Program the Activation of the TwinXT Lock I/O

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Lock	Lock Lock I/O

Lock Lock I/O	Select the menu item **'Lock I/O'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
Lock I/O *=Yes *=No	Activate TwinXT
Lock I/O Saved	Action completed





Automatic return after 3 seconds

Lock I/O
The inputs or outputs of the locks can be programmed by means of the master code (system code) of lock 01. The following functionality is achieved:

Input functions:
* Locking feature (contact for external release/blocking of the lock)
* Locking after bolt contact query

Output functions:
* Silent alarm (relay contact for silent alarm messages)
* Display of the lock bolt position (relay contact)

This programming action is saved in the event log!

Note:

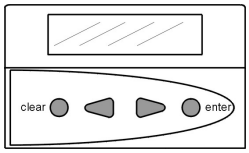
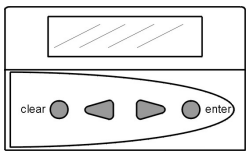
The function "Automatic locking via door contact" can only be programmed via the PC software TwinComm. (see Chap. 6.30.)
The function of the inputs can also be re-configured:
Active = contact closed, or
Active = contact open

Factory setting: TwinXT inactive

6.9. Opening duress (program forced sequence)

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Lock	Lock Opening duress

Lock opening duress	Select the menu item '**opening duress** (see menu plan 4.2/ see above)	
System code Code:********	Enter system code	
System code Please wait	Evaluate the entry	
opening duress *= Yes *=No	Display of the current setting and definition of the new condition	
opening duress Saved	Action completed	

Automatic return after 3 seconds

Forced Sequence
Programming the function 'Opening duress' determines the unlocking or locking sequence.
The system will only then be in an unlocked state when all locks are open. It will be in a locked state, when all locks are closed.

Opening sequence: lock 1, lock 2 … lock n (system unblocked)
Locking sequence: Lock n, … lock 2, lock 1 (system locked)

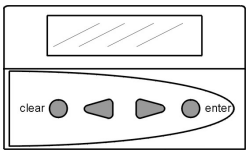
The programming of this function can only be performed by the owner of the system code and is saved in the event log!

Factory setting:
No opening duress (no forced sequence) = No.

6.10. Program Unlocking Time Delay

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Lock	Lock Time delay



Select the menu item '**time delay**' (see menu plan 4.2/ see above)

When several locks are available in the system, select one lock.

Enter the master code of the selected lock

Evaluate the entry

Display current settings
Start the entry with ENTER.

Enter the new end time

Action completed

lock time delay		
time delay lock 01		
Master code Code:********		
Master code Please wait		
time delay Time:00 Rel.:00		
time delay Time:04 Rel.:05		
time delay saved	time delay deleted	

Automatic return after 3 seconds

Time Delay for Unlocking:

This function delays the unlocking procedure when the code is entered correctly. The time is entered in minutes (00-99). A time delay can be entered for each lock.

Release time:

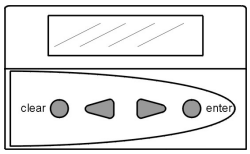
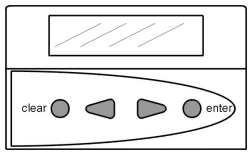
The release time is used to safeguard the time delay. If a release time was programmed (e.g. >00), a correct unlocking code must be entered after the time delay has expired, to finally open the lock.
The release time is set in minutes (00-99) and specifies the period, during which the user can re-enter the unlocking code after the time delay has expired. If no release was programmed (00), the lock will open without re-entering the code after the time delay has expired.
The programming of this function can only be performed by the owner of the system code and is saved in the event log!

Factory setting: Time: 00 Rel.: 00 (deactivated)

6.11. Activate Arming Device 'TwinAlarm'

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Alarm	Alarm TwinAlarm enable

Alarm TwinAlarm enable	Select the menu item **'TwinAlarm enable'** (see menu plan 4.2 / see above)	
System code Code:********	Enter system code	
System code Please wait	Evaluate the entry	
TwinAlarm enable *= Yes *=No	Display of the current setting and selection of the new condition	
TwinAlarm active Please wait	Save setting	
TwinAlarm active Saved	Action completed	

Automatic return after 3 seconds

TwinAlarm active:
The TwinLock system can be connected to a BAS center via the arming device TwinAlarm.
When the alarm function is activated, the functions of the BAS control, the inputs and outputs, and the RS232 port are available.

The activation/deactivation can only be performed by the owner of the system code and is saved in the event log!

Possible message:

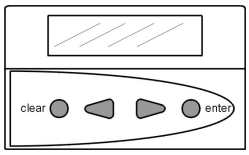
TwinAlarm enable No TwinAlarm	No arming device connected, or arming device cannot be addressed

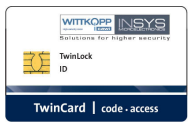
6.12. Register alarm user

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Alarm	Alarm New user

Alarm New user	Select the menu item **'New user'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
New user User: 01	Select new user number (card number)
User: 01 Insert card	Insert TwinCard code access
User: 01 Please wait	Save setting
User: 01 Remove card	Remove TwinCard code access
User: 01 Saved	Action completed





Automatic return after 3 seconds

Register alarm user

A mnemonic and a physical code are required to control the BAS. The 'mnemonic' code is realized via the unlocking code of the lock. The chip card is the 'physical' code carrier. The code is saved in the arming device and on the card. Every time the system is disarmed, the physical code is changed, i.e. a new code is stored in the card to achieve a high level of security.

Use the function Register alarm user to allocate a physical code to a specific user. The alarm function is only linked to lock 01 (= system lock).

Only the owner of the system code can create a new alarm user. This action is stored in the event log.

Error messages:

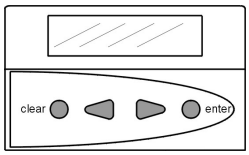
..... **Error card**	Inserted chip card is invalid or cannot be read.

6.13. Display Registered Alarm Users

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Alarm	Alarm User display

Alarm User display	Select menu item **'User display'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
User display User: 01 OK	Navigate through user numbers Cancel with ENTER/CLEAR



Display registered alarm user:

With this function, the system master can check which 'physical codes' (**TwinCard code access**) are currently registered.

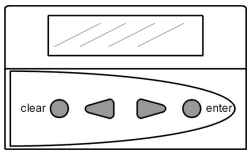
This function can only be activated by the owner of the system code and is saved in the event log!

6.14. Remove BAS user (Deregister Alarm User)

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Alarm	Alarm remove BAS user

Alarm remove BAS user	Select the menu item **'remove BAS user'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
remove BAS user User: 01	Select according user (or card number)
remove BAS user Deleted	Action completed



Automatic return after 3 seconds

Deregister alarm user:

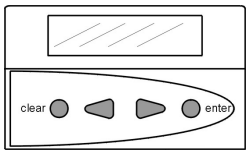
The physical code of an alarm user is deleted in the arming device, which means that this user can no longer (arm) disarm the system.
The chip card is not required for deletion, as the code entry is removed from the arming device.
Only the owner of the system code can delete an alarm user. This action is stored in the event log.

6.15. Program silent alarm

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration Alarm	Alarm Silent alarm

Alarm Silent alarm	Select the menu item **'Silent alarm'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
Silent alarm *=Yes *=No	Display of the current setting and selection of the new condition
Silent alarm Alarm delay 00	Enter the unlocking delay time
Silent alarm Saved	Silent alarm Deleted — Action completed



Automatic return after 3 seconds

Silent alarm
A silent alarm is indicated via the alarm output of the arming device (relay output).
When the function is activated, a silent alarm is triggered by entering a valid unlocking code (last code digit +1, see example) and stored in the event log.
A time delay can be set (00-99 min), which is only activated during the triggering of an alarm. The defined release time of the programmed „normal“ time delay is used as release time.
The function 'Silent alarm' can only be performed by the owner of the system code and is saved in the event log.

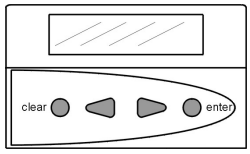
Example:
User code: 1-2-3-4-5-6-7-**8** >> Alarm code 1-2-3-4-5-6-7-**9**
(9 becomes 0!)

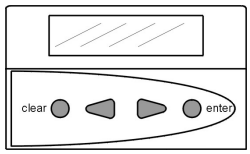
6.16. Write Log and Configuration to Chip Card

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Import / Export

*** TwinLock *** Import / Export	Select the menu item **'Import / Export'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
Import / Export Data - Export	Select data export with the menu keys
Data export Insert card	Insert the TwinCard configuration
Data export Configuration	Select Export configuration
Write data >>>>>>	Data are written to the chip card
Data export Remove card	Remove card





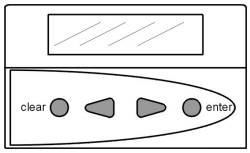
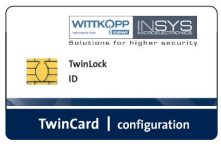
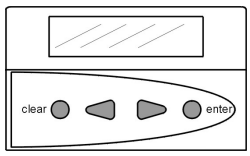
The data can be read by means of the **Configuration set TwinComm** and can be processed further.

The data export procedure is stored in the event log.

6.17. Read configuration from chip card

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Import / Export

*** TwinLock *** Import / Export	Select the menu item **'Import / Export'** (see menu plan 4.2/ see above)	
System code Code:********	Enter system code	
System code Please wait	Evaluate the entry	
Import / Export Data import	Select data import with the menu keys	
Data import Insert card	Insert the TwinCard configuration	
Data import Configuration	Select Export configuration	
Read data >>>>>>	Data is read from the chip card into the system	
Data import Remove card	Remove card	

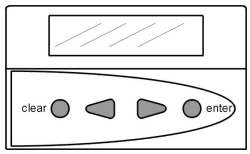
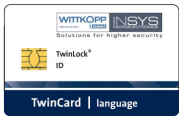
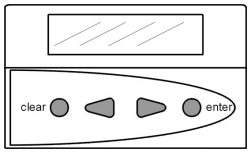
The data import procedure is stored in the event log.

6.18. Read New System Language

To switch the language of your system, you need an according **TwinCard language**.
The language cards can be ordered on request.

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Import / Export

*** TwinLock *** Import / Export	Select the menu item **'Import / Export'** (see menu plan 4.2)	
System code Code:********	Enter system code	
System code Please wait	Evaluate the entry	
Import / Export Data import	Select data import with the menu keys	
Data import Insert card	Insert the TwinCard language	
Data import Language	Select Export configuration	
Read data >>>>>>	Data is read from the chip card into the system	
Data import Remove card	Remove card	

The data import procedure is stored in the event log.
The new language is activated immediately after the card has been read.

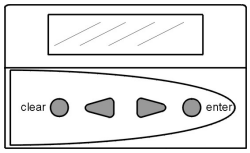
6.19. Install / Change Locks in the System

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service System	System Install new lock

System install new lock	Select the menu item '**install new lock**' (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
install new lock New lock	

install new lock change lock	Selection:	Re-register or change a lock
change lock Lock 01		Select the lock to be replaced



!!Bus cable on!!	Connect both bus cables of the according lock to TwinConnect and acknowledge with ENTER
Master codes Code: ********	To allocate the serial number, the master code of the new lock must be entered. (1 2 3 4 5 6 7 8)
Serial number Please wait	The serial number is transferred to the lock
install new lock Lock 02 OK	Detect and initialize the lock Acknowledge the lock number

Automatic return after 3 seconds

Re-registering/replacing of locks:

Only the owner of the system code can re-register or replace a lock. This action is stored in the event log.

ATTENTION:

The system code is only queried, if a lock is already registered in the system.

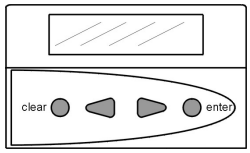
Only one individual lock can be re-registered or replaced. If there are more locks in the system this procedure must be repeated..
Each lock that is being re-registered receives the next hightest lock number in the system.

6.20. Reset the Input Unit Twin Control/Flat Control

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service System	System Reset

System Reset	Select the menu item **'System Reset'** (see menu plan 4.2/ see above)
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
Reset Saved	Action completed



Automatic return after 3 seconds

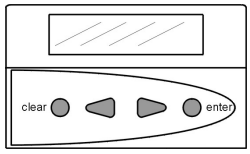
System reset:
Only the owner of the system code can perform the system reset. The following settings are reset to factory defaults:

Weekly program	Inactive	Quick unlocking code	09
Special days	Inactive	TwinCard code access	Active
Blocking time	Inactive		
Unlocking delay	Inactive		
Partial blocking	Inactive		
System line	*** TwinLock ***		
Lock with code	Inactive		
Opening duress	Inactive		
Parallel code	Inactive		
Send log online	Inactive		
Arming device	Inactive		
Battery warning limit	7.0V		
Code linkage	1 user		
TwinXT	Inactive		

Only the control unit is reset. This means that all settings which are stored in the control unit are reset to factory defaults. The locks are not reset during this procedure and therefore maintain their allocations.

After a control unit has been reset, it is restarted. The system sends a prompt for re-registering.

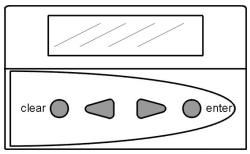
```
System setup
New system
```



To re-integrate the existing locks into the system, the menu item “Terminal switch” must be activated using the arrow keys.

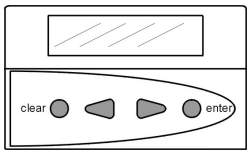
```
System setup
Terminal switch
```

Switch to “Terminal switch”.
Acknowledge with Enter



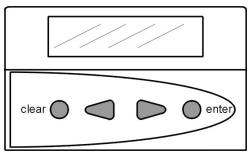

```
System Setup
No. DMS : 01<
```

Select the number of locks available in the system.
Acknowledge with Enter.




```
System-Setup
Terminal No.: 01<
```

Select the number of the control unit.
Acknowledge with Enter.
(Usually always: 01)



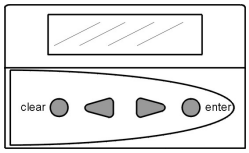
After all data is entered, a system check is performend and the system is operational.

6.21. Query of the Control Unit Version

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service System	System Version query

System Version query	Select menu item **'System version query'** (see menu plan 4.2/ see above)
Version query SW version:Txx	Version number is displayed



Automatic return after 5 seconds

Version query:
Any user can perform the version query. The current FlatControl software version is displayed.

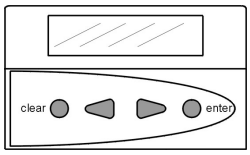
Please note the version lists!

6.22. Version Query of the Locks

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service Lock	Lock Version control

Lock Version control	Select menu item **'Lock version control'** (see menu plan 4.2)
Version control Lock 01	When several locks are available in the system, select one lock.
Version control SW version:Sxx	Version number is displayed



Automatic return after 5 seconds

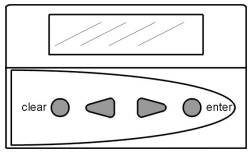
Version query:
Any user can perform the version query. The current TwinLock software version is displayed.

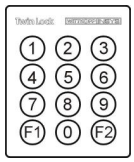
6.23. Reset a Lock

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service Lock	Lock Reset

Lock Reset	Select the menu item **'Lock Reset'** (see menu plan 4.2/ see above)
Reset Lock 01	When several locks are available in the system, select one lock.
Master code Code:********	Enter the master code of the selected lock
Master code Please wait	Evaluate the entry
Reset Saved	Action completed





Automatic return after 3 seconds

Lock reset:

The reset can only be performed by the owner of the system code and is saved in the event log.

The following settings are reset to factory defaults:
Master code: 12345678
User code 01 .. 35: Inactive
Input/Output Inactive

The lock addresses, i.e. the allocations, are not reset!

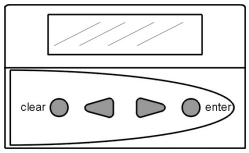
A hardware reset can only be performed by removing the seal. For this purpose, the according lock must be sent to your service partner.

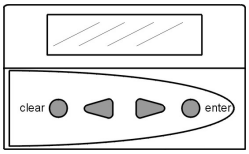
6.24. Lock Motor Service

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service Lock	Lock Motor service

Lock Motor service	Select the menu item **'Motor service'** (see menu plan 4.2/ see above)
Motor service Lock 01	When several locks are available in the system, select one lock.
Master code Code:********	Enter the master code of the selected lock
Master code Please wait	Evaluate the entry
Motor service <=Open Closed=>	Open and close gradually Cancel with ENTER/CLEAR





Automatic return after 150 seconds

Gradual opening and closing:
With this function, the lock can be opened and closed gradually for service purposes. This function can only be activated or performed by the owner of the according master code of the according lock. The user has 150 seconds to the next motor step. If no key is pressed, the function is cancelled.

The gradual opening or closing of the lock bolt is only meant for service purposes and can only be performed in an unlocked system state.

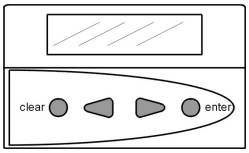
After this function is completed, it is stored in the event log.

6.25. Reset of the Arming Device TwinAlarm

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service Alarm	Alarm Reset

Alarm Reset	Select the menu item **'Alarm Reset'** (see menu plan 4.2/ see above)
Reset Lock 01	When several locks are available in the system, select one lock.
System code Code:********	Enter system code
System code Please wait	Evaluate the entry
Reset Saved	Action completed



Automatic return after 3 seconds

Alarm device reset:
The reset can only be performed by the owner of the system code and is saved in the event log.

The following settings are reset to factory defaults:
Physical Codes 00 … 35: Inactive
Input level for BAS: low active
Relay outputs: Idle
State: Disarmed

Notes:

The code cards must be re-registered!
(see 6.12. Register alarm user)

6.26. Version query of the Arming Device TwinAlarm

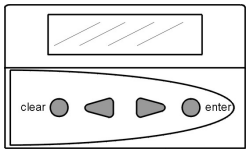
Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Service	Service Alarm	Alarm Version control

Alarm Version control
Version control SW version:Axx

Select menu item **'Alarm version query'** (see menu plan 4.2)

Version number is displayed



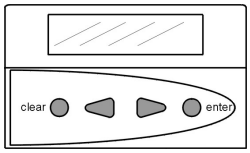
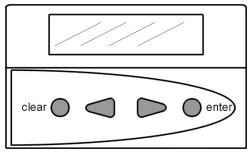
Automatic return after 5 seconds

Version query:
Every user can perform the version query. The current TwinAlarm software version is displayed.

6.27. Activate Parallel Code

Menu Navigation:

*** TwinLock *** 21.05.09 12:00	*** TwinLock *** Configuration	Configuration System	System Parallel code

System Parallel code		
System code Code:********	Enter system code	
System code Please wait	Evaluate the entry	
Parallel code *= Yes *=No	Display of the current setting and selection of the new condition	
Parllel code Saved	Save setting Action completed	

Notes:

Only possible, if there are 2 or 3 locks in the system

Unlocking procedure:
During the unlocking procedure, the status of lock 01 is queried first. If lock 01 is closed, an unlocking code must be entered without selecting lock 01 beforehand. If lock 01 is open, the condition of lock 02 is automatically queried. When lock 02 is closed, an unlocking code must be entered without selecting lock 02 beforehand. Lock 02 unlocks.

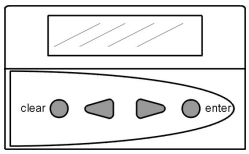
Programming of the codes
In all locks, the same codes must be programmed for the according users, e.g.

User 08:	Code: Lock 1: 08080808
	Code: Lock 2: 08080808
	or
	Code: Lock 3: 08080808

Notes:
1. For this functionality, the explicit four-eye code (code combination) is deactivated.
2. This function is only approved for 2 or 3 lock operation.

6.28. Interrupt Active Timer Programs

Menu Navigation:

`*** TwinLock ***` `21.05.09 12:00`	
`*** TwinLock ***` `21. 05.09 12:00`	In the system menu, first the key F2, then key 2 is pressed 
`Timer Prog.Cancel` `Enter code`	Confirm the entry with “Enter” 
`Enter code` `Code: ********`	Enter the quick unlocking code (Lock 01) 
	Active timer programs are interrupted for an unlocking procedure

Notes:

A running timer program (weekly program, special days, blocking time, express blocking) can be interrupted by entering the quick unlocking code.

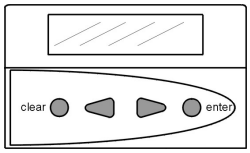
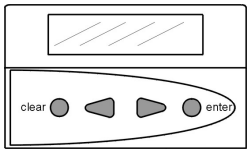
The timer program is now interrupted for one unlocking process. The unlocking process can be performed.

The entering of the quick unlocking code and the blocking time interruption are logged.
The owner of the quick unlocking code also has the opportunity to trigger a “silent alarm”.

6.29. Ignore Bolt System Position Switch

Menu Navigation:

*** TwinLock *** 21. 05.09 12:00	*** TwinLock *** Service	Service System	System Central inactive

System Central inactive		
Central inactive *= Yes *=No	Select "Yes“	
Central inactive Stored	The setting is stored	

The bolt system position switch, which may be connected to TwinAlarm or TwinXT, is ignored for one locking procedure.
This means that the system can still be locked properly even if the switch is damaged.

6.30. Automatic Locking

The TwinLock system can be automatically locked using a door switch or a bolt system position switch. The switch is connected to a TwinXT or TwinAlarm system, depending on the system variant.

In idle state (display off), the door or bolt system switch is queried periodically. Pressing the key will automatically lock the system.

Connection to TwinXT

The following connections and settings must be performed:

- Connect the switch at the terminals of the bolt system position switch (see assembly instructions). For a two lock system, the terminals of the bolt system position switch must be bridged for lock 1 and 2.
- Activate TwinXT (via the menu or the PC software)
- Set the forced sequence (via the menu or the PC software TwinComm)
- Setting the switching status for the locking (via PC software TwinComm)
  Active low => when the contact is closed -> System locks
  Active high => when the contact is open -> System locks
- Setting: Automatic locking with door switch (via PC software TwinComm)
- Optional: Combination with partial blocking time (via PC software TwinComm)

Connection to TwinAlarm

The following connections and settings must be performed:

- Connect the switch at the terminals of the bolt system position switch or the central contact (see assembly instructions).
- Activate TwinAlarm
- Set the forced sequence (via the menu or the PC software TwinComm)
- Setting: Automatic locking with door switch (via PC software TwinComm)
- Setting the switching state for locking is omitted.
  => when the contact is closed -> System locks
- Optional: Combination with partial blocking time (via PC software TwinComm)

7. Programming of the System with the PC Software TwinComm

The following functions can be performed with the configuration software TwinComm.

General settings

- Silent alarm, alarm delay
- TwinXT active
- Automatic switching to daylight savings time
- Quick unlocking code
- Four-/Six-eye principle
- Lock after bolt system contact query
- Quick unlocking code
- System line
- Battery warning limit
- Parallel code
- Forced Sequence

Timer Programs

- Weekly program
- Special days
- Blocking time
- Time delay, release time
- Teilsperrzeit

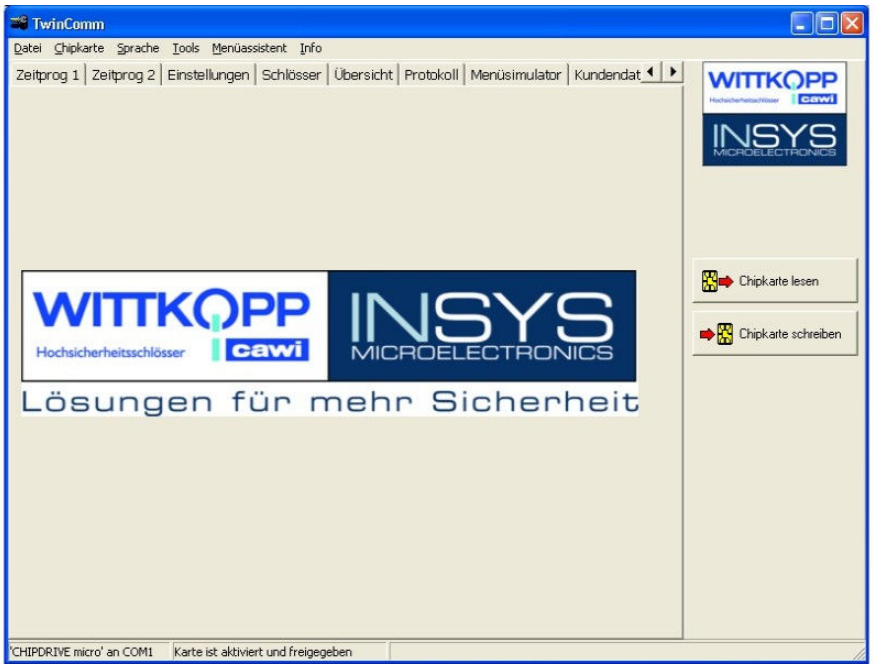
Managing functions

- Customer data
- User data
- Menu simulator and menu wizard

7.1. General Operation

Installation guidelines for the software can be found on the program CD!

Start screen



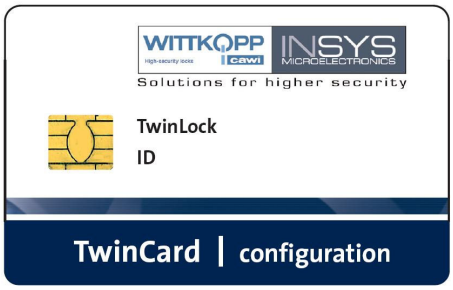
Before the chip card reader is used, the serial interface to which the reader is connected must be activated.
The setting is done in the menu "**Chip card -> Configure**". Or the user is prompted to select the interface when the PC software starts for the first time.

License chip card

To active the PC software you will need a license chip card, which is a part of the scope of delivery of the configuration set. After TwinComm is started, this card must be inserted into the chip card reader.

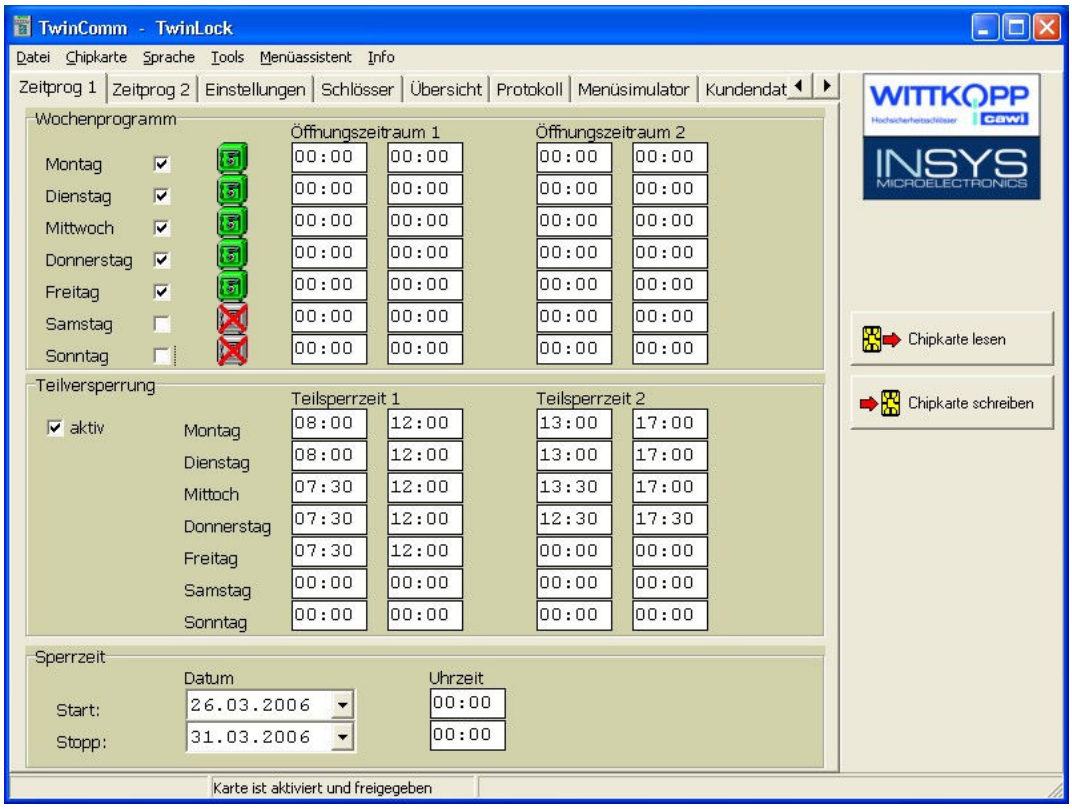
After the license chip card has been read, the according locking system can be selected. (-> **TwinLock**)

To read the data from the chip card “ **TwinCard configuration**“, it must be inserted into the chip card reader. Then push the button “**Read chip card**".



To save the data to the chip card “**TwinCard configuration**“, it must be inserted into the chip card reader.
Then push the button “**Write chip card**".

7.2. Program the Weekly Program



Weekly program:
For the 7 weekdays, 2 periods each are available, during which the system can be unlocked. The weekly program is evaluated every time the unlocking procedure is performed. This means that the unlocking procedure is cancelled when the opening is performed during a time which is not within those two periods defined in the weekly program.

Green :	00:00-00:00	Unlocking can take place all day
Gray :		Unlocking can only take place during the specified period
Red :		No unlocking procedure can be performed on this day

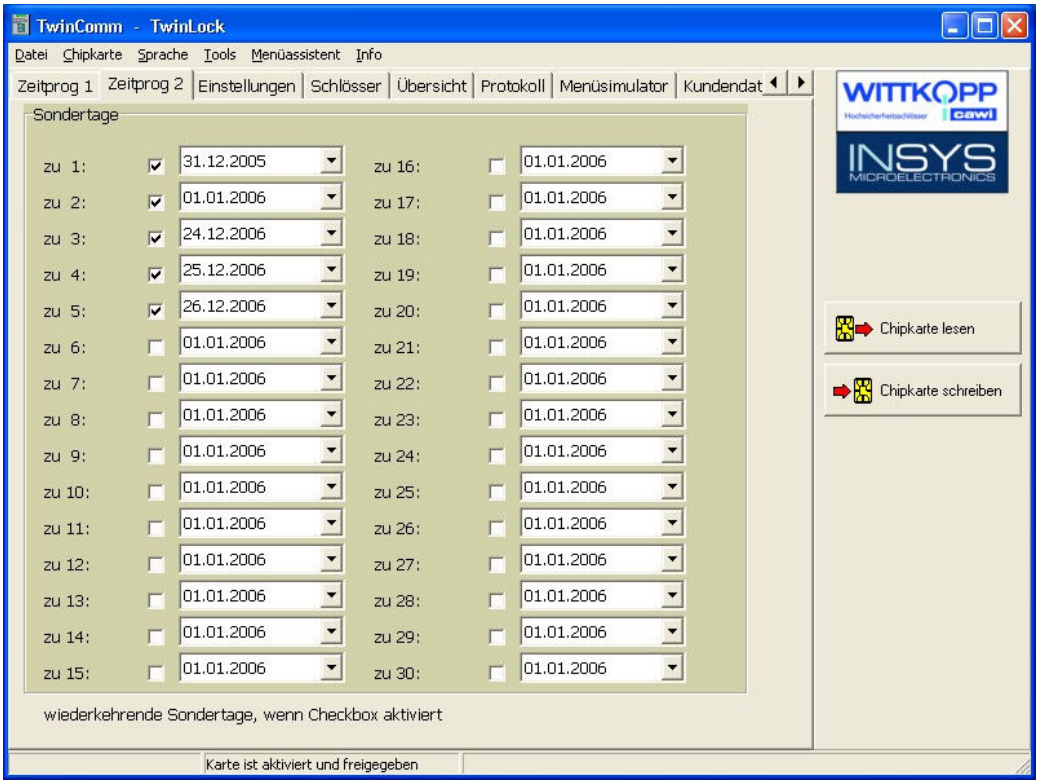
Factory setting:

Mo … Su.:	00:00-00:00	Weekly program deactivated
	00:00-00:00	

Attention:

To ensure proper functioning of the weekly program, the correct setting of the date, time and weekday is required.

7.3. Programming of Special Days



Special days:
Special days are days where the system can not be unlocked all day.
30 special days are available. The special days are evaluated every time the unlocking procedure is performed. This means that the unlocking procedure is cancelled when the unlocking is performed on days which are defined as special days.
Setting the checkmark will set a special day as a “recurring special day”. This means that the system will be locked each year on this day and month.

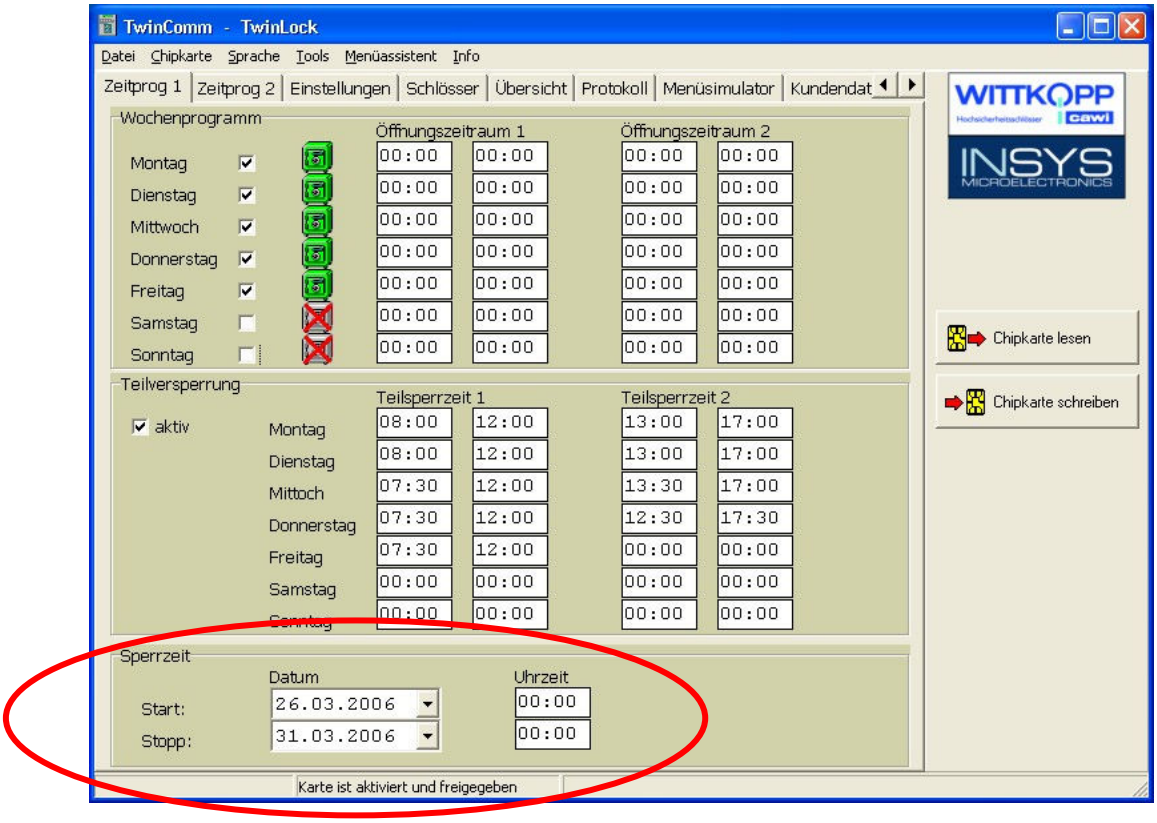
The setting of special days can only be performed by the owner of the system code and is saved in the event log!

Factory setting:
01.01.2006 Special days deactivated
Recurring special day deactivated.

Attention:

To ensure proper functioning of the special days, the correct setting of the date, time and weekday is required.
The settings only apply once for the set date.

7.4. Programming the Blocking Time



Blocking time:
It is possible to program a blocking time during which the system can not be unlocked. The blocking time can have a duration of 2 months max.

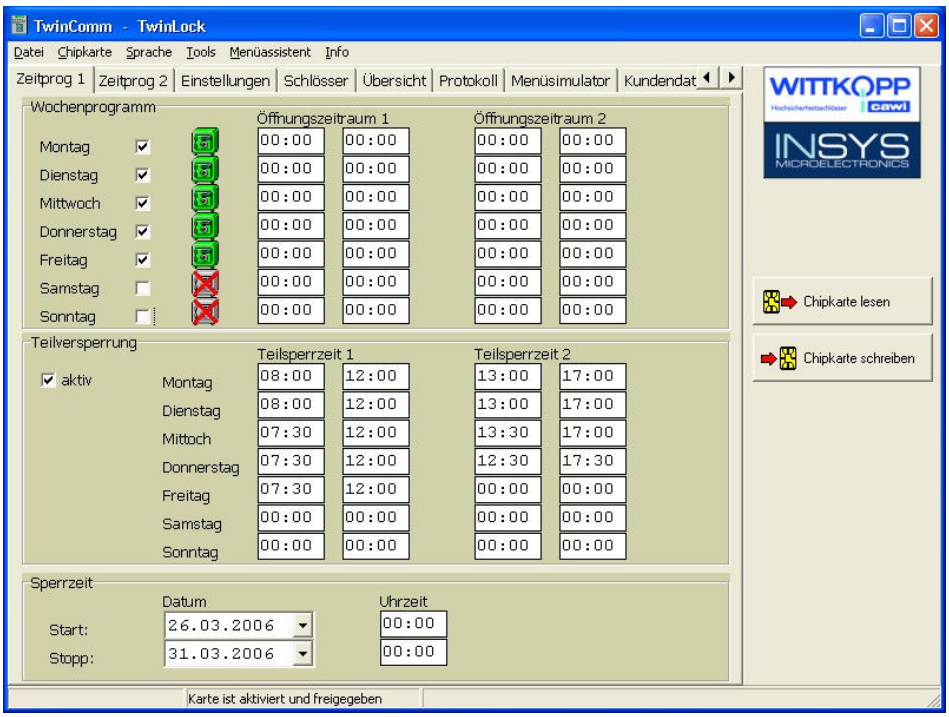
The programming of this function can only be performed by the owner of the system code and is saved in the event log!

Factory setting:
Blocking time deactivated

Attention:

To ensure proper functioning of the blocking time, the correct setting of the date, time and weekday is required.

7.5. Programming Partial Blocking Times



Partial blocking time
Two time periods for each of the seven days of the week are available, during which the system may be partially blocked.
The partial blocking is only designed for two lock operation.
Both locks are opened by entering a code.
Within the partial blocking time, only lock 2 is closed; lock 1 remains open.

The evaluation of the partial blocking time takes place during each locking procedure.

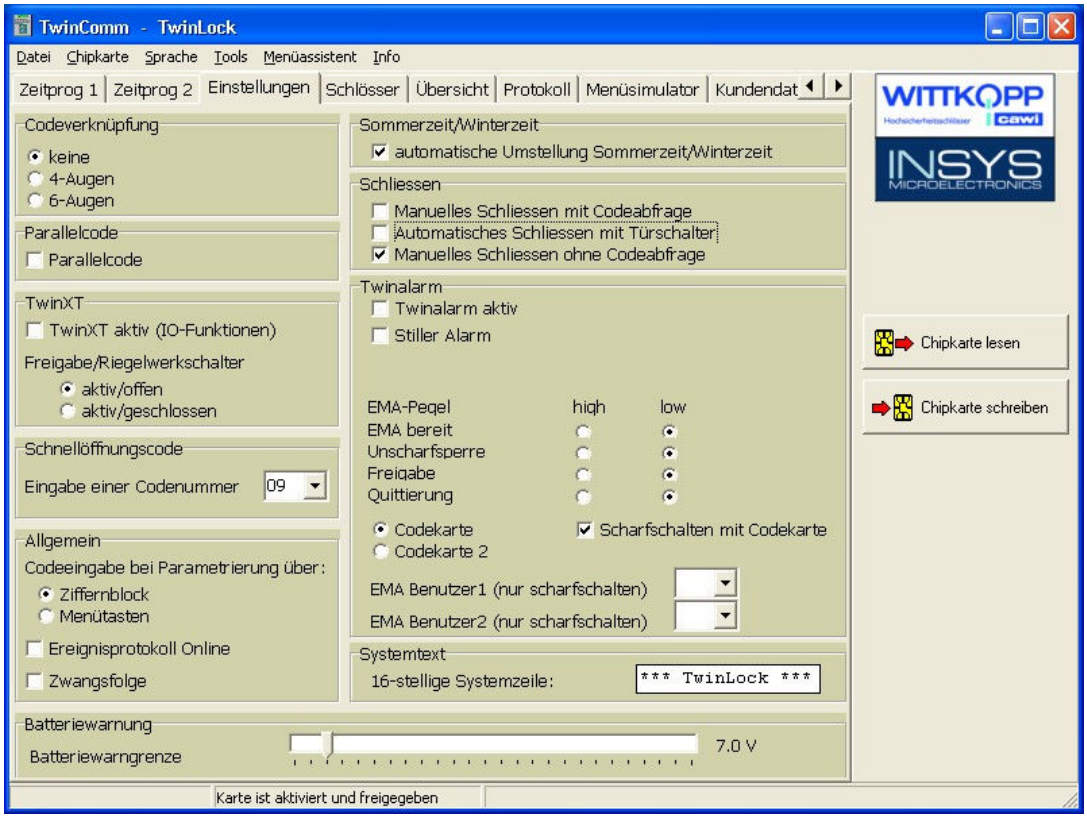
If lock 01 must be quickly locked despite an active partial locking time, the ENTER key must be pressed during the locking procedure when “Locking lock 01” “Partially locked!” is displayed. This will skip the partial locking time and close lock 01.
The partial locking time can be combined with the function „automatic locking“ via door switch and will perform the locking after the configured total blocking time has started.

Factory setting:
Mo … Su.: 00:00-00:00 Partial blocking time deactivated
00:00-00:00

Attention:

To ensure proper functioning of the weekly program, the correct setting of the date, time and weekday is required.

7.6. Programming of General Settings



Code linkage

Programming the four-eye code principle
For unlocking and programming, 2 code entries each are required

Parallel code

Only possible, if there are 2 or 3 locks in the system

Unlocking procedure:
During the unlocking procedure, the status of lock 01 is queried first. When lock 01 is closed, an unlocking code must be entered without selecting lock 01 beforehand.
When lock 01 is open, the condition of lock 02 is queried automatically. When lock 02 is closed, an unlocking code must be entered without selecting lock 02 beforehand. Lock 02 unlocks.

Programming of the codes
In all locks, the same codes must be programmed for the according users, e.g.

User 08:	Code: Lock 1: 08080808 Code: Lock 2: 08080808 or Code: Lock 3: 08080808

Notes:
1. For this functionality, the explicit four-eye code (code linkage) is deactivated.
2. This function is only approved for 2 or 3 lock operation.

Activate TwinXT

Lock I/O. The inputs and outputs of the extension unit TwinXT are activated and queried.

Quick unlocking code

A user code that skips the unlocking delay can be defined as quick unlocking code.
Factory setting in the lock: User 09

General

Forced sequence programmable, i.e. the unlocking and locking sequence.
Unlocking: Lock 01 -> Lock 02
Locking: Lock 02 -> Lock 01

Battery warning limit:

With this function, the threshold of the battery warning can be set between 6.8 V and 9.3 V. Critical dropping of the supply voltage is automatically detected and the following message is displayed:

```
*** TwinLock ***
!!! Low Batt !!!
```

Switching to Daylight savings time:

The time is automatically switched at the last weekend in March and at the last weekend in October.

Manual locking

can only take place via a code entry.

Code query

Automatic locking a door switch

Automatic locking with bolt system or door switch.
For this action, the function **TwinXT active** must be programmed, or **TwinAlarm active**.

Manual locking after bolt system query

Before the locking procedure, the position of the bolt system is queried using a switch. For this action, the functions **TwinXT active** or **TwinAlarm active** must be programmed.

TwinAlarm active

Activate TwinAlarm. This function is required for the arming/disarming of a BAS.

Silent alarm

Activate silent alarm, time delay
01-99 minutes

BAS level

BAS input and output level setting
Factory setting at the lock: "low active"

Notes:
The levels must only be reprogrammed in special circumstances. The factory setting should be applicable to all conventional burglary alarm systems.

Arming with code card

From version T08 (control unit), 2 different code cards can be inserted:
Code card
Code card II

Factory setting at the lock: Code card

It is not possible to use both card types in one system.

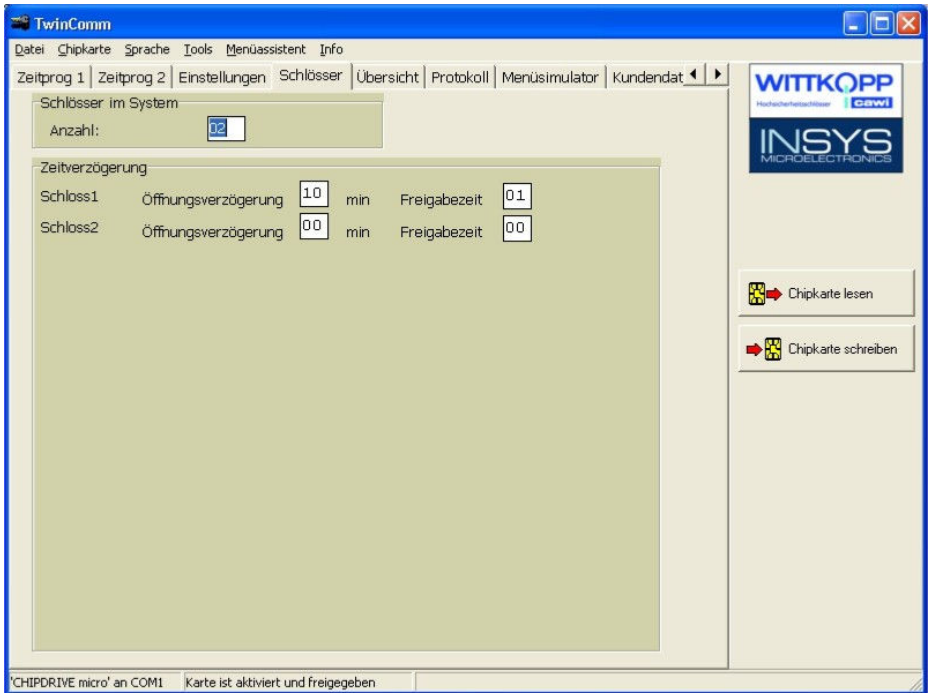
BAS user 1
BAS user 2

Allocating a BAS user number, which is used to not open the lock after it is entered, the code is queried and teh BAS is disarmed. Two codes may be defined!

System line:

The system line is displayed in the 1st. line of the main menu, on the display of the control unit. It can be changed and set as required anytime.

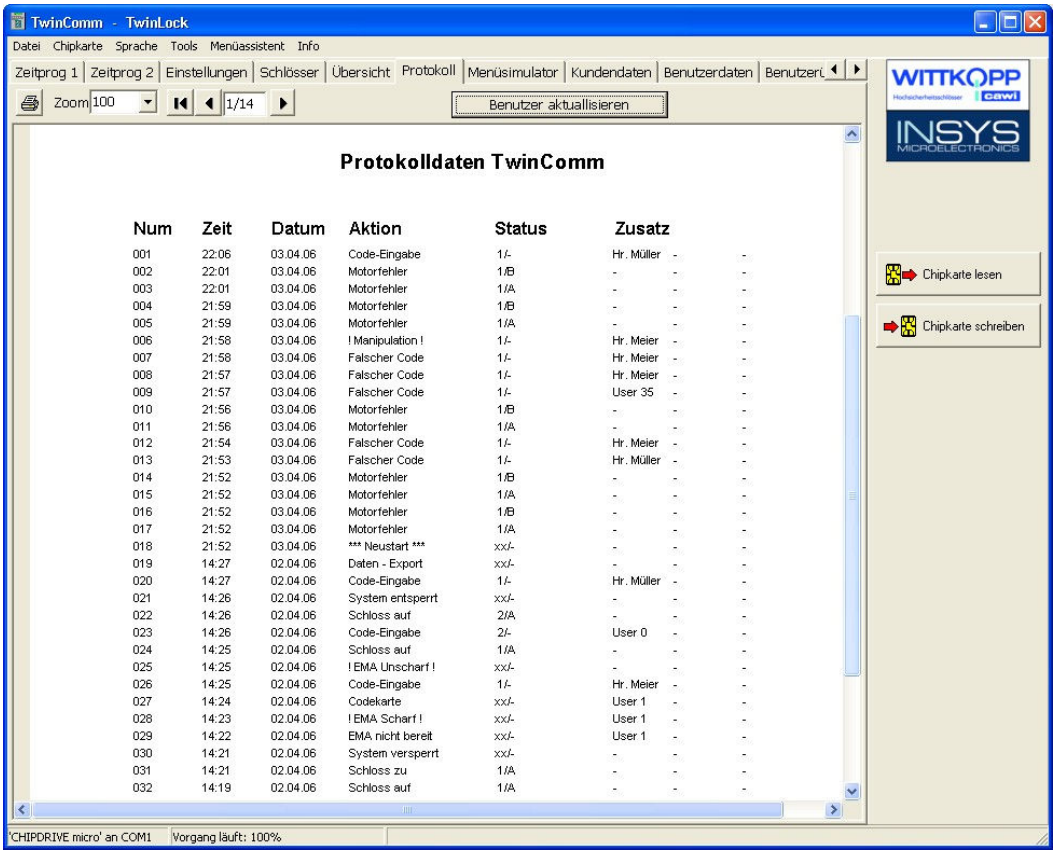
7.7. Programming the Unlocking Delay



For each lock, an unlocking delay of 01 – 99 minutes can be programmed. A release time of 01 – 15 minutes can be programmed as well, during which a code entry must take place after the unlocking delay has expired.

Unlocking delay = 00	No unlocking delay
Release time = 00	No code entry after unlocking delay The lock is immediately unlocked

7.8. Display Event Log



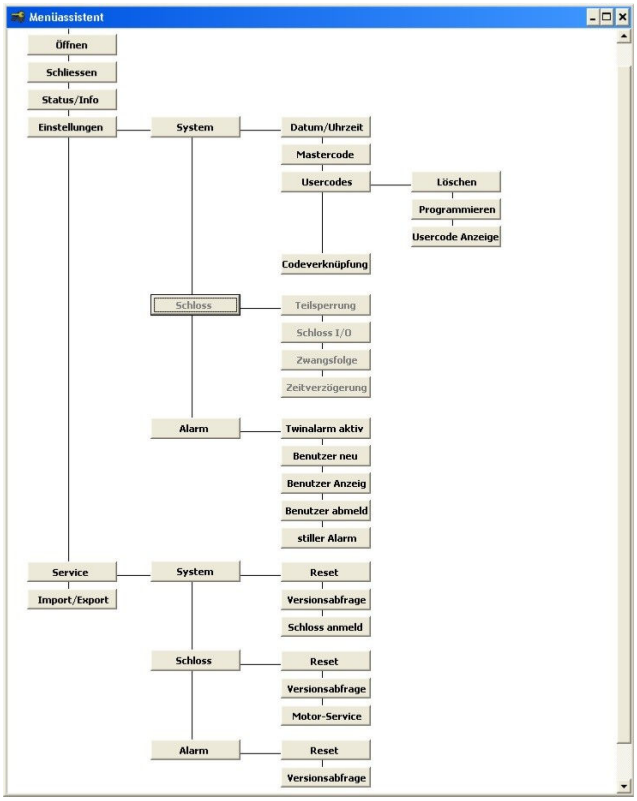
The following events are logged:

All unlocking and locking procedures and all code entries are logged. Furthermore, all configuration procedures and manipulation attempts are logged.

The log list can be printed on a connected printer or saved and archived in a file.

Use the button “Update user” to display the according user names after the log is being read, if the users were entered.

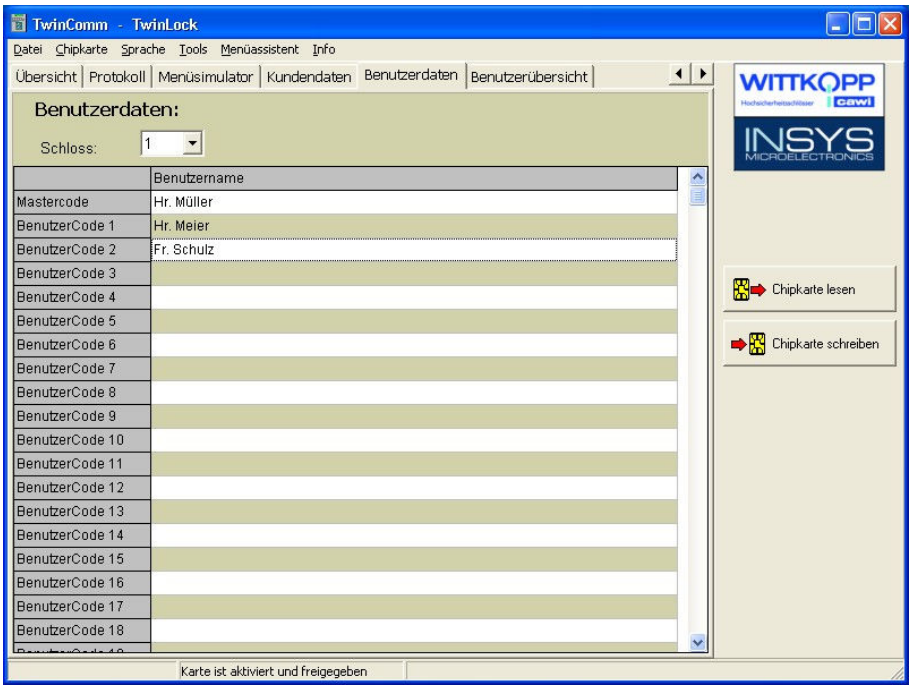
7.9. Menu Simulator and Menu Wizard



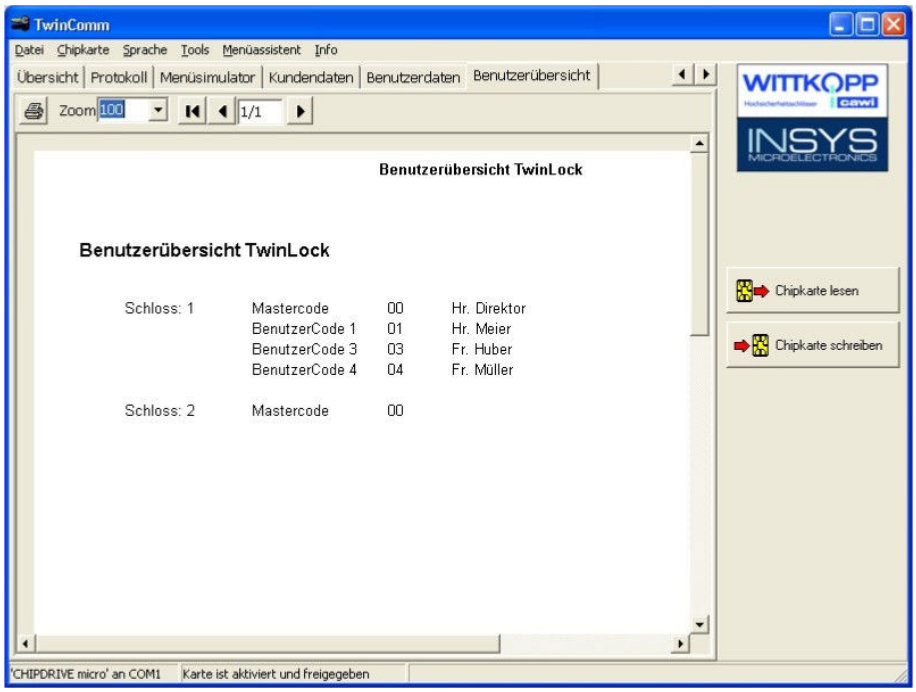
With the help of the **menu wizard**, individual menus in the user interface of the lock can be activated or deactivated. The structure can be simplified for the user, or individual menus, to which the user should have no access, can be selectively hidden.

With the help of the **menu simulator**, the new user interface can be simulated.

7.10. User Data Management

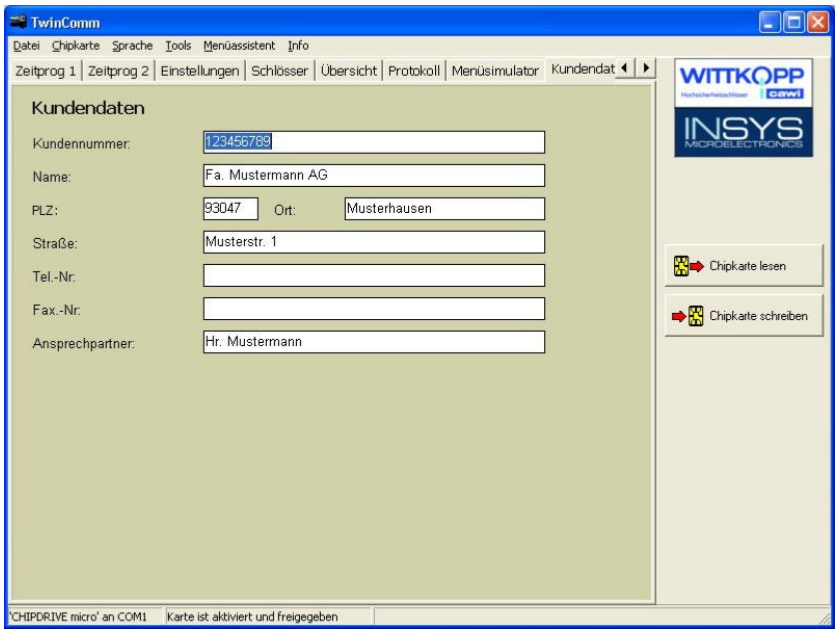


Each user of the lock can be allocated a name which is also saved in the event log.



The user overview can be printed or saved for administrative purposes.

7.11. Customer Data Management



Customer data can be saved and archived for each programming. This means that an individual configuration file can be created for each customer.
This file can be read also at a later date.

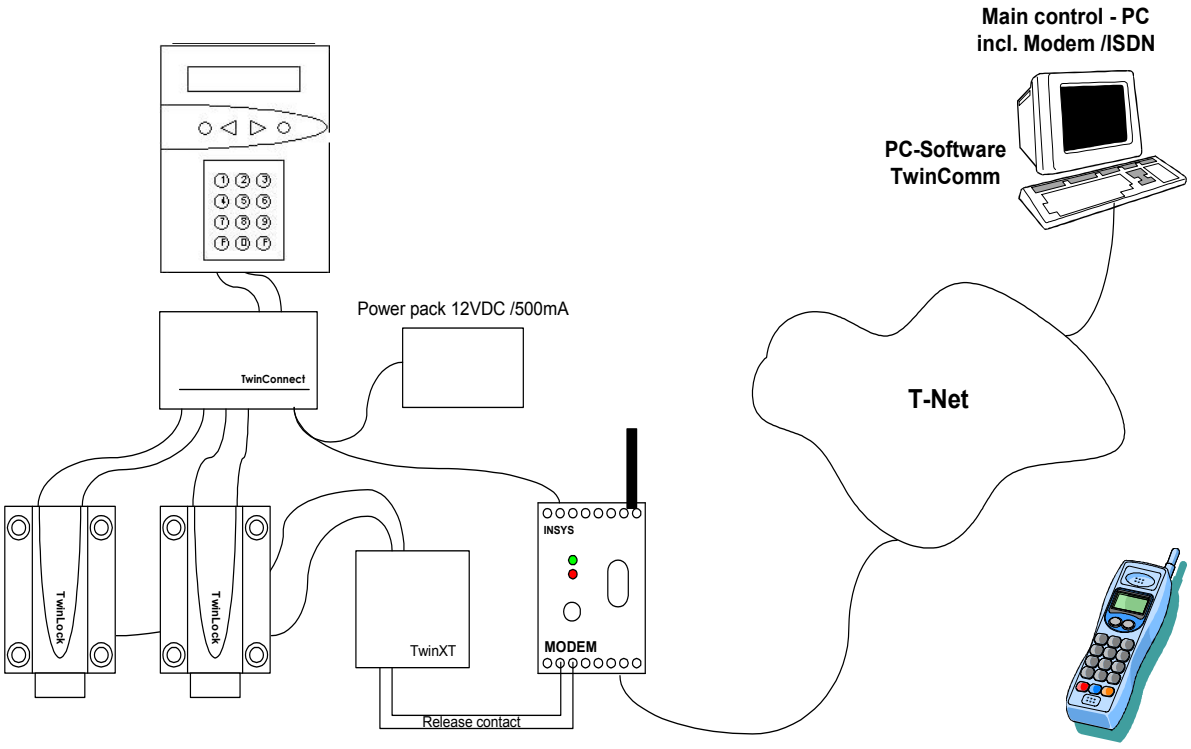
8. Appendix

8.1. Applications

8.1.2. Remote release

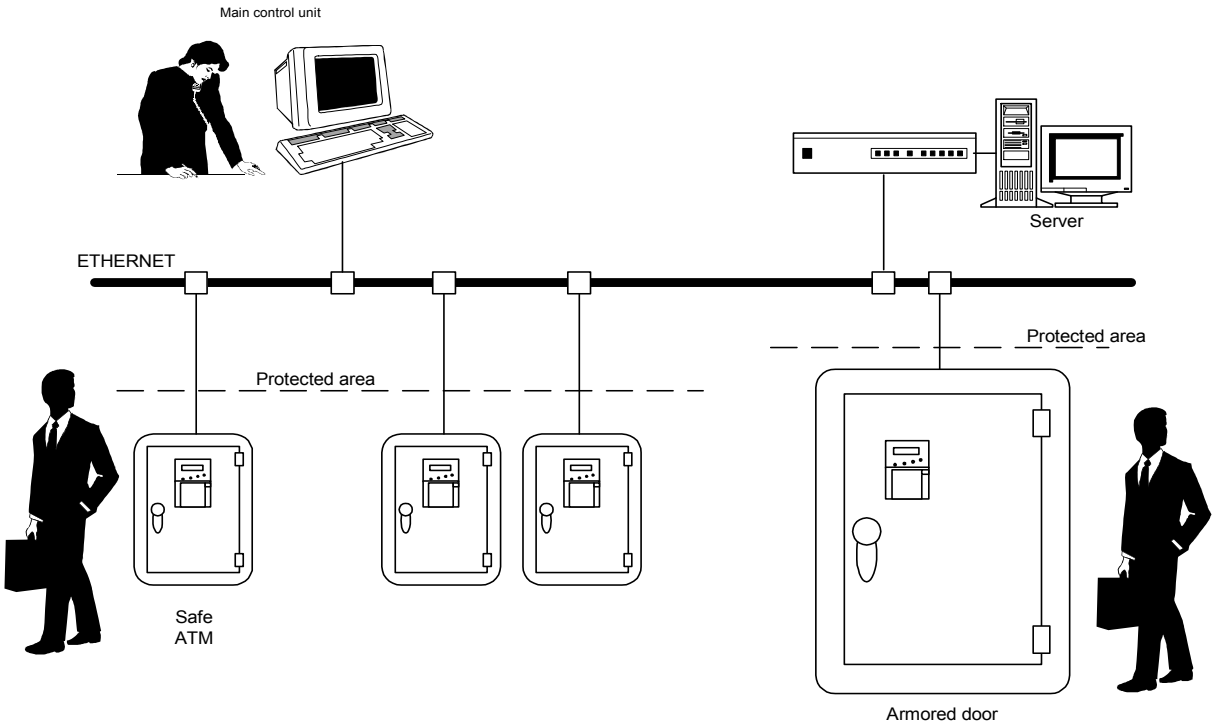
TwinLock - Remote release via remote data transmission

On request !



8.1.2. Network Connection

On request !



Network Connection

- Online logging of all events at the safe
- The control center or head office records and stores events centrally
- Centralized timer programs for all connected safes and their users
- Central access control/release by the head office
- Alarm messages via the network to the control center or head office
- Easy-to-use management software with extensive analysis functions for the head office

8.2. Technical Data

Input Unit: TwinControl

Power supply:	9 VDC (6 x Mignon Alkaline 1,5V) Alternatively, power supply unit 12 VDC via TwinConnect
Current consumption:	Stand-by condition: approx. 30 µA Input condition (display active): approx. 55mA
Dimensions:	4.92 x 3.54 x 2.44 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH Environment class II according to VdS
Protection class:	IP 30

Input Unit: FlatControl

Power supply:	9 VDC Alternatively, power supply unit 12 VDC via TwinConnect Alternatively emergency power supply via mini DC jack
Current consumption:	Stand-by condition: approx. 30 µA Input condition (display active) approx. 55mA
Dimensions:	5.51 x 4.02 x 0.98 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH Environment class II according to VdS
Protection class:	IP 30

Lock: TwinLock

Power supply:	9 VDC
Current consumption:	Idle state: approx. 40µA Motor operation (without bolt load):approx. 110 mA
Dimensions:	3.54 x 2.40 x 1.34 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH Environment class II according to VdS
Protection class:	IP 30

Arming Device: TwinAlarm

Power supply:	12 VDC
Current consumption:	Idle state: approx. 10mA
	each active output relay: approx. 20mA
Dimensions:	3.94 x 5.91 x 1.38 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH
	Environment class II according to VdS
Protection class:	IP 30

Connections.
2 RJ11 connectors for the connection of the system busses A and B
Terminal connectors for the serial interface RS232 (RX, TC and GND, 1200 baud 8N1), power supply (12 VDC), distributor, inputs and outputs.

Bus distributor: TwinConnect

Power Supply	12 VDC (optional)
Current consumption	For power supply operation 12 VDC: Approx. 9 mA
	Only as distributor: 0 mA
Dimensions:	3.94 x 2.36 x 0.98 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH
	Environment class II according to VdS
Protection class:	IP 30

Extension Unit: TwinXT

Power Supply	12 VDC (optional)
	Only for output relay operation
Current consumption	For power supply operation 12 VDC:Approx. 20 mA
	Per relay
	Only when the inputs are used: 0 mA
Dimensions:	3.94 x 2.36 x 0.98 inches (L x W x H)
Environment:	32°F - 122°F, 75% RH
	Environment class II according to VdS
Protection class:	IP 30

8.3. Notes

Revision History

Version	Date	Modification	Name
1.00	31.07.01	First edition	MB
1.01	27.06.02	Complete revision	GM
1.02	20.10.03	Extension of the menu plan	MB
1.03	10.05.05	Review	MB
1.04	27.06.05	Supplements	MB
1.05	26.03.06	Supplements partial blocking time/recurring special days/locking with door switch	MB
	19.04.06	Layout adjustment	ES
1.06	30.10.06	New Layout TwinCards	ES
1.08A	14.05.09	Revision	MR

!!! Subject to correction !!!