CA824

Alarm System

User Manual

CA824 Alarm System

User Manual
May 2003

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- *The manufacturer reserves the right to change the specifications of the equipment described in this manual without notice*
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Contents:

General Information

Limited Warranty

The manufacturer warrants that for period of 12 months from the date of purchase, the product shall be free of defects in material and workmanship under normal use and that in fulfillment of any breach of such warranty, the manufacturer shall, at its opinion, repair or replace the defective equipment upon return of the equipment to its factory. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of the manufacturer such as lightning, excessive voltage, mechanical shock, or damage arising out of abuse, alternation or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of the manufacturer. This warranty contains the entire warranty. The manufacturer neither assumes, nor authorizes any other warranty or liability concerning this product.

In no event shall the manufacturer be liable for any direct or indirect or consequential damage, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

The manufacturer recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Warnings

Before using the CA824, please ensure that you have read and understood the following instructions. Always ensure that the CA824 is operated correctly.

Do not attempt to disassemble or alter any part of the equipment that is not expressly described in this guide. Internal inspections, alterations and repairs should be conducted by qualified service personnel only.

Do not use substances containing alcohol, benzene, thinners or other flammable substances to clean or maintain the equipment. The use of these substances may lead to fire.

Do not allow liquids to enter the interior. The equipment is not waterproof.

Description

Overview

This manual provides information for the daily operation of the CA824 Alarm System.

CA824 is modular system that can be split in up to eight areas and supports up to 31 separate user codes.

The CA824 Alarm System is operated through a keyboard with an LED and/or an LCD indication.

LCD Keyboard

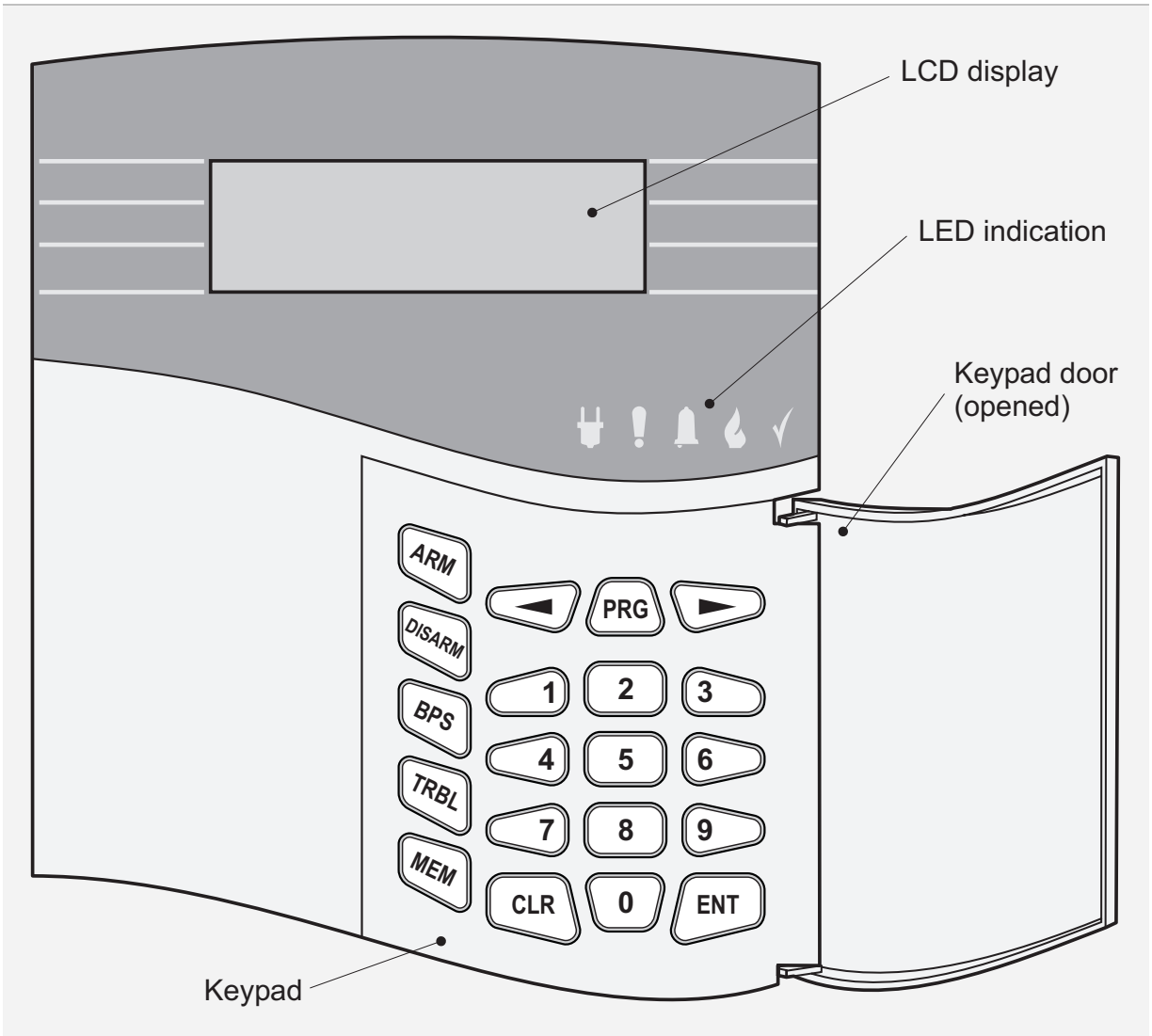


Figure 1. LCD Keyboard Front View

Sound indication

There are eight different sound combinations that indicate seven different conditions:

Symbol	Description	
	Click	Single short beep indicating button pressing
	Confirm	One long and three short beeps indicating the system confirmation to executed operation (arming, disarming, settings change, etc.)
	Reject	Single long beep indicating incorrectly executed operation
	Entrance time	Continuous sound indicating intrusion into the entrance zones
	Exit time	Short beeps indicating the system is armed and the user is required to leave the zone. Ten seconds before the exit time is over beeps frequency is increased.
	Trouble	Two short beeps indicating problem with the system (battery low, no supply voltage, etc.)
	Chime	Chime-like sound beeps indicating intrusion into a zone with a “Chime“ option activated (usually the entrance door)
	Alarm	

LED Indication

LED	Indication description
	Mains Power Supply LED (Green). Lit at 220V mains power supply.
	Trouble LED (Yellow). Lit at system trouble. The trouble type is displayed in the troubles list.
	Alarm LED (Red). Lit at system alarm status or alarm memory.
	Fire alarm LED (Red). Lit at system fire alarm status or fire alarm memory
	Service LED (Red). Lit at system programming by service technician.

LCD Display

The keyboard is equipped with a 2-row 16-colomn matrix LCD providing different system trouble and event memory alpha-numerical messages.

Figure 2. LCD

Keypad

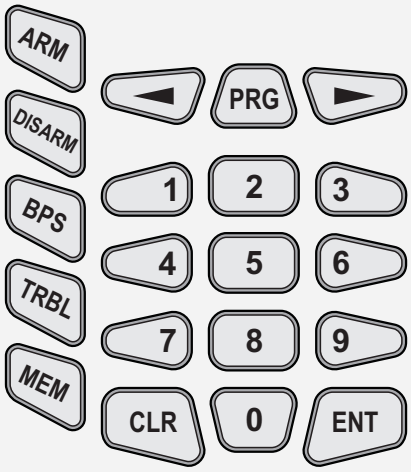


Figure 3. Keypad

Key	Action	Key	Action
ARM	Arms the system	CLR	Clears entered data or transfers to a higher menu level
DISARM	Disarms the system	ENT	Confirms entered data or transfers to a lower menu level
BPS	Bypasses certain zone(s)	►	Scrolls right the cursor in a field or scrolls to the next menu item in the same level
TRBL	Reviews the system troubles	◄	Scrolls left the cursor in a field or scrolls to the previous menu item in the same level
MEM	Reviews the event memory		Enters user codes or other data

Key	Action	Key	Action
PRG	Activates the programming mode	1 2 3 4 5 6 7 8 9 0	

The key pad can be used to enter also Latin and Cyrillic letters and special symbols.

See the table bellow for the correspondence between the number of the pressings of a certain key and the character displayed on the LCD:

Key	Number of pressings							
	1	2	3	4	5	6	7	8
0	0		.	,	:	!	<	>
1	1	-	=	+	$	%	@	/
2	2	A	B	C	Б	В	Г	Д
3	3	D	E	F	Ж	З	И	Й
4	4	G	H	I	K	Л	M	H
5	5	J	K	L	O	П	P	C
6	6	M	N	O	T	У	Ф	X
7	7	P	Q	R	S	Ц	Ч	Ш
8	8	T	U	V	Щ	Ъ	Ы	Ь
9	9	W	X	Y	Z	Э	Ю	Я

Operation

Arming

Full Arming

Full arming means all zones are secured. Anyone coming into the entrance zone is required to enter a code. Otherwise the alarm is started after the entrance time is over.

After the arming procedure is completed, short beeps indicate the exit time and the user is required to leave the zone. Ten seconds before the exit time is over beeps frequency is increased.

There are three methods to Full arm the system:

Method1

This is a standard method, applied when the user has the permission to arm the system in more than one of the four ways (Full, Stay, Force and Instant).

The arming sequence is described by Figure 4 on Page 11.

Method 2

This method is applied when the user is permitted to only Full arm the system.

The arming sequence is described by Figure 5 on Page 12.

Method 3

This fast method is applied when a certain area can be armed without entering a user code. The only possible way to arm the system is Full.

The arming sequence is described by Figure 6 on Page 13.

Stay Arming

Stay arming means the user is allowed to stay in certain zone(s), but the entrance zone is secured.

Anyone coming into an Entry zone is required to enter a code. Otherwise the alarm is started after the entrance time is over.

The arming sequence is described by Figure 7 on Page 14.

Force Arming

Force arming means the system is armed despite that in certain zone(s) there may be a presence or a trouble. All such zones will be bypassed automatically at the system arming, if they are allowed.

The arming sequence is described by Figure 8 on Page 15.

Instant Arming

Instant arming means the user is allowed to stay in certain zone(s) marked as Stay zones, but the entrance zone is secured.

The Entry zones are armed immediately (without exit time). The difference with the Stay arming is that the Entry zones are armed immediately (without exit time) and an intrusion into the Entry zones immediately starts the alarm.

The arming sequence is described by Figure 9 on Page 16.

In the following figures:

XX stays for the area number

ZZ stays for the zone number

S stays for the respective area status. It can be:

- – the area is not armed and is in normal state
- + – the area is not armed and has an active zone
- f – the area is Full armed
- P – the area is Stay armed
- s – the area is Instant armed
- o – exit time is running out
- M – the area is Stay armed
- A – the area is in an Alarm state
- F – the area is in an Fire alarm state
- – the area is not supported by the respective keyboard or not used

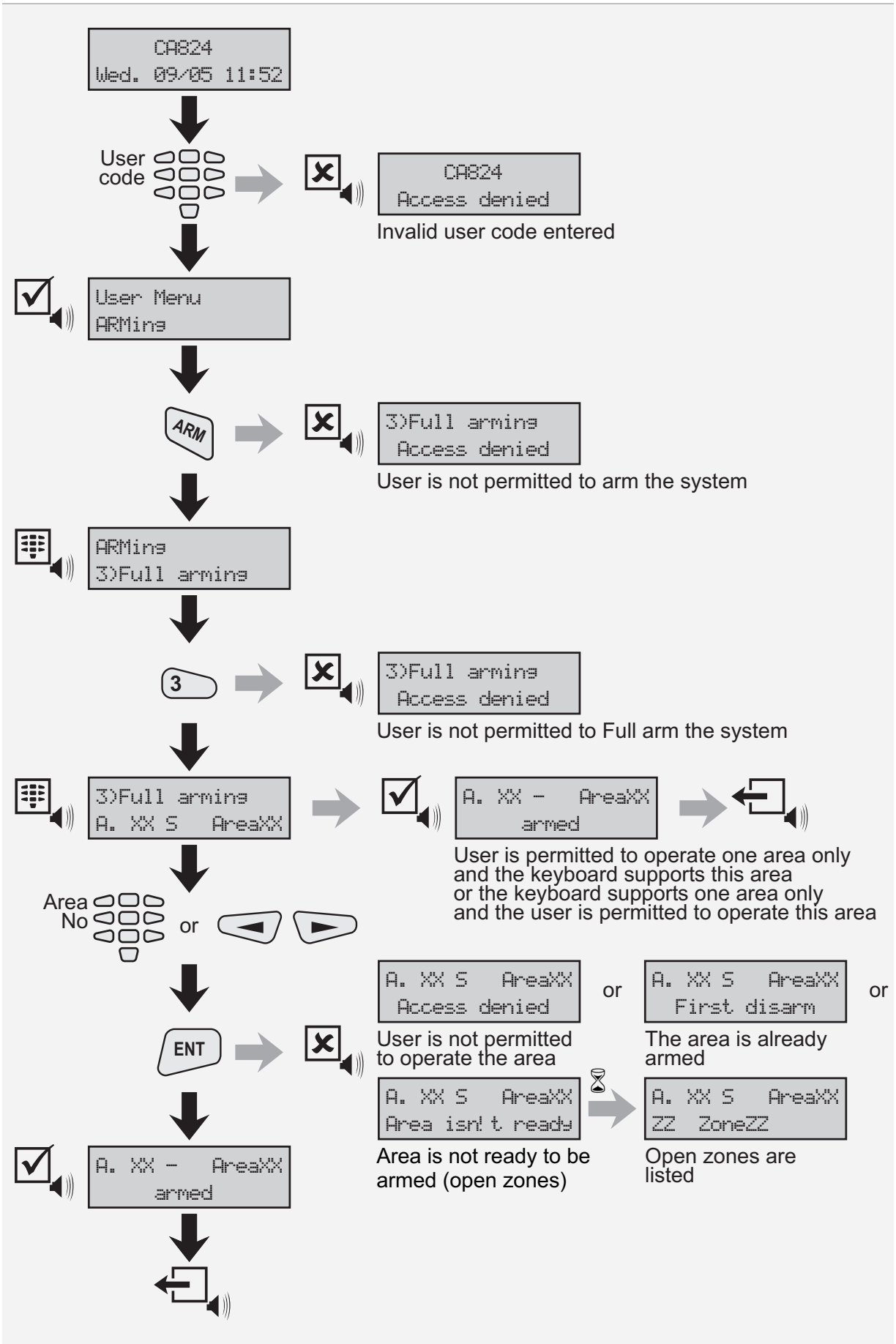


Figure 4. Full Arming Method 1

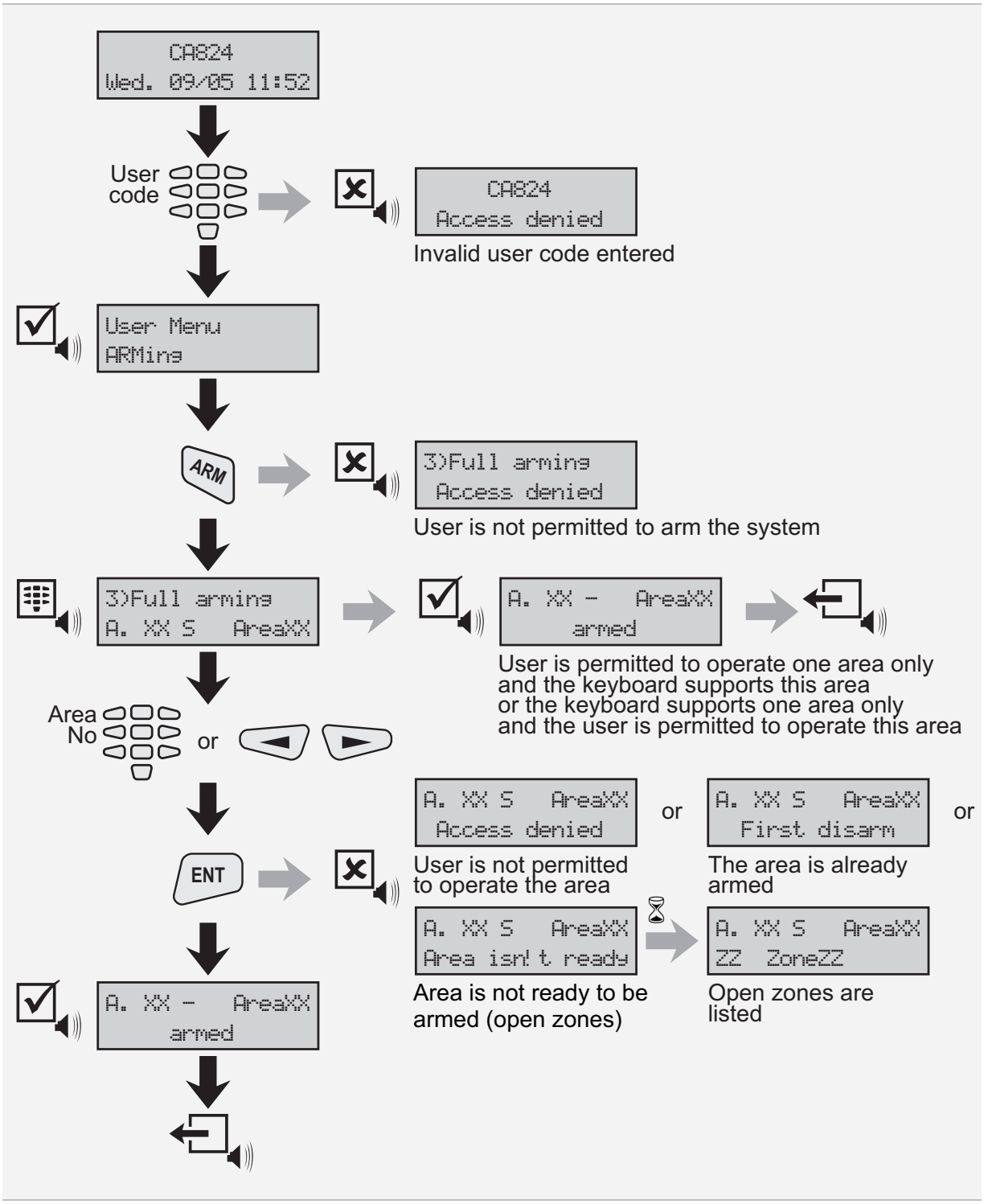


Figure 5. Full Arming Method 2

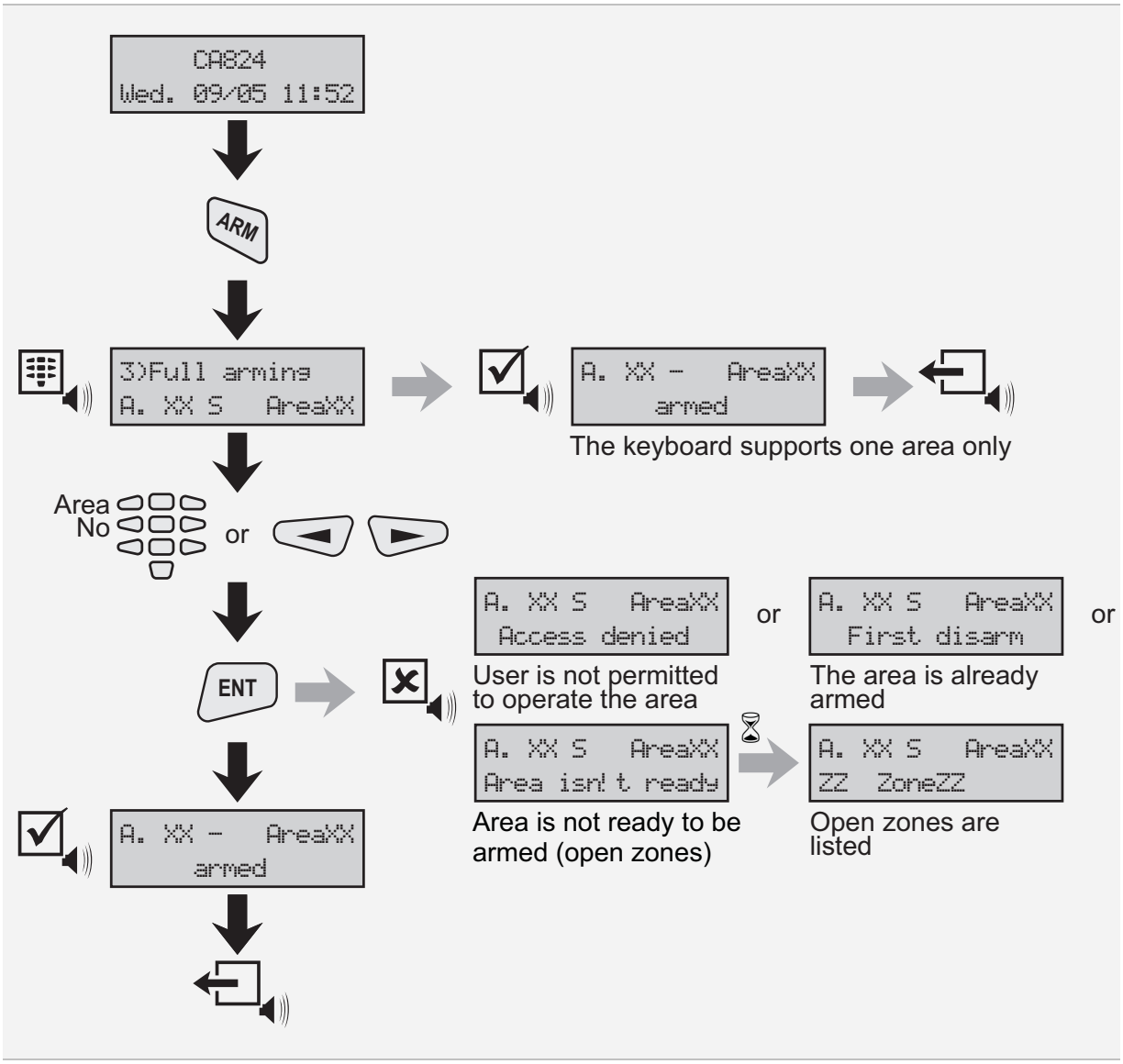


Figure 6. Full Arming Method 3

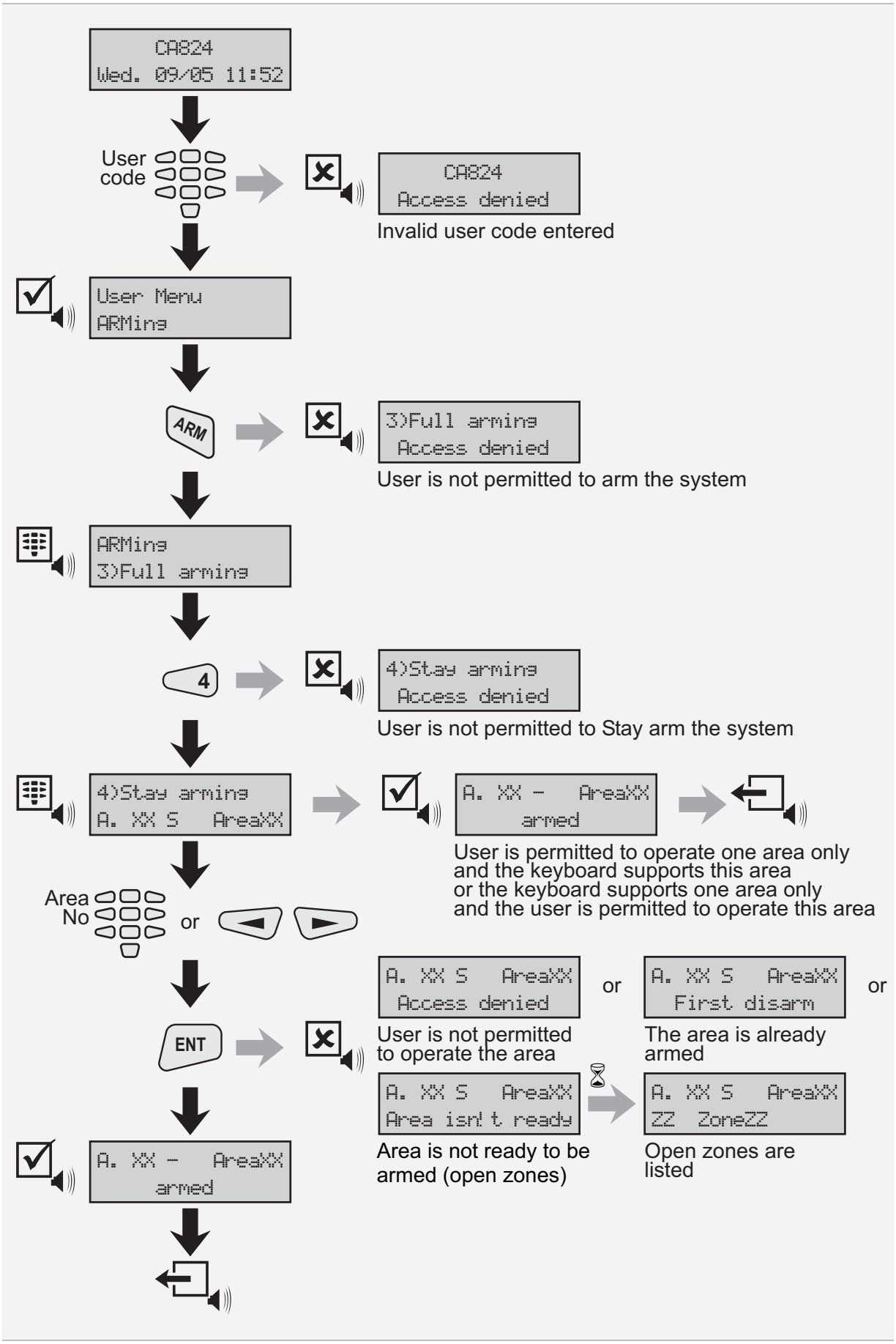


Figure 7. Stay Arming

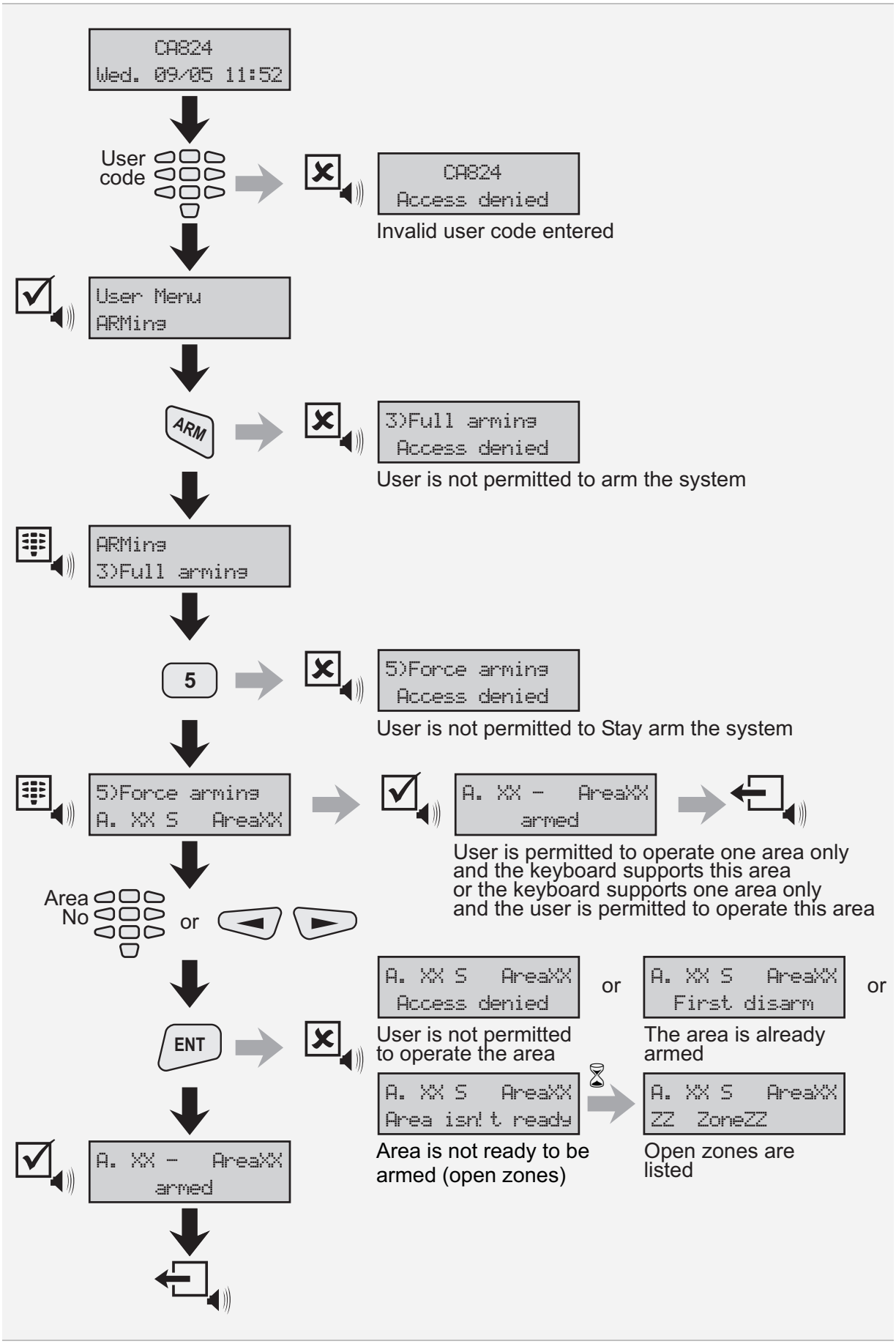


Figure 8. Force Arming

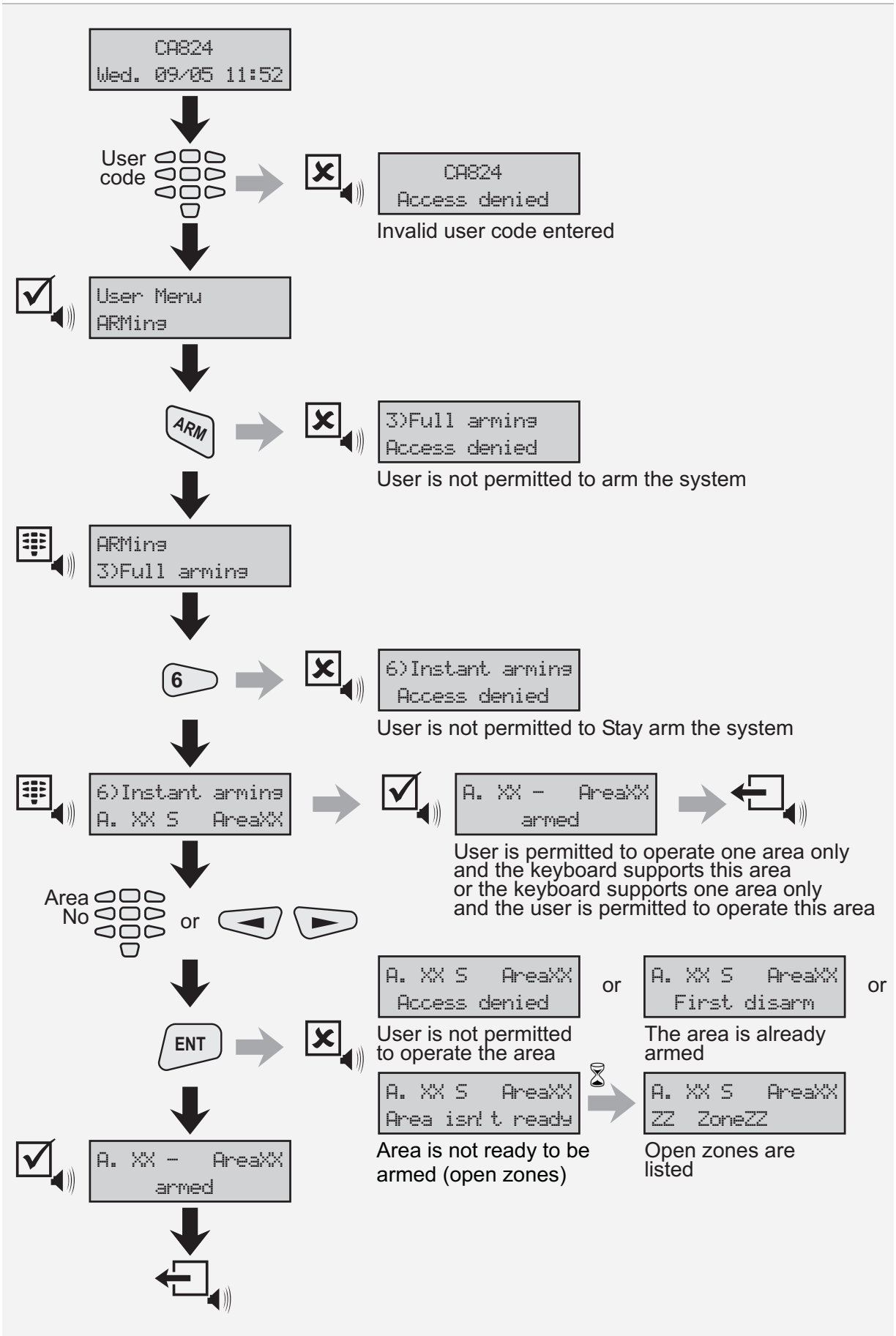


Figure 9. Instant Arming

Disarming

Coming into the entrance zone, the user is required to enter a personal code. A continuous sound indicates the entrance time.

If the system is not disarmed within the entrance time, the alarm is activated.

Certain users may not be allowed to disarm the system.

The arming sequence is described by Figure 10.

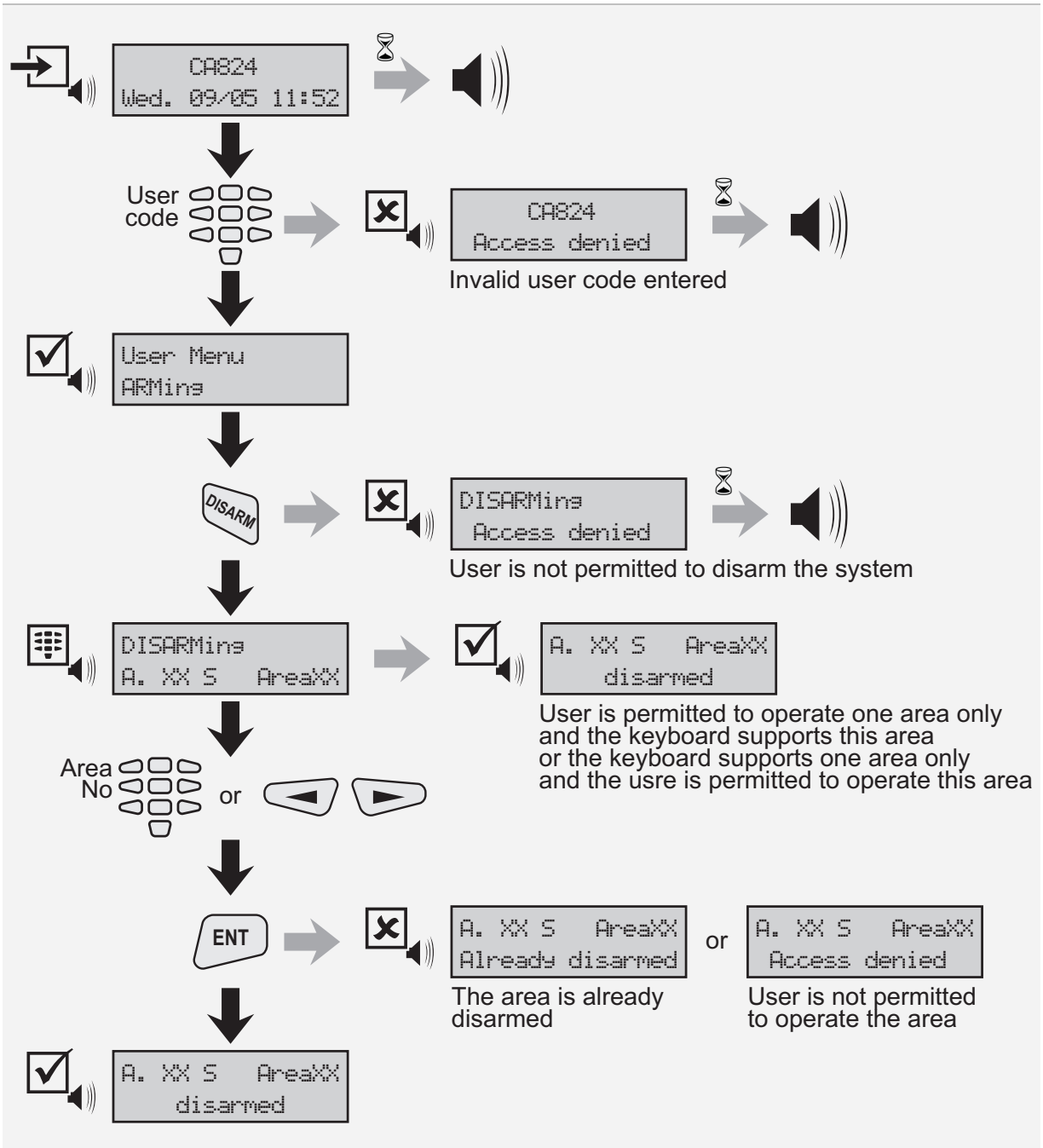


Figure 10. Disarming

Troubles Review

The troubles review sequence is described by Figure 11. When a trouble occurs, call your technical support service.

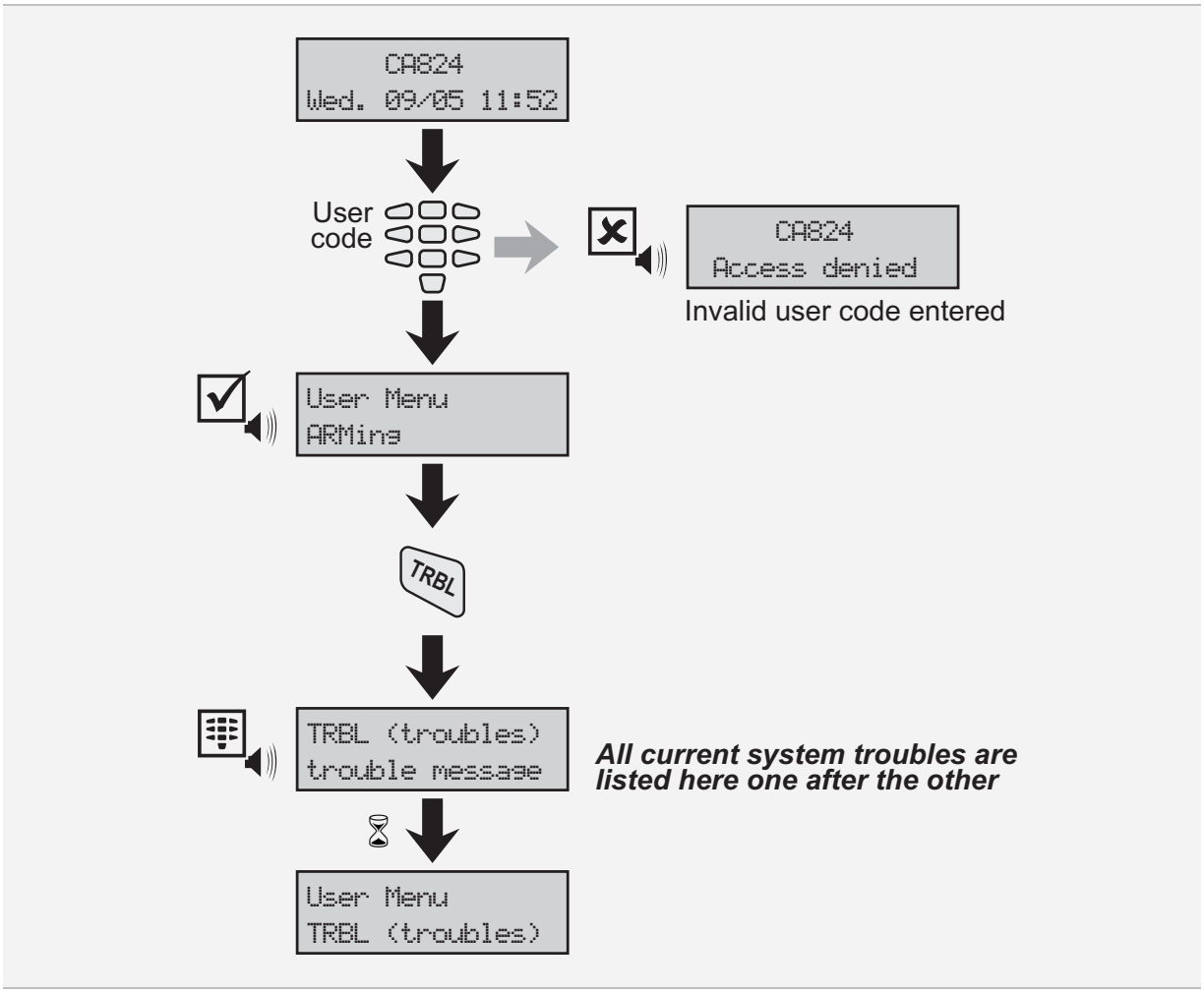


Figure 11. Troubles Review

All trouble messages and their meanings are shown bellow:

Message	Meaning
ACC loss	220V mains power loss
AUX Power Failed	Blown AUX fuse of the main module
Batt Loss	Low or no battery or blown system battery fuse
Buss Error	Connection with the module has failed along the bus
PGM Power Failed	Blown PGM fuse of the main module
TelFailure	Communication failure in the build-in communicator
TL Fault!	Telephone line failure

Event Memory Review

The CA824 Alarm System has a memory that stores all events that have taken place during the system operation.

Only users that have permission can review the event memory.

The event memory review sequence is described by Figure 12.

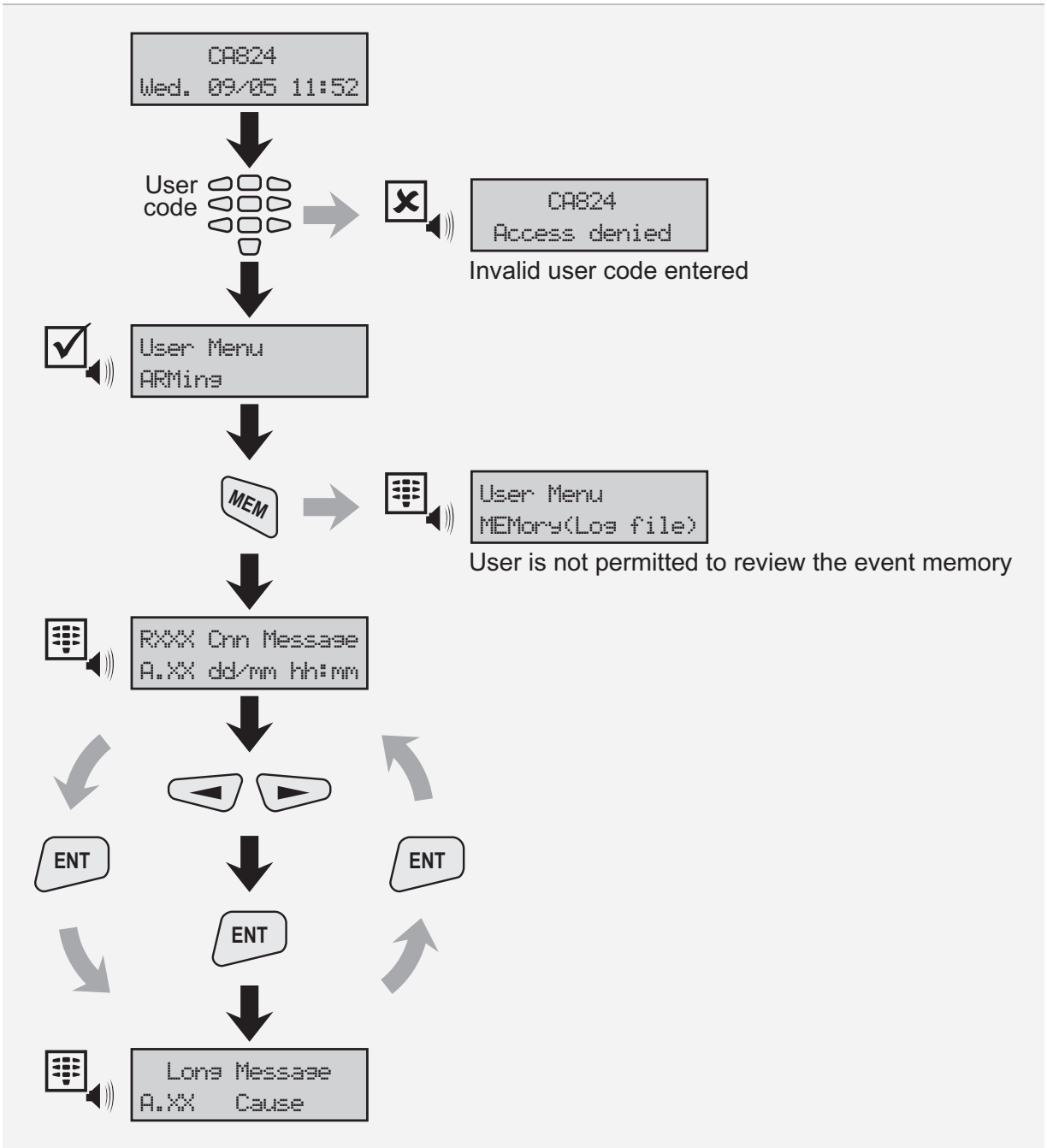


Figure 12. Event Memory Review

In the above figure:

R indicates the event is restoring

XXX is the event sequential number

C stands for the event cause. It can be:

d – for device

u – for user

z – for zone

A.XX displays the number of the area, where the event has taken place

dd/mm is the date (day/month), when the event has taken place

hh:mm is the time (hour:minutes), when the event has taken place

All short and long messages and their meanings are shown bellow:

Message	Long message	Meaning
Medical	Medical alarm	Medical type zone *ZZ* has been activated or a Medical signal has been manually triggered off from keyboard/device *DD*
Fire	Fire alram	Fire type zone *ZZ* has been activated or a Fire signal has been manually triggered off from keyboard/device *DD*
Panic	Panic alram	Panic type zone *ZZ* has been activated or a Panic signal has been manually triggered off from keyboard/device *DD*
Duress	Duress	A *UU* code has been entered for duress
Alarm	Burglary alarm	An Entry Delay, Follow or Instant type zone *ZZ* has been activated
Alarm	24 hour alarm	A 24h Burglary type zone *ZZ* has been activated
Tamper	Tamper	A tamper type zone *ZZ* has been activated
ExpFail	Exp. module fail	Connection with module *DD* has failed along the bus
SenrTmp	Sensor tamper	A self-arming zone *ZZ* sensor has been activated
Exp.Tmp	Exp. module tmp.	A self-arming module *DD* has been activated
24h nB	24h non-burglary	A 24h non-burglary zone *ZZ* has been activated
SystTrb	System trouble	A PGM or AUX fuse of the main module has failed
AC loss	AC loss	220V mains power loss
Battlow	Low system Batt.	Low system battery voltage

Message	Long message	Meaning
SystRst	System reset	System hardware has been reset
BattFlt	Batt test failed	No battery or blown system battery fuse
C-tion	Fail to commun.	Communication failure in the build-in communicator
UserO/C	User Open/Close	User arming via code *UU*
Arm Q	Quick Arming	Single click arming from keyboard/device *DD*
C-tion	CommunicationERR	Telephone line failure
KeyOpen	Key switch OP/Cl	Arming from Key-switch type zone *ZZ*
Bypass	Zone Bypass	Bypassing zone *ZZ*
TestRep	Per. Test report	Regular text test via the build-in communicator
TimeRST	Time/Date reset	System date and time resetting
Cancel	Cancel	Cancel day mode alarm
System	System shutdown	System power failure
TestMan	M-ual T-ger Test	Manual communication test

Bypassing

Bypassing means that when an area is for example Full armed, all bypassed zones are not armed. This may be necessary, when a malfunctioning of the sensors in the zone or a presence in the zone obstruct the normal arming of that zone.

It is advisory to bypass zones when it is really needed.

Bypassing sequence is described by Figure 13.

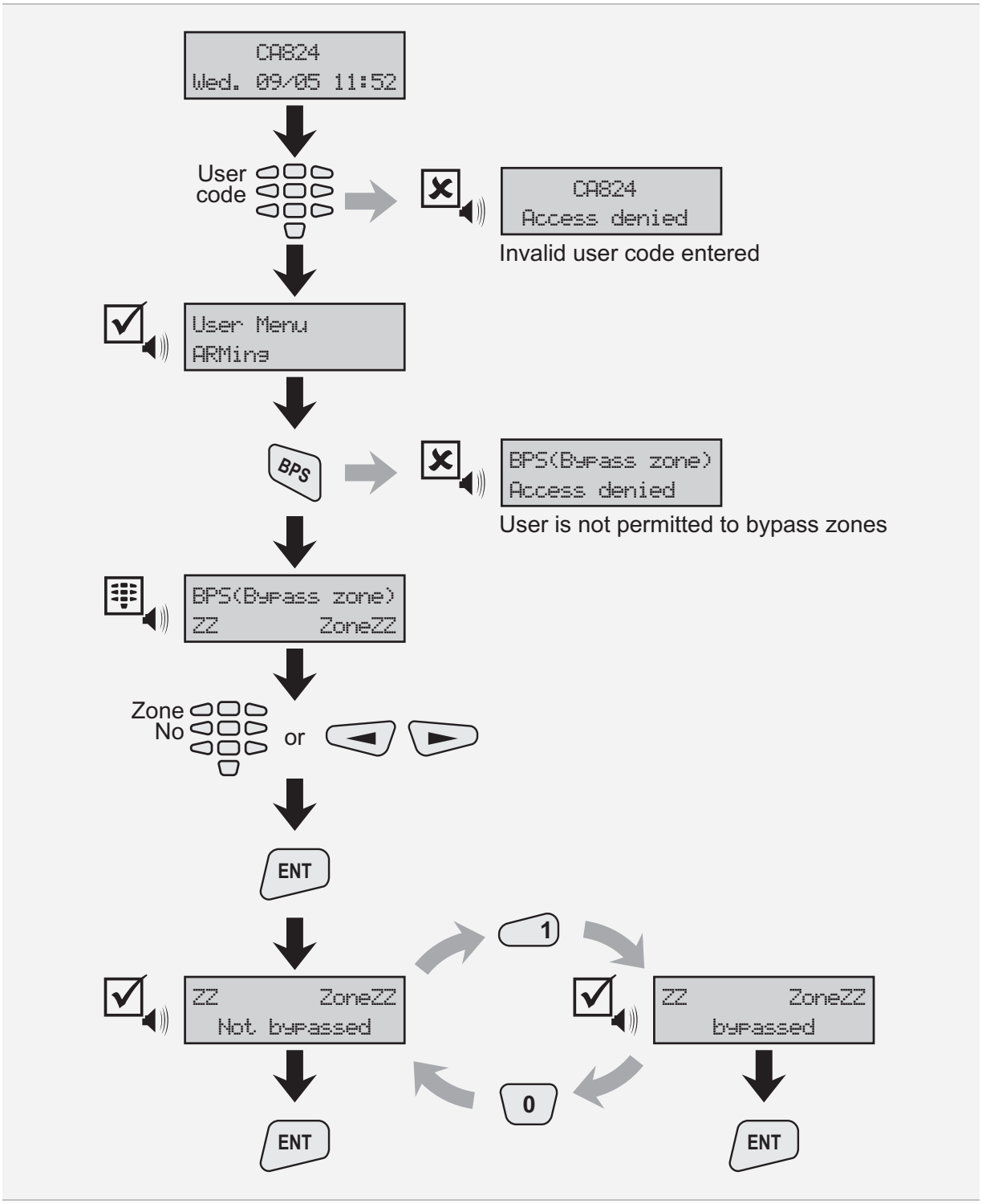


Figure 13. Bypassing

Programming

Each user can access certain menus for setting of parameters concerning the every day system operation.

To program some parameters, the user needs to be given permissions by the system engineer or a system manager.

Advanced users may utilize the Complete Menu Map, shown on Page 48, to navigate the programming menus.

User Codes

The CA824 Alarm System supports 31 user codes and one system engineer code. The system engineer code grants access to all system parameters.

Each user has the following properties:

- a name;
- a code;
- rights (permission to operate certain areas);
- attributes (permissions to perform certain procedures).

The user name and code can be set the respective user and by a system engineer or manager. The other parameters can be set by the system engineer or a system manager only.

The user name can be eight characters long and comprises figures, capital or small Latin or Cyrillic letters. See the table on Page 8 for the correspondence between the number of the pressings of a certain key and the character displayed on the LCD.

Each user can be given the right to operate any area.

The user attributes apply to all areas, the user is given the right to operate. I.e. the user can not be given different attributes for the different areas.

The attributes and the corresponding actions are revealed in table on Page 31.

Note: If a user is not assigned any attribute, the user code is not active!

The user code can contain the figures from 0 to 9 only. Its length can be programmed by the system engineer to be either four or six figures long.

The CA824 Alarm System support ambush codes. Ambush code is a personal code that disarms the system, but still sends alarm signal. Its purpose to indicate that the user is forced to disarm the system against his or her will.

The ambush code is produced from a personal code by increasing the last number by one. If the last number is 9, it is replaced by 0 in the ambush code.

Note: When an ambush code is entered, the alarm is not activated and no indication of an alarm condition is displayed on the LCD!

A user code can not be the same as an ambush code!

According to the attributes, the users can be classified as:

- Basic user with permission to Full arm and disarm the system;
- Standard user with permission to Full arm and disarm the system and to bypass zones;
- Special user with permissions of the standard user as well as the permission to Force, Stay and Instant arm the system;
- Manager with permission to fully operate the system. There is no limit for the number user that can be managers.

User Limitations

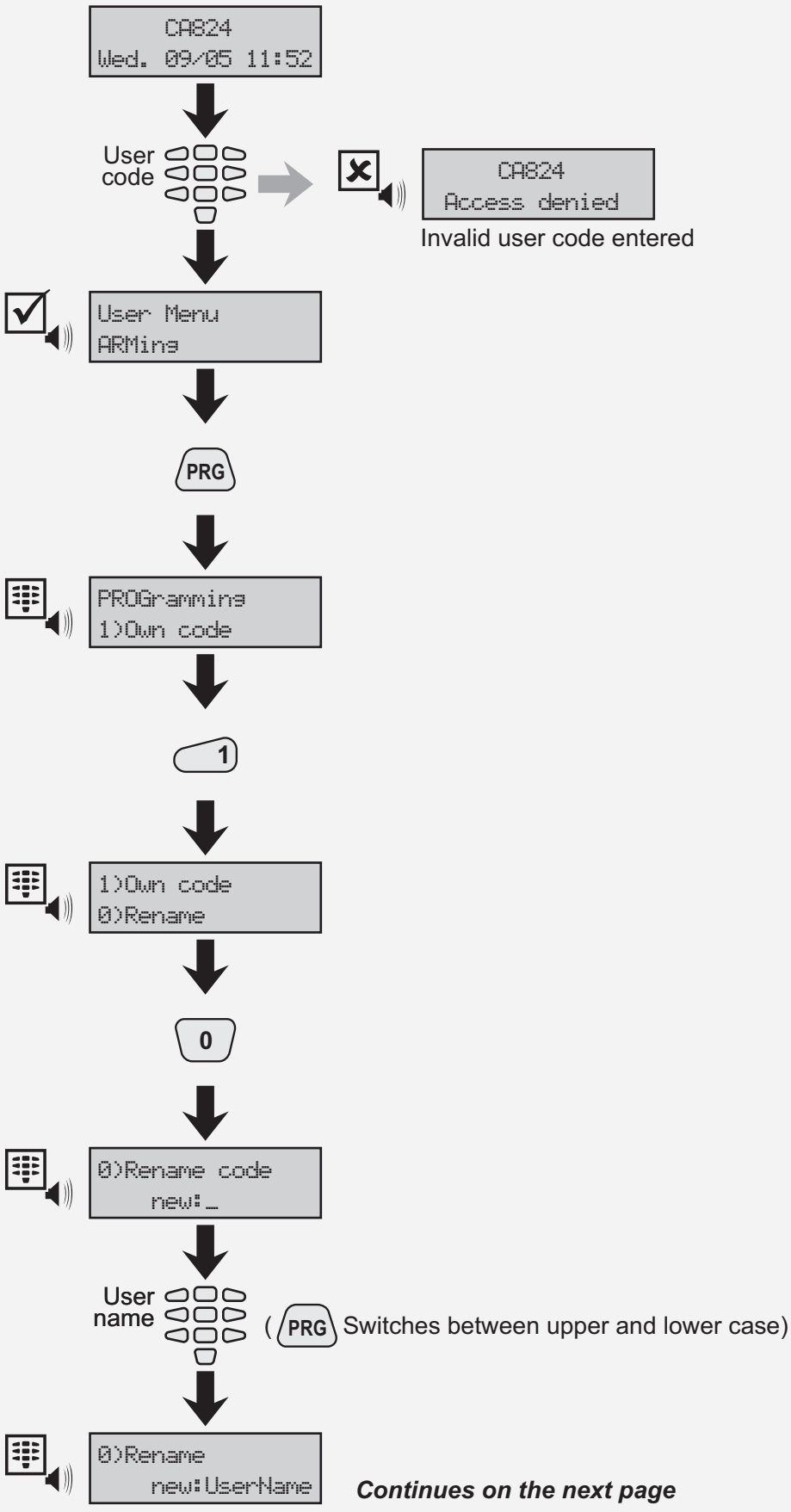
Managers obey the following rules:

- A manager can not assign a user more attributes than the manager has been assigned;
- A manager can not grant a user more rights than the manager has been granted;
- A manager can not change his own rights and attributes;
- A manager can not change the rights or the attributes of an user that has more rights than the manager.

All users, including the managers obey the following rules:

- A user code is accepted only by keyboards/devices that are allowed to operate at least one area that the user is also allowed to;
- Even memory review for certain areas can be performed by users that are assigned the *Log View* attribute and have the right to operate the respective areas.

Changing own user code



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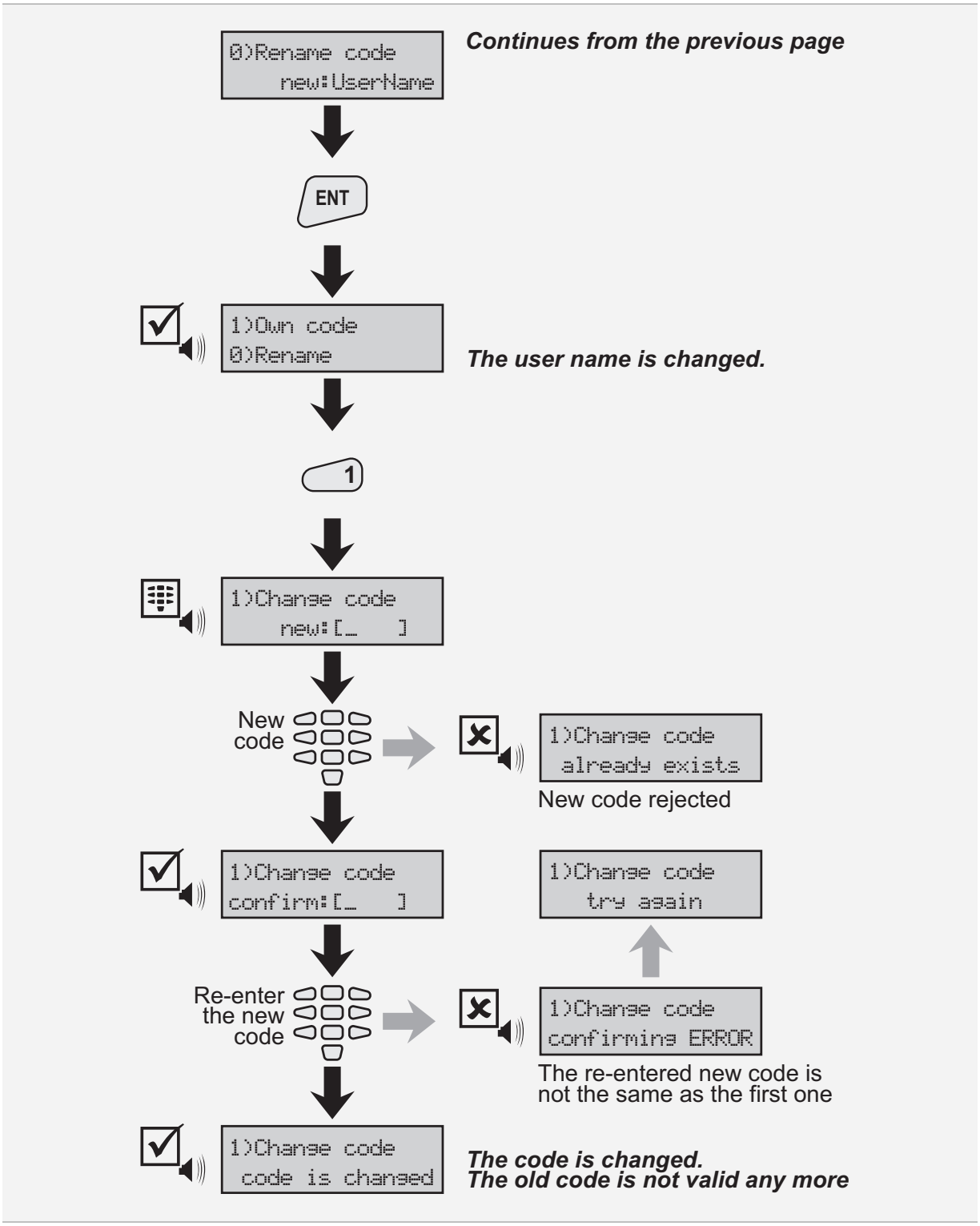
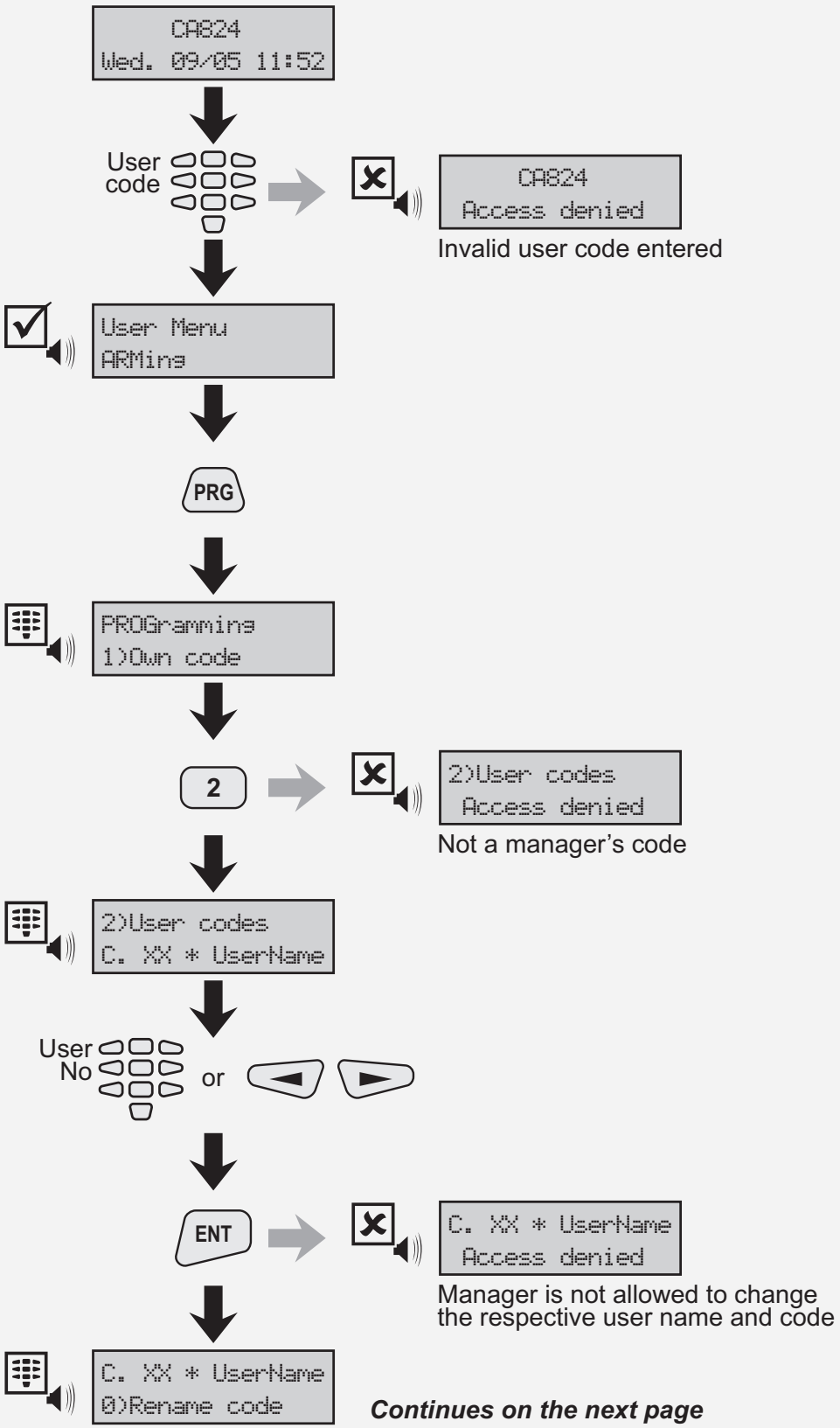


Figure 14. Changing own user name and code

Changing User Names, Codes, Permissions and Attributes by a Manager



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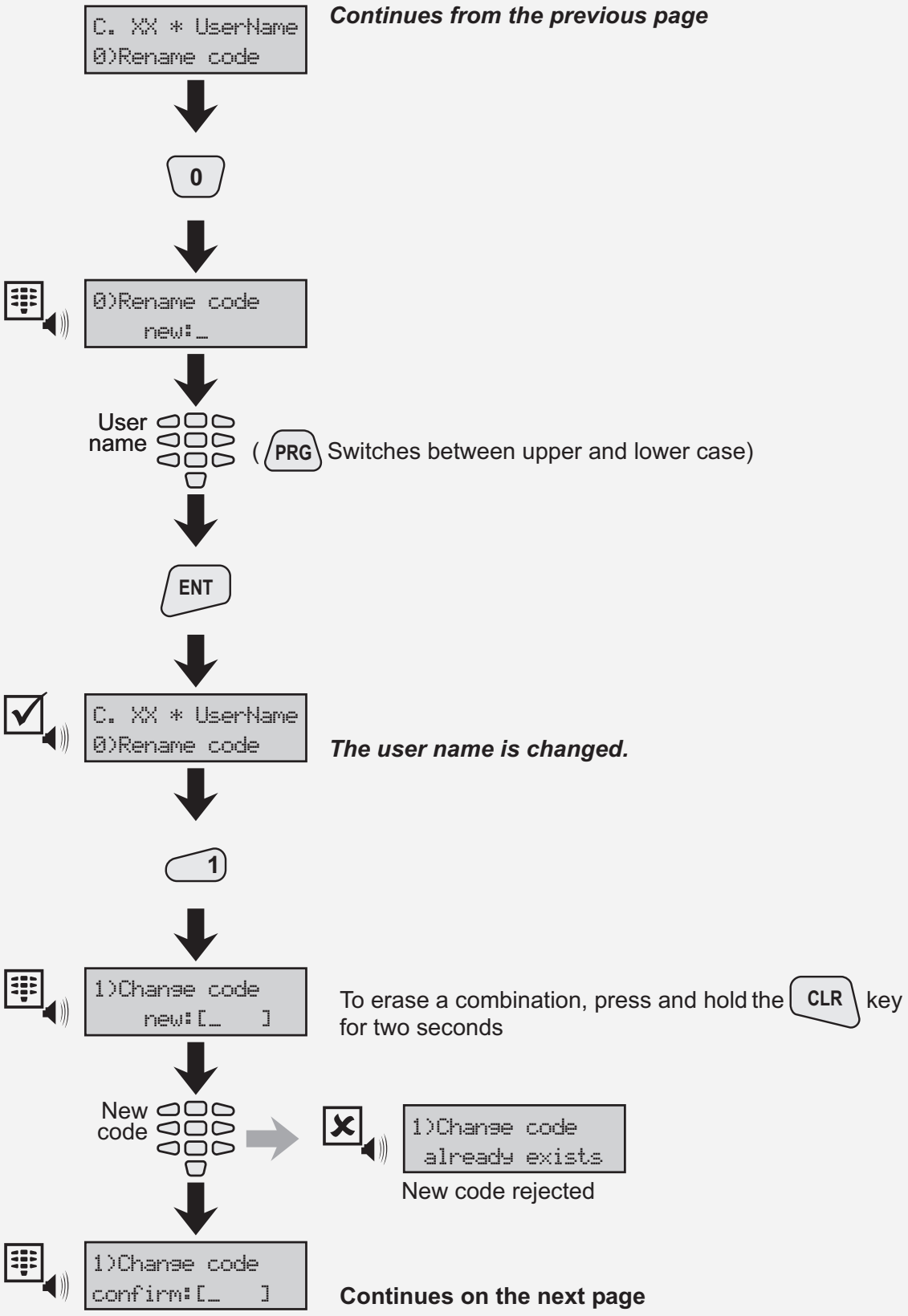
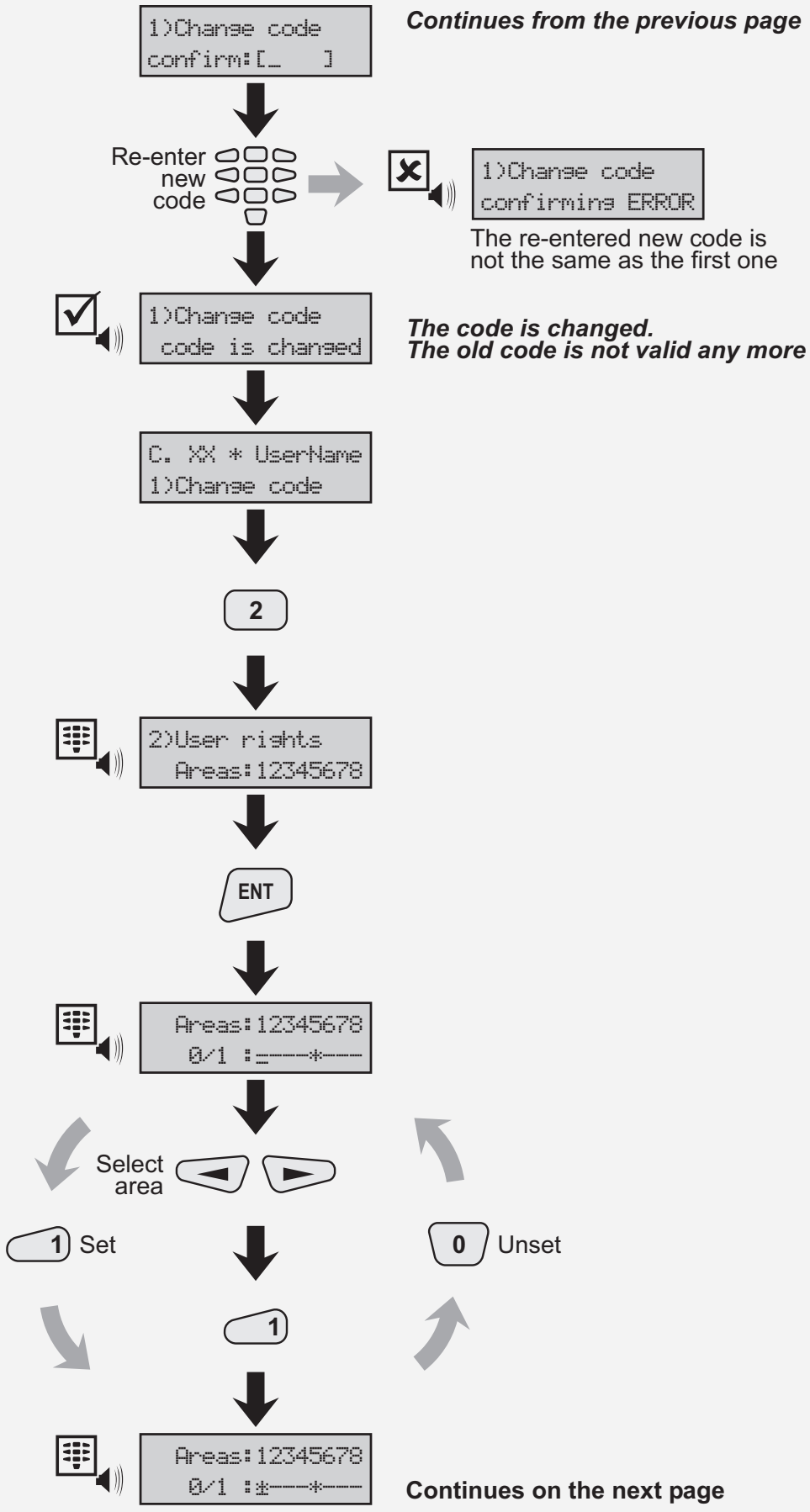
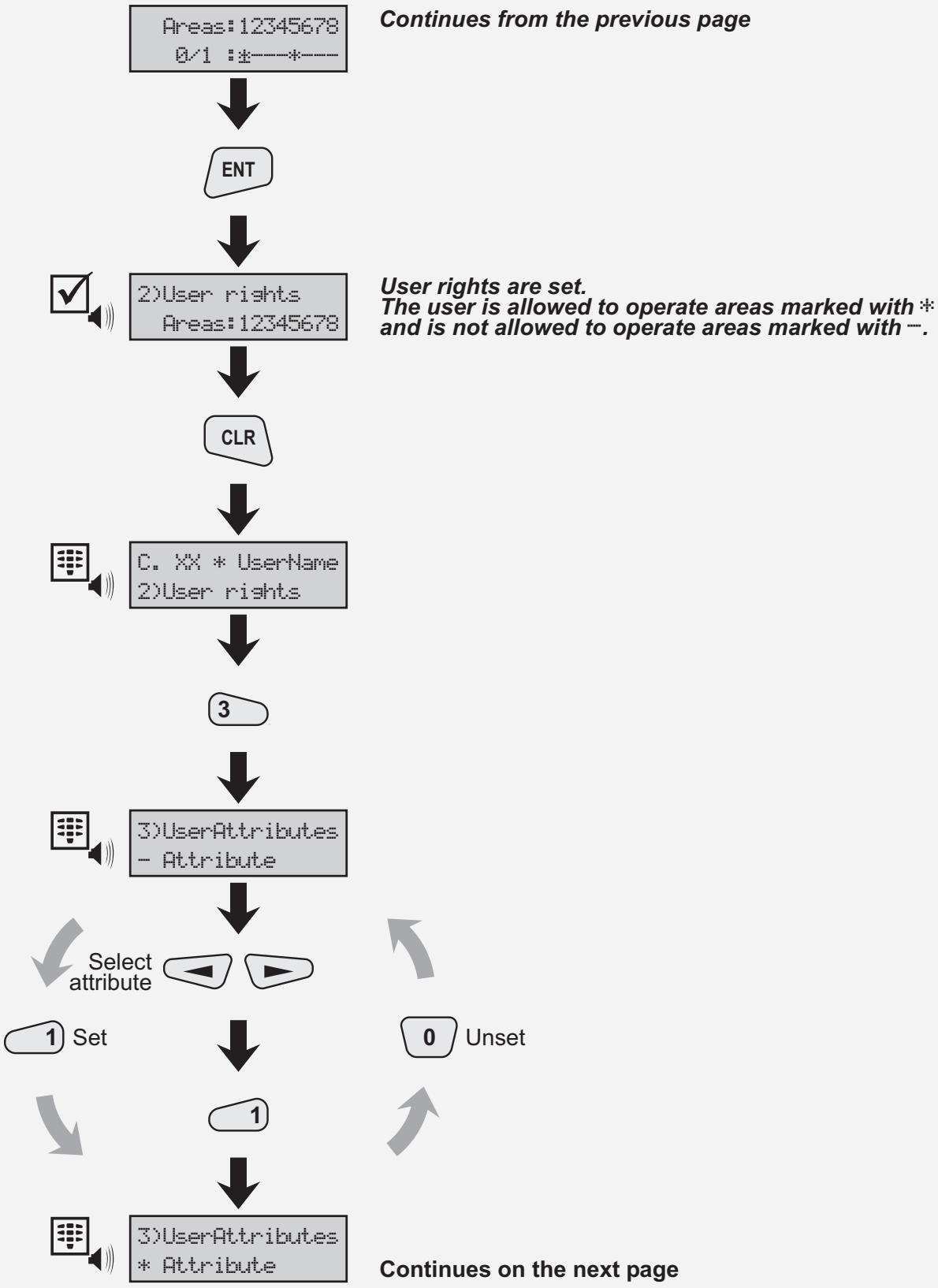

C. XX * UserName
0)Rename code
Continues from the previous page
0
0)Rename code
new:_
User name
(PRG Switches between upper and lower case)
ENT
C. XX * UserName
0)Rename code
The user name is changed.
1
1)Change code
new:[_]
To erase a combination, press and hold the CLR key for two seconds
New code
1)Change code
already exists
New code rejected
1)Change code
confirm:[_]
Continues on the next page


1)Change code
confirm:[_]
Continues from the previous page
Re-enter new code
1)Change code
confirming ERROR
The re-entered new code is not the same as the first one
1)Change code
code is changed
The code is changed.
The old code is not valid any more
C. XX * UserName
1)Change code
2
2)User rights
Areas:12345678
ENT
Areas:12345678
0/1 :
Select area
1 Set
0 Unset
1
Areas:12345678
0/1 :
Continues on the next page



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User rights are set.
*The user is allowed to operate areas marked with * and is not allowed to operate areas marked with -.*

Continues on the next page

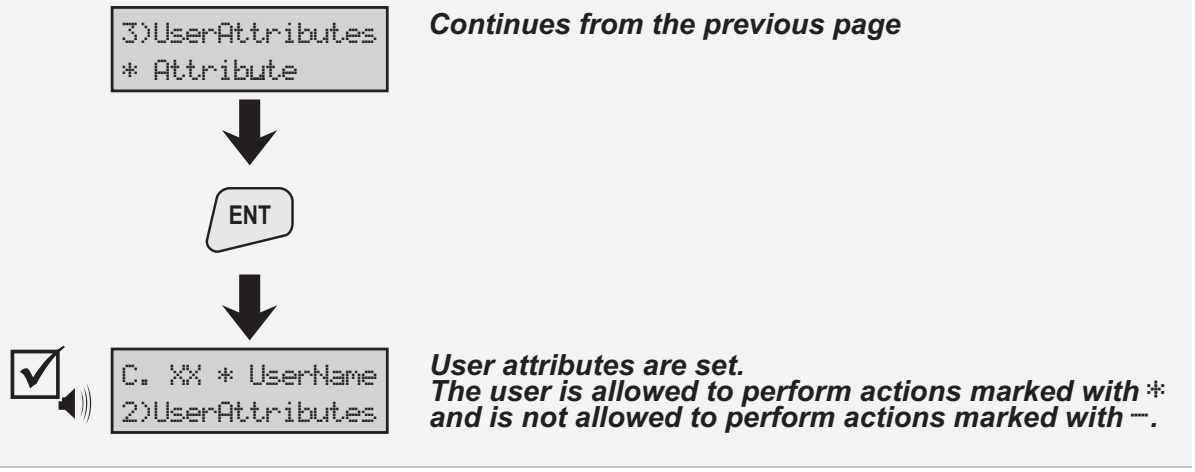
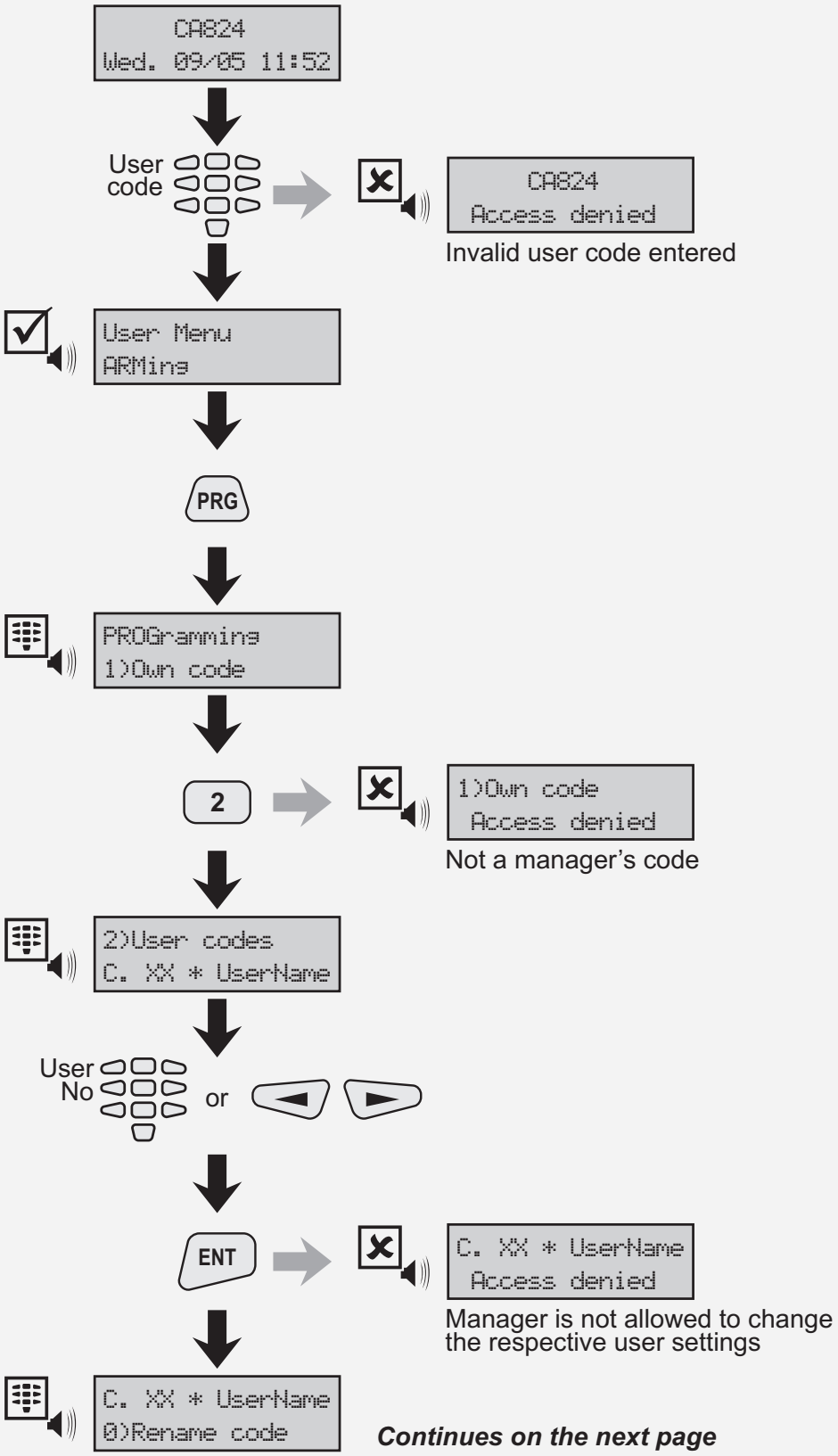


Figure 15. Changing User Codes by a Manager

Attribute	Action
Full Arming	Permission to Full arm the system
Force Arming	Permission to Force arm the system
Stay / Instant Arming	Permission to Stay and Instant arm the system
Manager	Manager permissions – creating and changing user codes
Bypass	Permission to bypass zones
Disarming	Permission to disarm the system
Time / Date Set	Permission to set the system time and date
Log View	Permission to review the event memory for the areas, which correspond to the respective user

Adding and Setting a Proxy Card



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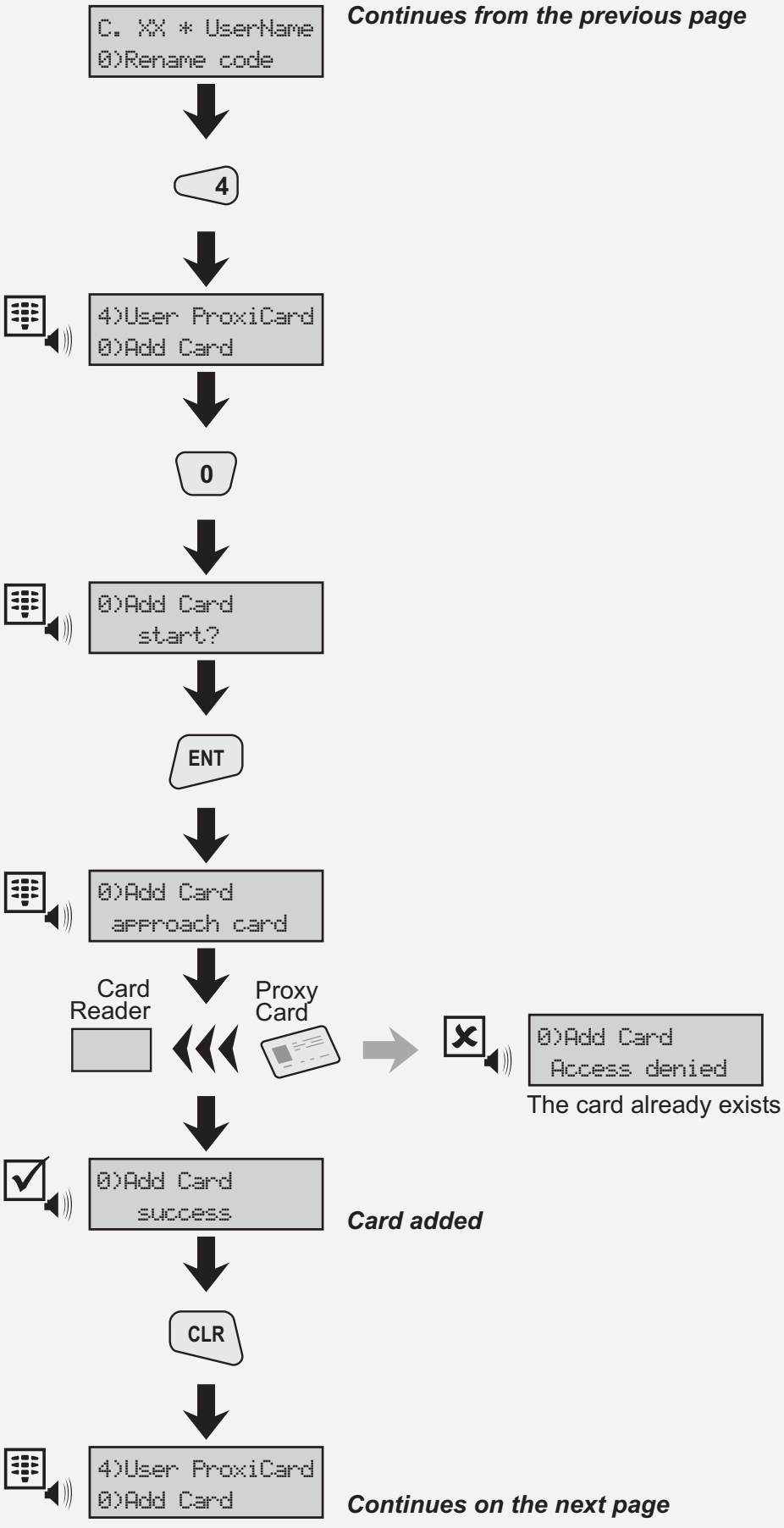

C. XX * UserName
0>Rename code
Continues from the previous page
4
4>User ProxiCard
0>Add Card
0
0>Add Card
start?
ENT
0>Add Card
approach card
Card
Reader
Proxy
Card
0>Add Card
Access denied
The card already exists
0>Add Card
success
Card added
CLR
4>User ProxiCard
0>Add Card
Continues on the next page

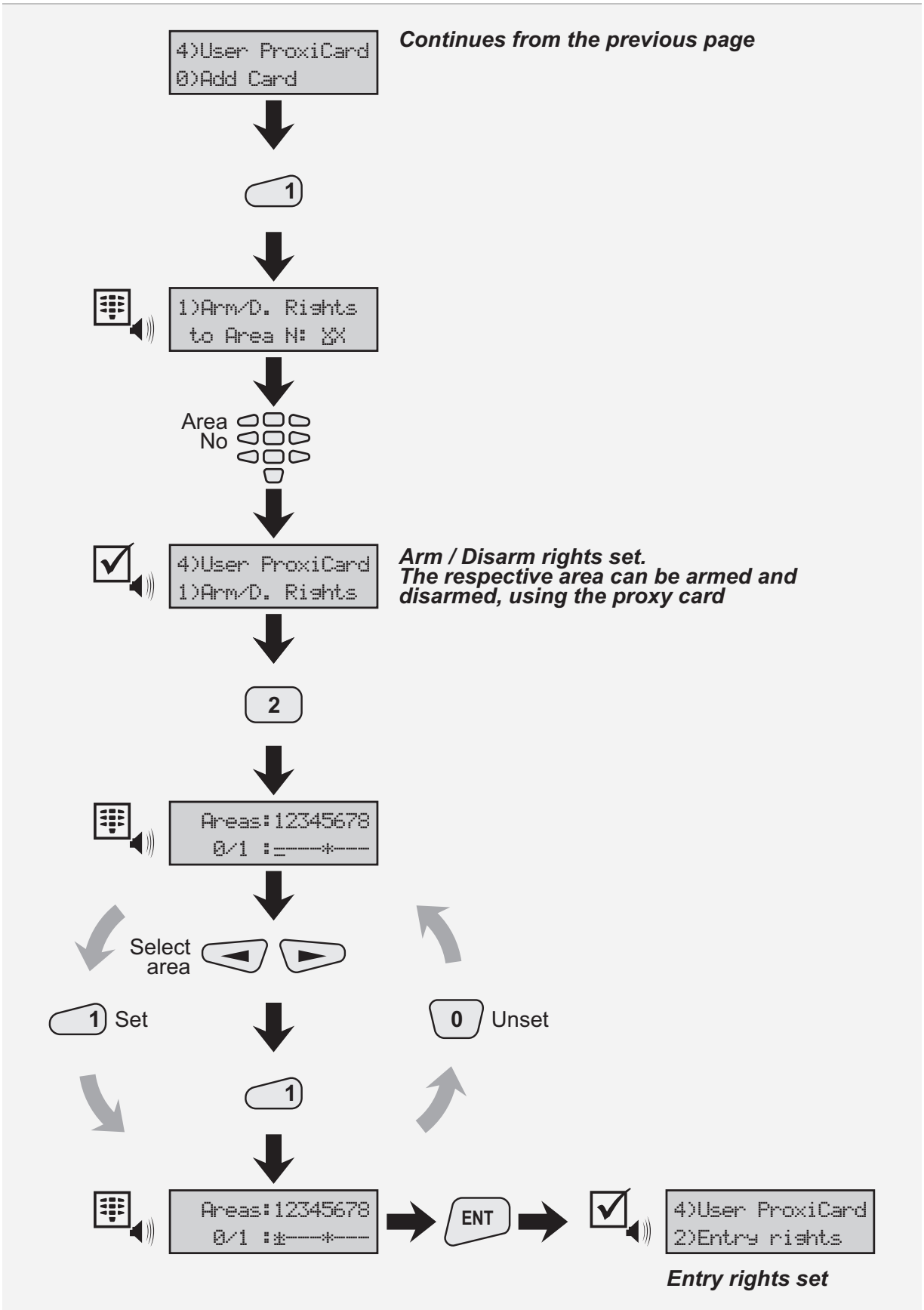
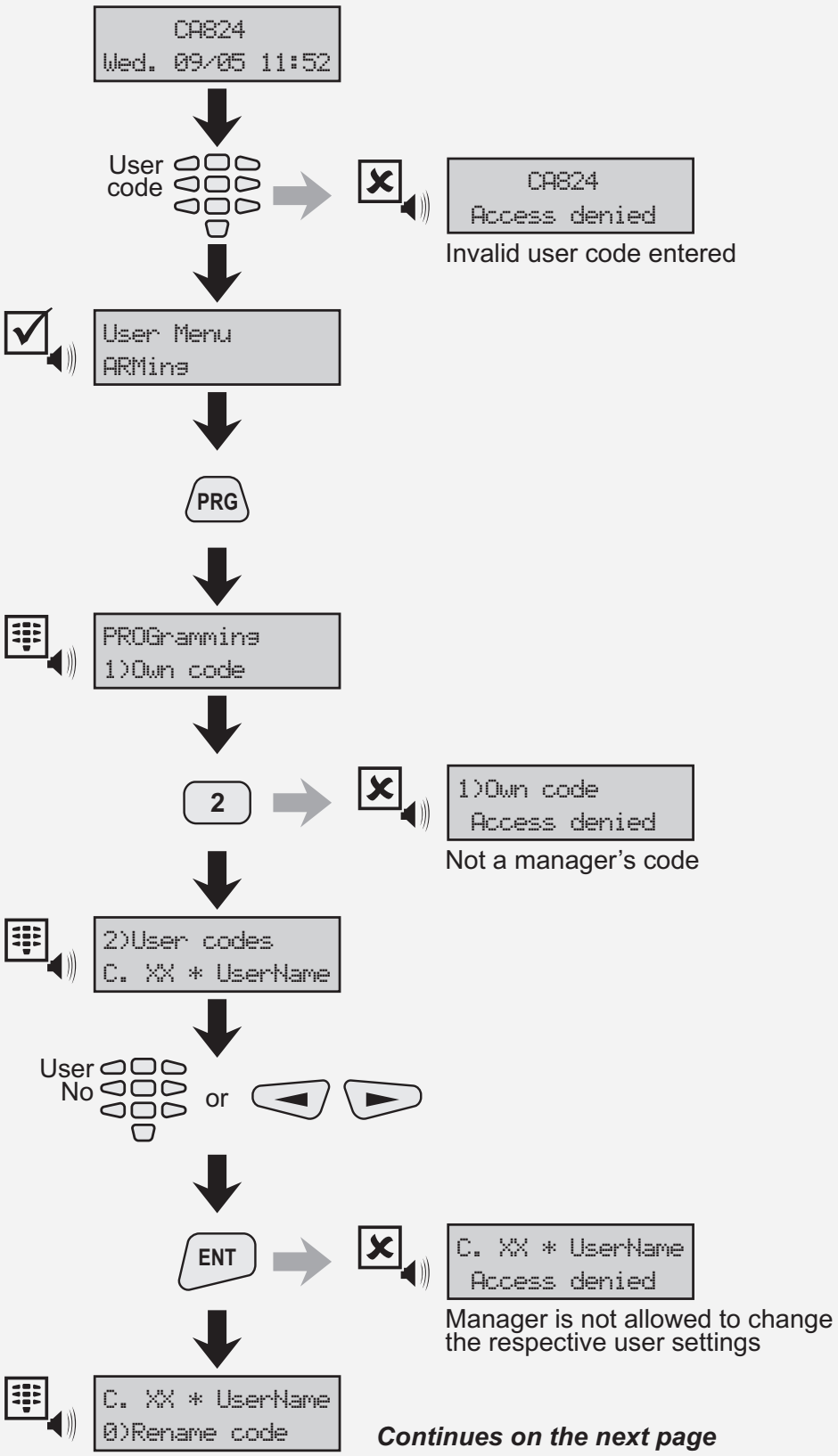


Figure 16. Adding and Setting a Proxy Card

Note: A user can be assigned a proxy card and no code and vice versa!

Removing a Proxy Card



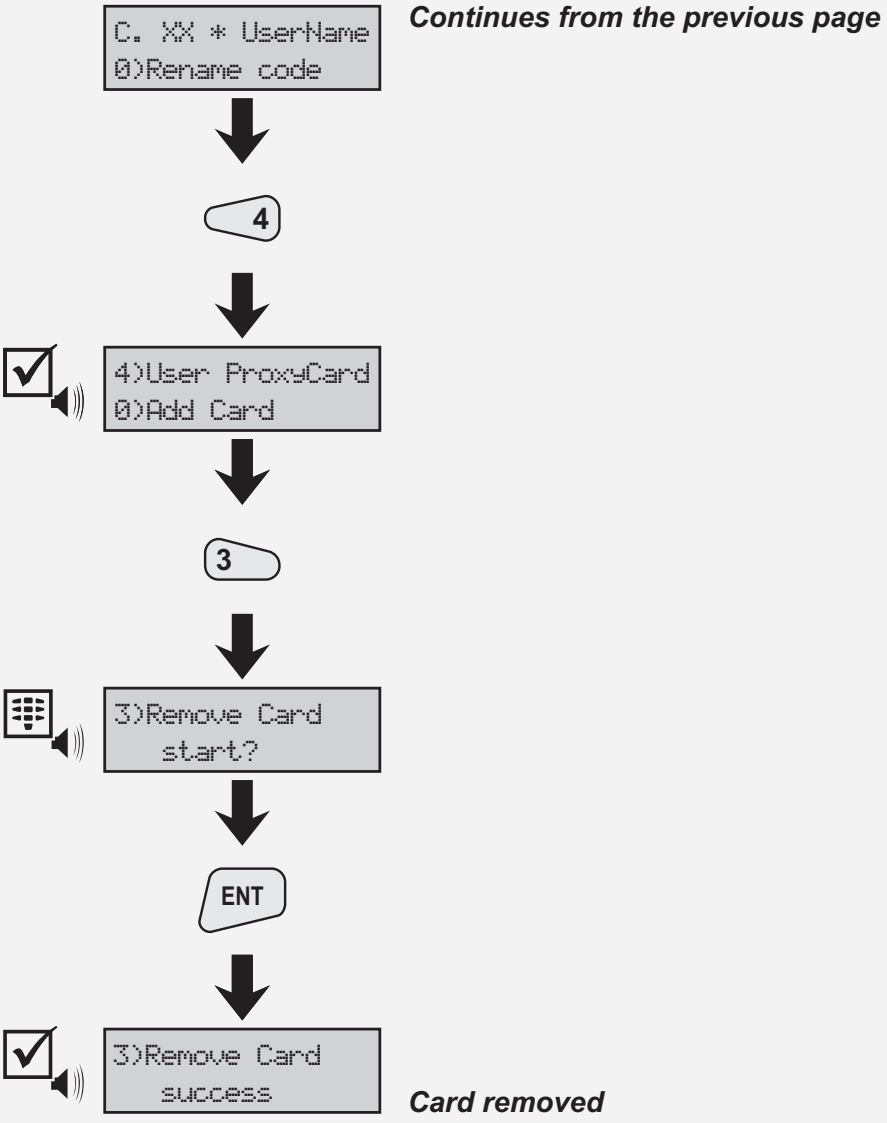


Figure 17. Removing a Proxy Card

Date and Time Setting

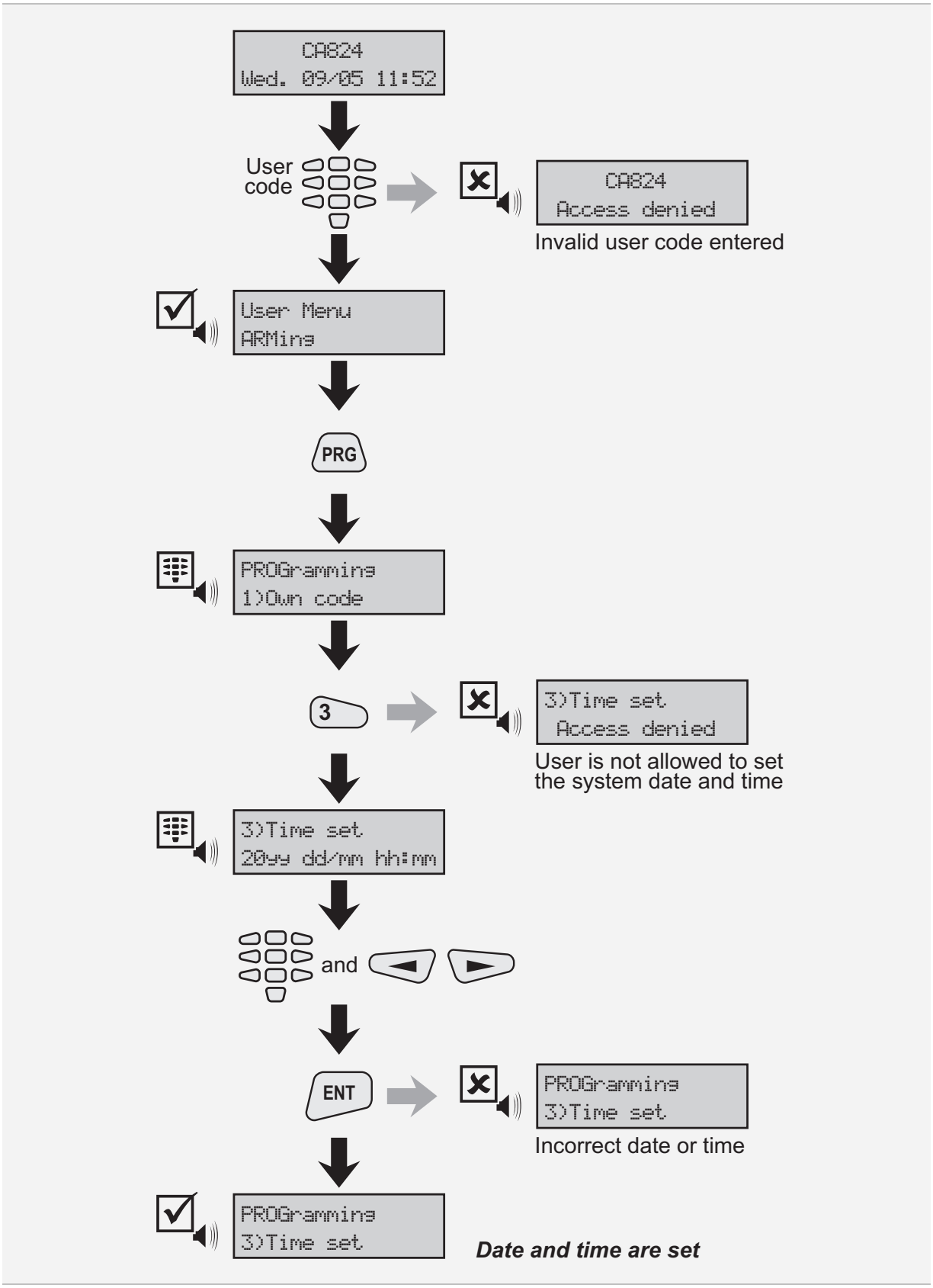


Figure 18. Date and Time Setting

Chime Switching

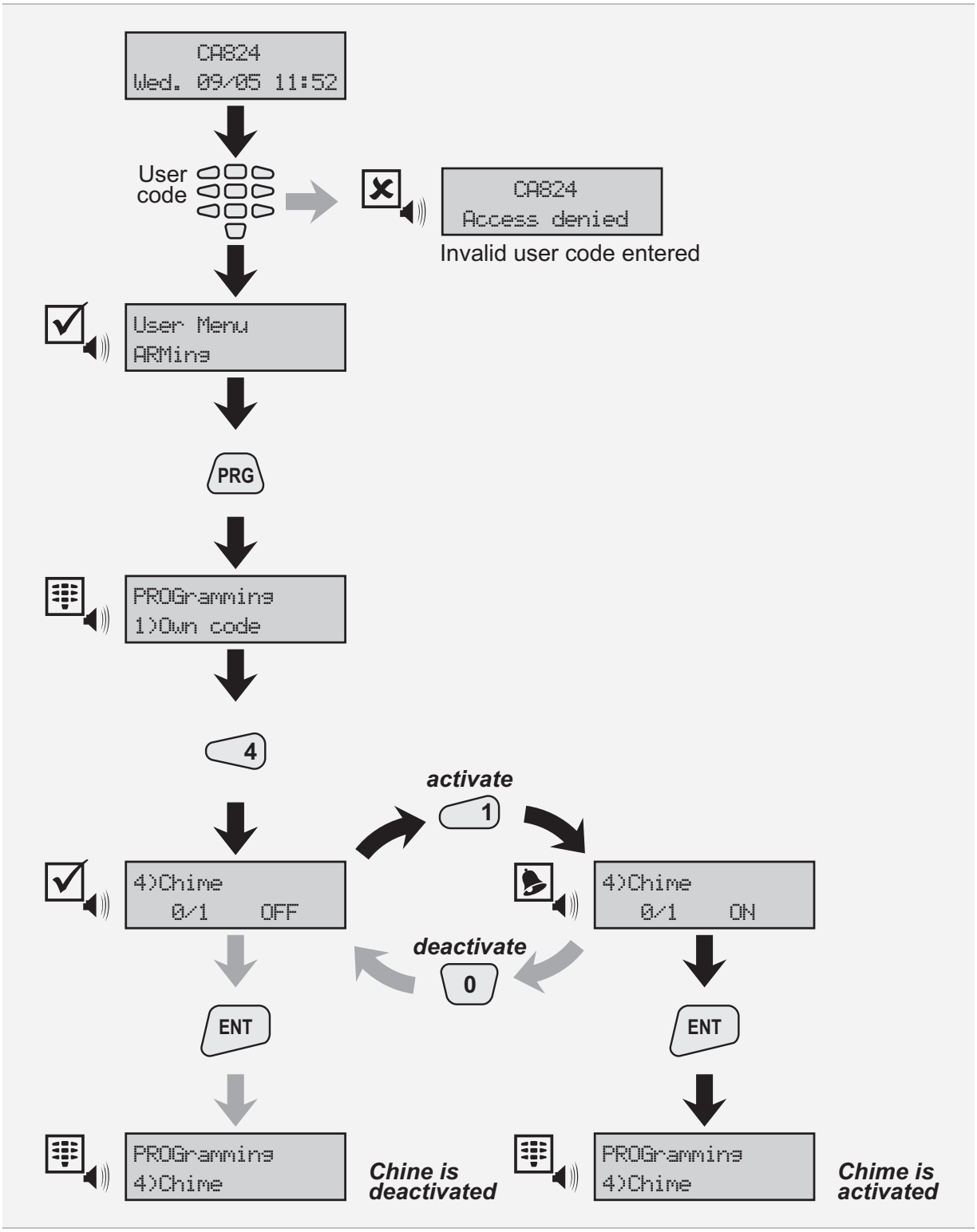
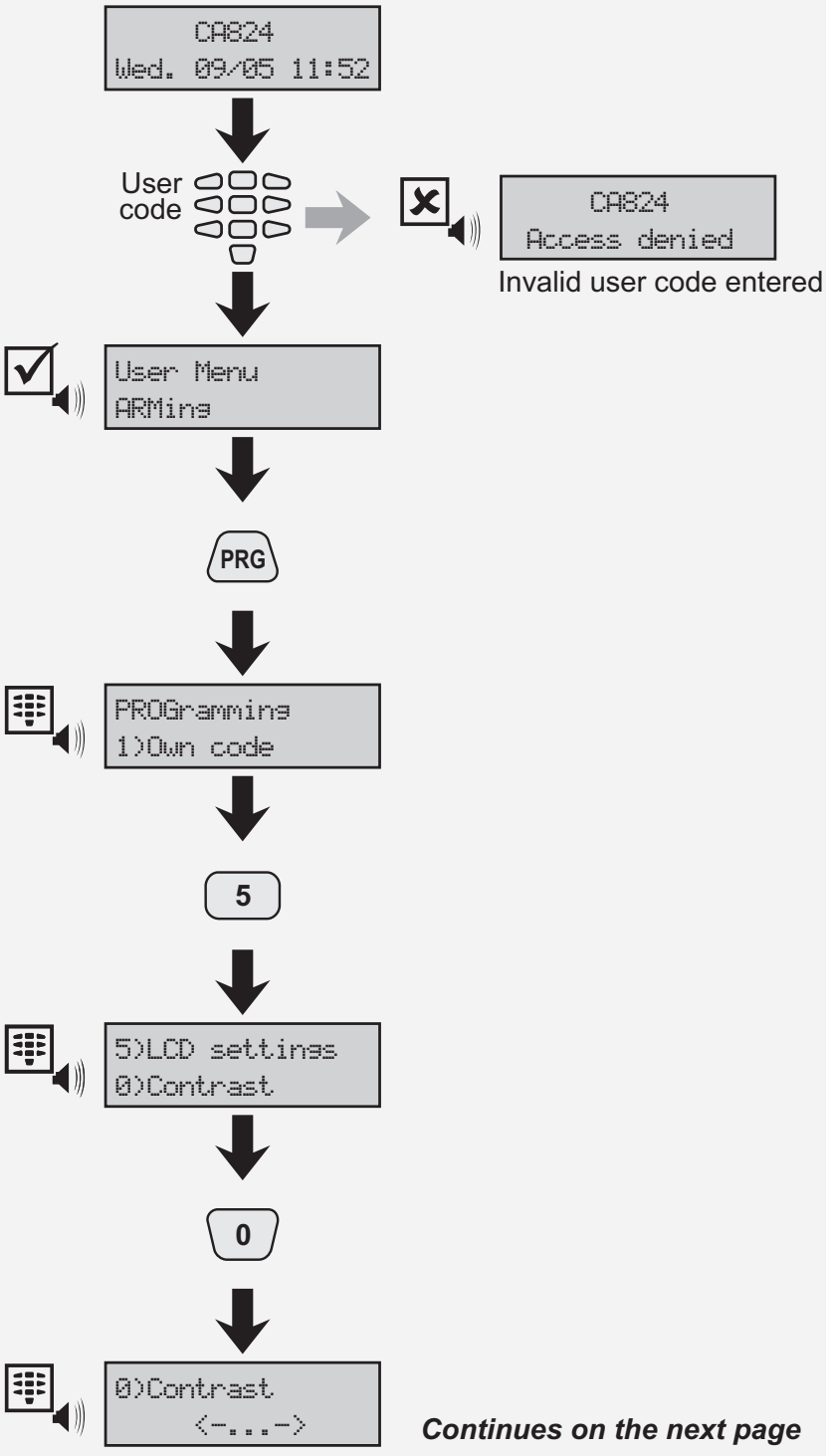


Figure 19. Chime Switching

Display Setting



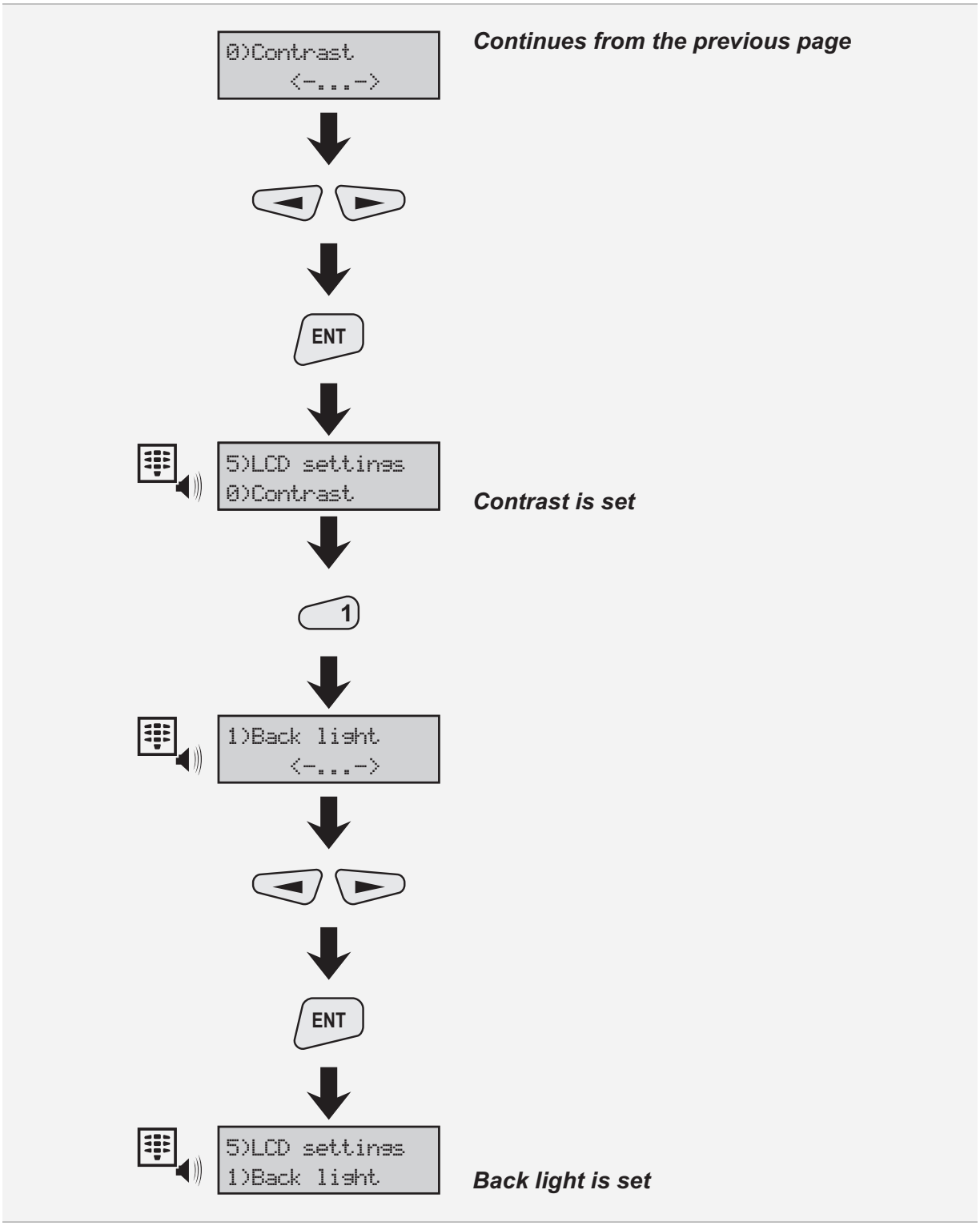


Figure 20. LCD Settings

Private Display

Figure 21. Standard Display

Figure 22. Private Display

The standard to private switching sequence is shown by Figure 23.

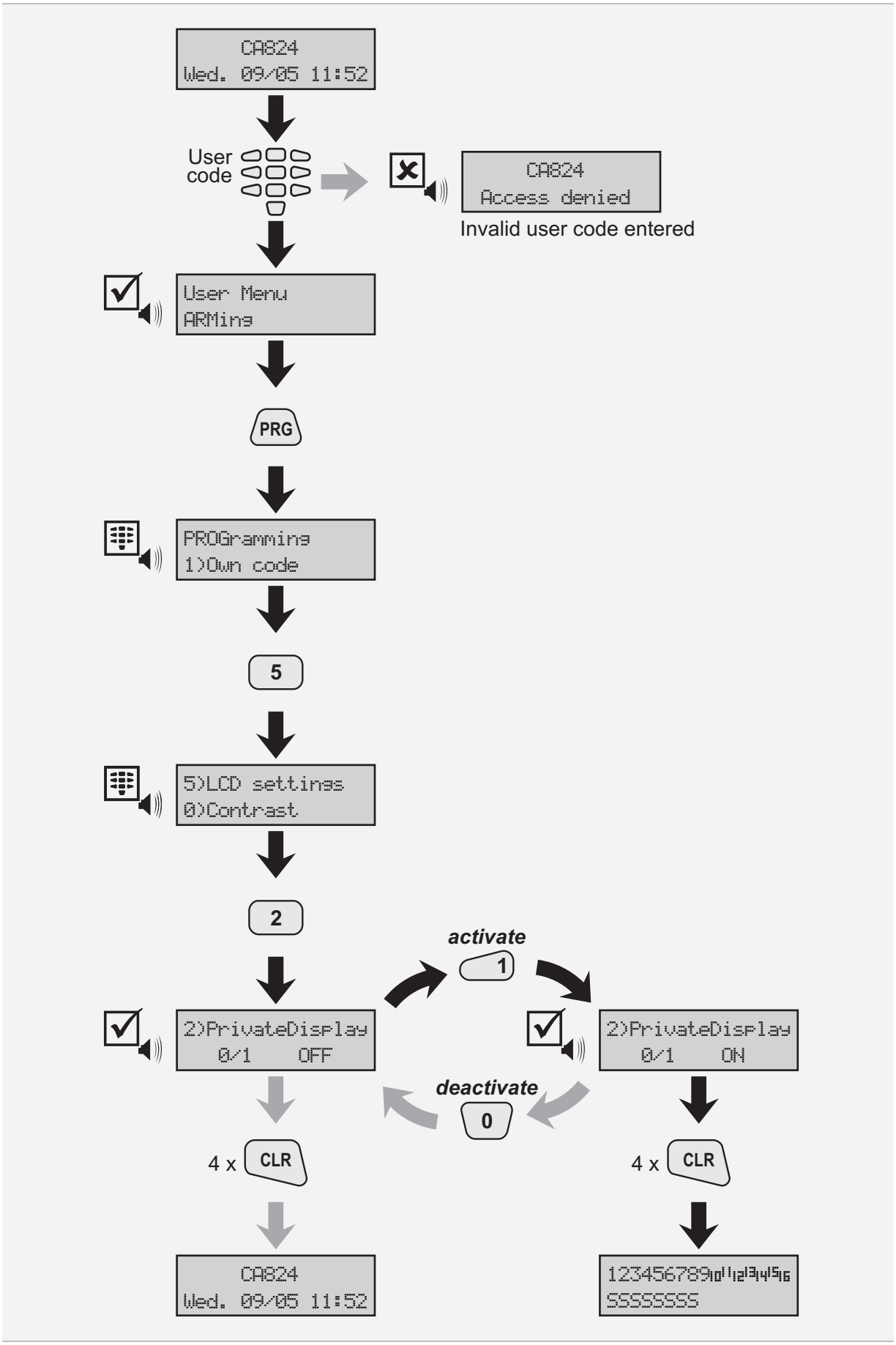
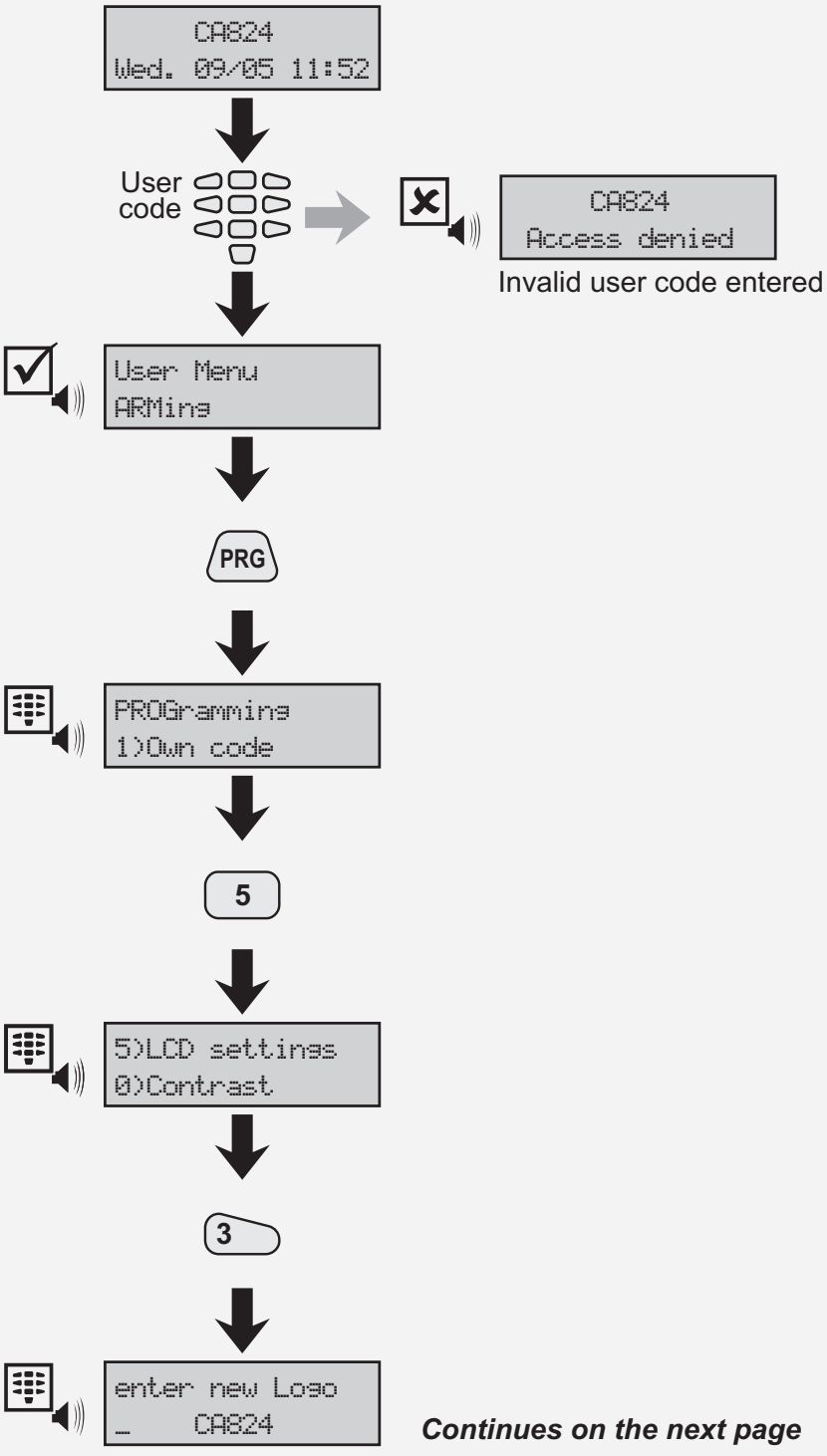


Figure 23. Private Display Switching

Changing the logo

Logo is the first row on the standard display.

The Logo changing sequence is shown by Figure 24.



Continues on the next page

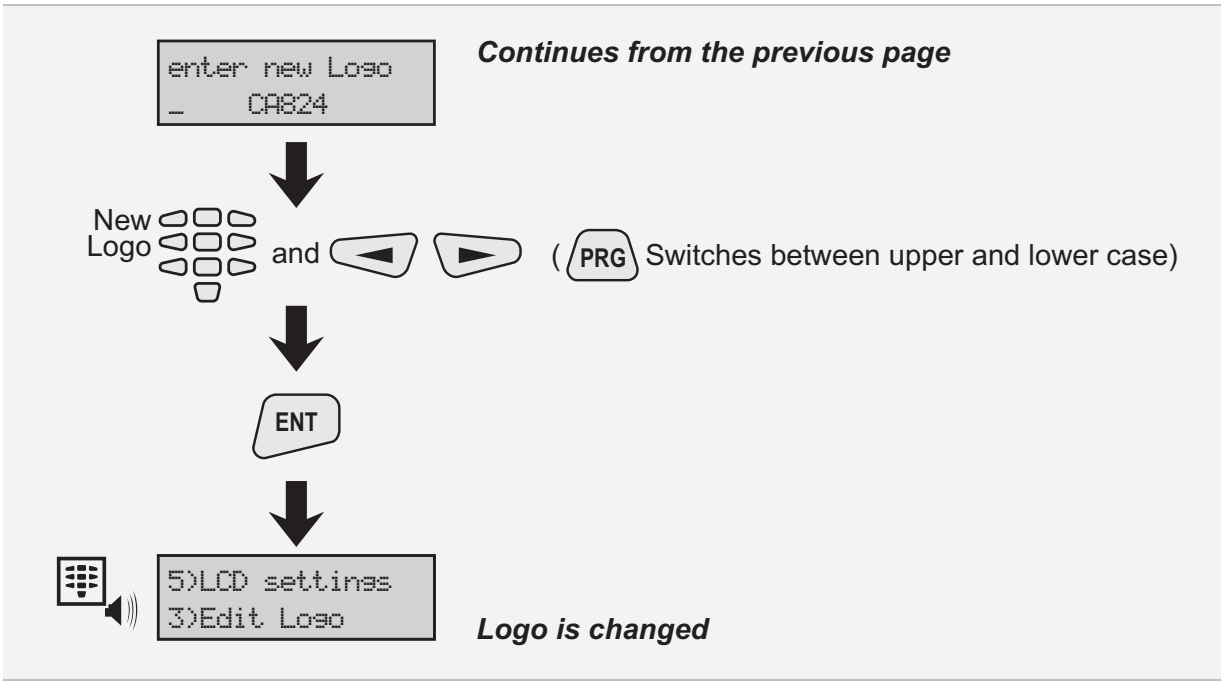


Figure 24. Changing the Logo

Stopping the Alarm and Clearing the Memory Indication

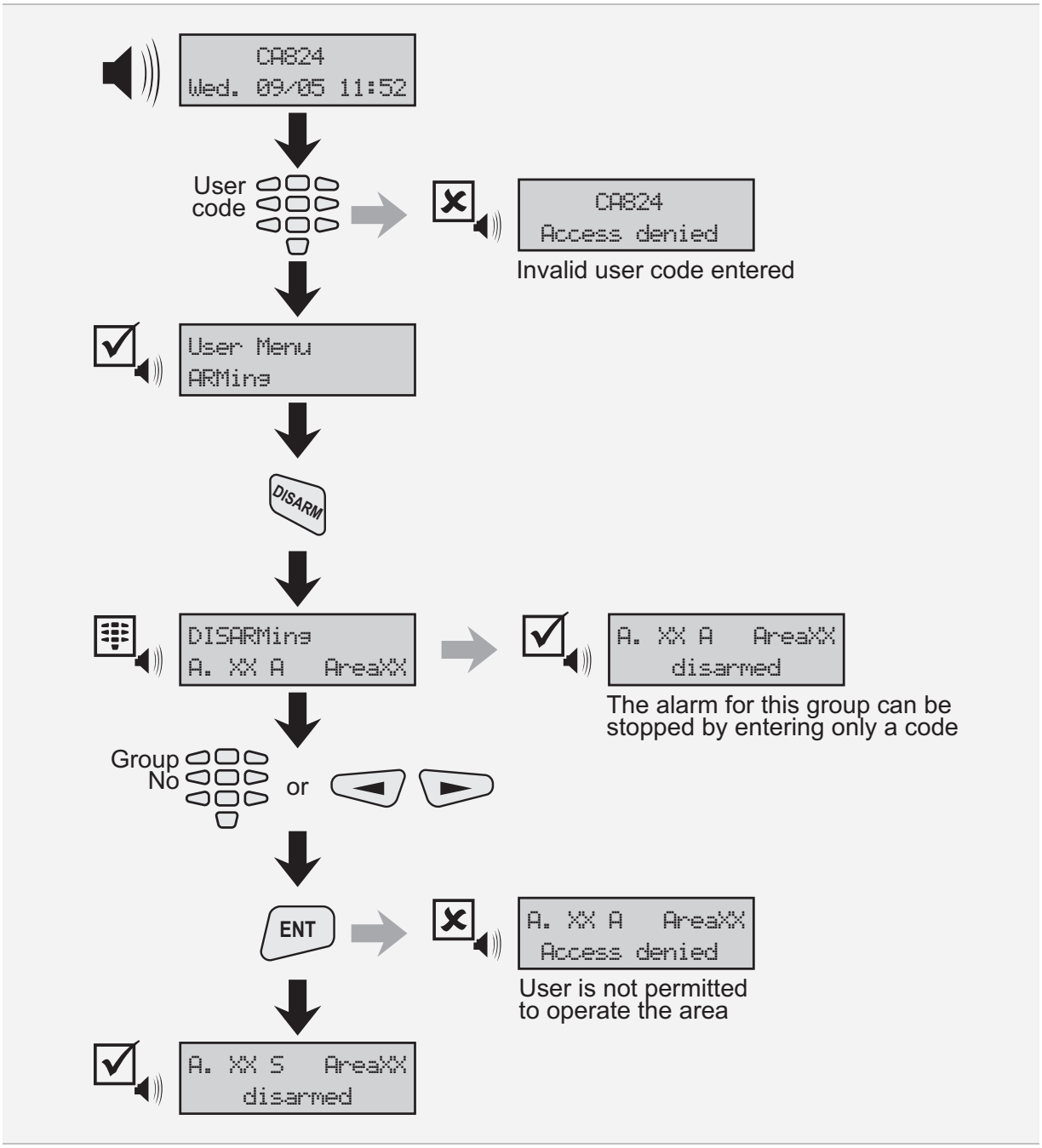


Figure 25. Stopping the Alarm

To clear the memory indication, enter a valid user code.

Special Key Combinations

Panic Button

Pressing simultaneously the ENT and CLR keys invokes a Panic alarm.

Medical Alarm

Pressing simultaneously the 1 and 3 keys invokes a Medical alarm.

Fire Alarm

Pressing simultaneously the 4 and 6 keys invokes a Fire alarm.

Ambush Code

Ambush code is a personal code that disarms the system, but still sends alarm signal. Its purpose to indicate that the user is forced to disarm the system against his or her will.

The ambush code is produced from a personal code by increasing the last number by one.

If the last number is 9, it is replaced by 0 in the ambush code.

Example:

Personal code: 4615 → Ambush code: 4616

Personal code: 4619 → Ambush code: 4610

Appendix

Service Messages on the LCD

Message	Meaning
armed	System is armed
disarmed	System is disarmed
Already disarmed	Area has been already disarmed
First disarm	Area is armed – needs to be disarmed first
Leave area	User is required to leave the area
Area isn't ready	Area is not ready to be armed (open zones)
Code not in use!	Code is not in use at the moment
already exist!	Entered code is already used (when changing codes)
try again!	Enter the code again (at confirming error)
confirm:[	Confirm the new code
confirming ERROR	Code confirming error
code is changed	Code has been successfully changed
code is cleared	Code has been successfully removed
bypassed	Zone is bypassed
Not bypassed	Zone is not bypassed

Complete Menu Map

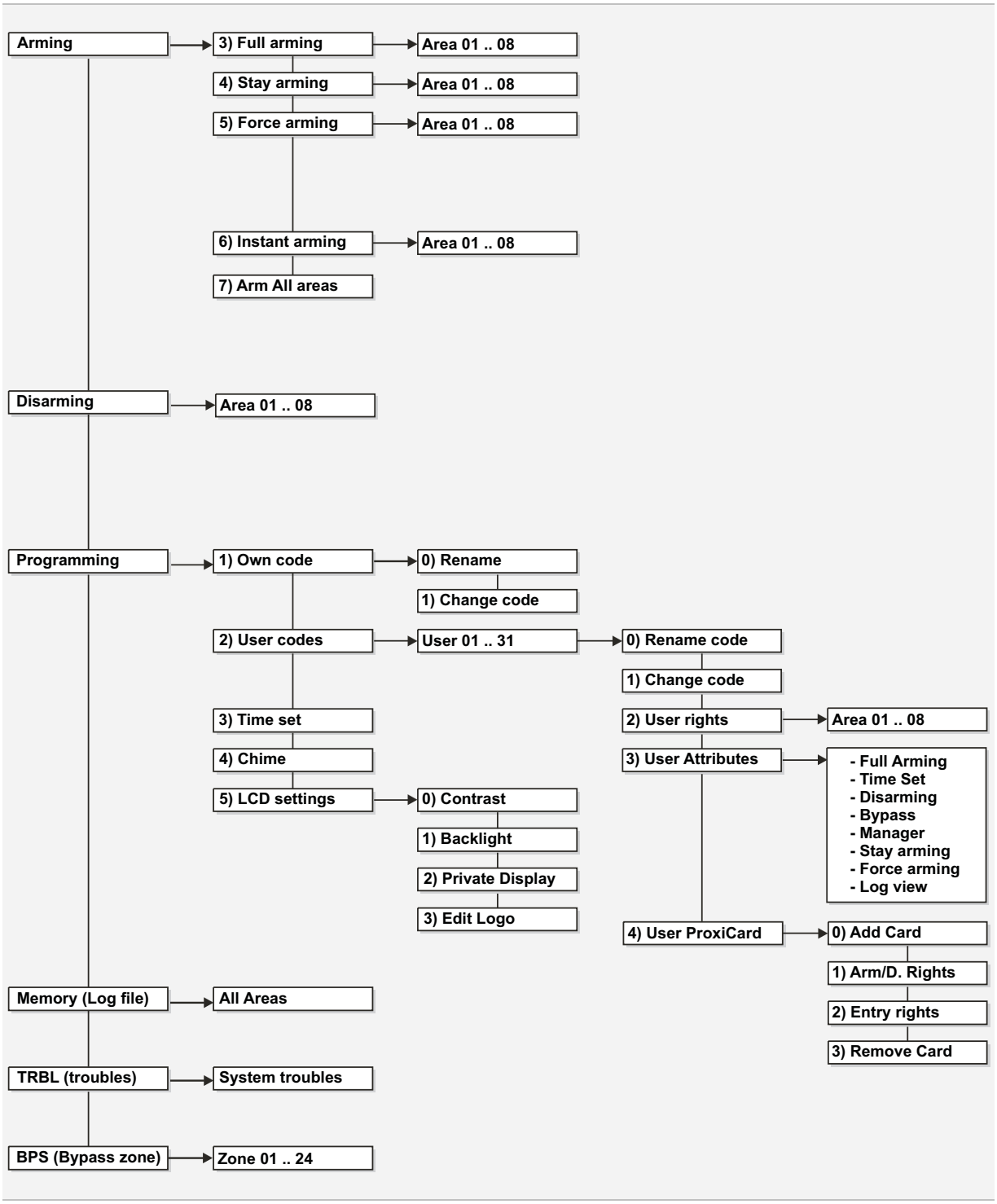


Figure 26. Complete Menu Map