INSTALLATION INSTRUCTIONS

Terxon LX

Perfect security for home and office

11788857

CONTENTS

Chapter I – Basic Information

1 Introduction

Dear Customer,

thank you for purchasing the TERXON L burglar alarm system. You made the right decision in choosing this state-of-the-art technology, which complies with the current standards of domestic and European regulations.

The CE has been proven and all related certifications are available from the manufacturer upon request.

To maintain this status and to guarantee safe operation, it is your obligation to observe these installation instructions.

In the event of questions, please contact your local specialist dealer.

2 Usage in accordance with regulations

This burglar alarm centre uses detectors and transmitters to secure your property. You can use it to protect your company, house, garage, garden house, weekend cottage, etc.

The alarm station registers unauthorised break-ins by switching output contacts to which you can connect visual, acoustic or silent alarm transmitters.

The alarm station contacts and connected components must be kept free of moisture (bathrooms and similar surroundings are to be strictly avoided).

Use of this product for other than the described purpose may lead to damage of the product.

Other hazards such as short-circuiting, fire, electric shock, etc., are also possible. The mains transformer is designed for operation with mains electricity at 230 Volt AC / 50 Hz.

No part of the product may be changed or modified in any way.

Connection to the public power network is subject to country-specific regulations. Please be aware of applicable regulations in advance.

3 Safety information

To avoid fire and injury, please observe the following:

- Securely fasten the device at a dry location in the building.
- Ensure sufficient air circulation for the alarm station.
- Do not expose the station to temperatures less than -10°C or more than 55°C.
- The device is designed for indoor use only.
- Humidity must not exceed 90% (non-condensed).
- Make sure that no metal objects can be pushed into the equipment from outside.
- Ensure that the voltage is disconnected when carrying out work on the station.

IMPORTANT:

Please observe the following regulations to ensure trouble-free operation of your system.

- The alarm station is supplied with 12V DC power by means of the internal transformer.
- The transformer is connected to the 230V AC building mains by means of a separate, electrically protected line.
- Connection work to the building mains is subject to country-specific regulations.
- A 7Ah or 17Ah rechargeable battery supplies emergency standby power.
- The maximum power consumption of connected components must never exceed 1A.
- Always replace fuses with fuses of the same rating, never higher.

IMPORTANT INFO

Intruder alarm panels in general:

If the equipment is not correctly installed, signals may be misinterpreted and result in false alarms. The costs resulting from the deployment of rescue organisations, e.g.: fire or police, are borne by the operator of the equipment. Therefore please read the instructions very carefully and follow the installation instructions for lines and components precisely.

4 Scope of delivery

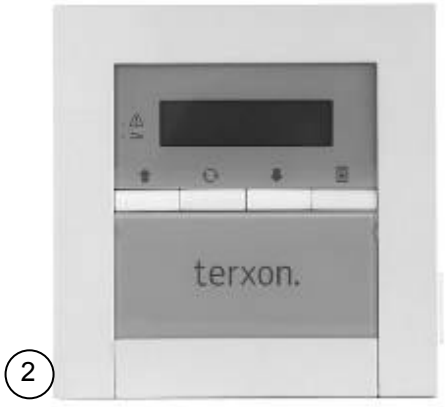
- ① Burglar alarm centre
- ② LCD control unit
- Installation instructions
- Operating instructions

You also need:

- Alarm detector
- signalling device
- 12V/7Ah or 12V/17 Ah rechargeable battery
- Distributor
- cable

Optionally available:

- Relay module
- 8-zone radio auxiliary
- 8-zone wired auxiliary
- 8-zone auxiliary with auxiliary power supply



Tools required:

- Flat screwdriver (small)
- Phillips screwdriver
- Drill
- 6mm drill bit
- 4mm drill bit
- 6mm screws
- 4mm screws
- Wall-plugs, filler, etc.
- Soldering iron and solder
- Insulation tape or shrink-on tubing
- Voltmeter, ohmmeter (or multimeter)
- Cable channel
- Screw-clamps

5 Notes on connection and extension options

The burglar alarm centre is the basic device of an electronic security system for protecting your property (e.g.: apartment, house, garage, shops, etc.). In combination with other components such as detectors and signal transmitters, it secures the areas monitored. The alarm is triggered by a break-in attempt.

The alarm centre is operated from a wired operating panel so that you can install the alarm centre in a hidden location. If necessary, you can connect up to 128 operating panels using corresponding auxiliary modules. It can also be operated with key-switches and shunt-lock locks.

In the event of an alarm, the integrated modem permits alarms to be sent from the Terxon L by telephone to selected subscribers.

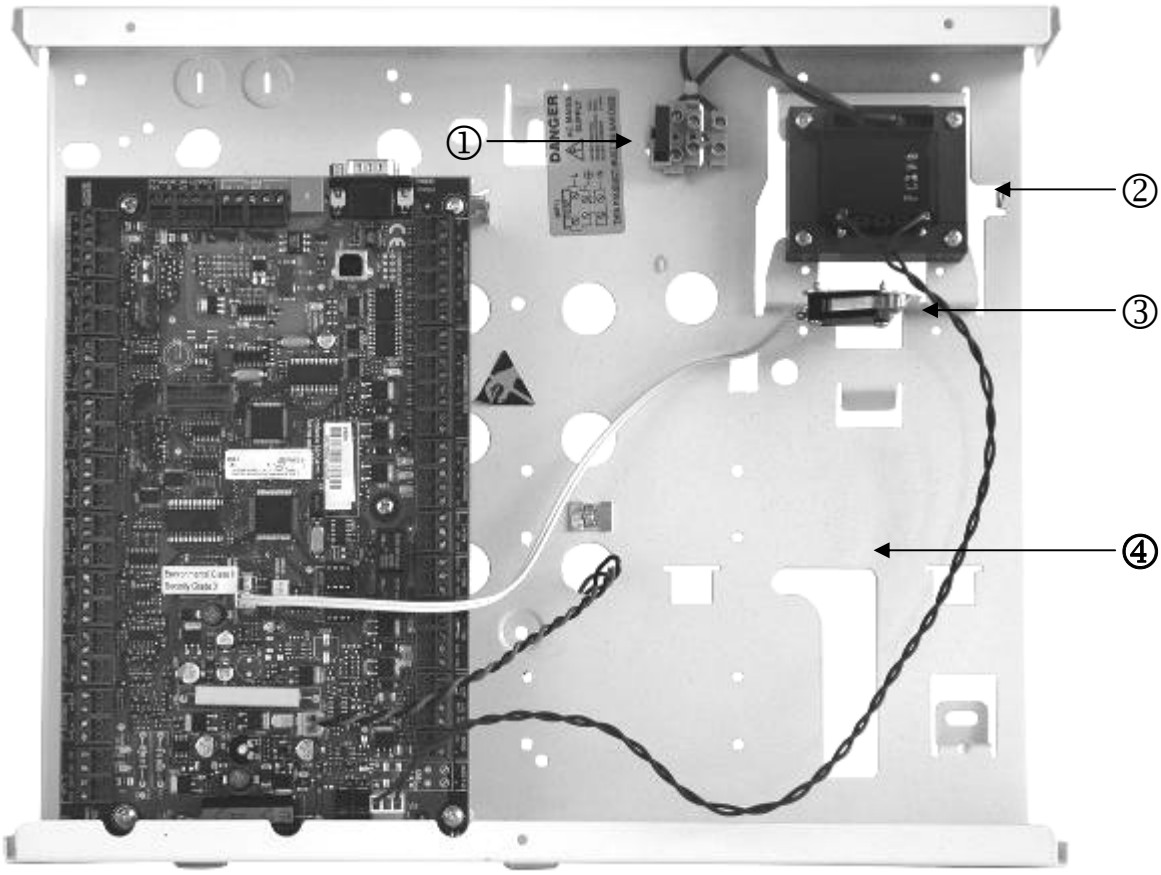
In the basic version, the burglar alarm centre has 8 separately evaluated alarm and tamper zones. The alarm centre monitors whether a (minimal) quiescent current is flowing or not between the two contacts of each alarm zone. If the contacts of an alarm zone are closed, the zone is considered to be closed and power can flow. If no contact exists, no current flow is possible and the alarm zone is open. Any changes trigger an alarm, depending on the programming. Differential monitoring of alarm zones is also possible (DEOL).

The alarm centre also has an integrated PC interface and a printer interface.

6 Properties of the alarm system

- 8 programmable alarm zones, which can be programmed as follows:
  Normal alarm, entry, access, panic, 24 hour, fire, technical, etc.
- Extendable to max. 264 zones using optional auxiliary modules
- Use of up to 8 partitions
- Separate tamper zone for each alarm zone
- Connection for external bell/strobe
- 3 transistor outputs and 2 relay outputs that can be configured for a specific event (alarm, fire, panic, …)
- Up to 93 outputs available
- Integrated transformer (230V AC / 12V DC) for supplying the alarm centre and connected detectors and for recharging the battery
- Standby power supply via a 12V/7Ah or 12V/17Ah battery
- Simple programming and operation using one or max. 128 operating panels and a corresponding number of auxiliary modules
- The state of the alarm zones and the alarm centre is displayed on a plain-text display.
- Zone blocking as a way of temporarily removing individual alarm zones from surveillance
- 24-hour zones can be permanently shunted.
- Automatic scheduled activation/deactivation
- Scheduled activation of exits
- Access authorisation for operating and programming using a 4- or 6-digit code
- Tamper contacts for the alarm centre and the control units
- Alarm and event memory (capacity: 2000 events)
- Integrated modem

7 Overview of housing components



① Connection of 230V mains supply with primary fuse (T 250V, 250mA)

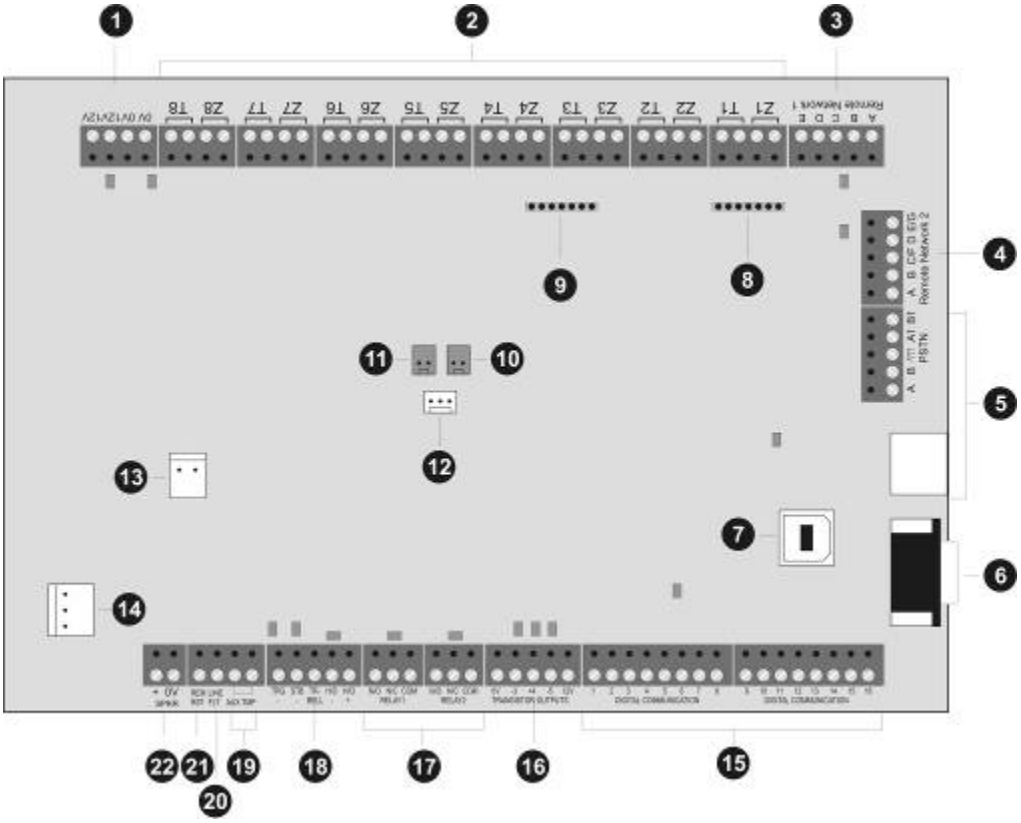
② 230VAC / 12VDC Transformator.

③ Tamper contact of alarm centre housing.

④ Space for 12V standby battery (7Ah/17Ah) and cabling.

8 Wiring information

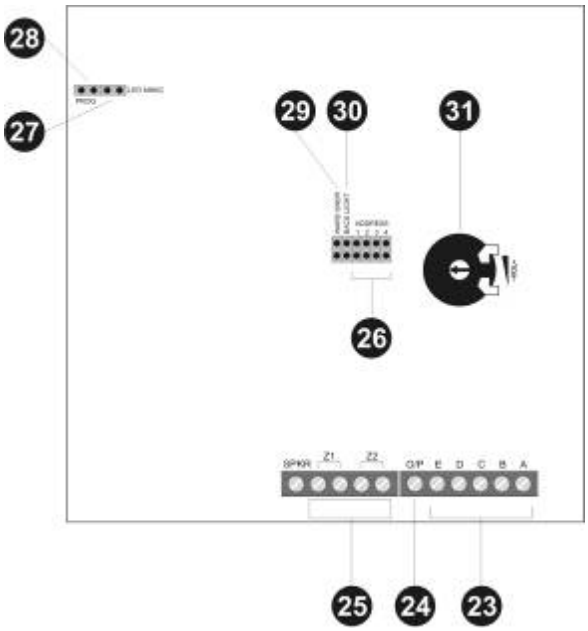
This section tells you how to connect auxiliaries, sensors and operating elements to the Terxon L.



8.1 Connection possibilities on alarm centre:

1. Strip connector for 12V DC power supply of external equipment
   AUX: +12V permanent voltage for detectors
   0V: 0V ground
2. Strip connectors for alarm and tamper
   Z1 – Z8: Alarm zones
   T1 – T8 Tamper zones
3. Bus connection 1 for connecting auxiliary modules or operating panels
4. Bus connection 2 for connecting auxiliary modules or operating panels
5. Connector for analogue telephone line (connector strip and RJ11 plug)
6. Serial interface for PC connection
7. USB interface for PC connection
8. Connector for engineer operating panel
9. Connector for aux. transistor outputs
10. Jumper for system restore
11. Lid tamper connector
12. Printer port
13. Standby power input socket
14. Connector for 17 VAC power supply
15. Digital communication outputs
16. Transistor outputs
    (two negative, one positive switching)
17. 2 Relay outputs
18. Connector for external bell
19. Aux. tamper input
20. Input for telephone fault
21. Not Used
22. Loudspeaker connector

8.2 Operating panels



The burglar alarm centre can be operated with up to 128 operating panels connected via 2 bus systems and 8-zone auxiliaries.

23. (A, B, C, D, E): Connectors for operating panel to bus (A: 12VDC, B:0V)

24. O/P: This programmable output normally switches from 12V to 0V. It can be inverted by programming.

25. Z1, Z2: Two optional zones that can only be connected via DEOL!

26. ADDRESS: The address of the operating panel is defined by the respective jumper setting. If all contacts remain open, this addresses operating panel no. 5.

27. LED MIMIC: If the jumper is connected, the red LED on the front signals that the output of the operating panel is activated.

28. PROG: As a factory default, the jumper is plugged in. It can be removed only if the operating panel is connected to the 8-zone auxiliary.

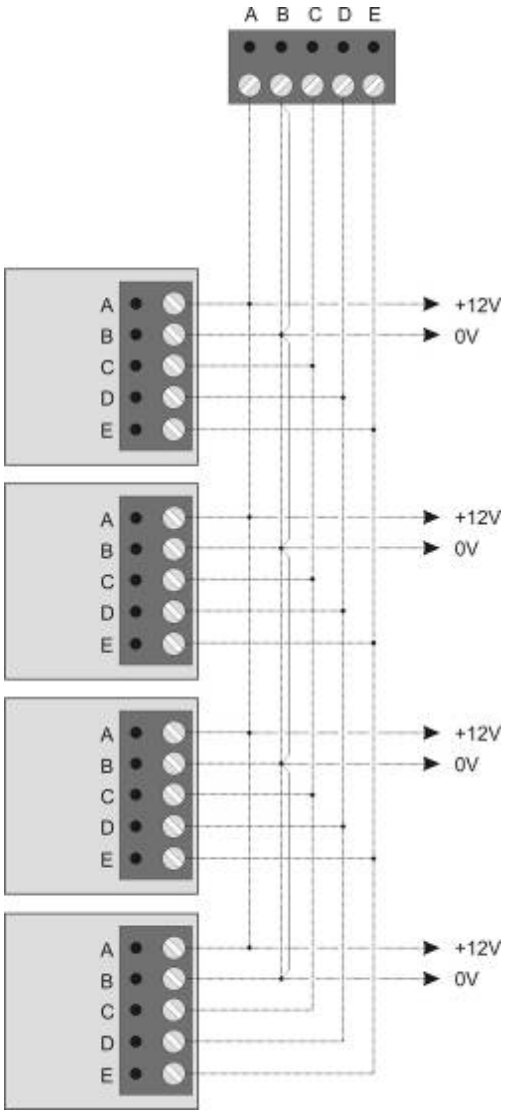
29. WARD SNDR: If the operating panel output is programmed as Sndr. Ctl. type and the jumper is connected, the integrated signalling device works only in a selected partition.

30. BACK LIGHT: If the jumper is connected, the background lighting of the display is permanently on. When a key is pressed, the keypad backlight lights for 5 seconds. If the jumper is not connected, the backlight of the display and the keypad are off. When a key is pressed, the entire backlight lights for 5 seconds.

31. VOLUME CONTROL: Volume control of internal signalling device and external alarm sounder.

8.3 Connecting an operating panel

The length of the databus for operating panels must not exceed 100m. You can directly connect up to 5 operating panels per bus. For connecting the control units, use a cable with a wire diameter of min. 0.22mm^2.



9 Accessories

Operating panel (AZ5210)
Operating panel with LCD display, one LED for power supply, one programmable LED and one built-in proximity chip-key reader. There are also 2 zones with DEOL wiring.

8-zone wired auxiliary (AZ5225)
This auxiliary permits the connection of 8 further zones and up to 4 operating panels.

8-zone radio auxiliary (AZ5220)
This auxiliary permits the connection of up to 8 radio components of the Secvest series.

Relay board (AZ5140)
This board provides 8 additional relay outputs.

8-zone wired extension with PSU (AZ5230)
8-zone wired extension with on-board power supply (1,5A)

Speech dialer (AZ6300)
Transmission from voice messages after an alarm.

GSM interface (AZ6400)
Transmission from SMS to a telephone number in case of an alarm event.

Wireless accessory module (FU5210)
With this device the Secvest key and other wireless components can be integrated into the alarm system.

Acoustic and optical signallers
Sirens, flashlights or a combination of both for internal or local alarm.

Additional Accessories
Batteries, alarm cable, junction boxes, proximity key tag.

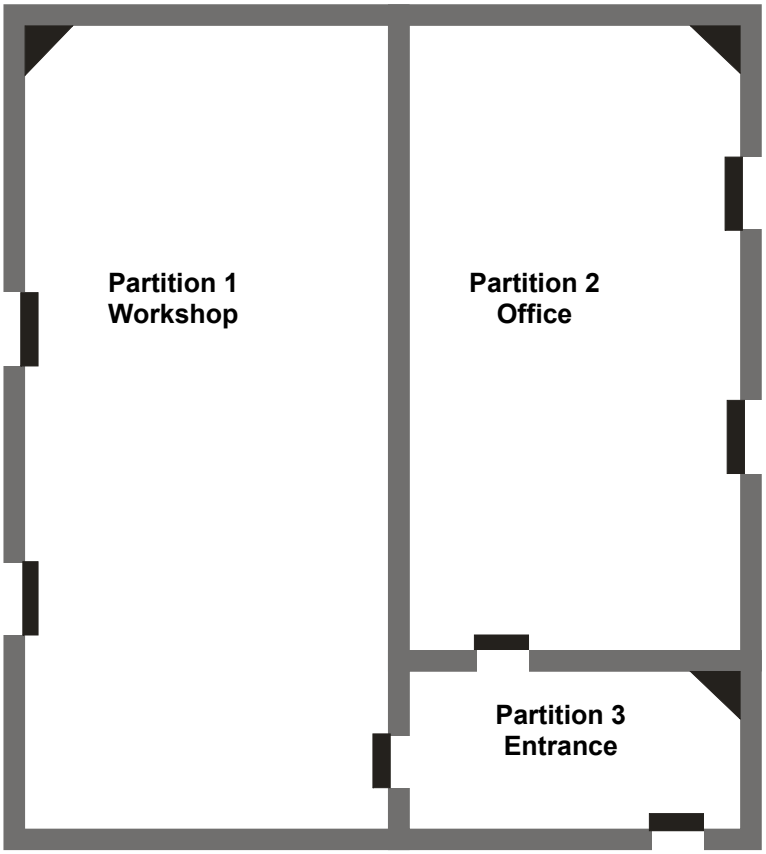
Chapter II – Brief introduction

Read the following before installing your new alarm system:

1 Sample installation

This sample installation should help you to understand the step-by-step installation of the burglar alarm system.

Sample commercial object:



The following example shows a building with an entrance, an office and a workshop.

- Partition 1 (workshop) has 4 zones (3 door contacts, 1 motion sensor)
- Partition 2 (office) has 4 zones (3 door contacts, 1 motion sensor)
- Partition 3 (entrance) has 2 zones (1 door contact, 1 motion sensor)

The following conditions apply

- Users of partition 1 can activate and deactivate their partition but not partitions 2 and 3.
- Users of partitions 2 and 3 can activate and deactivate all partitions.

1.1 Make a drawing

Before fitting components and cables, it will help you to make a drawing of the installation. Draw up a plan of the object that includes the installation location of the alarm centre, the components and cables.

1.2 Cabling

Cables should be laid out of sight, if possible under the surface or in a cable duct (see also Appendix 2). Keep cable lengths as short as possible and make sure cables are far enough away from other electric cables and electronic equipment.

1.3 Installing alarm centre and operating panels

1.3.1 Alarm centre

Fix the alarm centre to a flat, dry, vibration-free and heat-resistant surface.

Open the alarm centre housing (loosen the screws with a Philips screwdriver and remove the cover).

The alarm centre's PCB is fixed in the housing with three screws. Loosen these screws and remove the PCB. The transformer plug can be disconnected from the PCB.

Using the housing as a template to locate the fixing screw holes and drill three holes at these locations (min. 4mm Ø, 4.5cm long).

Fix the alarm centre housing and feed the cables into the housing.

Do not tighten the fixing screws until you have connected all the cables. Replace the PCB and close the housing by replacing the cover.

1.3.2 Operating panels

The operating panels should also be mounted on a flat, dry, vibration-free surface. The mounting height is important. The units should be positioned so that all users can easily read the display and operate the buttons.

Open the cover of the control unit and loosen the screws on the base.

Use the housing as a template for drawing the drill holes and drill three holes at these locations (min. 4mm Ø, 3cm long).

Now connect the operating panel to the alarm centre and the external components.

Make any settings necessary in the operating panel.

Mount the operating panel housing on the wall. Replace the front plate containing the operating panel PCB and tighten the fixing screws.

1.4 Installing other components

Now install the remaining components such as the auxiliaries, sensors and signalling devices in their respective places. These devices should also be mounted on a flat, dry, vibration-free surface.

For further information on individual components, see their instructions or Appendix 4.

1.5 Cabling

After installing all components of the burglar alarm system, you can start connecting the components to each other.

For reasons of transparency, you should always use the colours of the wiring uniformly.

For detailed information on connecting the components, see Appendix 4.

Important: The colours of individual wires can differ according to the cable type used!

1.6 Connecting power supply

Now connect the 12V battery and the transformer cable to the alarm centre. The green LED (operating voltage) lights up and the operating panel buzzers may sound.

Close the housing of the burglar alarm centre and connect to the 230V mains supply.

1.7 Programming

1. Enter the engineer code on the operating panel (factory setting: 7890)
2. Select Option 11: Editing zones
   Define the zone types and if required the zone properties in the respective partitions.

Zones Partition	Zone type
1	Normal alarm
2	Normal alarm
3	Final exit

3. Select Option 41: Change password and name.
   Enter the new engineer code to prevent unauthorised access to the system.
4. Select Option 42: Time and Date
   Set the current time and date.
5. Enter the administrator code on the operating panel (factory setting: 1234) and press  .
6. In the Administrator menu, select
   Option 8-2: User settings
   Change the administrator code
   (user 001).
7. Hand over the installed burglar alarm system to the administrator and users and give the administrator the new administrator code.

Chapter III – Installation instructions

This chapter tells you what options you have with your Terxon L when setting up and programming a complete alarm system.

For information on connecting sensors, auxiliaries and operating panels, see the installation instructions of the respective equipment.

Important
See Appendix IV – Wiring Information for additional information on connecting sensors, signalling equipment and auxiliaries to the Terxon L.

1 First-time operation

After cabling the sensor and connecting the signalling equipment, you can put the TERXON L into operation. You should observe the following sequence:

1. Use a jumper or screwdriver to short-circuit the two contacts marked FACTORY RESTART on the main board. This procedure loads the factory settings.
2. Connect the alarm centre to 230V mains supply and remove the jumper/screwdriver when LED1 flashes by the digital communication outputs. This can take up to 30 seconds.
   You see the following in the display:

   ```
   KEYPAD SW VERSION
   VER 1.0 01-01-2006
   ```

3. Check that LED 5 (PWR ON) is alight on the alarm centre. This LED is near the auxiliary power supply connectors. The internal signalling device of the operating panel and a connected alarm sounder may now sound a tamper alarm. The display shows:

   ```
     ! ALERTS !
   12:04 Tue 03 MAY
   ```

4. Connect the 12V battery (7Ah or 17Ah) with correct colours (12V: red; 0V: black) to the alarm centre.
5. Enter the engineer password (factory default: 7890). The signalling devices are now silent and the alarm centre immediately confirms the auxiliary modules operated on the two bus connections. The display shows the type and number of auxiliary modules (wired, radio). Auxiliary operating panels are operating panels connected to auxiliary modules.

   ```
   [ ENT ] to CONFIRM
   001 LEC2S
   ```

6. Press ✓ repeatedly to confirm the number of auxiliaries. If the number of connected device types is incorrect, check the module connections and addresses again.
7. Press ✗ to enter program mode. You see the following in the display:

   ```
     Equipment
     Confirmed
   ```

8. Press ✗ to log in as engineer.

   ```
   10:Program Zones
   ```

9. Use the program points in the menu to program the equipment (Program menu).
10. Use the test function in the program menu to test the system (See Option 90: Tests).

Close the cover of the alarm centre. Use the screws supplied.

1.1 Log in as engineer

If you log in as engineer, the displays of the other operating panels on the same bus show `System busy`. Operating panels connected to the other bus or 8-zone wired auxiliary module show `Engineer on Site`. However, you can still log in as engineer or user on these operating panels.

Important
Aborting a menu on the operating panel causes an abortion of the menu in all operating panels of the same bus.

The factory-set program code for the engineer is 7890. If the system is configured for 6-digit codes, the program code is 789000.

You can **not** log in as engineer if:

- Another engineer or user is already logged in to the operating panel you want to use.

- A user has armed the whole system (i.e.: all partitions are activated).

  Important
  You can log into a system in which partitions are activated!

- A user has set a timed entry for the engineer. (administration manual; option 5-1).

1.2 Logout

To log out from program mode, press ⊠ until you see the following message on the display:

```
Press [Ent] To
Leave Menus
```

Alternatively, you can select menu item 99.

When you log out, all other logged-in engineers at other operating panels are also logged out.

2 Program menu

Use this menu to make settings for the whole alarm system such as closing a zone, assigning exits or running tests.

Important
It is absolutely mandatory that you finish making settings before you create users and grant them rights.

2.1 Selecting menu items

Press the ⬆ and ⬇ keys or enter the option number to select menu items, and confirm with ✓. Some options can only be selected by scrolling. Press ✗ to return to the parent menu.

2.2 Menu structure

00: User Menu

1. Omit Zones	6 Time And Date
2 Shunt 24hr Zns	7 Custom Text
3 System Options	8 Set Up Users
4 Test Options	9 Log
5 Engineer Tools	

01: Location Text

1. Panel	2. Keypad

10: Zonenprogrammierung:

11: Edit Zones

Zone types

00 Not used	11 Shunt Key
01 Normal alarm	12 Tamper
02 24 Hour	13 Perimeter
03 PA sielnt	14 Lock Set
04 PA Audible	15 PSU Battery
05 Fire	16 PSU Fuse
06 Technical	17 PSU Power
07 Final Exit	18 Masking
08 Exit Term	19 Occupancy
09 Entry	20 Security
10 Keyswitch	

Zone attributes

01 Access	08 Chime Tone 1
02 Double Knock	09 Chime Tone 2
03 Soak Test	10 Chime 3
04 Omittable	11 Inverted
05 Reset	12 Shuntable
06 Masking	13 Beam Pair
07 Entry	14 Monitored
	15 Non Latching

12: Zone Resistances

1 4K7/2K2 (also NC/NO)	3 4K7/4K7
2 1K0/1K0	4 2K2/2K2

13: Alter Shunt Groups

14: Remote Controls

20: Partitions

21: Viewing a Zone's Partitions

22: Exit mode

1 Final Exit	5 Deferred Set
2 Exit Terminate	6 Lock Set
3 Timed Exit	7 Silent Setl
4 Instant Set	

23: Partition Timers

1 Exit	3 Bell Delay
2 Entry	4 Bell Duration

24: Alarm response

1 Full	3 Internal
2 Local	

25: Partition Resets & Options

1. Conf Reset	6 F/E=Norm. Alm
2 Unconf Reset	7 Entry = F/E
3 Tamper Reset	8 Full Set Link
4 Not Used	9 Ent Key Sets
5 Foyer-Mode	

26: Assigning Equipment to Partitions

30: Editing Outputs

31: Panel Outputs

Output Type:

1 System	3 Zone
2 Partition	4 User

Systemereignisse

000 Bell	007 Fire Alarm
001 System Strobe	008 System Set
002 Switch 12V	009 System Full Set
003 Detector Reset	010 System open
004 Walk Test	011 Confirmed
005 Burg	012 Courtesy Light
006 Panic Alarm	013 Engeneer On Site

014 Active Omit
015 Zones Omit
016 24 Hour Omitted
017 24 Hour Alarm
018 Zones Shunted
019 Technical
020 PSTN Line Fault
021 Mains Power Off
022 Access Code
023 Soak Test Fail
024 First Knock
025 Digi Failed
026 Digi Successful
027 Digi Active
028 2nd Entry Only
029 Entry Only
030 Exit Only
031 Exit / Entry
032 Exit Fault
033 Tamper Alarm
034 Rem Service Call
035 Code Accepted
036 Service Required
037 Reset Required
038 Strobe On Set
039 Duress Alarm
040 System Part Set
041 Lock Set Unlocked
042 Set Failed
043 Shunt Code
044 Random Output On
045 Modem Lockout
046 Aux/Bell Tamper
047 Panel Lid Tamper
048 Chime Mimic
049 Monitored O/P On
050 Alarm Abort
051 Not used
052 Relearn Required
053 Always On
054 Always Off
055 Battery Test On
056 Battery Fault
057 PSU Battery
058 PSU Fuse
059 PSU Power
060 General Fault
061 Mask Tamper
062 Mask Fault
063 Always Off
064 Always Off
065 Pending
066 Always Off
067 Ext. Line Fault
068 ATS Test
069 Always Off
070 Auxiliary Fuse
071 Bell Fuse
072 Network Fuse 1
073 Network Fuse 2
074-099 Always Off
100 Auto Setting
101 Auto-Set Timer 1
102 Auto-Set Timer 2
103 Auto-Set Timer 3
104-108 Always Off
109 PC Output 1 On
110 PC Output 2 On
111 PC Output 3 On
112 PC Ausgang 4 On
113-118 Always Off
119-126 Not Used
127-128 Always Off
129 Time Switch 1 On
130 Time Switch 2 On
131 Time Switch 3 On
131-138 Always Off

Partition Events

000 Bell-SAB
001 Strobe
002 Switch
003 Detector Reset
004 Walktest
005 Burg
006 P.A. Alarm
007 Fire Alm.
008 Set
009 2nd Entry
010 24Hr. Alm.
011 Cnf Alarm
012 Zone Omit
013 Act. Omit
014 24Hr Omit
015 Set Fail
016 Settling
017 Clear
018 Tamper
019 Reset Req
020 Lock Out
021 Chime On
022 Monitor
023 Alarm Abort
024 Entry
025 Exit
026 Exit/Entry
027 Exit Flt
028 Sndr Ctl.
029 Perimeter
030 Shunted
031 Always Off
032 Set Strobe
033 Access
034 LS Open
035 PSU Batt
036 PSU Fuse
037 PSU Mains
038 Mask Tamp
039 Mask Flt
040 Auto Set

Zone Events

1 Mimic
2 Alarm
3 Tamper
4 Test Fail
5 Omit

32: Digi Hardwired Outputs

33: Digi On Board Outputs

34: Equipment Outputs

35: O/M Module Output

36: Defining Time Switches

40: Panel Options

41: Passcode and Name

42: Time and Date

1. Set Time
2. Set System Date

43: Setting the Loudspeaker Volume Level

44: Setting Up System Timers

001 Confirmation
002 Sys Bell Dly
003 Sys Bell Dur
004 Anti-Mask
005 Line Fault
006 AC Off Delay
007 Soak Test
008 Exit Settle
009 2nd Entry Delay.
010 Double Knock
011 Abort Period
012 Abort Delay
013 Courtesy Time
014 Menu Time-Out
015 Beam Pair
016 Defer Setting
017 Service Time
018 Select Menu
019 Keys Till Tamp
020 No. Of Rearms
021 Not used
022 Double Knocks
023 Tst Call Start
024 Test Call Int
025 Reset Alg.
026 Payment Time

45: General Configuration

01 = Common Prtn OFF / Common Prtn ON
02 = Bell is an SAB / Bell is an SCB
03 = View Alms Unset / View Alms P.set
04 = Engr Authorised / User Authorised
05 = On-Line enable / disable
06 = Not used
07 = Digi normal / Digi inverted
08 = Chime Audible / Chime Visible
09 = Manual Omits
10 = Omit Tampers No / Omit Tampers Yes
11 = Global Setting / Local Setting
12 = Global Unsetting / Local Unsetting
13 = 24hr Onmit Global / 24hr Omit Local
14 = Partn Bell Time / Global Bell Timel
15 = Latching Fire / Nonlatching Fire
16 = Time Code o/p / Latched Code o/p
17 = 24hr / Nonlatching 24hr
18 = Access code only / Access all codes
19 = NVM is Unlocked / NVM is Locked
20 = Unshunt, no exit / Unshunt & exit
21 = Ignore errors / View exit errors
22 = Mimic, All times / Mimic, Set only
23 = Lo Security Eng. / Hi Security Eng.
24 = Duress Allow NO / Duress Allow Yes
25 = Keypad PA OFF / ON
26 = Exit Foyer / Instant Set Foyer

46: DD243-Standard configuration Options

1 = Confirmation On / Off
2 = Sndrs on Unconf / Sndrs on Confirm
3 = Bell on Unconf / Bell on Conf
4 = After Entry Yes / After Entry No
5 = Ent KPD Lock Off / Ent KPD Lock On
7 = Confirm 2 Zones / Confirm 1 Zone

47: Configuration Options for EN50131

01 = 4 Digit Codes / 6 Digit Codes
02 = Internal Sounder / Local Sounder
03 = Int Sounder Inst / Int Sounder Dly
04 = Instant Alarm Sofort / Delayed Alarm
05 = Tampers As Alarm / Tampers As Tamps
06 = Mask Unset Fault / Mask Unset Tamp
07 = Mask Set Fault / Mask Set Tamper
08 = Mask Override / Mask Inhibit
09 = Gen/fault: User / Eng
10 = AC Fail: No Reset / User / Engineer
11 = AC Bypass: Always / User
12 = Line Fail: No Rst / User / Eng
13 = LF Bypass: Always / User / Eng

48: Auto Set Timers

50: Setting Up Communications

51: Downloader Options

1 = Serial Number
2 = Account Name
3 = Access Mode
  1 = Off 3 = Unattended
  2 = Secure Callback
4 = Call Back Numbers
5 = Modem Options
  Rings to Answer:
    1 = Instant 5 = 5 Seconds
    2 = 1 Second 6 = 10 Seconds
    3 = 2 Seconds 7 = 20 Seconds
    4 = 3 Seconds 8 = Never
  Baud Rate
    1 = 300 2 = 1200 3 = 2400
  Answer Phone Defeat
    1 = Deaktiviert 2 = Aktiviert

52: Setting Up the DigiCom

1 = Communications Format
    1 = Disabled 5 = SIA 2
    2 = Fast Format 6 = SIA 3
    3 = Contact ID 7 = Extended SIA
    4 = SIA 1
2 = ARC Number
3 = ARC Account Number
4 = Dailling Mode
    1 = Consecutive 3 = All
    2 = Alternate
5 = Other DigiCom Options
    1 = Rest. Signals 3 = Line Fault
    2 = Fast Format
6 = SIA Reporting Level
    1 = Full 4 = Basic
    2 = Intermediate 5 = Custom
    3 = Summary

53: RS232

Setting the Baud Rate
  1 = 600 5 = 9600
  2 = 1200 6 = 19200
  3 = 2400 7 = 38400
  4 = 4800

60: Call Back

61-64: Callback numbers

70: Edit Text

71: Reset Message

72: Location Text

73: Printer Title

74: Remote Reset Message

75: Banner Text

76: Partition Text

80: Confirming network Devices

90: Built-in Test

91: Testing Bell Output

92: Testing Outputs

1 = Outputs Panel
2 = Digital Hardwired Outputs
3 = Digi On Board Channels
4 = Equipment Outputs

93: Viewing and Printing Logs

1 = Viewing Event Log
2 = Printing Event Log
3 = Viewing Access Log
4 = Printing Access Log
5 = Printing System Parameters

94: Testing Power Supply

1 = Panel Voltage 5 = Discharge Current
2 = Battery Voltage 6 = Load Current
3 = Charge Voltage 7 = Source Current
4 = Charge Current

95: Equipment Test

1 = Determining Software Version
2 = Checking Zone's Resistance
3 = Checking Status of Network Devices
4 = False Setting thr System
5 = Resetting User 1
6 = Viewing Network Errors
7 = Testing Radio Zone's
8 = Testing the Display

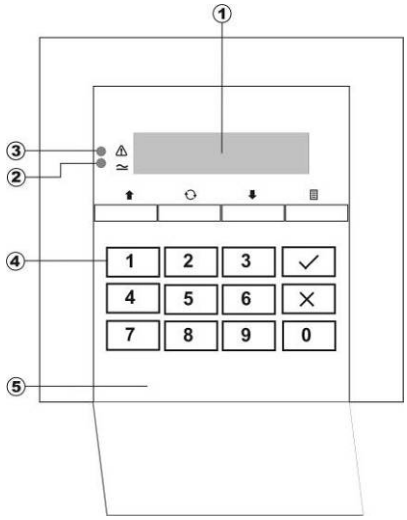
96: Viewing Zone Status

97: Walk Test

98: Default Settings

99: Leave Engineering Mode

2.3 Overview Keypad



1 Display
In the display the system information of the panel are shown. Further on a text and the actual time / date are displayed.

2 LED
Lightning stable if the voltage is connected.

3 Function indicator
In the basic setting this LED shows the resetting of more than one alarm.

The display function can be changed through the engineer.

4 Keypad
This keypad allows the programming of the panel. The input of a code activates or deactivates the system.

Numeric keypad (e.g. to activate or deactivate the panel).

☑ - Confirm the displayed options.

☒ - Finish the diplayed options.

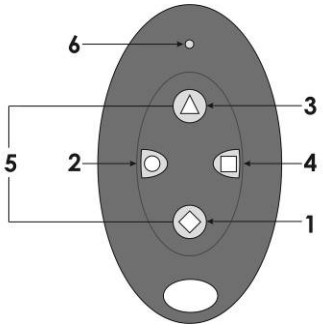
⬆ ⬇ - One page forward/back

🔄 - Changing the attributes of the displayed options (e.g. Yes/No).

☰ - Shows the user menu (only after input from an user code). The user menu contains options fort he administration of the panel. Among other things you can allocate or change user codes, omit zones and viewing the event log.

5 Flap
To hide/unhide the keypad.

2.4 Overview Remote Control



The standard assignment of the keys is shown in the table below. To avoid faulty handling the keys have to be pressed until the red LED is flashing.

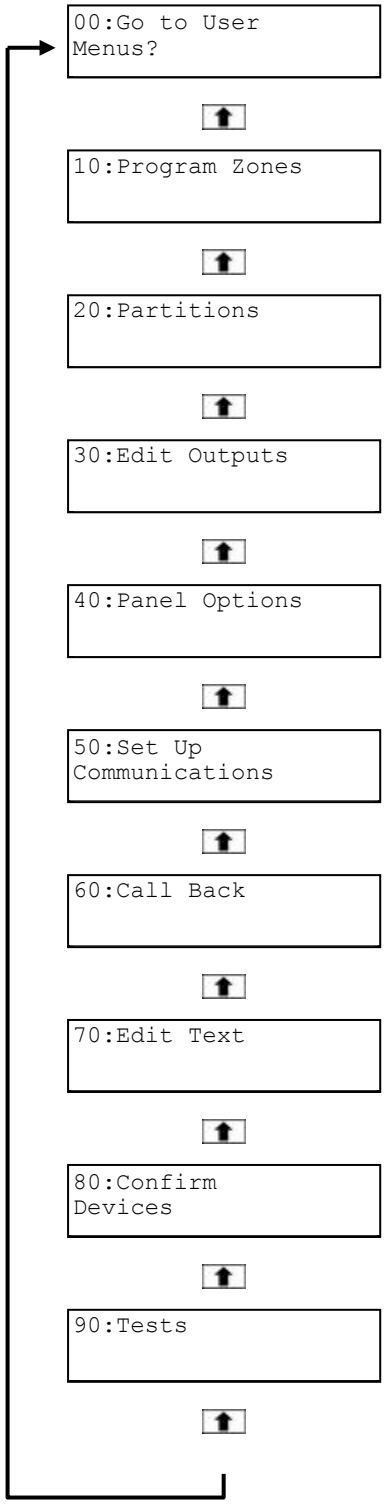
You only can use the remote contol close to the house. Therefor a radio extension is essential (usage up to 30m).

1	Full arming	4	Internal arming
2	Internal arming	5	PA (FU5150)
3	Internal arming	6	LED

The standard assignment of the keys can vary in the user settings.

2.5 Engineer Menu

The following picture shows the options in the Engineer Menu:



2.6 Option 00: User Menu

This menu item gives you access to the user menu. The following options are available:

2. Omit Zones
3. Shunt 24hr Zns
4. System Options
5. Test Options
6. Engineer Tools (available only from the Administrator menu)
7. Time And Date
8. Custom Text
9. Set Up Users (available only from the Administrator menu)
10. Log

For further information, see the Administration Manual.

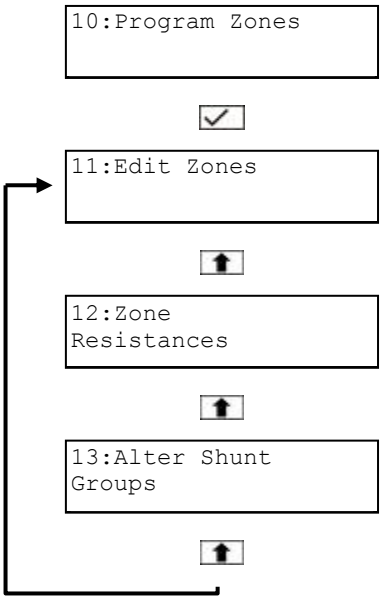
2.7 Option 01: Location Text

This item is available only if you enter “01”.

1 – Panel
Specifies the entered location of the alarm system. (See Option 72: Location Text on page 68.)

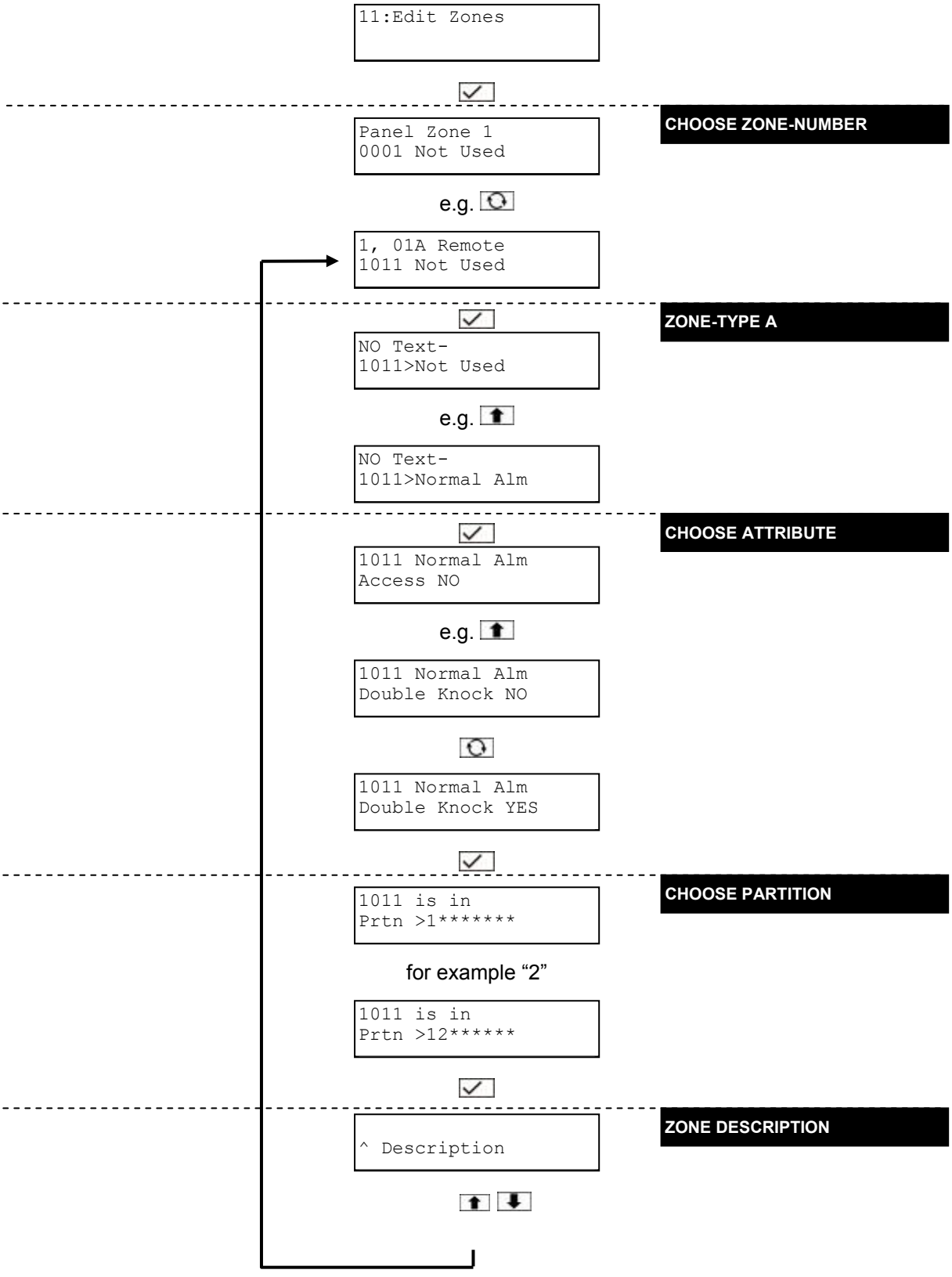
2 – Keypad
Displays the address of the operating panel.

2.8 Option 10: Program Zones



To program the zones, select Option 11. The number of available zones depends on the number of auxiliary modules used.

2.9 Option 11: Edit Zones



To program a zone:

2.9.1 Select Zone

The 4-digit numbers in the lower left corner of the display specifies the zone you want to program.

- **The first digit is the bus number. This is the bus number of the device to which the zone is connected (0 stands for zones directly connected to the mainboard of the alarm centre).**
- **The next two digits stand for the device address to which the zone is connected (00 for direct connection to the mainboard).**
  8 zones constitute a device address, so that every 8-zone auxiliary has its own device address.
  Example:.....
  2031 means (from right to left): Zone 1 of device address 03 connected with bus 2.

When you scroll through the menu, only valid zone numbers are displayed. For example, 0008 (zone 8 on the mainboard) is followed by 1011 (bus 1, module 01, zone 1).

For modules connected to the bus, the bus number, the module number and the zone number are shown in the top left corner of the display. Instead of a number, a letter is used for the zone number.

2.9.2 Select zone type

By means of the zone types, you define how the burglar alarm system reacts if a zone is triggered.

Important
As a default (factory setting), the zone is triggered when the zone contacts are opened (NC). If you invert the zone attribute to “YES”, zones are triggered by a closing of the contacts (NO).

Press  to copy all zone attributes of the previous zone.

00 – Not used
This zone never triggers an alarm. However, it can switch an exit in connection with the option “Mimic” (see page 42).

01 – Normal Alm
If the zone triggers, an alarm is generated immediately. However, the alarm reaction depends on the settings of the exits.

02 – 24 Hour
This zone is permanently monitored. In the case of an intrusion when the zone is not activated, only an internal alarm is generated via the operating panel.

In the case of an intrusion when the zone is activated, the alarm reaction is defined by Option 24 (see page 29).

03 – PA Silent
This zone is permanently monitored. In the case of a triggering, an exit can be set to “Panic Alarm” (see page 35) or “P.A. Alarm” (see page 40), which however does not generate a loud alarm. This option cannot be used for confirmed alarms (see page 51).

04 – PA Audible
Like “PA Silent” except that the alarm response option (see page 29) can be used to set signalling.

05 – Fire

A “Fire” zone is normally linked with a fire sensor that is permanently monitored. If triggered, it generates a fire alarm at the operating panel and on the alarm sounder (if connected). Furthermore, both the strobe and the bell are addressed for the preset bell time (see page 46).

06 –Technical

This zone is permanently monitored and if triggered activates the exits that are set to “Technical” (see page 36).

07 – Final Exit

This zone must be triggered first when you enter a secured object. The zone starts the entry delay. The entry delay is set by Option 23 (see page 28).

If you use “Final Exit” or “Exit Terminate” for the exit mode, the zone is activated when you have left the secured area and the partition is activated (see page 27).

08 – Exit Term

This zone is normally connected to a pushbutton outside the secured area and is required for confirmation of the activation of linked partitions. Dependent on the exit mode (see page 27), a zone must be triggered before the connected partitions are activated. You can shorten the exit time by setting this zone.

This zone has no influence on the entry delay.

09 – Entry

Zones of this type are shunted if someone enters the area to be monitored. This zone allows you to walk through the secured area in order to deactivate the alarm centre. At the same time, the alarm centre starts the entry delay.

Important
Select the following options with ⬆ and ⬆.

10 – Keyswitch

This zone is normally connected with a shunt lock or key-switch. With these, you can activate/deactivate the alarm centre.

When non-inverted zones are used, the system is activated by opening the zone contacts.

If a key-switch with permanent contacts is used, the zone must be open long enough to allow the partition to be activated. Otherwise, activation is aborted.

If a pulse switch is used, set the “Non Latching” zone attribute to “Yes” (see page 23).

11 – Shunt Key

This zone is normally connected with a shunt lock or key-switch and is permanently monitored. As long as the zone contacts are triggered (open), the alarm centre shunts all zones that have the “Shuntable” zone attribute set to “Yes” and that belong to a partition that is assigned to a “Shunt Lock” zone.

If you have not assigned any partitions to a Shunt Lock zone, all zones that have the “Shuntable” zone attribute set to “Yes” and are directly connected as a Shunt Lock to the same auxiliary module are shunted by opening the zone contacts. For example, if a Shunt Lock is connected to an 8-zone auxiliary, all zones linked to this module with the “Shuntable” zone attribute are shunted.

If you use a pulse switch, set “Non Latching” for the zone attribute.

12 – Tamper

A zone of this type is permanently monitored. Tamper contacts of external devices can be connected here. If it is not activated, only an internal alarm is generated.

13 – Perimeter

This zone switches only those exits that are set to “Perimeter”. Triggering this zone does not count if the alarm centre is expecting a confirmed alarm (see page 51). This zone type is usually used for external sensors since they are more often accidentally triggered.

14 – Lock Set

Use this zone if you want to change a “Final Exit” zone into a “Normal Alarm” zone when the exit door is closed.

To be able to use this zone type, set the exit mode to “Lock Set” (see page 27). There must be an “Final Exit” zone in the same partition as the Lock Set zone.

A user activates the exit time (unlimited in this mode) with his/her user code or a key-switch. After leaving the secured area, the user activates the system with a shunt Lock or another key-switch. After seven seconds, the alarm system is activated. The entry/exit zone works like a “Normal alarm” zone.

When the key-switch is deactivated, the zone is changed back to an Final Exit zone. The entry time (see Option 23: Partition Timers on page 28) is started when the user enters.

Important
If the key-switch is open, the alarm centre cannot use any confirmed alarms.

15 – PSU Battery

This zone type can be used with a monitored power supply (supply module). The battery voltage is permanently monitored. When the zone triggers, a signal tone sounds every minute and the display shows “PSU Battery”. An exit can also be programmed as PSU battery or battery error.

16 – PSU Fuse

This zone type can be used with a monitored power supply (supply module). The fuse in the external power supply is permanently monitored. When the zone triggers, a signal tone sounds every minute and the display shows “PSU Fuse”. An exit can also be programmed as “PSU Fuse”.

17 – PSU Power

This zone type can be used with a monitored power supply (supply module). The output voltage of the external power supply is permanently monitored. When the zone triggers, a signal tone sounds every minute and the display shows “PSU Power”. An exit can also be programmed as “PSU Power”.

18 – Masking

Masking means that a sensor is concealed by such things as cartons or other objects.

If a single zone is used for transmitting alarm, tamper and masking, use the “Normal Alarm” zone type in connection with the zone attribute “Masking” (see page 22).

Alternatively, you can user two zones, one for masking and the other for alarm/tamper. In this case, the masking contacts of the sensor must be placed on a zone set to “Masking” type. The alarm/tamper contacts must be connected to a standard zone. For both zones, you can select NC or DEOL wiring and set exits (mask, tamper). However, this depends on the reactions that were set for the masking (see page 54).

Furthermore, users can be excluded from activating partitions triggered in this way (see page 54). The masking zone must remain activated for the preset duration of masking (see

Option 44: System Timers on page 47) to trigger an alarm or switch an exit.

19 – Occupancy

This zone type displays a warning on the operating panel if the user activates a partition that is already occupied by another user. This zone type is usually connected to a “Occupancy” output (NC/NO contact) of an access control system. If the contact is open, partitions connected with this zone are marked as occupied. If the contact is closed, the partitions are not occupied. If a partition is occupied and a user wants to activate it, a warning appears on the display. The user can ignore the warning and continue with the activation.

20 – Security

This zone is permanently monitored. It can be used to block all operating panels connected to the same partition. The operating panels cannot be used when the zone is activated.

If you use a pulse contact, the zone attribute “Non Latching” must be set to “Yes”.

2.9.3 Zone attributes

One or more of the following attributes can be assigned to each zone.

01 – Access

With this attribute, “Normal Alarm”-type zones can be shunted for the time in which they have to be crossed to reach the exit or the operating panel. The zone type “Entry” has the same function.

02 – Double Knock

With this attribute, a sensor must be triggered twice within a configurable period (see page 47) before an alarm is generated. If the sensor remains activated during this period, an alarm is also generated.

03 – Soak Test

Zones with this attribute are in a test function. Use this test function if you think a sensor may trigger a false alarm. The sensor can be removed from monitoring for a specific time (see page 47). If the sensor triggers during this time, this event is logged. Exits of the type “Soak Test Fail” (see page 36) are activated and the user is informed that the detector test has failed.

If no alarm is triggered, the zone attribute is automatically removed at the end of the test run.

04 – Omittable

Zones with this attribute can be excluded from monitoring before the alarm centre is activated. If the “Automatic Omits” option is activated (see page 50; Function 45-09), activated zones are automatically omitted when the system is activated. When the system is deactivated, the zones are reset to prevent unintentional shunting of zones.

05 – Reset

This attribute is usually assigned to zones connected with vibration or smoke sensors. These zones are monitored for about 12 seconds after start-up. This is intended to allow the sensor to stabilise and to reduce false alarms.

06 – Masking

Use this zone attribute only if the zone is a 3-resistance zone that is used for detecting masking effects. If you place the masking contacts of a sensor on an extra zone, you have to program this zone as “Masking” too.

07 – Entry

Not used

08 – Chime Tone 1

If deactivated zones trigger, this generates a single tone on the alarm sounder and the operating panel. The gong must be released for the zone of the partition in the user menu (3-1).

09 – Chime Tone 2

As for Chime Tone 1 except that here 2 signal tones are generated when the sensor is activated.

10 – Chime Tone 3

As for Chime Tone 1 except that here 3 signal tones are generated when the sensor is activated.

11 – Inverted

This attribute permits the use of sensors that are normally open but that close in the event of an alarm.

12 – Shuntable

Zones with this attribute are shunted if:

- User option 2 is used to shunt zones in a partition (24-hour zones only)
- A “shunt”-type user code is entered on the operating panel (as described in user menu 8-1)
- A “Shunt Key”-type zone is triggered (see page 20) (a locked zone cannot have the “Shuntable” attribute)

13 – Beam Pair

Zones with this attribute generate an alarm if two or more zones in the same partition are triggered within a configurable period (see page 47).

This attribute is usually used where PIR sensors are used, where one link is assigned to one zone in each case. Zones with this attribute should use the same zone type. You cannot define the sequence of zone linking.

14 – Monitored

If an alarm is triggered, a zone with this attribute activates exits that follow the event “Monitored O/P On” (see page 37) or “Monitor” (see page 41).

15 – Non Latching

Select “Non Latching” if the zone is of type “Keyswitch” (see page 20), “Shunt Key” (see page 20) or “Monitoring” (see page 41) and is connected with a pulse contact switch (i.e. the contacts of the switch do not remain open after switching).

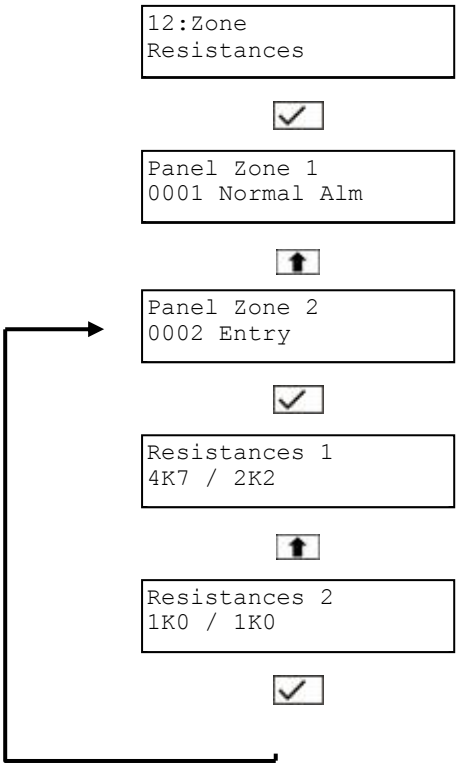
2.9.4 Assigning a zone to a partition

Each zone can be assigned to one or more partitions. If the Common Partition configuration (see page 48) is set to “On”, zones are secured only if all partitions containing the zone are activated.

2.9.5 Zone description

By using the keypad a description for the zone can be assigned (up to 16 characters). See the description of the keypad on page 84.

2.10 Option 12: Zone Resistances



2.10.1 Select zone number

Select the number of the zone for which you want to set the resistance values.

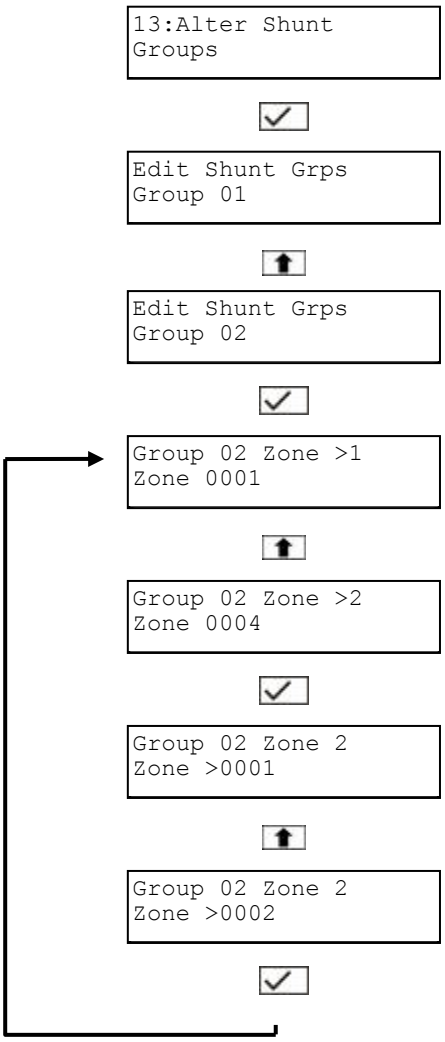
2.10.2 Select resistances

Select the resistance values for each zone. The first value is the resistance parallel to the alarm contact, the second value is the terminating resistance of the line.

If you use the “Masking” attribute (see page 21) for the zone, set the resistance combination 4K7/2K2.

Important
Changing resistance values is relevant only if you select DEOL wiring. With NC or NO wiring, the Terxon L ignores the resistance values set.

2.11 Option 13: Alter Shunt Groups



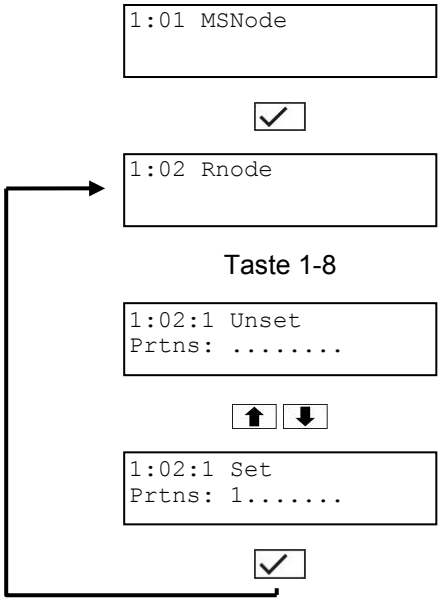
Using shunt groups is a simple way of isolating zones from monitoring. Each shunt group can consist of up to 8 zones and one “shunt”-type user (see also user option 8–1 in the Administration Manual). When the user code is first entered, the zones are shunted. When the code is entered again, the zones are reactivated. You can define up to 10 shunt groups.

Although 24-hour zones are mostly shunted together, each individual zone can be added to a shunt group.

Important
Selected zones must have the “Shuntable” attribute (see page 22). Depending on the setting of “Unshunt”, “No Exit”, “Unshunt&Exit” (see page 53), the restored zones start or do not start the delay time.

2.12 Option 14: Remote Controls

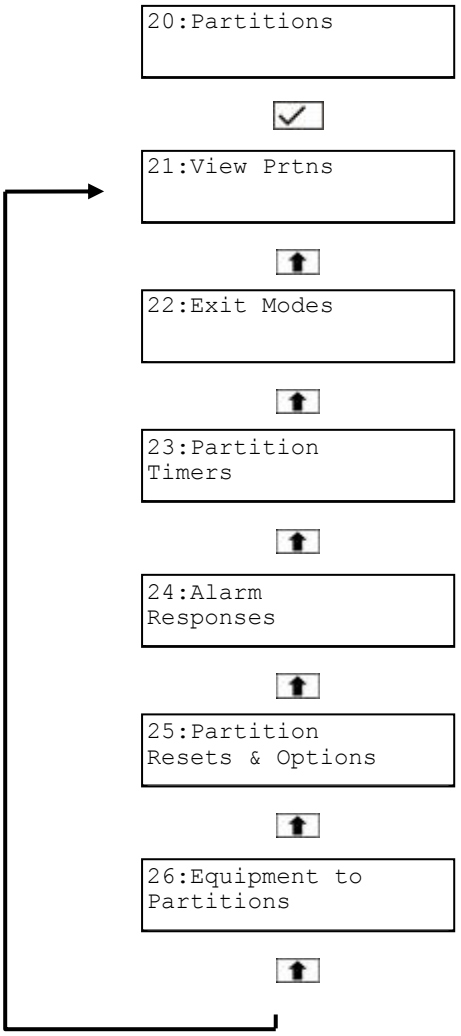
1. Press ⬆ and ⬇ to reach the respective auxiliaries.



Important
The key combination 5 stands for the simultaneous pressing of keys 1 and 3. This triggers a panic alarm (PA).

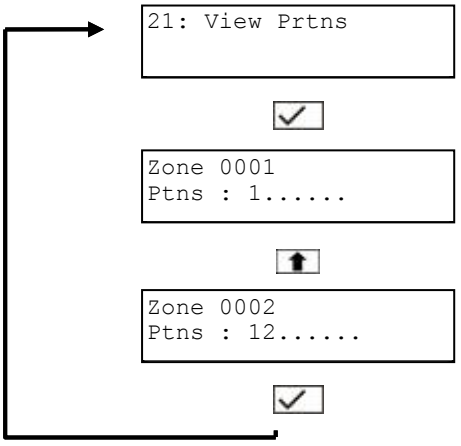
Important
In addition to the 8 possible zones, up to 8 additional remote controls can be instructed in a radio auxiliary. You cannot assign radio auxiliaries to existing users.

2.13 Option 20: Partitions



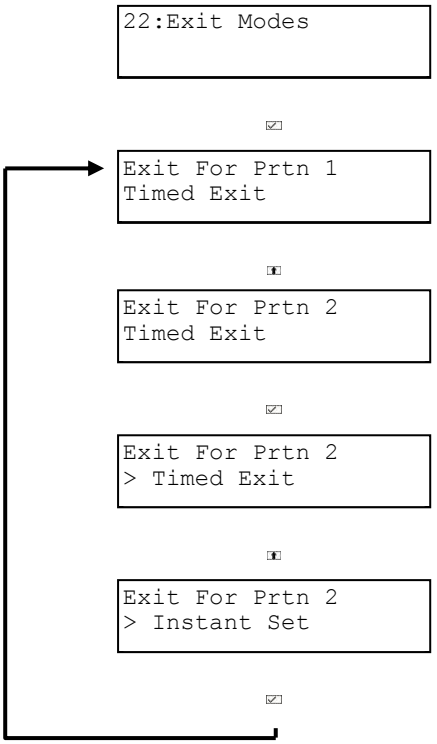
Use Options 21 to 26 for setting the partitions. For example, use Option 21 to view zones assigned to partitions.

2.14 Option 21: View Partitions



Select this option to view the assignment of zones to partitions. Each zone can have a different combination of partitions.

2.15 Option 22: Exit Modes



1 – Final Exit

Select this option to activate a partition as soon as the user has decided on the activation of a partition and an Final Exit zone (see page 20). The alarm centre activates the partition following the defined stabilisation time (see page 47).

2 – Exit Terminate

Select this option to activate a partition as soon as the user has decided to activate a partition. The alarm centre activates the partition following the defined exit time (see page 28).

3 – Timed Exit (default)

This exit is activated following the exit delay (see page 28).

The stabilisation time is included in the exit delay. For example, if the exit delay is 30 seconds and the stabilisation time is 10 seconds, the stabilisation time starts to expire 20 seconds after the start of the exit time.

Important
The shortest exit delay time is 10 seconds, even if you set the value to zero.

Activating the “Exit Terminator” zone can shorten the duration of activation of the partitions. For example, if you trigger the “Exit Terminator” zone five seconds within the exit time and the stabilisation time is set to 7 seconds, the zone is armed 12 seconds after activation by the user.

4 – Instant Set

Select this option to activate a partition instantly. The partition is activated 10 seconds after code entry.

5 – Deferred Set

This option corresponds to “Timed Exit” except that the exit time is restarted after a zone is triggered.

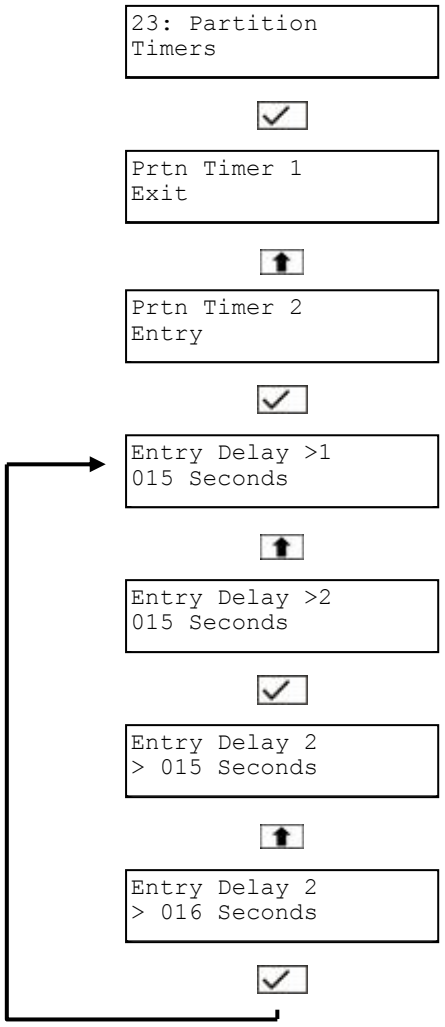
6 – Lock Set

Select this option to activate the alarm system from a contact to this zone. This allows partitions with an Final Exit zone to be changed to an “Normal Alarm” zone while the door is locked. For further information, see page 21.

7 – Silent Set

This option allows partitions to be activated silently.

2.16 Option 23: Partition Timers



Under this menu item, you can set timers for the partitions. These include the entry and exit delays.

Important
You can select different entry and exit delay times for different partitions.

1 – Exit Delay (default 30 seconds)
This option specifies the time you have after entering the code to leave the partition before it is armed. This setting is needed, for example, for the “Timed Exit” option (see page 27).

2 – Entry (default 30 seconds)
If you enter a partition activated by an entry/exit zone, the entry delay starts. This is intended to enable the user to disarm the alarm centre in the preset time. If an invalid code is entered on the operating panel, the additional entry delay starts after expiry of the entry delay. If no valid code is entered after this time expires, an alarm is generated.

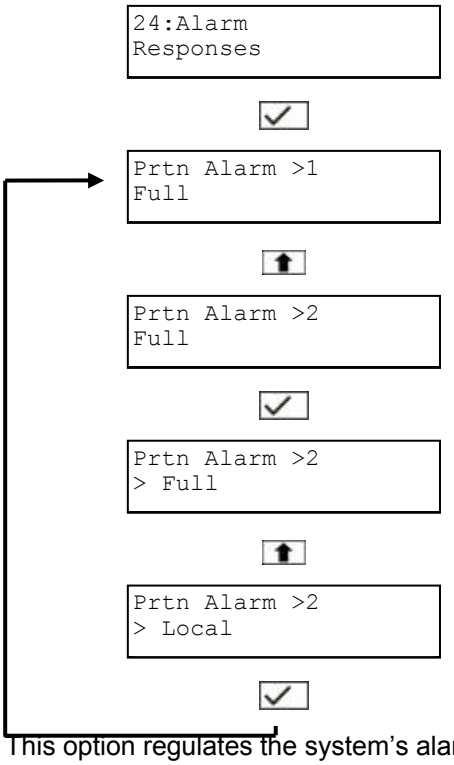
3 – Bell Delay (default 15 seconds)
Use this timer to delay triggering the bell and the strobe.

This timer or “Sys Bell Dly” (see page 46) is used in combination with the settings made under “Partn Bell Time/Global Bell Time” (see page 50). The default setting is 0 minutes.

4 – Bell Duration (default 3 minutes)
Here you can set the bell duration. This timer or “Sys Bell Duration” (see page 46) is used in combination with the settings made under “Prtn Bell Time/Global Time” (see page 50).

Important
If Confirmation is set to “On” (see page 51 and “Bells on Unconf” is selected, the exits remain deactivated for the bell and the strobe and the system first generates an alarm when a second zone is triggered within the confirmation period (see page 45).

2.17 Option 24: Setting alarm responses for a partition



This option regulates the system's alarm behaviour. You can make different settings in each partition.

Important
See the alarm behaviour of the operating panels on page 31.

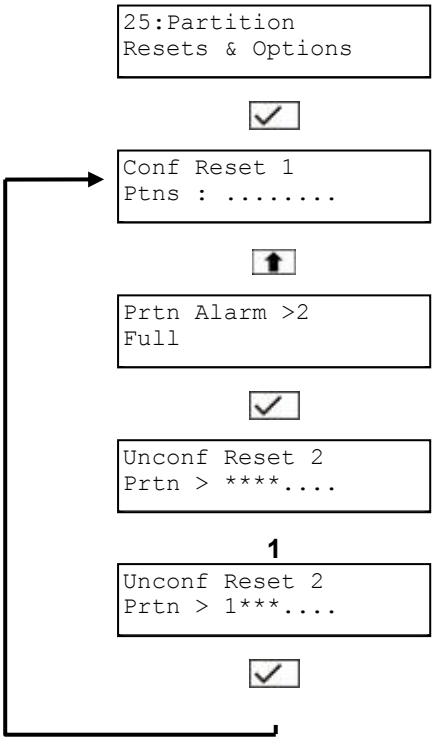
Important
Various outputs (siren, strobe, dialler outputs, etc.) switch only at "Full".

1 – Full (default.
In this case, a full alarm is triggered on the operating panel, alarm sounder, bell, strobe and modem.

2 – Local
In this case, an alarm is triggered on the operating panel, alarm sounder, bell and strobe.

3 – Internal
In this case, an alarm is triggered on the operating panel and alarm sounder.

2.18 Option 25: Partition Resets and Options



These options are for resetting of the partitions.

1 – Conf Reset
A confirmed alarm can be reset only by entering the engineer code. If you do not activate this option, any user with access to the partition can reset a confirmed alarm.

2 – Unconf Reset
If this option is activated, unconfirmed alarms (see Option 46: Choosing DD243 Configuration Options (UK)can be reset only by entering the installer code. If you disable this option, any user whose code is assigned to a partition can reset an unconfirmed alarm. Note here the remote reset attribute.

3 – Tamper Reset
If you select this option, a tamper alarm in a zone in a particular partition can only be reset by entering the engineer code. This applies to an unarmed system. If you disable this option, any user with access to the partition can reset a confirmed alarm.

4 – Not used

5 – Foyer-Mode

This option refers to partition 1, which can be automatically activated/deactivated. This partition is activated when all selected partitions are activated. For example, if partitions 2, 3 and 4 are selected, partition 1 is automatically activated when partitions 2, 3 and 4 are activated. If one of the selected partitions is deactivated, partition 1 is also deactivated.

6 – F/E=Norm. Alm

This option changes an “Final Exit” zone into an “Normal Alarm” zone when the partition is activated. For example, if partition 2 is set to “F/E = Normal Alarm” and the user activates partition 2, all “Final Exit” zones in this partition are treated as “Normal Alarm” zones.

7 – Entry = F/E

This option changes an “Entry” zone into an “Final Exit” zone when the partition is activated. For example, if partition 2 is set to Entry=F/E and the user activates partition 2, all “Entry” zones in this partition are treated as “Final Exit” zones.

Important
You can continue to walk through zones that are programmed as “Normal Alarm” and have the “Access” attribute since they are not influenced by this option.

8 – Full Set Link

The alarm reaction is usually described by Option 24 (see page 29). If you use this option, an external alarm is triggered if all partitions are armed and an alarm is triggered in one of the partitions.

For example, if you program 3 partitions with the “Local” attribute and all 3 partitions have the “Full Set Link”” option, an external alarm is triggered only if all partitions are activated and a linked zone (see page 23) is triggered. If only one partition is activated, only a local alarm is generated in the event of an alarm.

9 – ENT Key Sets

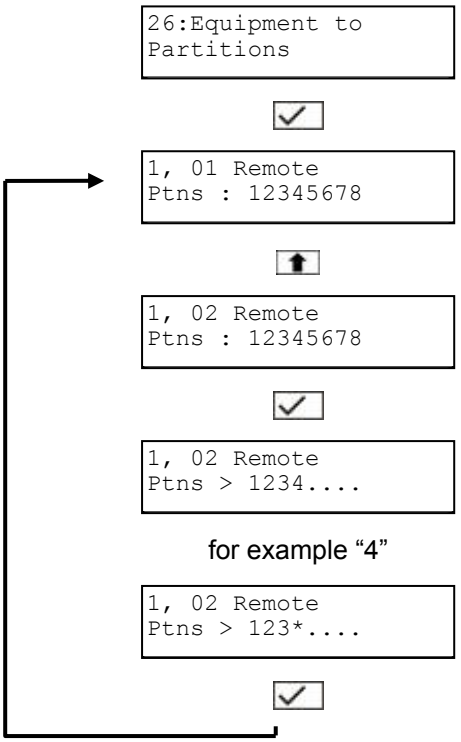
Here you can select partitions to be automatically armed after you enter the code on the keypad and press ✓.

If a normal user arms the alarm centre, only those partitions are armed that have the “ENT Key Sets” option and are assigned to the operating panel used and to that user.

If a user with the attribute “Manager”, “Standard global”, “Prox Tag User” or “Set Only” arms the alarm centre, only those partitions are activated that are assigned to “ENT Key Sets” and the user. In this case, the assignment of the operating panels to the partitions plays no role. Partitions that are not assigned to the operating panel use the “Instant” attribute for activation, regardless of the exit mode, since here no “Exit Terminator” or “Final Exit” has to be activated.

“ENT Key Set” is not suitable for users with the “Easy Set” attribute. The partitions assigned to the user are activated, independently of the partitions assigned to the operating panel.

2.19 Option 26: Equipment to Partitions



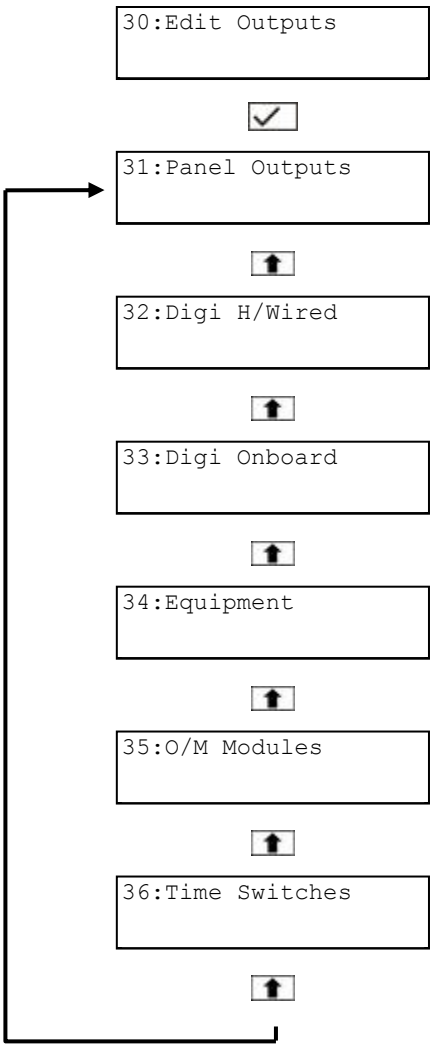
Select this option to assign each operating panel and each 8-zone auxiliary (radio, wire) to the corresponding partitions.

Important
To ensure that a device is correctly addressed by the alarm centre, it must be assigned to the right partition.

Important
The tamper of the alarm centre, the external loudspeaker and the external auxiliary/bell tamper belongs to all partitions.

Important
Operating panels and loudspeakers connected to a zone auxiliary are automatically assigned to the same partitions as the auxiliaries. The loudspeaker and the signalling device of the operating panel follow the partitions of the respective auxiliaries. For example, if an auxiliary is assigned to partitions 2 and 3, the loudspeaker and the signalling device of the operating panel react only if an entry, exit, or an alarm sounder is activated in partitions 2 and 3.

2.20 Option 30: Edit Outputs



If you want to use the outputs of the alarm centre or the auxiliary modules, use Options 31 to 35. With these options, you define the events to which an output reacts.

For example, if you assign an output to “Fire”, it is activated in the event of a fire alarm.

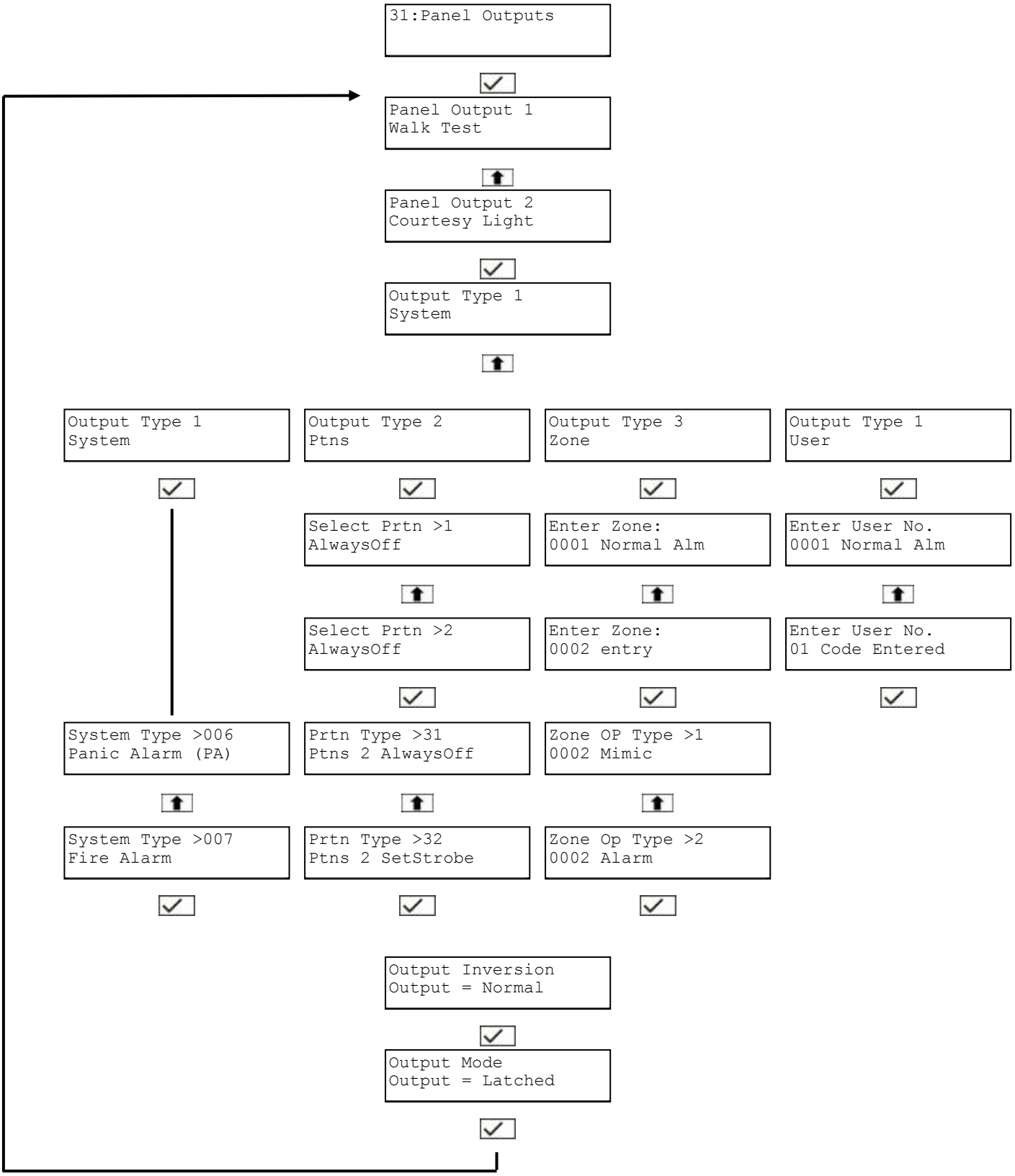
Each of Options 31 to 35 stands for specific types of outputs. For example, Option 31 is for the outputs of the alarm centre only (1, 2, 3, 4, 5), and Option 34 is used for setting the outputs of the modules connected to the bus.

The following diagram shows the configuration of the outputs and guides you through the menu step by step.

2.21 Option 31: Panel Outputs

Select this option to set the outputs (1, 2, 3, 4 ,5) of the alarm centre. Outputs 1 and 2 are relay outputs, and 3–5 are transistor outputs.

See the appendix for a more detailed description of outputs as well as technical data.



Set the outputs as follows:

1. Select the appropriate option (31 to 35) for the device for which you want to set outputs. See also section 2.21, “Option 31: Panel Outputs”, on page 33.
2. Define the device output you want to set, for example, output 3 on the alarm centre.
3. Select the partition in which an event is to activate a selected output. The Terxon L provides 4 different event types:

   1 – System:
   Outputs that you assign to the “System” event type are activated if an event affects the whole system.

   2 – Ptns (partitions):
   The outputs are activated if an event occurs that affects the assigned partitions.

   3 – Zone:
   The outputs are activated if an event occurs that affects the assigned zones.

   4 – User:
   The outputs are activated if a specific user code is entered.
4. If appropriate, select the partitions, zones or users for which an output is to switch.
5. If you select an output assigned to a partition, a zone or the system, select an event for which the output is to be activated. You have the following options:

   System events – see page 34.

   Partition events – see page 40.

   Zone events – see page 42.

Important
Various outputs (siren, strobe, dialler outputs, etc.) switch only at “Full”.

Output Inversion: Select this point to invert the switching behaviour of the output (NO instead of NC).
Output Mode: Select “Non Latching” if the output is to return to normal operation following a preset time.

Output defaults:

Output	Default
1	Walk test
2	Courtesy Light
3	Strobe
4	12V switching
5	General error

2.22 Option 32: Digi Hardwired Outputs

Select this option to make settings for the 16 communications outputs on the mainboard.

2.23 Option 33: Digi OnBoard Outputs

Select this option to set the digital software outputs on the mainboard that can transmit information via the integrated modem to a command centre.

Programming these outputs is necessary only if you use the Fast-Format protocol on page 60). Other formats use only data that is automatically added to the event memory.

2.24 Option 34: Equipment Outputs

Select this option to set outputs of the operating panel the 8-zone auxiliary.

2.25 Option 35: O/M Module Outputs

Select this option to set the O/M outputs on the mainboard (currently not available).

2.25.1 System events

If the outputs are to react to system events, select the following options.

000 – Bell SAB
This output is activated in the event of an alarm. It can be triggered by a confirmed or unconfirmed alarm. That depends on whether the bells are set to “Bells On Confirm” or “Bells On Unconf” (see page 51). For this option, you can also select a bell duration and bell delay.

001 – System Strobe
The output is activated in the event of an alarm.

002 – Switching 12V
The output is switched if a partition is activated. The output is deactivated if an alarm is triggered in a partition, if the exit delay is running, or if all partitions are deactivated.

003 – Detector reset
This output is deactivated for about 4 seconds if the first partition is activated by the user. This output is used for non-automatically resettable sensors (e.g. smoke sensors).

004 – Walk Test
This output is activated on the initiation of a walk test and deactivated when it is completed.

005 – Burg
This output is activated in the event of an external alarm (see page 29) of a partition. The output is deactivated when the user resets the alarm.

006 – Panic Alarm
This output is activated if a zone of type “PA Silent” or “PA Audible” (see page 19) is triggered or if a user code of type “Panic Code” is used. The output is also activated if a “Duress” type user code is entered in an unarmed system. The output is deactivated when all alarms are reset.

007 – Fire Alarm
This output is activated if a fire alarm is triggered. The output is deactivated when the alarm is reset.

008 – System Set
This output is activated if a partition is activated and deactivated when all partitions are deactivated.

009 – System full Set
This output is activated if all assigned partitions are activated and deactivated when a partition is deactivated.

010 –System open
This output is activated if the system is deactivated and deactivated when a partition of the system is activated

011 –Confirmed
This output is activated if a confirmed alarm is triggered and remains in this state until the system is reset.

012 –Courtesy Light
This output is set for the duration of the lighting period (see page 47) if the entry delay is activated or if an operating panel is used.

013 – Engineer On Site
This output is activated when an engineer code is entered. The output is deactivated when the engineer logs out.

014 – Active Omit
If a sensor (magnetic contact or glass breakage sensor, but NOT PIR) triggers a zone and the zone remains active until the confirmation time expires (see page 46), this active zone is omitted and the output is activated. The system deactivates the output when a user resets the system.

015 – Zones omitted
This output is activated if a zone is omitted and deactivated when the zone is reinstated.

016 – 24 Hour Omitted
This output is activated if a 24-hour zone is manually omitted and deactivated when it is reinstated.

017 – 24 Hour Alarm
This output is activated if a 24 Hour zone triggers an alarm and the alarm centre is deactivated. After the 24-hour alarm is reset, the output is deactivated.

018 – Zones Shunted
This output is activated if a shunt group (see page 25) is omitted and deactivated when the zone is reinstated.

019 – Technical
This output is activated if a technical zone is triggered (see page 20) and is deactivated after being reset.

020 – PSTN Line Fault
The output is set if a telephone fault occurs between the integrated modem and the command centre. The output is reset when the fault is cleared. For this option, the telephone fault feature (see page 66) must be released.

021 – Mains Power Off
This output is activated if the alarm centre mains power supply is removed or missing. It is deactivated when power returns.

022 – Access Code
This output is activated if the “Access Code Only” option (see page 50) is set and an access code is entered on the keypad. If the “Access All Codes” option is set, the output is activated if a valid user code is entered.

023 – Soak Test Fail
This output is activated if a zone is subjected to a soak test. The output is deactivated following the test.

024 – First Knock
This output is activated if a zone with the “Double Knock” attribute (see page 22) is triggered. It is deactivated by resetting the alarm system or after a timeout for the “Double Knock“ (see page 47).

025 – Digi Failed
This output is activated if the integrated modem cannot communicate.

026 – Digi Successful
This output is activated when the integrated modem can communicate again.

027 – Digi Active
This output is activated when the integrated modem is activated and deactivated when communication is terminated.

028 – 2nd Entry Only
This output is activated if the additional entry delay is activated (see page 47) and deactivated when the time expires.

029 – Entry Only
This output is set if a partition starts the entry delay (see page 28) and reset when the partition is deactivated or the entry delay time has expired.

030 – Exit Only
This output is activated if a partition starts the exit delay and deactivated when the partition is active.

031 – Exit/Entry
This output is activated if a partition is in exit or entry mode.

032 – Exit Fault
This output is activated if an error occurs during the activation of a zone. The output is deactivated when the error is cleared.

033 – Tamper Alarm
This output is activated if tampering is detected and deactivated when all causes of tampering are removed.

034 – Rem Service Call
This output is activated if a remote connection to programming exists.

035 – Code Accepted
This output is activated if a user enters a valid code. In stable output mode, it is deactivated one second later; in “Non Latching” mode, it is deactivated after the preset time of the pulse.

036 – Service Required
This output is activated when the service time (see page 48) is reached and deactivated when the engineer code is entered.

037 – Reset required
This output is activated if an engineer reset is required and deactivated when the system is reset by an engineer code.

038 – Strobe On Set
This output is activated if an alarm is triggered and deactivated when the system is reset by a user. The output is also active for 10 seconds after being activated by a user.

039 – Duress Alarm
This output is activated if a duress code (user option 8-1) is entered and deactivated when the forced alarm is reset.

040 – System Part Set
This output is activated if not all partitions are activated and deactivated when all partitions are activated or deactivated.

041 – Lock Set Unlocked

This output is activated if a key zone is open and deactivated when all key zones are closed (see page 21).

042 – Set Failed
This output is activated if a partition cannot be activated, and deactivated when the failed activation is reset.

043 – Shunt Code
If the output is set to stable, it is activated for 2 seconds if a shunt code is entered (user option 8-1). If the output is programmed as pulsed, it is activated for the duration of the pulse.

044 – Random Output On
This output is activated at random (between 5 and 60 minutes).

045 – Modem Lockout
This output is activated if the modem is omitted (following 4 failed attempts) and deactivated when an administrator code is entered or after max. 4 seconds.

046 – Aux/Bell Tamper
This output is activated if a bell tamper is triggered and deactivated when the alarm is reset.

047 – Panel Lid Tamper
This output is activated if a lid tamper of the alarm centre is triggered and deactivated when the alarm is reset.

048 – Chime Mimic
This output is activated for 2 seconds if a zone with the chime attribute (see page 22) is activated and released under user option 3-1.

049 – Monitored O/P On
If an output is latched, this output is set if a zone with the “Monitored” attribute (see page 23) is activated. The output is reset when the zone is deactivated. If the output is pulsed, the output is set if a zone with the “Monitored” attribute is triggered and it remains set for the duration of the pulse.

050 – Alarm Abort
This output is activated following alarm cancellation by a user. It is deactivated when the cancellation delay (see page 47) expires or if the alarm is reset.

051 – Not used

052 – Relearn Required
This output is activated if the system requires an engineer code to confirm the connection of new modules to the alarm centre via a bus. It is deactivated after successful learning by the new components.

053 – Always On
This output is permanently active.

054 – Always Off
This output is permanently inactive.

055 – Battery Test On
This output is activated during a battery test. The test begins when an engineer logs out and lasts about 10 seconds. You can use this output for a battery test input of the 8-zone wired auxiliary with auxiliary power supply.

056 – Battery Fault
This output is activated if the standby battery is not charged or if the supply current is too low.

057 – PSU Battery
This output remains active as long as the PSU standby battery zone type is active (see page 21).

058 – PSU Fuse
This output remains active as long as the PSU fuse zone type is active (see page 21).

059 – PSU Power
This output remains active as long as the PSU mains zone type is active (see page 21).

060 – General Fault
This output is activated if a general error occurs. The following events constitute a general error:

1.1. Mains error
1.2. PSU battery zone is active
1.3. PSU fuse zone is active
1.4. PSU mains zone is active
1.5. Mask fault

1.6. Set failed
1.7. Digi failed

061 – Mask Tamper
This option is available only if the “Mask Unset Tamper” option is selected in activated/deactivated state (see page 54).

062 – Mask Fault
This option is available only if the “Mask Unset Fault” option is selected in activated/deactivated state (see page 54). The output is activated if a masking state occurs, and deactivated when the alarm is reset (see page 21). The “Anti-Mask” timer delays activation of the output by the configured length of time (see page 47).

063 to 064 – Always Off
This output remains permanently deactivated.

065 – Pending
This output is activated if more than one alarm has to be reset.

066 – Always Off
This output remains permanently deactivated.

067 – Ext. Line Fault
This output is activated if +12V DC is present at the LINE FLT input of the alarm centre.

068 – ATS Test
This output type is available for outputs of the alarm centre and the digital outputs. It should only be used for connections to an ATS test input of a redundant modem.

If a connection is faulty, the ATS test triggers a “L.F. Single” alarm. If both lines are faulty, “ATE L.F. All” is displayed.

Important
Invert the output of the alarm centre if a positive input signal is used on the modem.

069 – Always Off
This output remains permanently deactivated.

070 – Auxiliary Fuse
This output is activated if the 12V auxiliary fuse of the alarm centre is blown.

If you want to assign this event to an output, remember that the normal state of the output used is “On” in order to display the voltage present. “Off” then means that no voltage is present. If you want to use a negative-switching output of the digital communications outputs, you have to invert the output. Note too that the modem is not supplied with power via the alarm centre but has its own power supply so that it can send messages if there is a power failure.

071 – Bell fuse
This output is activated if the poly-switch secures the output of the bell fuse.

072 – Network 1 Fuse
This output is activated if the poly-switch secures the output of bus fuse no. 1.

072 – Network 2 Fuse
This output is activated if the poly-switch secures the output of bus fuse no. 2.

074 – 079 Always Off
This output remains permanently deactivated.

080 – Rem Batt Fault
This output activates when there is battery fault at any 8-zone wired extension with PSU.

081 – Ren Mains Off
This output activates when mains power switches off at any

082 – Rem Pwr Out Flt
This output is activated when the voltage from any is too high or too low. This may indicate excessive loading (voltage too low).

083 – Sys Batt Fault
This output activates when there is a fault with the battery in the control panel or any

084 – Sys Mains Fault
This output is activated when mains power switches off at any control panel or in any

085 – 099 Always Off
This output remains permanently deactivated.

100 – Auto-Setting
This output is activated 1 minute before the automatic activation of a partition. The output is deactivated when the system is activated. If activation is delayed, the output remains active. The partition is activated by the “Auto Set Timer” option (see page 55).

101 – Auto-Set Timer 1
This output is activated if timer 1 for automatic activation is running. It is deactivated when the timer is off.

102 – Auto-Set Timer 2

This output is activated if timer 2 for automatic activation is running. It is deactivated when the timer is off.

103 – Auto-Set Timer 3
This output is activated if timer 3 for automatic activation is running. It is deactivated when the timer is off.

104 to 108 – Always Off
This output is always deactivated.

109 – PC Output 1 On
This output is controlled by a PC on which the Downloader software is running.

110 – PC Output 2 On
This output is controlled by a PC on which the Downloader software is running.

111 – PC Output 3 On
This output is controlled by a PC on which the Downloader software is running.

112 – PC output 4 On
This output is controlled by a PC on which the Downloader software is running.

113 to 118 – Always Off
This output is always deactivated.

119 to 126 – Not used

127 to 128 – Always Off
This output is always deactivated.

129 – Time Switch 1 On
This output is activated as long as time switch 1 is active (see page 43).

130 – Time Switch 2 On
This output is activated as long as time switch 2 is active (see page 43).

131 – Time Switch 3 On
This output is activated as long as time switch 3 is active (see page 43).

132 to 138 – Always Off
This output is always deactivated.

2.25.2 Partition Events

The outputs here follow a special event assigned to a partition.

00 – Bell-SAB

This output is activated if an alarm of a corresponding partition is triggered and the bell output on the alarm centre is activated. It is deactivated when the bell output is deactivated. The bell output can be activated by a confirmed or unconfirmed alarm, depending on whether “Bells On Confirm” or “Bells On Unconf” (see page 51) is selected.

01 – Strobe

This output is activated if an alarm of a corresponding partition is triggered and the bell output on the alarm centre is activated. It is deactivated when the selected partition is reset.

02 – Switch 12V

Is switched if the selected partition is activated. The output is deactivated if an alarm is triggered, the exit delay is running, or the partition is deactivated.

03 – Det. Reset

This output is deactivated for about 4 seconds if the first partition is activated by the user. This output is used for resetting non-automatically resettable sensors (e.g. smoke sensors).

04 – Walk test

This output is activated on the initiation of a walk test in a selected partition and deactivated when it is completed.

05 – Burg

This output is activated if there is an alarm (see page 29) in the selected partition. The output is deactivated when the user resets the alarm.

06 – P.A. Alarm

This output is activated if a zone of type “PA Silent” or “PA Audible” (see page 19) is triggered or if a user code of type “Panic Code” is used. This output is activated only if the zone or the user is assigned to the selected partition.

The output is also activated if a duress-type user code is entered in an unarmed partition. The output is deactivated when all alarms are reset.

07 – Fire

This output is activated if a fire alarm is triggered in the selected partition. The output is deactivated when the alarm is reset.

08 – Set

This output is activated if a selected partition is activated, and deactivated when the partition is deactivated.

09 – 2nd Entry

This output is activated as long as the additional entry delay for the partition is running.

10 – 24Hr. Alm.

This output is activated if a 24-hour zone in a selected partition is triggered and the alarm centre is not activated.

11 – Cnf Alarm

This output is activated if a confirmed alarm in a zone of a selected partition is detected, and remains active until the alarm is reset.

12 – Zone Omit

This output is activated if a zone of the selected partition is omitted or shunted (e.g. by user option 1 or 2), and deactivated when the “Omit” or “Shunt” attribute is removed from all zones of the partition.

13 – Act. Omit

If a zone of a selected partition is activated by a sensor that does not automatically reset itself (magnetic contacts, glass breakage sensor, but not PIR) and the zone remains activated until the expiry of the confirmation period, the alarm centre omits this zone and switches this output. The alarm centre deactivates the output when a user resets the system.

14 – 24Hr Omit

This output is activated if one or more 24-hour zones in a selected partition are omitted, and deactivated when all 24-hour zones of this partition are reinstated.

15 – Set Failed

This output is activated if activation of a partition fails (e.g., a zone is active), and deactivated when the partition is reset.

16 – Settling

This output is activated if the “Exit Settle Time” (see on page 47) is running for the selected partition.

17 – Clear
This output is activated if no tamper or no zone is triggered in the selected partition. Otherwise, the output is deactivated.

18 – Tamper
This output is activated if a tamper zone in the partition is activated, and deactivated when all tamper alarms are reset. This output works as “Global” tamper for all types of tamper alarm in the partition.

19 – Reset Req
This output is activated if an engineer code or a remote code is required in a partition, and deactivated if one of the two codes is entered.

20 – Lock-Out
This output is activated if a security zone is activated, and deactivated when this zone is no longer active.

21 – Chime On
This output is activated if a zone of the selected partition triggers a chime.

22 – Monitor
If the output is stable, it is activated if a monitoring zone in the selected partition is triggered, and deactivated when the zone is deactivated.

If the output is pulsed, it is activated only for the duration of the pulse.

23 – Alm Abort
This output is activated if an alarm in a selected partition is cancelled by a user, and deactivated when the cancellation time expires or the alarm is reset.

24 – Entry
This output is activated if the entry delay for a selected partition is activated, and deactivated if the partition is deactivated or the delay time expires.

25 – Exit
This output is activated if exit mode is started in a selected partition, and deactivated if the partition is activated.

26 – Exit/ent.
This output is activated if entry or exit mode is activated.

27 – Exit Flt
This output is activated if an error occurs during activation in a zone of the selected partition (e.g. a zone that does not have the “Access” attribute is activated). As soon as the error is cleared, the output is deactivated.

28 – Sndr Ctl.
This output is activated if a signal (e.g. entry/exit timeout or alarm) is required on an operating panel assigned to the partition.

In the default factory state, an operating panel assigned to a wired auxiliary supplies all signal tones required for all partitions assigned to the auxiliary. Operating panels connected directly to a bus supply the signal tones for all partitions. This output is intended to ensure that an operating panel issues only the signal times that are assigned to it.

To be able to use this option, assign the output of a corresponding operating panel to this output type. Insert the jumper over the connector “WARD SDNR” on the operating panel board. If an operating panel is connected to a wired auxiliary, the auxiliary must be assigned to all partitions used.

29 – Perimeter
This output is activated if a “Perimeter” zone triggers an alarm in the selected partition, and is deactivated when the alarm is reset.

30 – Shunted
This output is activated if one or more zones with the “Shunted” attribute (user option 2) are triggered in a selected partition. The output is deactivated when the zones no longer have the “Shunted” attribute and are being monitored again.

31 – AlwaysOff
This output is permanently inactive.

32 – SetStrobe
This output is activated if an alarm occurs in a partition, and deactivated when a user resets the alarm. Furthermore, the output is activated for 10 seconds after being activated by a user code.

33 – Access
If the “Access Code Only” option is set, the output is activated if an access user code is entered. If the “Access All Codes” option is

selected, the output is activated for every valid user code assigned to the partition.

34 – LS Open
Active if a key zone is open in the selected partition.

35 – PSU Batt
This output remains active as long as the PSU standby battery zone is active (see page 21).

36 – PSU Fuse
This output remains active as long as the PSU fuse zone is active (see page 21).

37 – PSU Mains
This output remains active as long as the PSU mains power zone is active (see page 21).

38 – Mask Tamp
This option is available only if the “Mask Unset Tamp” or “Mask Set Tamp” option is selected. The output is activated if the masking of a sensor is detected (p. 22). The anti-masking time delays the activation of the output accordingly.

39 – Mask Flt
This option is available only if the “Mask Unset Fault” or “Mask Set Fault” option is selected. The output is activated if the masking of a sensor is detected (see page 22). The anti-masking time delays the activation of the output accordingly.

40 – Auto Set
Not used.

2.25.3 Zone events

The outputs here follow a special event assigned to a zone.

1 – Mimic
The output is activated if a zone triggers an alarm. The output can follow any zone including zones with the “Not used” attribute.

Depending on whether “Mimic All Times” or “Mimic Set Only” is set, the output follows the zone only if the zone is in an activated partition.

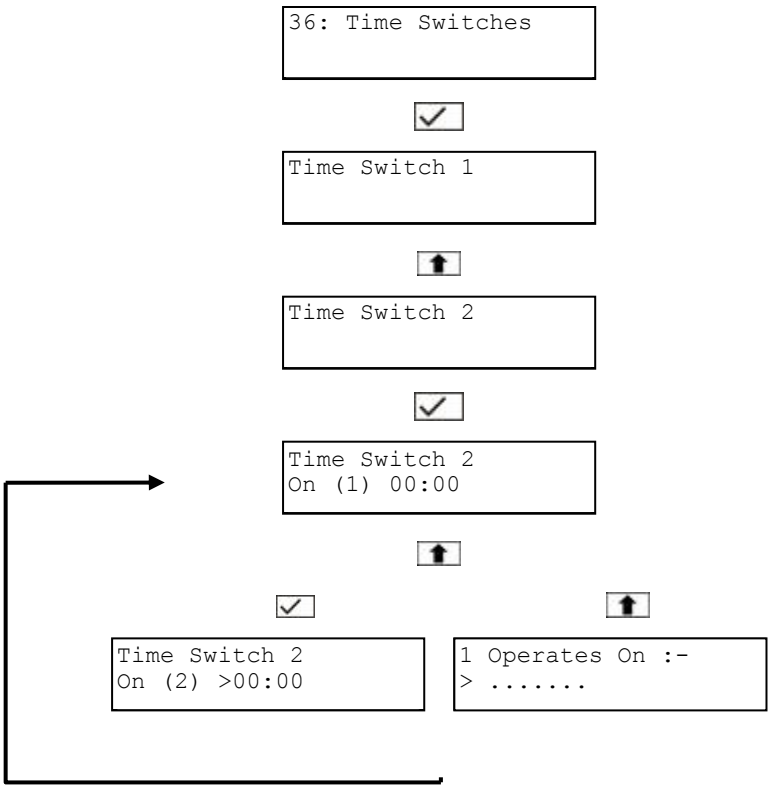
2 – Alarm
This output is activated if a zone triggers an internal, local or external alarm, and deactivated when the alarm is reset.

3 – Tamper
This output is activated if there is a tamper alarm in a zone (regardless of whether the zone is activated or deactivated), and deactivated when the tamper alarm is reset.

4 – Test Failed
This output is activated if a zone triggers during a sensor test, and deactivated when the engineer enters his/her code.

5 – Omit
This output is activated if a zone is shunted or omitted (user option 1 or 2), and deactivated when the zone is no longer shunted or omitted.

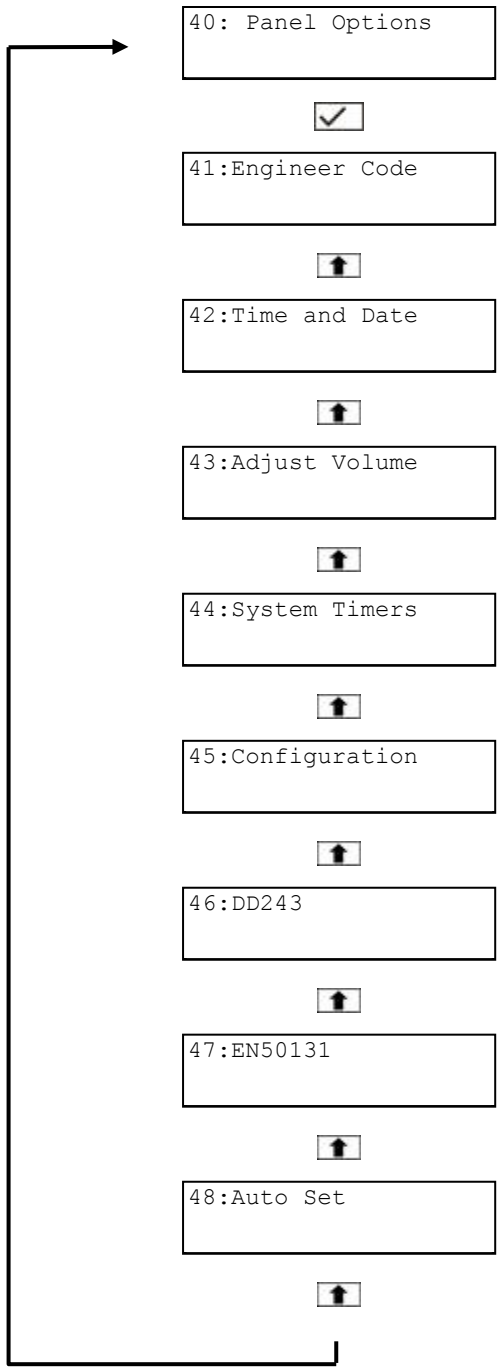
2.26 Option 36: Time Switches



With this option you can program three time switches. You can use these timers to switch alarm outputs, for example to operate external lighting or other electrical equipment.

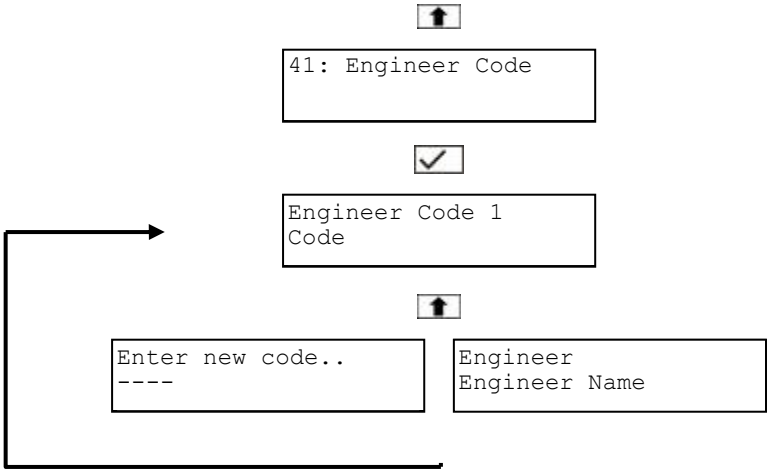
You can assign up to three switching times to each timer (a switching time consists of an “on” and an “off” time). You can also specify weekdays for the switching of the outputs. The outputs are monitored by the timers (see page 39). These switches are also available in the user menu (user option 3-3).

2.27 Option 40: Panel options



Options 41 to 48 are for the general configuration of the alarm centre.

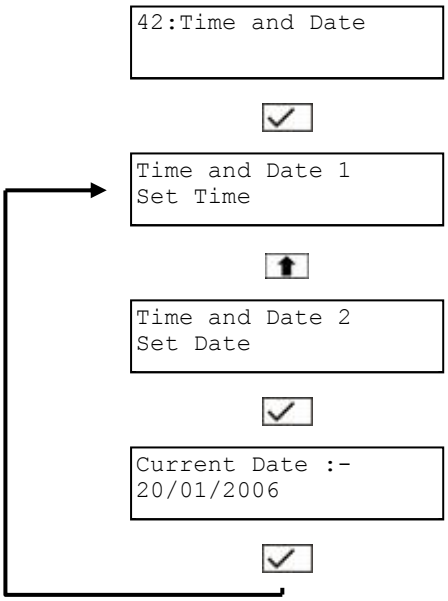
2.28 Option 41: Engineer Code and Name



Under this item, you can change the engineer name and password. The password can be 4 or 6 characters long, depending on your setting (see page 52). The factory setting is 7890 for the 4-digit code, and 789000 for the 6-digit code. The engineer name is displayed in the system memory according to the login (see page 72).

Important
To reset the engineer password to the factory setting, open the alarm system, cancel the tamper alarm with a user code, and then briefly short-circuit the “Factory Restart” contacts on the mainboard while there is current present in the alarm centre (complete reset).

2.29 Option 42: Time and Date



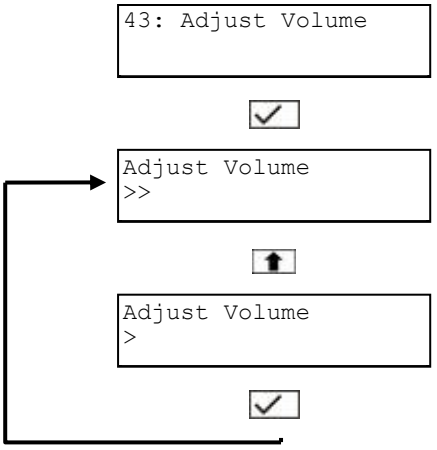
Select this option to check and correct the date and time.

Important
The system automatically changes the time to summer/winter time.

1 – Set Time
The time is shown in 24-hour format on all operating panels, and is also used for time-stamping events.

2 – Set Date
The date is shown on all operating panels, and is also used for date-stamping events.

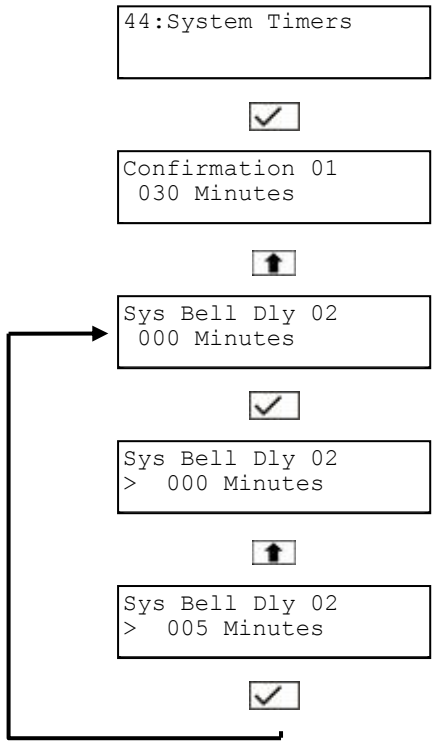
2.30 Option 43: Adjust Loudspeaker Volume



Select this option to adjust the alarm sounder volume on the alarm centre or to switch it off. You can adjust between 0 (off) and 7 (max.).

Important
The settings made here do not influence the volume of the operating panel. However, the panel emits a signal when you are changing the volume.

2.31 Option 44: System Timers



Select this option to define time sections and timers that influence the whole system. These include the bell duration and the number of triggers necessary before an alarm is activated.

System Timers
Select the type of timer:

01 – Confirmation
(default = 30 minutes)

This timer can only be used in combination with the “Confirmation On” option (see page 51).

A confirmed alarm then occurs only if at least 2 zones trigger within this period. If a second zone is not triggered within this period, the bell and strobe are cancelled, and the system remains active (the zone that triggered is shunted).

02 – Sys Bell Dly
(default = 000 minutes)

Select this option to delay the bell alert. This option can only be used for a completely activated system and the selection of the setting “Global Bell Time” (see page 50).

Important
This time is considered as zero is the setting “Bells On Unconf” (see page 51) is selected. Otherwise, the bell delay (see page 27) is used.

03 – Sys Bell Dur
(default = 003 minutes)

Select this option to set the duration of the bell output. This option can only be used for a completely activated system and the selection of the setting “Global Bell Time” (see page 50). Otherwise, the bell delay option (see page 28) is used.

04 – Anti-Mask
(default = 005 seconds)

A masking zone or a zone with the “Masking” attribute (see page 22) must remain active for the anti-masking period in order to trigger a masking alarm or to activate a masking output.

05 – Line Fault
(default = 030 seconds)

Select this option to define a delay time for the acoustic signal of a telephone fault. The display of the fault is not delayed.

06 – AC Off Delay
(default = 030 seconds)

This timer delays the signal for a mains fault and the outputs set as “Main Power Off” (see page 36).

07 – Soak Test
(default = 014 days)

Use this timer to set the sensor test period of a zone. If the time is set to 000, the zone remains in test until the attribute is removed.

08 – Exit Settle
(default = 005 seconds)

Use this timer to stabilise detectors within the output route. Some detectors need some time to stabilise following activation. This time provides a delay before sensors of zone type “Final Exit” or “Exit Terminator” are activated when the alarm centre activates the partitions.

09 – 2nd Entry Delay
(default = 000 seconds)

When the entry delay of a partition expires, the supplementary delay starts. If the partition is not reset following the delay, an alarm is triggered according to the setting in Option 24 (see page 29).

10 – Double Knock
(default = 010 seconds)

In this period, a specific number of triggers must be received by the sensors before an alarm is generated, or the zone must remain activated all the time to generate an alarm. This option affects only zones with the “Double Knock” attribute (see page 22).

The number of zone triggers is defined by the “Double Knocks Counter” option (see page 48).

11 – Abort Period
(default = 060 seconds)

This timer controls the duration of the alarm abort output for the system (see page 37) or for the partition (page 41).

12 – Abort Delay
(default = 180 seconds)

This timer is relevant only for specific alarm states that need an engineer reset. If a user confirms an alarm within the abort duration, the alarm does not need an engineer reset or a remote reset. If an alarm occurs, the output (alarm abort type for the system – see page 37 – or for the partition – see page 41) is activated only if the system is deactivated within this period. If the system is first deactivated after this time, the output is not activated.

13 – Courtesy Time
(default = 120 seconds)

Select this time for the duration of the interior lighting.

14 – Menu Time-Out
(default = 30 minutes)

This time specifies how long a user option is displayed before being aborted and the display returns to normal idle mode.

15 – Beam Pair
(default = 010 seconds)

This period is for zone type “Beam Pair” (see page 23) and specifies the time for triggering two zones of this definition in which an alarm is triggered.

16 – Defer Setting
(default = 010 minutes)

This timer is important for “Auto Set” (see page 55). One minute before automatic activation, the operating panel informs you that the system is about to be activated. Entering a user code delays activation by the time set here.

17 – Service Time
(default = 000 days)

Select this option to display a message telling the user at regular intervals that a service call is necessary. The user can still activate and deactivate the system. The display disappears when an engineer logs into the system. The service time is then restarted.

18 – Select Menu
(default = 030 seconds)

This option defines the time in which partitions are displayed for activation after a user code is entered.

19 – Keys Till Tamp
(default 020 for 4-digit code or 030 for 6-digit code)

This counter specifies how many invalid keys can be pressed before code tampering is detected. A code tamper locks the operating panels for 5 minutes. The default depends on the number of digits used in the code.

20 – No. of Rearms
(default = 000)

After the end of the alarm duration, zones that triggered an alarm are taken back into monitoring if they no longer have an alarm state. Zones that still trigger are shunted. The counter specifies how often a zone can be reinstated before it is shunted.

Important
This counter is available only if the “Confirmation Off” option (see page 51) is selected. A confirmed alarm then occurs only if at least 2 zones trigger within this period. If a second zone is not triggered within this period, the bell and strobe are cancelled, and the system remains active (the zone that triggered is shunted).

21 – Not used

22 – Double Knocks
(default = 002)

This counter defines how many triggers are necessary within the “Double Knocks Period” to trigger an alarm with the “Double Knock” attribute.

23 – Tst Call Strt
(default = 000)

Use this timer for making test calls from the integrated modem to the command centre.

These calls are sent at fixed intervals. Such test calls are known as “static” test calls. The timer defines the start time of the calls and the “Tst Call Int” option defines the interval between calls. For example: If you set 003 for the start of the test call and 010 for the interval, the test calls begin at 03:00 hours, and the next calls are at 13:00, 23:00, 9:00, 19:00 hours, etc.

24 – Test Call Int
(default = 000)

If you set a value greater than zero for the start of test calls, use this timer to define the intervals between the calls.

If you set the start of test calls at zero, the interval timer sets the maximum period (in hours) between test calls to a command centre. The integrated modem automatically makes a test call if no other call is made to the command centre within the defined period. This is known as a “dynamic” test call.

25 – Not used

26 – Payment Time
(default = 000 days)

The engineer’s company can use this timer to prevent users from activating the system. When the set time has expired, users cannot activate the system until an install code has reset the system. To deactivate this option, select 000.

2.32 Option 45: General Configuration Options

01 – Common Prtn Off/On

Off (default) – With this option, a zone in more than one partition is monitored if one of the partitions is activated. Monitoring ends when one of the respective partitions is deactivated.

On – With this option, a zone in more than one partition is monitored only if all partitions are activated. Monitoring ends when one of the respective partitions is deactivated.

02 – Bell Is n SAB/SCB

SAB (default) – The bell output of the alarm centre supplies 0V when activated.

SCB – The bell output of the alarm centre removes 0V when activated.

03 – View Alms Unset/View Alms P. Set

View Alms Unset (default) – If a partition is activated and an alarm is triggered in an activated partition, alarm information appears immediately after the user code is entered. Until then, no message appears on the display. When the system is reset, details of the alarm appear on the display after the user code is entered.

View Alms P. set – If some partitions of the system are activated and an alarm is triggered in an activated partition, the alarm information appears immediately on all operating panels.

04 – Engr Authorrised/User Authorised

Engr Authorised (default) – When the Downloader software is used, data in the alarm centre can be overwritten without the user's permission.

User Authorised– When the Downloader software is used, data in the alarm centre can be overwritten only with the user's permission (user option 5-1).

05 – On-Line Enabled/Disabled

On-Line Enabled (default) – When the Downloader software is used, the "online keypad" option can be used.

On-Line-Disabled – When the Downloader software is used, the "online keypad" option cannot be used.

06 – Not used

07 – Digi Normal/Inverted

Digi Normal (default) – The digital communications outputs switch from von +12V to 0V on activation.

Digi Inverted – The digital communications outputs switch from von +0V to 12V on activation.

08 – Chime Audible/Visible

Audible (default) – Zones that use the "chime" attribute generate only an acoustic signal.

Visible – Zones that use the "chime" attribute generate an acoustic signal and a message on the display that a zone has been triggered.

09 – Manual Omits/Automatic Omits

Manual (default) – Zones that have the "Omit" attribute can be omitted only by a user (user option 1).

Automatic – Zones that have the "Omit" attribute are automatically omitted if they are active and the system is activated. This option has no meaning if the "View Exit Errosr" option is activated.

Important
Do not use the "Automatic Omit" option if a partition uses the "Deferred Set" or "Lock Set" option (see page 26), otherwise the system will not set.

10 – Omit Tampers No/Yes

No (default) – If zones are omitted with user option 1, tamper zones are not omitted at the same time.

Yes – If zones are omitted with user option 1, tamper zones are omitted at the same time.

11 – Global Setting/Local Setting

Global (default) – The user can activate a partition from an operating panel if the user type allows this and the partition is assigned to the user (user option 8-1).

Local – This option allows the user to activate only a partition that is assigned to him/her. The operating panel must belong to this partition (see page 31).

12 – Global Unsetting/Local Unsetting

Global (default) – The user can deactivate a partition from an operating panel if the partition is assigned to the user (user option 8-1).

Local – This option allows the user to activate only a partition that is assigned to him/her. The operating panel must belong to this partition (see page 31).

13 – 24hr Omit Global/Local

Global (default) – A zone can be omitted or shunted from an operating panel.

Local – A zone can be omitted or shunted from an operating panel only if the zone is in the same partition as the operating panel.

14 – Prtn Bell Time/Global Bell Time

Partition (default) – The alarm centre uses the bell delay and the bell duration for the partitions (see page 28) if the system is completely or only partly activated.

Global – The alarm centre uses the bell delay and the bell duration for the partitions (see page 28) if partitions of the system are activated. If there is a complete activation of the system, the “Sys Bell Dly” and “Sys Bell Dur” options (page 46) are used.

15 – Latching Fire/Unlatching Fire

Latching (default) – Fire zones (page 19) generate an alarm when triggered and are returned to monitoring when the user code is entered twice (once to reset the alarm and once to reactivate the sensor).

Unlatching – Fire zones (page 19) generate an alarm when they are triggered. To deactivate the alarm, the user enters his/her code. The zone is then returned immediately to monitoring.

16 – Timed Code o/p / Latched Code o/p

Timed code o/p (default) – If the output is set to stable, it is activated for 2 seconds after a user code is entered and then deactivated.
If the output is pulsed, it is activated for the duration of the pulse.

Latched Code o/p – If the output is set to stable, it is activated when a user code is entered, and deactivated when the code is entered again.
If the output is pulsed, it is activated for the duration of the pulse and then deactivated.

17 – Latching 24hr/Nonlatching 24hr

Latching (default) – 24-hour zones (page 19) generate an alarm when triggered and are returned to monitoring when the user code is entered twice.

Nonlatching – 24-hour zones (page 19) generate an alarm when they are triggered. After a user code is entered, the alarm is deactivated and the zone is returned immediately to monitoring.

18 – Access Code Only/All Codes

Access Code Only (default) – Outputs that follow the “Access Code” (page 36) or “Access” (page 41) event are activated if a code of the “Access Code” type is entered.

All Codes – The output are activated by the entry of a user code.

19 – Not used

20 – Unshunt, Exit/No Exit

No Exit (default) – If the shunt code is entered (user option 8-1), zones with this option are returned to monitoring, but no exit mode is started.

Exit – With this option, zones are returned to monitoring by the entry of the shunt code (user option 8-1) and at the same time the exit mode is started.

21 – Ignore Errors/View Exit Errors

Ignore (default) – If the alarm system is activated despite triggered zones, the exit delay continues to run to the end. If the zones are then still open, the alarm is activated and an error is shown on the display.

View Exit – If an tempt is made to activate the alarm system with open zones, a message appears on the operating panel display informing that zones are still open. The system cannot be activated until the zones are closed.

22 – Mimic, All Times/Set Only

All times – If an exit of type “Mimic” is used, the exit always follows the zone.

Set Only – If an exit of type “Mimic” is used, the exit follows the zone only if it is in an activated partition.

23 – Not used

24 – Duress Allow No/Yes

No (default) – Select this option to prevent the definition of users with the “Duress” and “Panic” attributes in the administrator menu (Option 8-1).

Yes – Select this option to permit the definition of users with the “Duress” and “Panic” attributes in the administrator menu (Option 8-1).

25 – Keypad PA Off/On

Off (default) – A panic alarm cannot be triggered on the operating panel.

On – A panic alarm can be triggered on the operating panel by simultaneously pressing keys 1 and 3.

26 – Exit Foyer/Inst Set Foyer

Exit (default) – Partition 1 uses the exit delay of the partition (page 28) whenever the partition is automatically activated by the Foyer option (page 30).

Instant – Partition 1 ignores the exit delay time and activates the partition immediately after the partitions that are linked to it are activated.

This can happen only if the operating panel or key-switch used is not in partition 1.

27 – Radio PA Audible/Silent

Silent (default) – If key combination 5 (keys 1 and 5 simultaneously) is pressed on the remote control, a silent panic alarm (PA) is triggered.

Audible – If key combination 5 (keys 1 and 5 simultaneously) is pressed on the remote control, an acoustic panic alarm (PA) is triggered.

2.33 Option 46: Choosing DD243 Configuration Options (UK)

1 – Confirmation Off/On

Off (default) – This option does not use any confirmed alarms, and the exits that follow this attribute cannot be used.

On – Use this setting if you want to use the DD243 Standard. This option is designed to avoid false alarms.

A confirmed alarm has occurred if at least 2 zones in a partition are triggered within a configurable time. The precondition is that the partition is activated and the entry delay is not running. A confirmed alarm should minimise the probability of false alarms. Note that the second sensor can also be in a different partition from the first sensor. (The system reports the confirmation of the alarm in the partition containing the second sensor.)

If you do not select “Confirmation On”, all alarms are unconfirmed and the triggering of a single zone is sufficient to generate an alarm.

2 – Sndrs on Unconf/Confirm

Important
The following options are important only if you select “Confirmation On”.

Unconf (default) – The alarm centre starts the internal signalling device (including operating panels) immediately after an unconfirmed alarm. It reacts in the same way as if you select “Confirmation Off”.

Confirm – The alarm centre starts the internal signalling device (including operating panels) immediately after a confirmed alarm and after the expiry of any bell delay.

3 – Bells On Unconf/Confirm

Important
The following options are important only if you select “Confirmation On”.

Unconf (default) – The alarm centre starts the external bell immediately after an

unconfirmed alarm. It reacts in the same way as if you select “Confirmation Off”.

Confirm – The alarm centre starts the external bell immediately after a confirmed alarm and after the expiry of any bell delay.

Important
The external bell output works without a confirmed alarm when the entry delay time has started and expired.

See also the information about bell delay and bell duration on page 45.

4 – After Entry Yes/No

Important
The following options are important only if you select “Confirmation On”.

No (default) – Select this option to avoid confirmed alarms following expiry of the entry delay.

Yes – Select this option to use confirmed alarms following expiry of the entry delay (see page 28). In this case, an alarm is not generated in the case of an intrusion until after the expiry of the entry delay and the triggering of one or two zones. However, only those zones that are not on the entry route are considered (entry zones are ignored).

To use one or two zones for activation after the expiry of the delay, select “Confirm 1 Zone” or “Confirm 2 Zones”.

5 – Ent KPD Lock Off/On

Important
The following options are important only if you select “Confirmation On”.

Off (default) – Users can deactivate the alarm system during the entry delay from an operating panel.

On – Users cannot deactivate the alarm system during the entry delay.

6 – Confirm 2 Zones/1 Zone

Important
The following options are important only if you select “Confirmation On”.

2 Zones – A confirmed alarm is generated if an intruder triggers 2 mutually independent zones after expiry of the entry delay (page 28). If the alarm centre triggers an alarm before the delay starts, only one further zone is necessary for activation.

1 Zone – A confirmed alarm is generated if an intruder triggers a zone after expiry of the entry delay (page 28).

2.34 Option 47: Choosing EN50131 Configuration Options

01 – 4 Digit Codes/6 Digit Codes

4-Digit Codes (default) – All users use 4-digit codes.

6 Digit Codes – All users use 6-digit codes. If this code length is used, the engineer code is 789000 and the administrator code is 123400.

Important
You cannot change this setting if the engineer code or the default administrator code (user 01) has been changed or another code has been set in the user menu (Option 8-1). Users can be deleted by Option 95-5 (see page 81) and 98 (page 83).

02 –Internal Sounder/Local Sounder Intern/Local

Internal (default) – If an alarm occurs during the entry delay (page 28), the external alarm sounder and the signalling device of the operating panel are activated for 30 seconds. After this period, the alarm behaviour of Option 24 (page 29) is used.

Local The functioning is comparable to that of the internal signalling device, except that the bell and the strobe are also activated for 30 seconds.

03 – Not used

04 – Instant Alarm/Delayed Alarm

Instant (default) – The Burg output is activated immediately following a full alarm caused by expiry of the entry delay.

Delayed – This option delays the output by another 30 seconds.

05 – Tampers As Alarm/as Tamps

Tampers as Alarm (default) – If the system triggers a tamper alarm when the alarm centre is active, the alarm centre reacts as follows:

- Both a tamper signal (CID code 137) and an alarm (CID code 130) are transmitted to the command centre. This requires the setting of the Contact ID format.
- System, partition and zone outputs of type “alarm” and “tamper alarm” (or “tamper”) are triggered.

If tampering occurs during the deactivated state of the alarm centre, the alarm centre reacts as follows:

- Only the tamper is transmitted (CID code 137)
- System, partition and zone outputs of type “alarm” and “tamper alarm” (or “tamper”) are triggered. See the following table:

			Output type					
			System		Partition		Zone	
Tamper triggered	**Alarm centre state**	**“Tamper as”**	**Alarm**	**Tamper**	**Alarm**	**Tamper**	**Alarm**	**Tamper**
Alarm centre	inactive	Alarm	Off	On	Off	On	Off	Off
operating panel	inactive	Alarm	Off	On	Off	On	Off	Off
Zone	inactive	Alarm	Off	On	Off	On	Off	On
Alarm centre	active	Alarm	On	On	On	On	Off	Off
operating panel	active	Alarm	On	On	On	On	Off	Off
Zone	active	Alarm	On	On	On	On	On	On
Alarm centre	inactive	Tamper	Off	On	Off	On	Off	Off
operating panel	inactive	Tamper	Off	On	Off	On	Off	Off
Zone	inactive	Tamper	Off	On	Off	On	Off	On
Alarm centre	active	Tamper	Off	On	Off	On	Off	Off
operating panel	active	Tamper	Off	On	Off	On	Off	Off
Zone	active	Tamper	Off	On	Off	On	Off	On

Tamper As Tamper – If a tamper is triggered when the alarm system is active or inactive, the alarm centre reacts as follows:

- Only the tamper (CID 137) is transmitted to the command centre.
- System, partition and zone outputs of type and “tamper alarm” (or “tamper”) are triggered.

06 – Mask Unset Fault/Tamp

Mask Unset Fault (default) – The alarm centre classifies masking in a deactivated state as a fault. Outputs defined as “mask Fault” (page 38, page 42) are then activated.

Mask Unset Tamp – The alarm centre classifies masking in a deactivated state as tampering. Outputs defined as “Mask Tamp” (page 38, page 42) are then activated.

07 – Mask Set Fault/Tamper

Mask Set Fault (default) – The alarm centre classifies masking in an activated state as a fault. Outputs defined as “Mask Fault” (page 38, page 42) are then activated.

Mask Set Tamper – The alarm centre classifies masking in an activated state as tampering. Outputs defined as “Mask Tamp” (page 38, page 42) are then activated.

08 – Mask Override/Inhibit

Override (default) – The user can activate zones that are masked (page 22).

Inhibit – The user cannot activate zones that are masked (page 22).

09 – Gen/Fault: User/Eng

User (default) – If you select this option, the user can ignore a general error when activating the alarm centre.

Engineer – If you select this option, the user cannot activate the alarm centre in the event of a general error.

10 – AC FAil: No Reset/User Engineer

No Reset: (Default) – The display shows an error message if the mains supply is disconnected. The message disappears as soon as the power supply is reconnected.

Important
The “AC Off Delay” timer (see page 51) defines how long the mains supply can be removed before a message appears on the display.

User – A mains error requires input of a user code.

Engineer – A mains error requires input of an engineer code or a remote reset.

11 – AC Bypass: Always/User/Engineer

Always (default) – With this option, a user can activate the system during a mains fault.

User – The user can ignore a mains error and activate the system, but only if mains current is still present.

Engineer – The system cannot be switched on in the event of a mains error. When an engineer has cleared the error, the system can be reactivated. In this case, however, Option 10 (mains fault) must be set to “Engineer”.

12 – Line Fail: No Rst/User/Eng

No Rst (default) – A telephone fault (no dial tone) of the integrated modem or an external modem is indicated by an alarm tone. This alarm is automatically reset when the fault is cleared.

The integrated modem can display the “PSTN Line Fault” only if a communication line between the modem and the command centre is released.

An external modem must be connected to the input (LINE FLT) of the alarm centre to be able to send a signal to the centre if the mains power supply fails. The fault is displayed with “ATE L.F. Single” or “ATE L.F.. All”.

User – An alarm caused by a telephone fault must be reset by the user.

Engineer – An alarm caused by a telephone fault must be reset by the engineer or a remote reset.

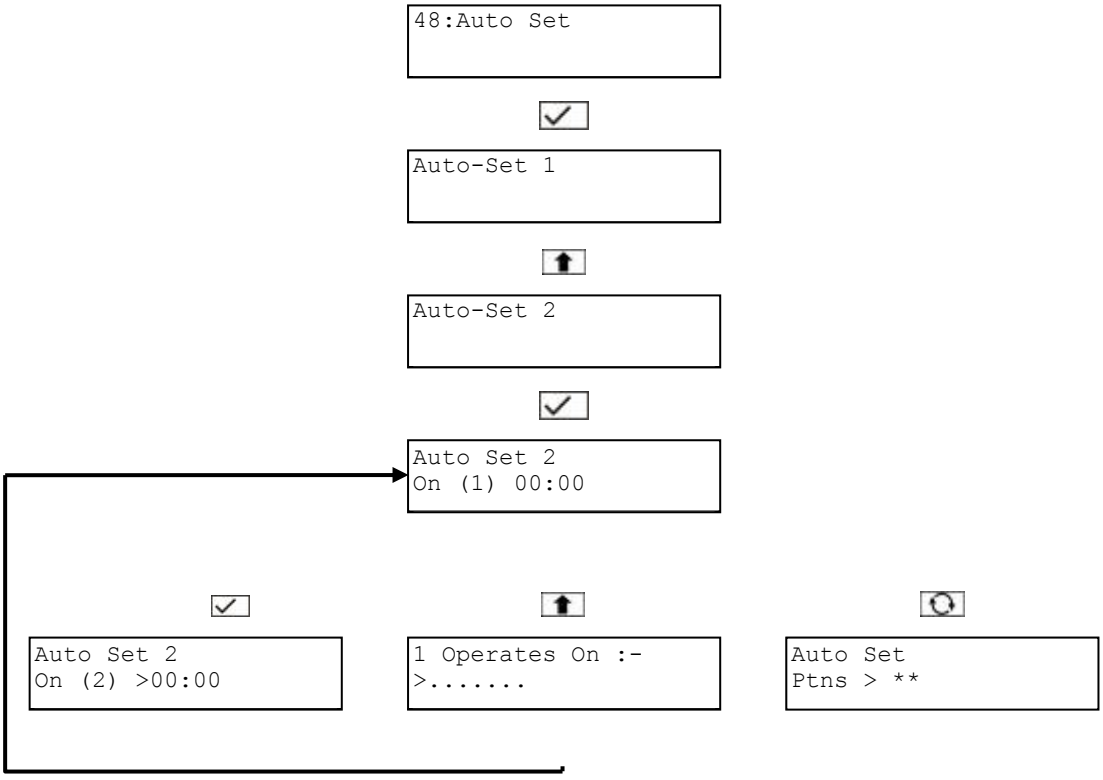
13 – LF Bypass:Always/User/Eng:

Always (default) – Although there is a telephone fault, the user can continue to activate the system.

User – A user can ignore the telephone fault and activate the system but only if there is no fault.

Engineer – The system cannot be activated if a telephone fault exists. The system must be reset by an engineer code. For this purpose, “Engineer” must be selected in section 12 (PSTN Line Fault).

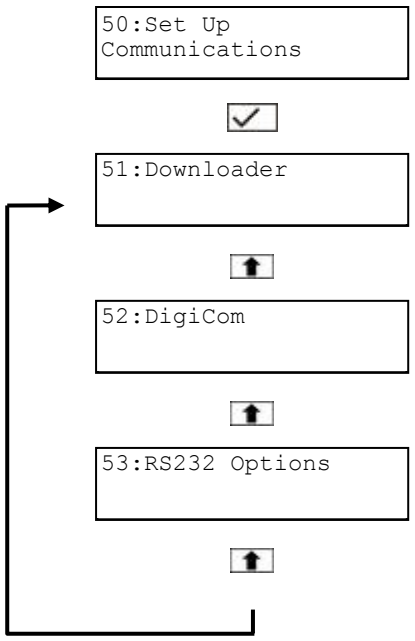
2.35 Option 48: Auto Set Timers



Select this option to set three timers for automatic activation. Each timer is connected with one or more partitions that can be activated and deactivated at different times.

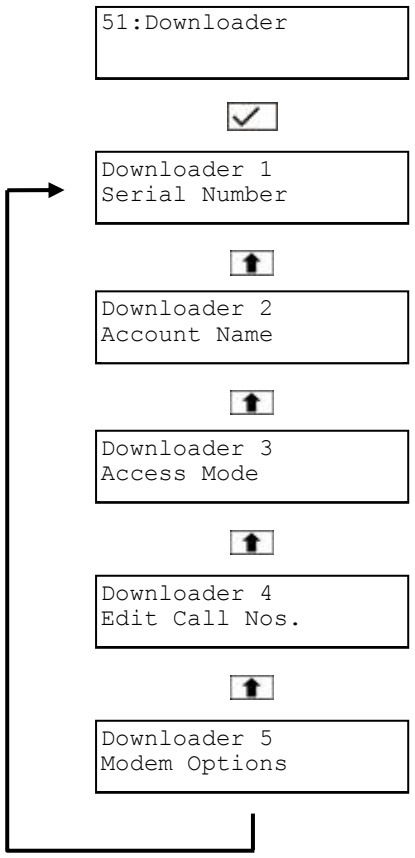
For each timer, up to three time switches can be defined that determine when the system is activated (On) or deactivated (Off). The output the can optionally be controlled by these timers are described in Options 31–35. These timers are also available to the user (user option 3-4). See also the “Defer Setting Timer” option (page 47).

2.36 Option 50: Set Up Communications



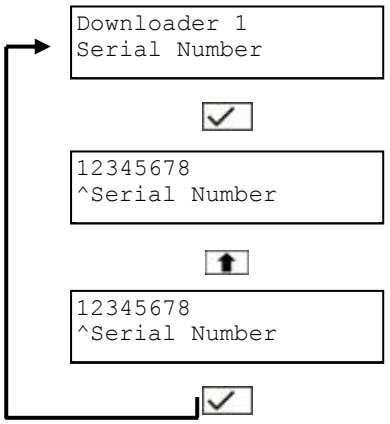
Select this option to define settings for communication between the alarm systems and external systems.

2.37 Option 51: Downloader



The options in the Downloader menu refer to the connection of the alarm system via the integrated modem or USB cable to a remote PC.

2.37.1 Option 51-1: Downloader Setting

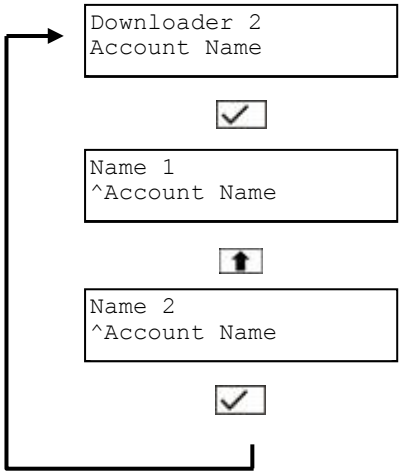


With this option, you can define the serial number used for connecting to the Downloader. You need this number if you want to access the alarm centre with the Downloader via the integrated modem or USB interface.

The number can consist of up to 8 digits. This represents a high level of security, which should prevent unauthorised communication with the alarm centre.

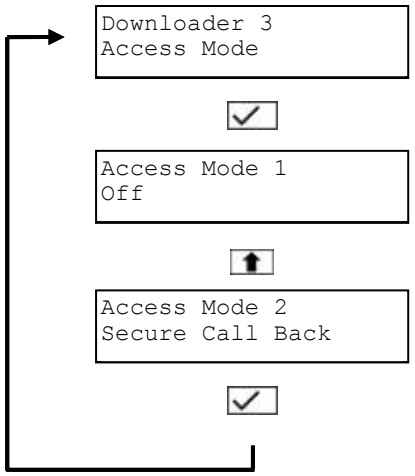
Important
The first connection between the alarm centre and the PC is accepted without a serial number or customer number. During the first connection, the serial number and the customer name are automatically defined by the Downloader software.

2.37.2 Option 51-2: Account Name



Select this option to assign a customer name to the alarm centre (not more than 12 characters). When you connect to the alarm centre via the integrated modem or USB, the Downloader software must supply the same customer name as the alarm centre before access is accepted. The customer name also ensures that the Downloader software receives the right profile when the alarm centre dials the remote PC.

2.37.3 Option 51-3: Defining the Access Mode



This option defines how the alarm centre handles incoming calls of the Downloader software via the integrated modem.

When the system first connects with the die Downloader software, data can be downloaded and changes made.

Important
If Functions 2 and 3 are available, the Downloader software can connect to the system even if an engineer is working on it.

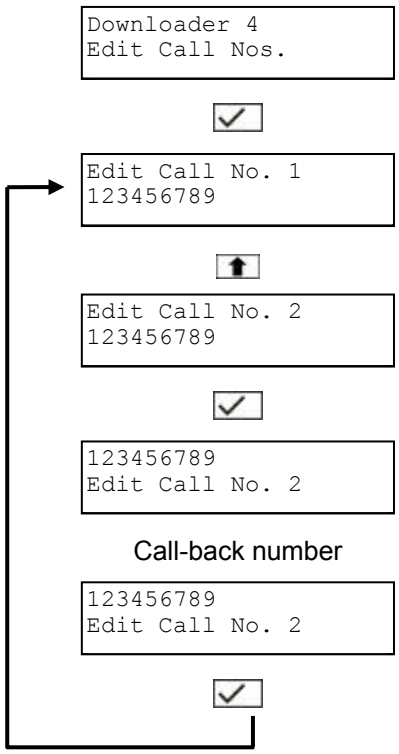
Select one of the following options:

1 – Off
This option prevents incoming calls being accepted by the alarm centre. An outgoing call can be initiated with Option 60 (see page 67).

2 – Secure Call Back
This option checks an incoming call for the customer number and the serial number. After the check, the call is terminated and the alarm centre calls the Downloader software. This type of connection is much more secure than using the “Unattended” option, since the Downloader software provides a call-back ID that enables the alarm centre to define the call-back number.

3 – Unattended (default)
After the customer number and the serial number have been checked, the Downloader software is directly connected to the alarm centre.

2.37.4 Option 51-4: Editing Call-Back Numbers



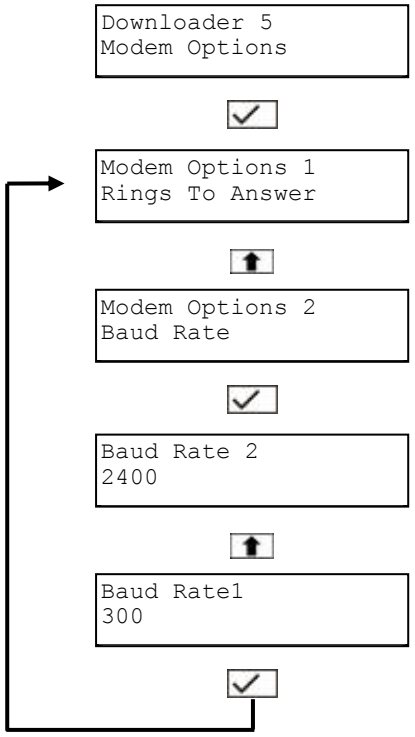
This option enables you to add or edit up to 4 call-back numbers for communication with a PC on which the Downloader software is installed.

Press ▫ during number input to set a dial pause of 4 seconds between two digits of the telephone number (the pause is represented by a comma). This can be necessary if the telephone system or the exchange does not use the alarm centre’s normal dial speed.

A dial pause is normally set at the beginning of the number to allow time for connection setup or after the last digit to obtain an exchange connection.

Important
Enter command centre numbers with the “ARC Telephone Number” option (see page 65).

2.37.5 Option 51-5: Modem Options



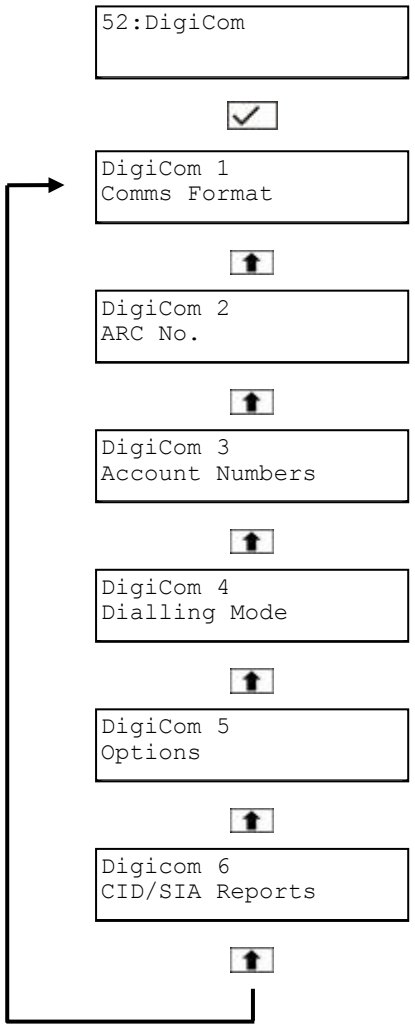
The following options are available:

1 – Rings to Answer
This option defines the number of rings before the alarm centre accepts the call on the integrated modem.

2 – Baud Rate
Baud rate setting for communication to the Downloader via the telephone line. The normal setting is 1200 baud.

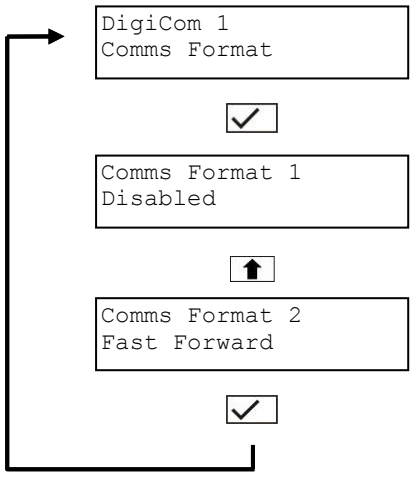
3 – Answer Phone Defeat
This option is useful if the telephone line has to be shared with an answering machine. If you select “On”, the alarm centre waits for a ringing tone. If a second call arrives within 30 seconds, the alarm centre assumes this is a call from the Downloader and answers immediately. The answering machine is prevented from accepting the call. If you select this option, entering the number of calls is not relevant.

2.38 Option 52: DigiCom options



With this option, you can make settings for communication with the command centre via the integrated modem.

2.38.1 Option 52-1: Comms Format



With this option, you can select a communications protocol with which to transmit data to a command centre. Before make this setting, contact your command centre to find out what protocols it uses. The following options are available:

1 – Disabled
There is no communication between the alarm centre and the command centre.

2 – Fast Format
If you use this protocol, every message transmitted to the command centre contains the following information:

- A 4- or 6-digit identification number.
- 8 or 16 data channels. The number is described by the fast-format protocol on page 66. Each channel reports the state of the output programmed via the digital outputs (see page 34). Artikel???Step??? Each channel can transmit the following values:

- 1 = new alarm not yet reported
- 2 = State of output is open / deactivated (some output types show the state “open/closed” or “activated/deactivated”, e.g., “System armed”, “System completely activated” and “System open” (see page 35). A value of 2 is transmitted if the corresponding output is inactive.)
- Abschnit3 = Alarm reset and not previously reported
- 4 = State of output is activated (like 2, but represents the opposite state).
- 5 = no alarm
- 6 = Alarm reported earlier

- A test signal

Important
The “Restore Signals” option described on page 66 defines whether a restore message is sent to the command centre.

3 – Contact ID

The Contact ID protocol automatically transmits data from the event memory to the command centre. Examples of messages that use the Contact ID protocol:

Example: 1 – 1234 18 1137 01 015 2

- 1234 is the identification number defined in the Account Number option (page 65).
- 18 is the message type for identifying the message as Contact ID.
- 1137 is the event identity for a new event (1), followed by the event code for a system tamper alarm (137).
- 01 is the number of the partition.
- 015 is the zone number.
- 2 is the value of the checksum required by the command centre to confirm reception of a valid message.

Example 2: 2 – 1234 18 3137 01 015 F

The only difference between this and the previous example is the event ID, which is 3, to identify the reset of the system tamper alarm. The value of the checksum has also changed.

Important
The “Restore Signals” option described on page 66 defines whether a restore message is sent to the command centre.

The “Tamper As Alarm/Tams” option (see page 53) defines whether tamper states are transmitted to the command centre or not.

The following table shows the events that are transmitted to the command centre. However, these depend on the selected Contact ID format (see page 67).

Event type	CID Code	Low	Medium	Raised	High
A/C Lost	301		Y	Y	Y
A/C Restore	301		Y	Y	Y
Alarm Abort	406		Y	Y	Y
Alarm Confirm	139	Y	Y	Y	Y
Masking Alarm	380		Y	Y	Y
Battery Fault	311		Y	Y	Y
Battery Missing	311		Y	Y	Y
Battery Restore	311		Y	Y	Y
Bell Tamper Omit	573	Y	Y	Y	Y
Code Changed	461				Y
Code Tamper	461				Y
Download Start	412				Y
Download Fail	412				Y
Download Success	412				Y
Expander Tamper	137	Y	Y	Y	Y
Fire	110	Y	Y	Y	Y

Fire Restore	110	Y	Y	Y	Y
Keyswitch Arm	409			Y	Y
Keyswitch Disarm	409			Y	Y
Node Tamper Omit	573	Y	Y	Y	Y
PA Audible	123	Y	Y	Y	Y
PA Duress	121	Y	Y	Y	Y
PA Panic	120	Y	Y	Y	Y
PA Panic Restore	120	Y	Y	Y	Y
PA Silent	121	Y	Y	Y	Y
Panel Arm	401			Y	Y
Panel Disarm	401			Y	Y
Panel Tamper Omit	573	Y	Y	Y	Y
Phone Line Fault	351	Y	Y	Y	Y
Phone Line Restore	351	Y	Y	Y	Y
Program Mode End	628				Y
Program Mode Start	627				Y
System Reset	305		Y	Y	Y
System tamper	137	Y	Y	Y	Y
System Tamper Restore	137	Y	Y	Y	Y
Technical alarm	150	Y	Y	Y	Y
Test call	602	Y	Y	Y	Y
Date/Time Reset	625				Y
Zone Alarm	130	Y	Y	Y	Y
Zone Restore	130	Y	Y	Y	Y
Zone Omitted	573	Y	Y	Y	Y
Zone Tamper	137	Y	Y	Y	Y
Zone Tamper Restore	137	Y	Y	Y	Y
Partition Arm	409			Y	Y

4 to 7 – SIA 1, SIA 2, SIA 3 and Extended SIA
The SIA protocol transmits data from the event memory to the command centre. The four SIA formats differ by the data volume sent with each message:

- SIA1 Format: #AAAAAA|NCCcc
- SIA2 Format: #AAAAAA|Nidnnn/rinn/CCcc
- SIA3 Format: #AAAAAA|Ntihh:mm/idnnn/rinn/CCcc #AAAAAA|AS
- Extended SIA3 Format: #AAAAAA|Ntihh:mm/idnnn/rinn/CCcc/AS

The meaning of the characters:

- AAAAAA = 6-digit programmable ID number (e.g. 123456) defined by the engineer in Option 52-3 (page 65)
- N = New event
- tihh;mm/ = Time (e.g. ti10:23/)
- idnnn/ = User number if available; otherwise not sent (e.g. id123/ or id6/
- rinn/ = Partition number (e.g. ri12/ or ri3)
- CC = Event code (e.g. FA = Fire Alarm)

- cc = Zone or operating panel number if available; otherwise not sent (e.g. 23 or 5)
- AS = Text description of event

Example: In the event of a fire alarm in zone 2 of partition 6 at 10:15 (partition 5, ID number 10), the different formats for the SIA protocol are as follows:

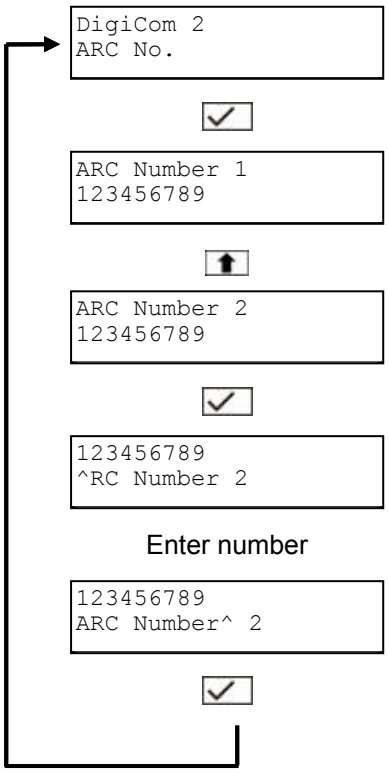
- SIA1: #000010|NFA2
- SIA2: #000010|NFA/ri6
- SIA3: #000010|Nti10:15/FA2/ri6
  #000010|AFire Zone 6
- Extended SIA:
  #000010|Nti10:15/FA2/ri6/AFire Zone 6

The following table shows the events transmitted to a command centre, depending on the format used:

Event type	SIA Code	Low	Medium	Raised	High
A/C Lost	AT		Y	Y	Y
A/C Restore	AR		Y	Y	Y
Alarm Abort	BC		Y	Y	Y
Alarm Confirm	BV	Y	Y	Y	Y
AntiMask Alarm	BT		Y	Y	Y
Aux Restore	YQ		Y	Y	Y
Aux Trouble	YP		Y	Y	Y
Battery Fault	YT		Y	Y	Y
Battery Missing	YM		Y	Y	Y
Battery Restore	YR		Y	Y	Y
Bell Tamper Omit	BB	Y	Y	Y	Y
Closing Extended	CE				Y
Code Changed	JV				Y
Code Tamper	JA				Y
Download Start	RB				Y
Download Fail	RU				Y
Download Success	RS				Y
Exit Timeout	EA	Y	Y	Y	Y
Expander Tamper	TA	Y	Y	Y	Y
Fire	FA	Y	Y	Y	Y
Fire Restore	FR	Y	Y	Y	Y
Keyswitch Arm	CL			Y	Y
Keyswitch Disarm	OP			Y	Y
Node Tamper Omit	BB	Y	Y	Y	Y
PA Audible	PA	Y	Y	Y	Y
PA Duress	HA	Y	Y	Y	Y
PA Panic	PA	Y	Y	Y	Y
PA Panic Restore	PR	Y	Y	Y	Y
PA Silent	HA	Y	Y	Y	Y
Panel Arm	CL			Y	Y
Panel Disarm	OP			Y	Y

Panel Tamper Omit	BB	Y	Y	Y	Y
Phone Line Restore	LT	Y	Y	Y	Y
Phone Line Fault	LR	Y	Y	Y	Y
Pogram Mode End	LS				Y
Program Mode Start	LB				Y
System Reset	OR		Y	Y	Y
System Tamper	TA	Y	Y	Y	Y
System Tamper Restore	TR	Y	Y	Y	Y
Technical Alarm	UA	Y	Y	Y	Y
Test Call	RP	Y	Y	Y	Y
Date/time Reset	JT				Y
User Deleted	JX				Y
Zone Alarm	BA	Y	Y	Y	Y
Zone Restore	BR	Y	Y	Y	Y
Zone Omit	BB	Y	Y	Y	Y
Zone Tamper	TA	Y	Y	Y	Y
Zone Tamper Restore	TR	Y	Y	Y	Y
Partition Arm	CL			Y	Y

2.38.2 Option 52-2: ARC Number

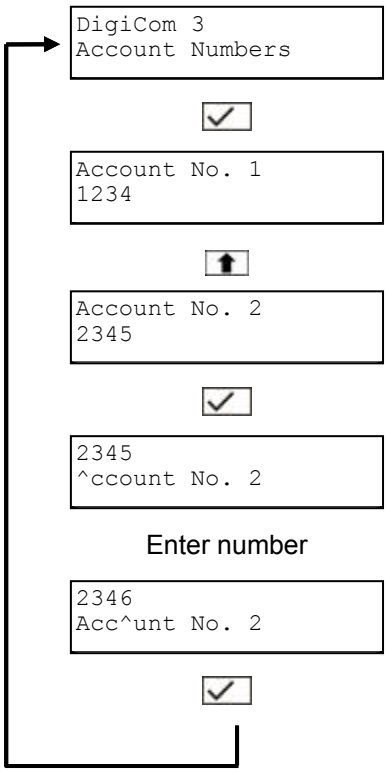


With this option, you can enter up to 3 telephone numbers for contacting the command centre.

With the key, you can insert a pause of 4 seconds between the entry of two digits of the telephone number (see page 58).

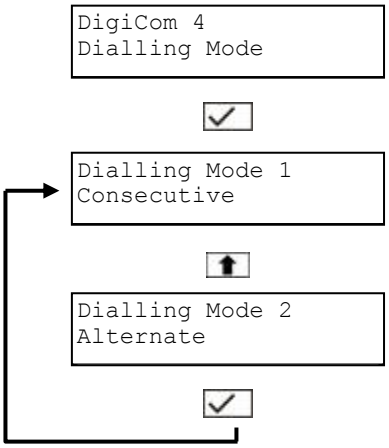
Depending on the dialling method, alarms can be transmitted to more than one command centre. Define the telephone number sequence. The command centre number you want to use most often must be command centre number 1.

2.38.3 Option 52-3: Account Numbers



Select this option to enter the command centre ID number that is needed for connecting to the command centre.

2.38.4 Option 52-4: Dialling Mode



The following options are available:

1 – Consecutive (default)

If you have selected more than one command centre (page 65) and an alarm is triggered, the alarm centre attempts to contact the first command centre. If no connection is possible, the alarm centre tries again a few times (15x) to reach the command centre. If contact is still impossible, the number of the second command centre is

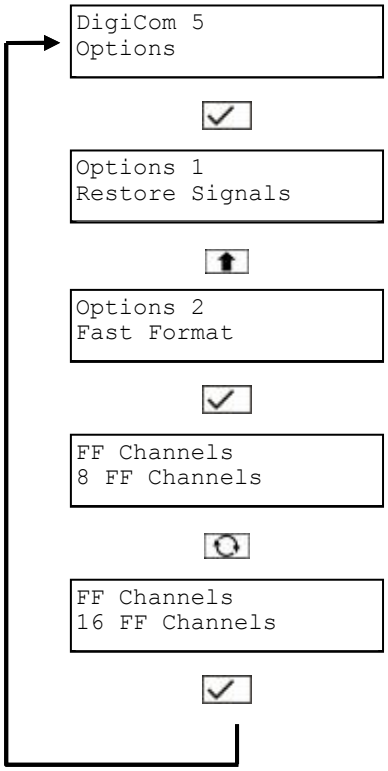
dialled. If no connection is possible here after several attempts, the last command centre number is dialled.

2 – Alternate
This option works like “Consecutive” except that if the first command centre can be reached on the first attempt, the alarm centre tries to contact the second command centre. If the last command centre cannot be contacted, the number at the head of the list – here command centre 1 – is dialled again.

3 – All
In the event of an alarm, the protocol is transmitted to all command centres. The command centres are contacted until the alarm message has been transmitted to each of them. Each telephone number is dialled a maximum of 15 times.

Important
This option is available only if you use the Fast Format protocol. If you use SIA or Contact ID and select “All”, the “Alternate” option is activated.

2.38.5 Option 52-5: Further digital communication options



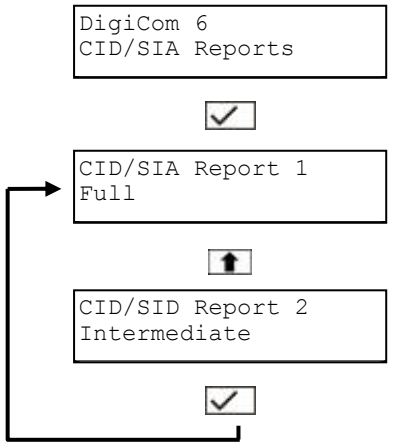
The following options are available:

1 – Restore Signals (default: active)
Select this option to send an “all clear” message (restore system) to a command centre. If this option is deactivated, the alarm centre sends alarm messages to the command centre but no “all clear” message (i.e., that the system has been restored).

2 – Fast Format (8 channels)
Select whether you want to use 8 or 16 channels for transmitting data to the command centre (if you use Fast Format).

3 – Line Fault (default: active)
Select this option if you want to monitor faults in the telephone line to the command centre. If you select this option, it activates the telephone fault outputs (see page 36) if a fault occurs in the telephone line.

2.38.6 Option 52-6: SIA Report

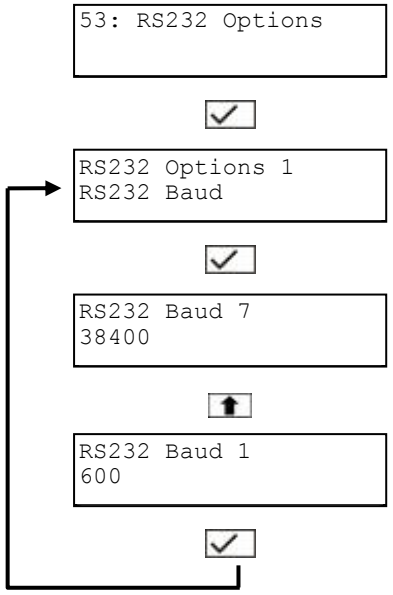


If you select Contact ID or SIA as protocol type, you can decide here between “Full”, “Summary”, “Intermediate”, “Basic” or “Custom” to set the type of messages to be transmitted.

See also pages 61 and 62. Select “Custom” only if you use the Downloader software to define the events to be sent to the command centre.

2.39 Option 53: RS232

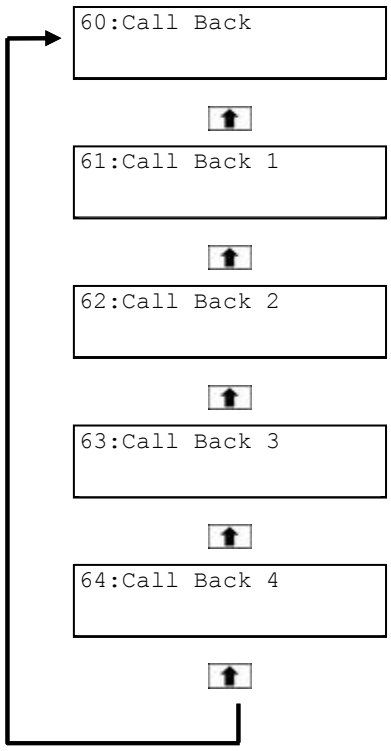
2.39.1 Option 53-1: RS232 Options



Select this option to set the baud rate of the serial interface (RS232).

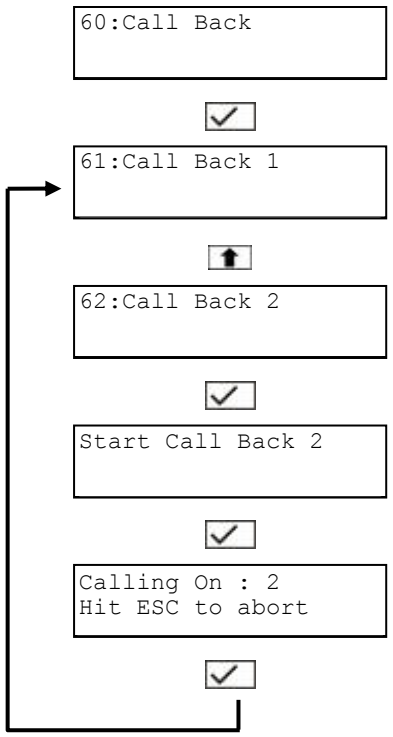
Important
Select baud rate 38400 if you are connected with the Downloader software.

2.40 Option 60: Call Back



Select this option to connect the alarm centre to a remote PC with the Downloader software via the telephone line. When this connection is established, data can be downloaded via the PC and modified.

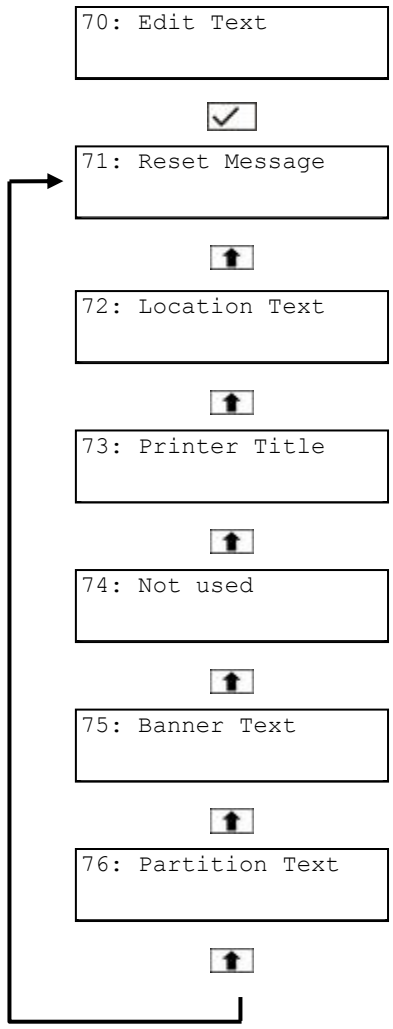
2.41 Options 61 to 64: Callback numbers



Select this option to select 1 of 4 callback numbers. You can enter the number using Option 51-4 (see page 58).

Important
Alternatively, you can select the option “Secure Call Back” or “Unattended” under Option 51-3 (page 57) to connect to the PC with the Downloader software.

2.42 Option 70: Edit Text



With these functions, you can edit the following texts:

Important
See Appendix I – Character Entry (page 84) for further details on entering text via the keypad.

2.43 Option 71: Reset Message

This message appears if a user has to contact an engineer. You can enter the engineer’s telephone number here.

2.44 Option 72: Location Text

Select this option to show the location of the alarm centre on the display. You can access this function using Option 01 (page 17).

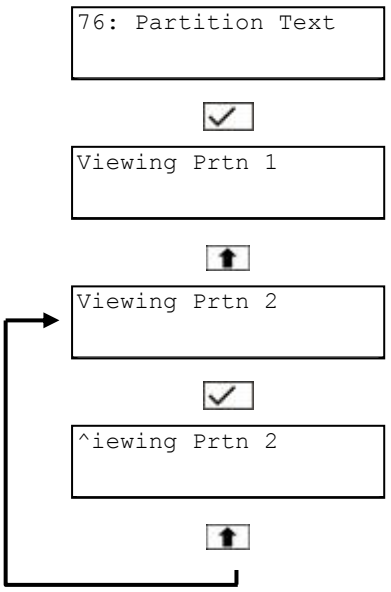
2.45 Option 73: Printer Title

Select this option to define a name for a connected printer. This is shown in the printout of the event list. In this way, you can distinguish the printed lists of the different systems.

2.46 Option 75: Banner Text

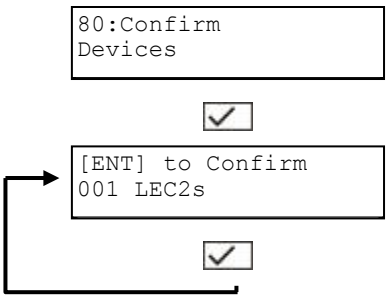
This message is displayed in the system's standby mode.

2.47 Option 76: Partition Text



Select this option to assign names to partitions. The names are displayed when the partition is activated.

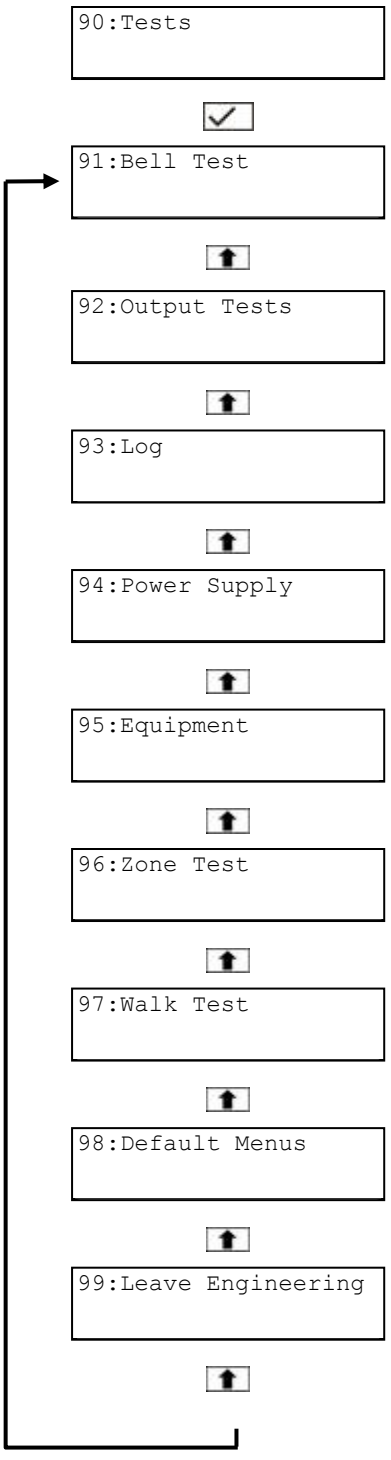
2.48 Option 80: Confirm Devices



This option enables you to confirm the correct number of modules connected to the bus.

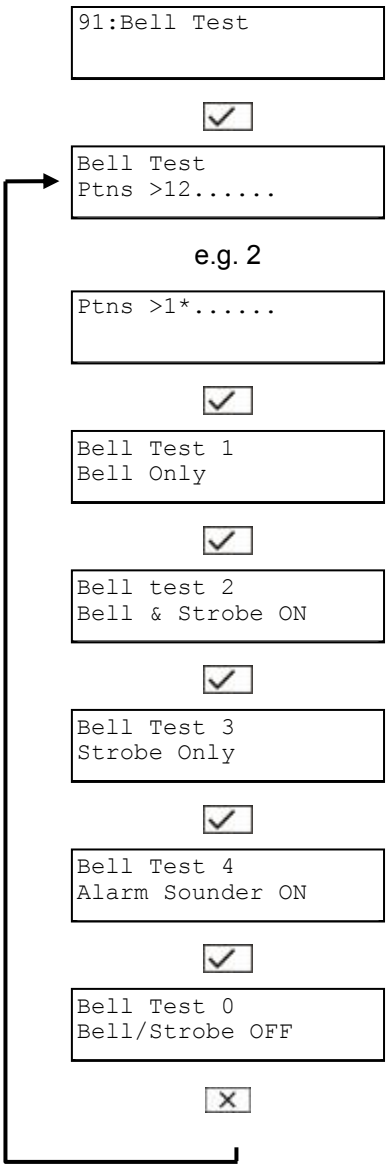
This option is normally not important since this procedure is automatically started when an engineer code is entered (if changes are made to connected modules).

2.49 Option 90: Tests



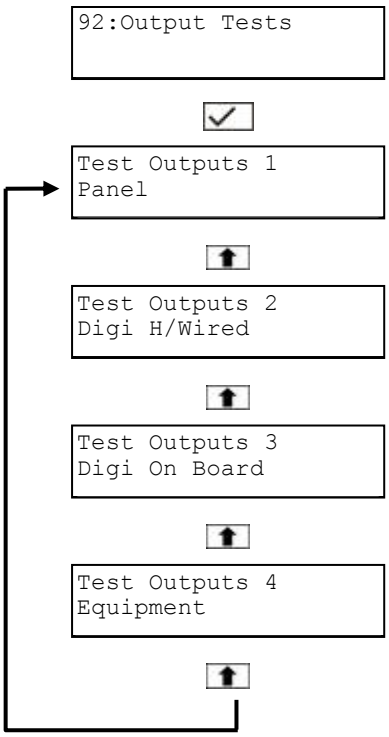
Use this option to test the hardware of your alarm centre as follows:

2.50 Option 91: Bell Test

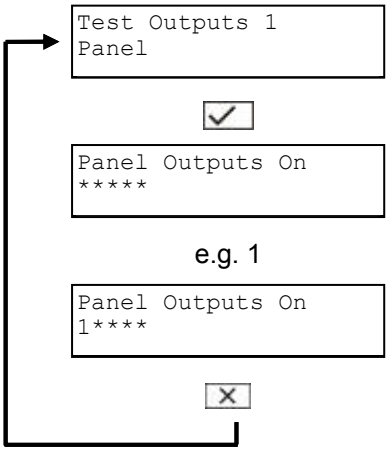


Use this option to test the bell output in specific partitions.

2.51 Option 92: Output Tests

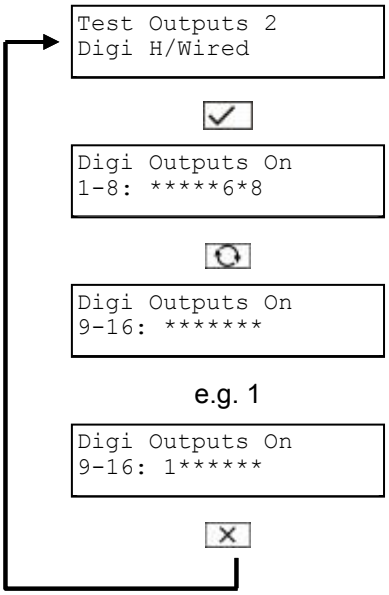


2.51.1 Option 92-1: Panel Outputs



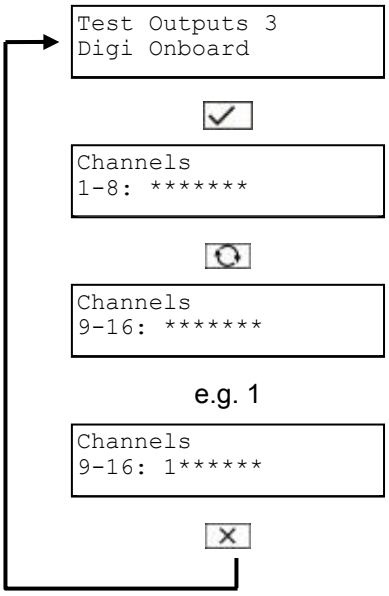
With this option, you can activate outputs 1 to 5. Outputs 1 and 2 are relay outputs. Outputs 3, 4 and 5 are transistor outputs. If an output is activated, the corresponding LED on the board lights up automatically.

2.51.2 Option 92-2: Digi H/Wired



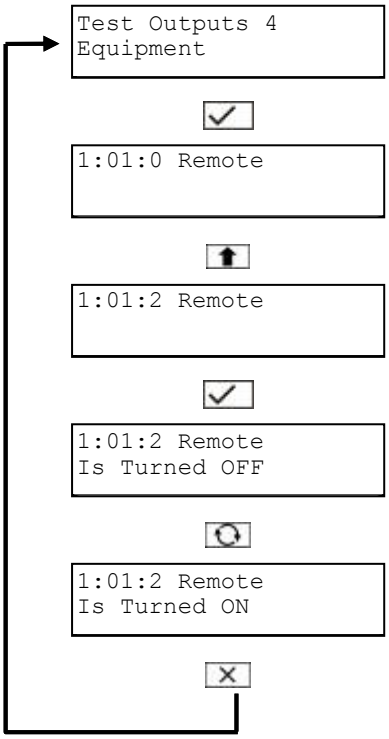
Select this option to switch communication outputs.

2.51.3 Option 92-3: Digi Onboard



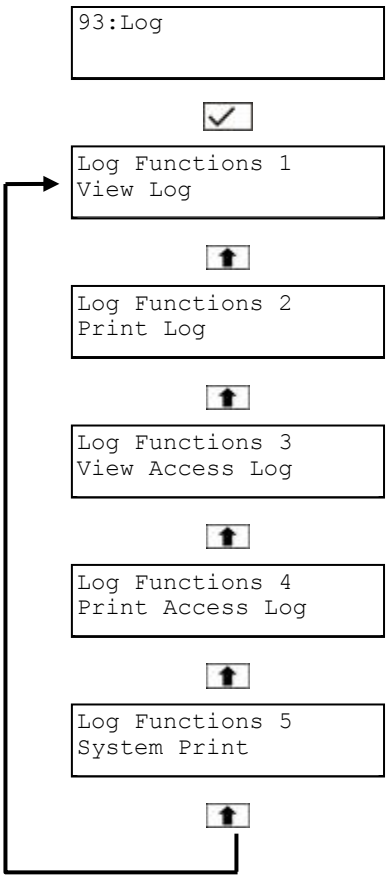
With this option, you can switch the 16 digital outputs (16 “software” outputs that transmit messages to the command centre via the integrated modem). For detailed information about these outputs, contact the command centre.

2.51.4 Option 92-4: Equipment

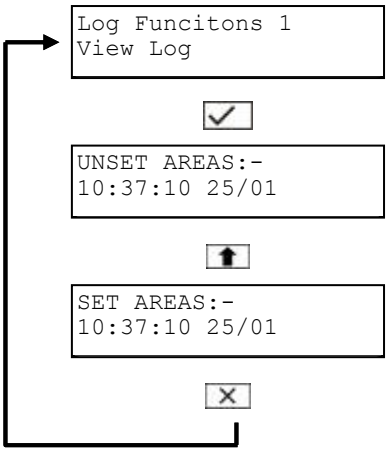


This option enables you to test outputs of modules connected to the buses, e.g., operating panels or 8-zone auxiliaries.

2.52 Option 93: Log



2.52.1 Option 93-1: View Log



Select this option to view the alarm centre's event list (log). The entries contain the dates and times of events such as activation of partitions, omitting zones, activation of the duress code or communication faults. For further details of the event codes, see page 73. Up to 2000 events can be stored in the memory.

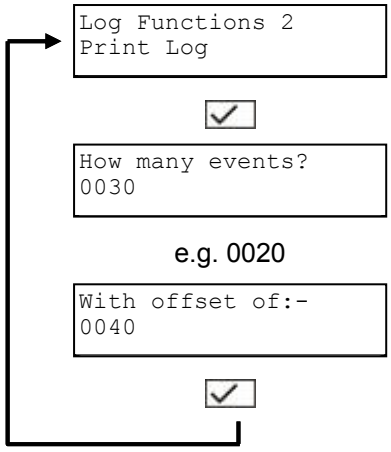
Press ⬆ or ⬇ to scroll through the list (⬆ shows earlier events).

You can press one of the following keys to reach particular events. You have to wait a little for the display.

1 Alarms
2 24-hour alarms
3 Fire alarms
4 Panic alarms
5 Zone tamper
6 User codes
7 Set Partitions
8 Unset Partitions
9 Entry

Press 0 to go to a fixed position in the list.

2.52.2 Option 93-2: Print Log



If a printer is connected to the alarm centre, you can print some or all events of the event list.

Select the number of events you want to print and press ✓. Then specify the event number where you want to start printing. For example, if you want to print 10 events starting at event 40, events 40 to 49 are printed. More than one line may be needed for an event.

To end the current print job, select this option again and specify 0 for the number of events to be printed.

After you use the “Print Log” option once, the system goes into online print mode. Switch off the printer to stop printing.

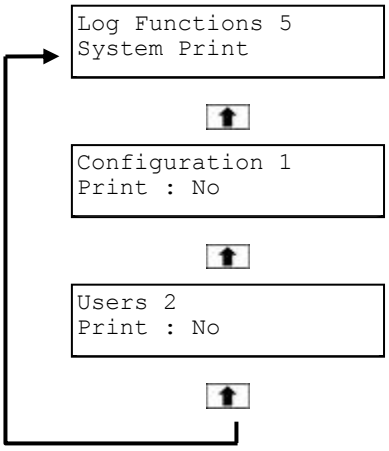
2.52.3 Option 93-3: View Access Log

The access memory stores every type of access that uses the user code. Press ↑ or ↓ to scroll through the list (↑ shows earlier events).

2.52.4 Option 93-4: Print Access Log

This access log stores every entry of the access type user code (see operating instructions). Press ↑ or ↓ to scroll through the list (↑ shows earlier events).

2.52.5 Option 93-5: System Print



Select this option to print details of alarm centre settings. The following options are available:

1 – Configuration
Prints details of all general, DD243, and EN50131 settings (see pages 48, 51, 52).

2 – Users
For the engineer and every installed user, the user number, name, type, partitions and assigned menus are printed.

3 – Zones
For every defined zone, the zone number, type, partitions, name, attributes and resistance values are printed.

2.53 Event codes

Event	Description
--- NO EVENT ---	Not used
### LECS or REMS	The number of operating panels connected to the system
### NODE R# ADD	Operating panel added to a wired auxiliary. # Bus number, ## Auxiliary number, R# Operating panel number
### NODE R# LOST	Operating panel R# was removed from the wired auxiliary.
### NODE R# TAMP	Tamper alarm triggered by operating panel R#.
### NODE'S	Number of connected auxiliaries

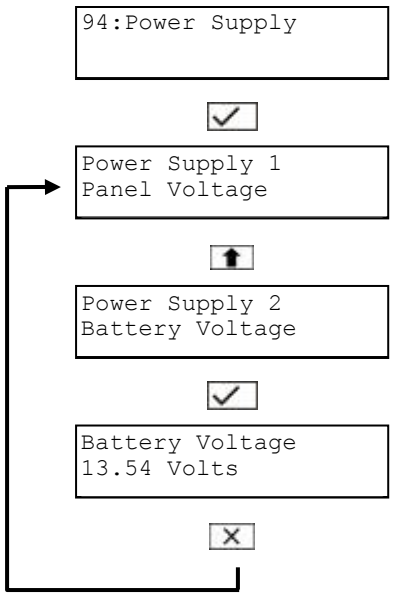
Event	Description
### XNODE'S	Number of connected wired auxiliaries
#### OFF TEST	Zone number #### removed from test function.
#### OMITTED	Zone number #### omitted
#### REINSTATED	Zone number #### reinstated
#,## LEC LOST	Operating panel on bus #, device number ##, was removed.
#,## LEC TAMPER	Operating panel on bus #, device number ##, triggered a tamper alarm.
#,## NODE ADDED	Auxiliary on bus # with device number ## was added.
#,## NODE FUSE	Auxiliary on bus # with device number ## has blown a fuse.
#,## NODE LOST	Auxiliary on bus # with device number ## was removed.
#,## NODE TAMPER	Auxiliary on bus # with device number ## triggered a tamper alarm.
#,## REM ADDED	Operating panel on bus #, device number ##, was added.
#,## REM LOST	Operating panel on bus #, device number ##, was removed.
#,## REM TAMPER	Operating panel on bus #, device number ##, triggered a tamper alarm.
#,## XNODE ADDED	Wired auxiliary on bus # with device number ## was added.
#,## XNODE FUSE	Wired auxiliary on bus # with device number ## has blown a fuse.
#,## XNODE LOST	Wired auxiliary on bus # with device number ## was removed.
#,## XNODE TAMP	Wired auxiliary on bus # with device number ## triggered a tamper alarm.
24 Hr PARTITIONS:-	24-hour alarm in partition
24H RESTORE ####-	24-hour alarm of zone #### was reset.
24Hr ALARM ####	24-hour alarm in zone ####
24HR OMIT:-	Zone with “shunt 24-hour zones” was omitted.
24HR REINST:-	Zone with “shunt 24-hour zones” was reinstated.
ABORT ON PARTITIONS:-	Alarm in partition – aborted
ACCESS ##	Code of user ## entered
ACCESS ###	Code of user ### entered
ACCESS ####	Code of user #### entered
ACCESS FAILED	Access denied
ACCESS ZONE ####	Access zone #### triggered
ALARM ####	Alarm in zone ####
ALARM PARTITIONS:	Alarm in partition
ATE L.F. ALL	Fault in both communication routes of modem
ATE L.F. RESTORE	Communication restored
ATE L.F. SINGLE	Fault in one communication route of modem
AUTOSET # OFF	Automatic activation off
AUTOSET # ON	Automatic activation on
AUX RESTORE ####	Technical alarm of zone #### reset
AUX/BELL TAMPER	Technical zone/bell tamper
AUXILIARY ####	Technical alarm in zone ####
AUXILIARY # TAMP	Not used
AUXILIARY FUSE	Fuse fault in auxiliary device
BATTERY FAULT	Not used
BATTERY LOAD TST	Battery test conducted
BATTERY LOW	Battery low
BATTERY MISSING	Battery missing
BATTERY RESTORE	Battery restored
BEAM PAIR ####	First trigger of linked zone ####
BELL BOX TAMPER	Not used
BELL FUSE	Bell fuse triggered
BELL TAMP OMIT	Bell tamper omitted after expiry of confirmation period
BELL TESTED:-	Bell in partitions – tested
BELLS ACTIVE:-	Bell active in partitions -
CHANGE CODE ##	User code for user ## changed
CHANGE CODE ###	User code for user ### changed
CHANGE TAG ##	Chip-key for user ## changed
CHANGE TAG ###	Chip-key for user ### changed
CHNG CODE ####	User code for user #### changed
CHNG TAG ####	Chip-key for user #### changed

Event	Description
CNFG CHANGE ###	Configuration of user ### changed
CNFG CHANGE ####	Configuration of user #### changed
CODE ##	Code of user ## entered
CODE ###	Code of user ### entered
CODE ####	Code of user #### entered
CODE LOCK # OFF	Code lock # off
CODE LOCK # ON	Code lock # on
CODE LOCKED ##	User number ## tried to enter user code while locked.
CODE LOCKED ###	User number ### tried to enter user code while locked.
CODE LOCKED ####	User number #### tried to enter user code while locked.
CODE TAMPER	Operating panel locked for 5 min due to invalid user code entry
COMMS FAILED	Integrated modem could not connect to emergency command centre
COMMS TEST CALL	Test call started
CONFIG CHANGE ##	User configuration ## changed
DATE CHANGED AT	System date changed on …
DATE CHANGED TO	System date changed to …
DEFAULT USER	User code 01 (administrator) to default
DEFAULT USER ##	Not used
DEFAULT USER ###	Not used
DEFAULT USER ####	Not used
DEFERRED SET:-	Delayed activation of partitions
DL DISCONNECT FL)	Downloader disconnected with an error
DL DISCONNECT OK	Downloader disconnected
DURESS CODE ##	Duress alarm user ##
DURESS CODE ###	Duress alarm user ###
DURESS CODE ####	Duress alarm user ####
ENG HW DEFAULTED	Factory reset of alarm centre
ENGINEER ARRIVES	Engineer has logged into the system.
ENGINEER DEPARTS	Engineer has logged out of the system.
ENTRY TIME-OUT:-	Entry delay in partition expired
ENTRY ZONE ####	Entry delay of zone #### started.
EXIT CANCELLED:-	Exit delay for partition … cancelled.
EXIT STARTED:-	Exit delay for partition … started.
EXT LINE FAULT	Not used
EXT LINE RESTORE	Not used
FACTORY RESTART	Factory settings loaded
FIRE ALARM ####	Fire alarm in zone ####
FIRE PARTITIONS:-	Fire alarm in partition
FIRE RESET:-	Fire alarm reset
FIRST KNOCK ####	First activation of zone number #### (zones with the double confirmation attribute)
FROM REMOTE #,##	Not used
HI-SECURITY SET:	Activation of partitions with high security
KEYPAD PANIC ###	Panic alarm triggered on operating panel ### (keys 1 and 3 pressed)
KEYSWITCH ###	Keyswitch zone #### activated
LOCAL ON LINE	Local connection with downloader
LOCAL SERV CALL	Local connection with downloader
LOCAL SERV END	Not used
LOCKSET #### ON	Keyswitch zone #### activated
LOCKSET #### OFF	Keyswitch zone #### deactivated
LOCKSET PARTITION ON	Key for partition released
MAIN POWER ON	Mains power on in the alarm centre
MAINS POWER OFF	Mains power off in the alarm centre
MASK FLT S ####	Zone #### masked during activation
MASK FLT U ####	Zone #### masked during deactivation
MASK TMP S ####	Masking zone #### masked during activation
MASK TMP U ####	Masking zone #### masked during activation

Event	Description
MENU TIMEOUT ##	Menu abort for user ## and return to standby display
MENU TIMEOUT ###	Menu abort for user ### and return to standby display
MENU TIMEOUT ####	Menu abort for user #### and return to standby display
MODEM LOCKOUT	Modem locked (after 4 failed attempts)
NETWORK # FUSE	Fuse in bus # triggered
NODE TAMP OMIT	Wired auxiliary tamper omitted after expiry of confirmation period
NORM. REST. ####	Normal alarm restored
OCCUPANCY SET	System activation during operation
ON LINE TO #	Online to remote access point
ON-SITE RESTART	Restart in the installation
PA PARTITIONS:-	Panic alarm in partitions
PANEL LID TAMPER	Tamper in panel lid of alarm centre
PANEL STARTED	Alarm centre is operational
PANEL TAMP OMIT	Alarm centre tamper hidden after expiry of confirmation period
PANIC ALARM ####	Panic alarm in zone ####
PANIC CODE ##	Panic code of user ##
PANIC CODE ###	Panic code of user ###
PANIC CODE ####	Panic code of user ####
PANIC REST. ####	Panic alarm in zone #### restored
PARTITION CONFIRMED:-	Confirmed alarm in partition
PARTITION ENTRY:-	Entry delay in partition
PARTITION SET FAIL:-	Error activating partitions
PARTITION TAMPER:-	Tamper in partition
PARTITIONS LOCKED:-	Partitions locked by key zone
PARTITIONS UNLOCKED:	Partitions unlocked by key zone
PAYMENT EXPIRED	Payment period expired
PSTN FAULT	Fault in telephone line
PSTN RESTORE	Fault in telephone line cleared
PSU BATT A ####	PSU battery zone #### triggered
PSU BATT H ####	PSU battery zone #### OK
PSU FUSE A ####	PSU fuse zone #### triggered
PSU FUSE H ####	PSU fuse zone #### OK
PSU PWR A	PSU mains power triggered
PSU PWR H	PSU mains supply OK
REARM ,OMIT ####	Zone #### omitted after expiry of confirmation time
REARM PARTITIONS:-	Reactivation of partitions
REARM SYSTEM	System reactivated
REARM TAMP OMIT	
REINST PARTITIONS:-	Partitions reintegrated
REM RESET ACTIVE	Remote reset activated
REM RESET FAILED	Remote reset failed
REM RESET PASSED	Remote reset accepted
REM SERVICE CALL	Call for remote reset made
REM TAMPER	Not used
RESET PARTITIONS:-	Reset of partitions by user or engineer
SEC KEY NO ####	Key function in zone number ####
SERVICE CALL END	Not used
SERVICE REQUIRED	System requires maintenance (service time expired)
SET EXT L.FAULT	Activation with external telephone fault
SET FAIL ####	Activation failed in zone ####
SET FAIL PARTITIONS:-	Activation failed in partitions
SET GENERAL FLT	Activation of system with general fault
SET NO ACTIVITY	Not used
SET PARTITIONS:-	Partitions activated

Event	Description
SET PSTN FAULT	Activation of system with telephone line fault
SET PSU BATT FLT	Activation of system with PSU battery fault
SET PSU FUSE FLT	Activation of system with PSU fuse fault
SET PSU PWR FLT	Activation of system with PSU mains power fault
SET WITH AC FAIL	Activation of partitions with mains power fault
SET WITH MSK FLT	Activation of system with masked zones
SH.KEY OFF ####	Keyswitch zone #### deactivated
SH.KEY ON ####	Keyswitch zone #### activated
SHNT #### REINST	Keyswitch zone #### restored
SHUNT CODE ##	User ## of type “shunt” entered password to shunt zones
SHUNT CODE ###	User ### of type “shunt” entered password to shunt zones
SHUNT CODE ####	User #### of type “shunt” entered password to shunt zones
SHUNT END ####	Not used
SHUNT GROUP ##	Shunt group ## has shunted zones
SHUNT START ####	Not used
SHUNT ZONE ####	Zone #### shunted
SILENT PA ####	Silent panic alarm zone #### activated
SUMMER CHANGED	Not used
SUMMER TIME SET	Time changed to summer time
T.SWITCH # OFF	Time switch # off
T.SWITCH # ON	Time switch # on
TAMP 1 OMIT	Not used
TAMP ZONE ####	Not used
TAMP. REST. ####	Not used
TAMPER ####	Tamper alarm in zone number ####
TECHNICAL ####	Technical zone #### triggered
TEST FAIL ####	Zone number #### failed test
TEST TOTAL 00##	Total number of triggered zones during walk test
TEST ZONE ####	Not used
TIME CHANGED AT	Time changed at fixed time
TIME CHANGED TO	Time changed to fixed time
UNSET PARTITIONS:-	Partitions deactivated
UNSHUNT GROUP ##	Shunt group ## has reinstated zones
USER ## DELETED	User ## deleted
USER ### DELETED	User ### deleted
USER #### DELETED	User #### deleted
WALK TESTED LOG	Not used
WALK TESTED:-	Walk test of partitions
WINTER CHANGED	Not used
WINTER TIME SET	Time changed to winter time
WLK TST FAIL LOG	Not used
ZONE TESTED ####	Zone #### triggered during walk test

2.54 Option 94: Power Supply



1 – Panel Voltage
This option shows the output voltage provided for the auxiliary voltage connections and connected modules such as operating panels. To ensure that connected modules work correctly, the voltage should be between 11 and 14V DC. Values under 11V DC could result in an excessive load or a fault in the voltage supply. The measurement accuracy is ±0.2V.

2 – Battery Voltage
This option displays the battery voltage in the alarm centre. The measurement accuracy is ±0.2V.

3 – Charge Voltage
Displays the battery load voltage of the alarm centre. The measurement accuracy is ±0.2V.

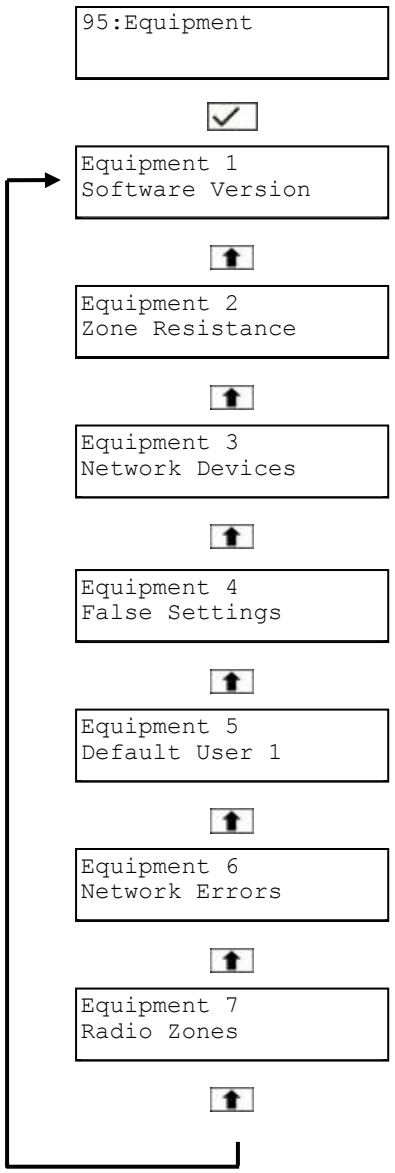
4 – Charge Current
Displays the battery load current of the alarm centre. Depending on the capacity of the battery used, this can be up to 750mA. The value is 0 if the discharge current (see below) is not 0.

5 – Discharge Current
Displays the discharge current if the system is powered by the battery.

6 – Load Current
Displays the total used current provided by the power supply except for the battery load. The measurement accuracy is ±50mA. The load and charge current should not exceed 1.5A.

7 – Source Current
The voltage displays the total current flowing into the alarm centre via the auxiliary 12V DC voltage connections. The value should be 0 if the alarm centre is wired correctly.

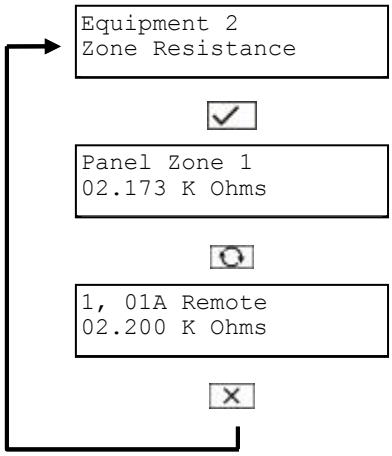
2.55 Option 95: Equipment



2.55.1 Option 95-1: Software Version

This displays the current software version of the alarm centre.

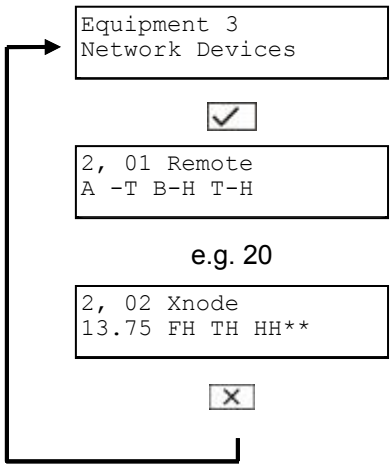
2.55.2 Option 95-2: Zone Resistance



This option displays the resistance of the zone. For zones connected directly to the alarm system, measurement accuracy is under 100 Ohm. For an open zone on the alarm centre, the display shows 11.463kOhm. The displayed resistance values for each zone (alarm centre, operating panel, auxiliary module) are rounded.

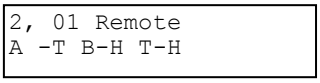
Important
For unused zones, the display shows “Tamper”.

2.55.3 Option 95-3: Network Devices



Select this option to check the state of alarm zones, tamper zones, fuses, etc., of modules connected to the bus. The information displayed depends on the type of module. The operating panel you are using is the first module displayed.

Display at operating panels:

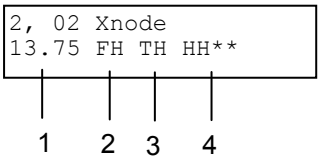


A: Zone 1 status
B: Zone 2 status
T: Lid tamper status

Other displays:

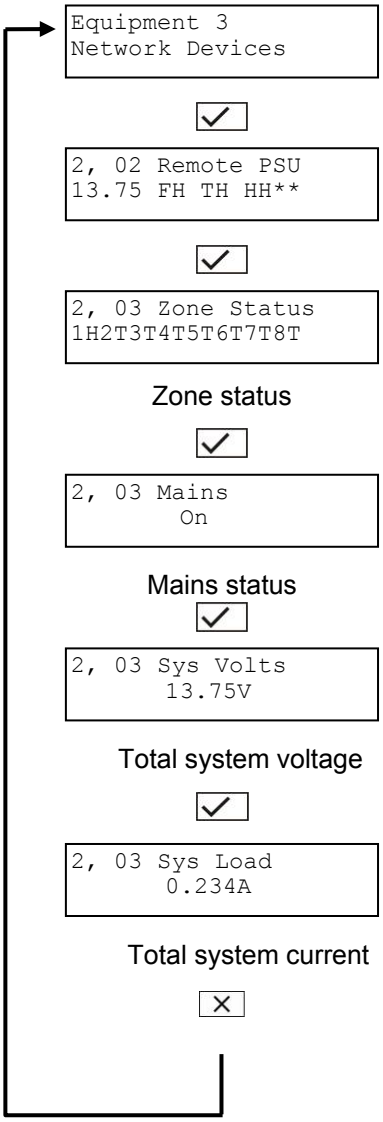
- H – Healthy
- T – Tamper
- A – Active
- S – Shorted
- M – Masked

Displays at extensions:

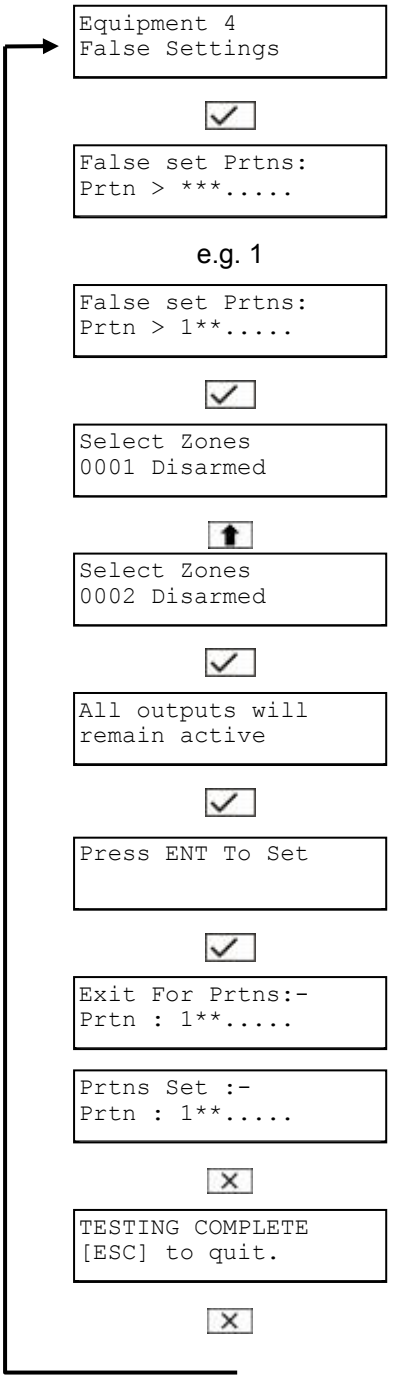


1: Voltage at extension
2: Fuse status
3: Lid tamper status
4: Lid tamper status of any attached keypad

Dispalys at 8-zone wired extension with PSU (on board power supply 1.5A):



2.55.4 Option 95-4: False Settings



Select this option to activate the alarm system while the objects are occupied. You can choose between the following:

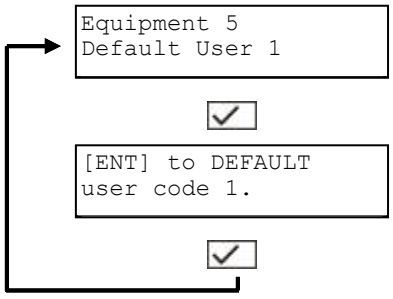
1. Partitions to be activated.

2. Zones to be activated. Excluded zones are shunted.

3. Release/lock all outputs (communication outputs, bell, strobe, etc.)

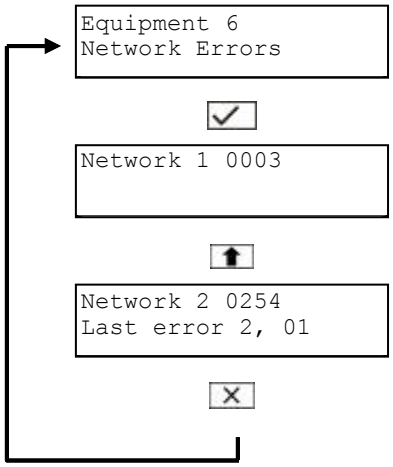
The system deactivates the zones when the test is completed.

2.55.5 Option 95-5: Default User 1



Select this option to reset user 001 (Manager user) to the factory default code 1234 or 123400 (for a 6-digit code; see page 52).

2.55.6 Option 95-6: Network Errors



Select this option to view the number of data transmission errors for each bus.

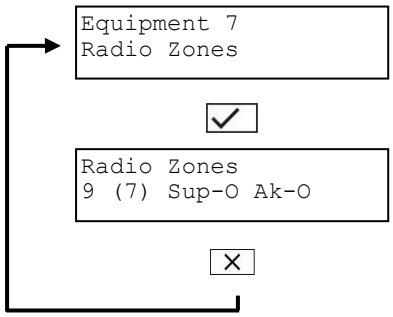
Important
You can reset the error counter to 0 by pressing 0. If you wish, you can use this option again after a certain time to count the number of bus errors in this period.

Transmission errors can be caused by: line faults, bad wiring, frequency interference, voltage faults, grounding faults, connection of cables of different buses, and connection of cables of bells and buses.

2.55.7 Option 95-7: Radio zone test

This option displays the status of existing radio zones.

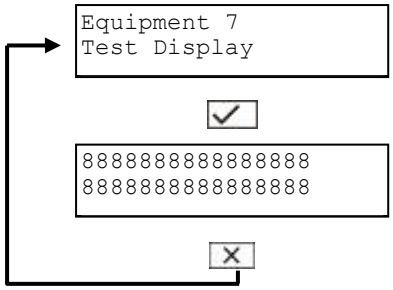
1. Select with ⬆ and ⬇ or enter a zone number on the keypad.



The first digit shows the signal strength of the module connected to the zone. The digit in brackets shows the lowest measured signal strength.

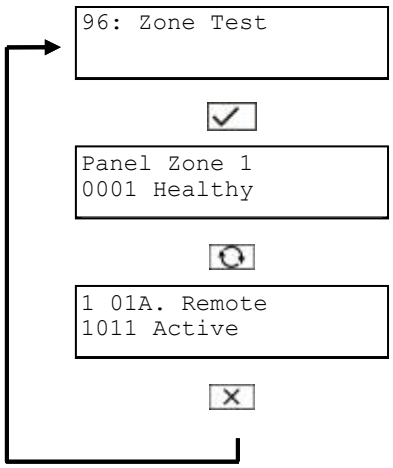
"Sup" shows the state of "Supervision", and "Bat" shows the state of the battery. There is no error when an "O" is displayed.

2.55.8 Option 95-8: Test Display



Select this option to test all partitions of the display. The number "8" should appear in every section.

2.56 Option 96: Zone Test



With this option, you can display the state of each zone. If you use DEOL without masking, you can see the zone state and the resistance values in the following table:

State	DEOL: Selected resistance setting			
	4K7/2K2	1K0/1K0	4K7/4K7	2K2/2K2
Inactive	2K2 ±20%	1K0 ±20%	4K7 ±20%	2K2 ±20%
Activated	6K9 ±20%	2K0 ±20%	9K4 ±20%	4K4 ±20%
Tamper	>6K9 +20%	>2K0 +20%	>9K4 +20%	>4K4 +20%
Short-circuited	<2K2 -20%	<1K0 -20%	<4K7 -20%	<2K2 -20%

Important: For example, 4K7 means 4.7 KOhm.

For a DEOL zone with masking, the following applies:

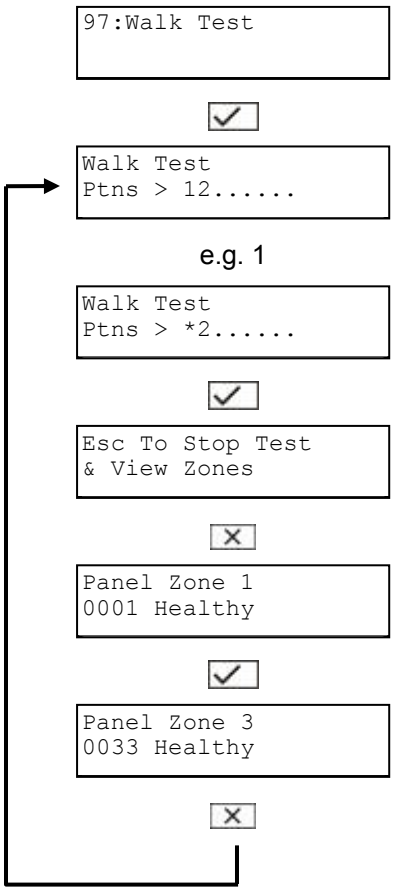
- Inactive = 2K2 ±20%
- Activated = 6K9 ±20%
- Masked = 4K4 ±20% or 9K1 ±20%
- Tamper = < 2K2 -20% oder 9K1 +20%

For NC (normally closes) zones:

- Inactive = alarm contacts closed and tamper contacts closed
- Active = alarm contacts open and tamper contacts closed
- Tamper = tamper contacts open

For wiring examples, see Appendix IV – Wiring Information on page 89.

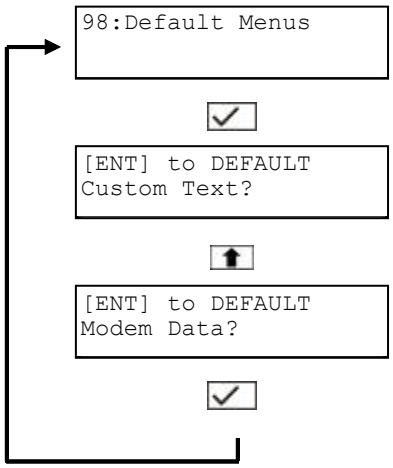
2.57 Option 97: Walk Test



With this option, you can check whether the sensors of the alarm system are working properly. After starting the test, enter the partitions and trigger the sensors. For every activation, a tone sounds on the operating panel and the display shows the open zone.

Cancel the walk test by pressing [X]. Triggered zones are shown as “OK” again. Press [X] again to exit the menu.

2.58 Option 98: Default Menus



Select this option to reset system settings to the factory defaults. The factory settings are listed in Appendix III – Factory Defaults on page 86.

2.59 Option 99: Leave Engineering Mode

Use this option to exit program mode. The operating panel returns to normal mode and the date and time are displayed. This option has the same effect as when you press [X] and [✓] on the top level of the program menu.

Appendix I – Character Entry

The following tables show how to enter numbers, letters and special characters on the keypad of the operating panel. There are two tables.

The first table describes normal text input (for example, a zone name).
If you want to enter the letter “C” on the keypad, you have to press “2” three times.

After selecting a name, press ⬆ to move one place to the right. Press ⬇ to move the cursor one place to the left.

Important
When you come to the end of a series of letters, press ⬆ to return to the beginning. E.g., if you press “1” 8 times, the letter “A” is shown again.

Important
<sp> stands for “space”.

Key	Letter									
1	.	,	?	!	1	@	“	-	&	’
2	A	B	C	2	a	b	c			
3	D	E	F	3	d	e	f			
4	G	H	I	4	g	h	i			
5	J	K	L	5	j	k	l			
6	M	N	O	6	m	n	o			
7	P	Q	R	S	7	p	q	r	s	
8	T	U	V	8	t	u	v			
9	W	X	Y	Z	9	w	x	y	z	
0	<sp>	0	,	#	*					

Appendix II – Notes on Security System

The TERXON L burglar alarm centre enables you to configure each of the 8 (max. 264) alarm zones optimally to suit your operating conditions. Recommendations:

- Distribute the external detectors in as small groups as possible to the zones (e.g., ground-floor detector to zone 1, etc.); activate detectors singly; if possible, use all zones of the alarm centre.
- The acoustic signal (bell) of the signal transmitter should be shorter than the visual signal (strobe). Alarm times must be set according to local regulations. (E.g., in Germany, the acoustic alarm must be limited to 3 minutes.)
- The delay time should not be finally set until a practical test has been conducted.
- Choose a random 4-digit or 6-digit combination for the user and program code.
- Only persons of trust should be given the code.
- When operating the alarm centre, enter the code in such a way that it is concealed from persons standing nearby.
- The cable recommended for connecting the components (minimum diameter: 0.22 mm^2/wire) is normally colour-coded.
- The user and program codes must be different.
- For reasons of clear layout, use the following colour coding:

- Red: +12V voltage supply
- Black: 0V ground
- Yellow: Alarm contact
- Green: Alarm contact
- Brown: Tamper contact
- White: Tamper contact

Use distributors when connecting more than one detector to an alarm zone. Cable extensions can be soldered or screwed together. Ensure good insulation (insulating tape, shrink-on tubing) to avoid short-circuiting and false alarms.

Proceed as follows:

- Read the operating instructions carefully.
- Draw up a plan of the object that includes the installation location of the detectors and the alarm centre and all cables required.
- Lay the cables as required.
- Install the detectors and the alarm centre.
- Connect the cables to the detectors and the alarm centre.
- Connect the power supply (battery, mains).
- Program the device.

As mentioned above, the alarm centre evaluates the alarm zones via the existing current flow. Most alarm detectors are normally closed, which means that the detectors interrupt the alarm zone in the event of an alarm. The sensors are called NC (normally closed). Also NO (Normally Open) contacts can be used with the Terxon L. These contacts close the circuit if an alarm is triggered.

Sometimes it is necessary to combine several alarm contacts in a zone. Connect the contacts serially.

Appendix III – Factory Defaults

Menu	Option		Default
Edit Text (71-76)	Reset Message		Call engineer to reset system
	Location Text		Panel location text not setup
	Printer Title		Blank
	Banner Text		Blank
	Partition Text		Blank
Set Up Communications	Downloader (51)	Serial Number	Blank
		Account Name	Blank
		Access Mode	Off
		Edit Call No. 1	Blank
		Edit Call No. 2	Blank
		Call-back no. 3	Blank
		Call-back no. 4	Blank
		Rings To Answer	3 seconds
		Baud Rate	1200
		Answer Phone defeat	Disabled
	DigiCom (52)	Comms Format	Disabled
		ARC No.	Blank
		Account Numbers	Blank
		Dialling Mode	Consecutive
		Restore Signals	Enabled
		Fast Format	8 FF channels
		Telephone fault	Enabled
		CID/SIA Reports	Full
	RS232 (53)	Baud	38400
		Modem	Disabled
Engineer Code and Name	Engineer Code		7890
	Engineer Name		Engineer
	User 01 code		1234
	User 01 partition		All
	User name		User <no>
	User 02 and others		Not used
Configuration	General (45)	01	Joint partitions off
		02	Bell is an SAB
		03	View alms unset
		04	Engineer authorised
		05	Online enabled
		06	Not used
		07	Digi normal
		08	Chime audible
		09	Manual Omits
		10	Omit Tampers No
		11	Global Setting
		12	Global unsetting
		13	24hr Omit Global
		14	Partn Bell Time
		15	Latching Fire
		16	Time Code o/p
		17	Latching 24hr
		18	Access code only
		19	NVM is Unlocked
		20	Unshunt, No exit
		21	Ignore errors
		22	Mimic, All times
		23	Not used

		24	Dures Allow No
		25	Keypad PA OffÜberfall Bedienteil Aus
		26	Exit Foyer
		27	PA Remote silent
	DD243 (46)	01	Confirmation Off
		02	Sndrs on Unconf
		03	Bell on Unconf
		04	After Entry No
		05	Ent Keypad Lock Off
		06	Confirm 2 zones
	EN50131	01	4 digit codes
		02	Internal Sounder
		03	Not used
		04	Instant Alarm
		05	Tampers as Alarms
		06	Mask Unset Fault
		07	Mask Set Fault
		08	Mask override
		09	Gen/Fault User
		10	AC Fail: No Reset
		11	AC Bypass: Always
		12	Line Fail: No Rst
		13	LF Bypass: Always
Outputs (30)	Zentrale 1		Walktest
	Zentrale 2		Courtey Light
	Zentrale 3		Strobe
	Zentrale 4		Switch 12V
	Zentrale 5		General Fault
	Digi H/Wired 01		Fire
	Digi H/Wired 02		Panic Alarm
	Digi H/Wired 03		Einbruch
	Digi H/Wired 04		System Set
	Digi H/Wired 05		Active Omit
	Digi H/Wired 06		General Fault
	Digi H/Wired 07		Confirmed
	Digi H/Wired 08		Tamper
	Digi H/Wired 09		Mains Power Off
	Digi H/Wired 10		Zones Omitted
	Digi H/Wired 11		PSTN Line Fault
	Digi H/Wired 12		Technical
	Digi H/Wired 13		ATS Test
	Digi H/Wired 14		Always Off
	Digi H/Wired 15		Always Off
	Digi H/Wired 16		Always Off
	Digi On Board 01		Fire Alarm
	Digi On Board 02		Panic Alarm
	Digi On Board 03		Alarm
	Digi On Board 04		System Set
	Digi On Board 05		Aktive Omit
	Digi On Board 06		General Fault
	Digi On Board 07		Confirmed
	Digi On Board 08		Tamper Alarm
	Digi On Board 09		Main Power Off
	Digi On Board 10		Zones Omitted
	Digi On Board 11		PSTN Line Fault
	Digi On Board 12		Technical
	Digi On Board 13		Always Off
	Digi On Board 14		Always Off
	Digi On Board 15		Always Off

	Digi On Board 16		Always Off
	All Equipment Outputs		Pending
	All Output Module Outputs		Always Off
Setting Mode (22)	Alle Partitions		Timed Exit
	Alarmresponse (Eng 24)		Full
Sys and Prtn Tmrs	Prtn Timers (23)	Exit	30 Seconds
		Entry	30 Sekonds
		Bell Delay	0 Minutes
		Bell Duration	3 Minutes
	System Timers (44)	Confirmation	30 Minutes
		Sys Bell Dly	0 Minutes
		Sys Bell Dur	3 Minutes
		Anti Mask	5 Seconds
		Line Fault	30 Secunds
		AC Off Delay	30 Seconds
		Soak Test	14 days
		Exit Settle	5 Seconds
		2nd Entry Dly	0 Seconds
		Double Knock	10 Seconds
		Abort Period	60 Seconds
		Abort Delay	180 Seconds
		Courtesy Time	120 Seconds
		Menu Time Out	30 Minutes
		Beam Pair	10 Seconds
		Defer Setting	10 Minutes
		Service Time	0 Days
		Select Menu	30 Seconds
		Keys Til Tamp	20/30 Counts
		No. Of Rearms	0 Counts
		Double Knocks	2 Counts
		Tst Call Strt	0 Hours
		Tst Call Int	0 Hours
		Payment Time	0 Days
Time Switches	On Times 1, 2 and 3		00:00
	Off Times 1, 2 and 3		00:00
	Timers operate on		No days
Auto Set (48)	Set times 1, 2 and 3		00:00
	Unset times 1, 2 and 3		00:00
	Timers operate on		No Days
	Partitions assigned		No Days
Zones	Zonen type (all zones)		Not Used
	Resistance		4K7/2K2
Ptn Rsts & Opts (25)	Conf Reset		Partitions: None
	Unconf Reset		Partitions: None
	Tamper Reset		Partitions: All
	Foyer Mode		Partitions: None
Equip to Prtns (26)	All devices		Partitions: All
Shunt Groups (13)	Zones assigned		None

Appendix IV – Wiring Information

1.1 Cable

Use alarm cable AZ6360 or AZ6361 for connecting the auxiliary modules and the sensors.

1.2 Cable length

For correct operation of a Terxon L burglar alarm system, a voltage of at least 10.5V is necessary for all system components.

Before installing the system with long cable lengths, you should be aware of potential voltage losses so that you can take action against them in advance.

The AZ6360/AZ6361 alarm cable has a resistance of 10.5 Ohm per hundred metres.

Values that require an auxiliary power supply are underlaid grey.

If you duplicate the voltage-carrying wires without an auxiliary power supply, as described in Method 1, the grey underlaid and the bold printed values apply.

Operating current	Cable length									
	10 m	20 m	30 m	40 m	50 m	60 m	70 m	80 m	90 m	100 m
60 mA	0,13 V	0,25 V	0,38 V	0,50 V	0,63 V	0,76 V	0,88 V	1,01 V	1,13 V	1,26 V
80 mA	0,17 V	0,34 V	0,50 V	0,67 V	0,84 V	1,01 V	1,18 V	1,34 V	1,51 V	1,68 V
100 mA	0,21 V	0,42 V	0,63 V	0,84 V	1,05 V	1,26 V	1,47 V	1,68 V	1,89 V	2,10 V
120 mA	0,25 V	0,50 V	0,76 V	1,01 V	1,26 V	1,51 V	1,76 V	2,02 V	2,27 V	2,52 V
140 mA	0,29 V	0,59 V	0,88 V	1,18 V	1,47 V	1,76 V	2,06 V	2,35 V	2,65 V	2,94 V
160 mA	0,34 V	0,67 V	1,01 V	1,34 V	1,68 V	2,02 V	2,35 V	2,69 V	3,02 V	**3,36 V**
180 mA	0,38 V	0,76 V	1,13 V	1,51 V	1,89 V	2,27 V	2,65 V	3,02 V	**3,40 V**	**3,78 V**
200 mA	0,42 V	0,84 V	1,26 V	1,68 V	2,10 V	2,52 V	2,94 V	**3,36 V**	**3,78 V**	**4,20 V**
220 mA	0,46 V	0,92 V	1,39 V	1,85 V	2,31 V	2,77 V	**3,23 V**	**3,70 V**	**4,16 V**	**4,62 V**
240 mA	0,50 V	1,01 V	1,51 V	2,02 V	2,52 V	3,02 V	**3,53 V**	**4,03 V**	**4,54 V**	**5,04 V**
260 mA	0,55 V	1,09 V	1,64 V	2,18 V	2,73 V	**3,28 V**	**3,82 V**	**4,37 V**	**4,91 V**	**5,46 V**
280 mA	0,59 V	1,18 V	1,76 V	2,35 V	2,94 V	**3,53 V**	**4,12 V**	**4,70 V**	**5,29 V**	**5,88 V**
300 mA	0,63 V	1,26 V	1,89 V	2,52 V	**3,15 V**	**3,78 V**	**4,41 V**	**5,04 V**	**5,67 V**	6,30 V
320 mA	0,67 V	1,34 V	2,02 V	2,69 V	**3,36 V**	**4,03 V**	**4,70 V**	**5,38 V**	**6,05 V**	6,72 V
340 mA	0,71 V	1,43 V	2,14 V	2,86 V	**3,57 V**	**4,28 V**	**5,00 V**	**5,71 V**	6,43 V	7,14 V
360 mA	0,76 V	1,51 V	2,27 V	3,02 V	**3,78 V**	**4,54 V**	**5,29 V**	**6,05 V**	6,80 V	7,56 V
380 mA	0,80 V	1,60 V	2,39 V	**3,19 V**	**3,99 V**	**4,79 V**	**5,59 V**	6,38 V	7,18 V	7,98 V
400 mA	0,84 V	1,68 V	2,52 V	**3,36 V**	**4,20 V**	**5,04 V**	**5,88 V**	6,72 V	7,56 V	8,40 V
420 mA	0,88 V	1,76 V	2,65 V	**3,53 V**	**4,41 V**	**5,29 V**	**6,17 V**	7,06 V	7,94 V	8,82 V
440 mA	0,92 V	1,85 V	2,77 V	**3,70 V**	**4,62 V**	**5,54 V**	6,47 V	7,39 V	8,32 V	9,24 V
460 mA	0,97 V	1,93 V	2,90 V	**3,86 V**	**4,83 V**	**5,80 V**	6,76 V	7,73 V	8,69 V	9,66 V
480 mA	1,01 V	2,02 V	3,02 V	**4,03 V**	**5,04 V**	**6,05 V**	7,06 V	8,06 V	9,07 V	10,08 V
500 mA	1,05 V	2,10 V	**3,15 V**	**4,20 V**	**5,25 V**	6,30 V	7,35 V	8,40 V	9,45 V	10,50 V
520 mA	1,09 V	2,18 V	**3,28 V**	**4,37 V**	**5,46 V**	6,55 V	7,64 V	8,74 V	9,83 V	10,92 V
540 mA	1,13 V	2,27 V	**3,40 V**	**4,54 V**	**5,67 V**	6,80 V	7,94 V	9,07 V	10,21 V	11,34 V
560 mA	1,18 V	2,35 V	**3,53 V**	**4,70 V**	**5,88 V**	7,06 V	8,23 V	9,41 V	10,58 V	11,76 V
580 mA	1,22 V	2,44 V	**3,65 V**	**4,87 V**	**6,09 V**	7,31 V	8,53 V	9,74 V	10,96 V	12,18 V
600 mA	1,26 V	2,52 V	**3,78 V**	**5,04 V**	6,30 V	7,56 V	8,82 V	10,08 V	11,34 V	12,60 V

1.3 Reducing voltage loss – method 1

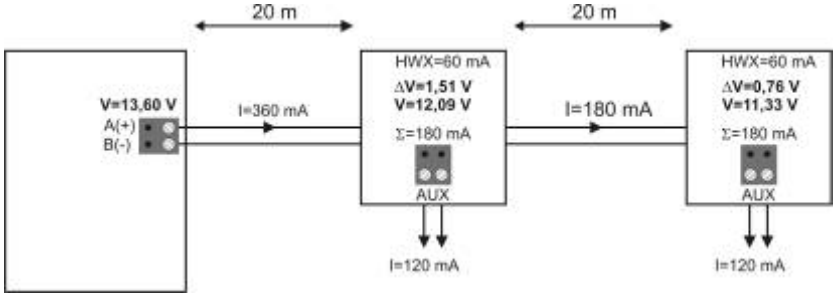
The easiest way to reduce voltage loss is to duplicate power lines. This halves the voltage loss. You can simply halve the values in the table to calculate the resulting voltage loss.

1.4 Reducing voltage loss – method 2

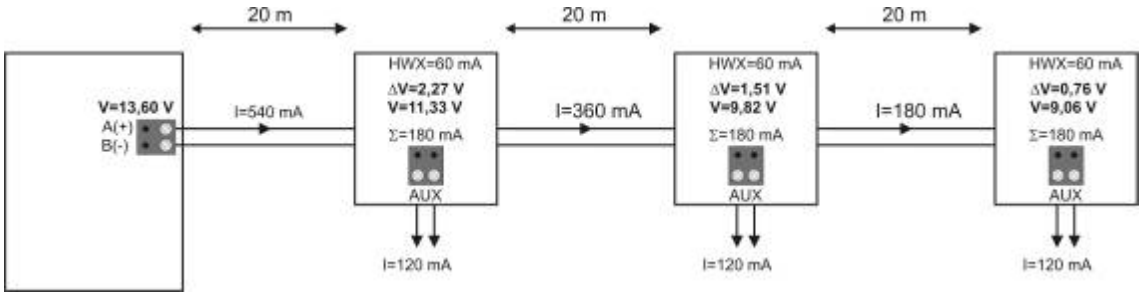
Use a separate power line for voltage to sensors connected to auxiliary modules.

We recommend this way of reducing voltage loss since it enables you to achieve greater ranges due to the low minimal voltage of most sensors (ca. 9.5V).

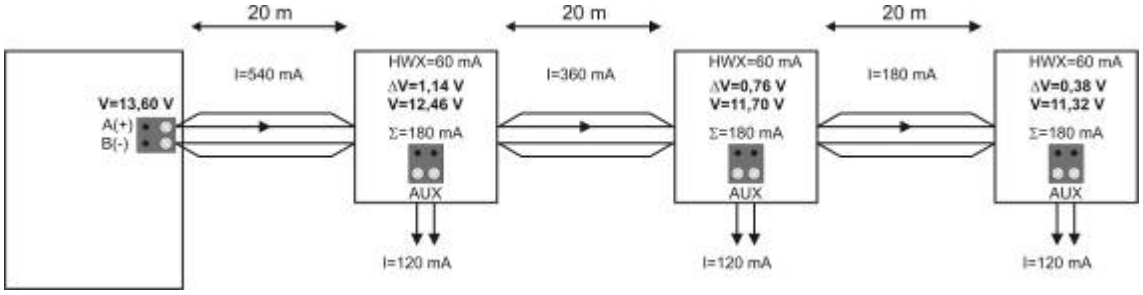
1.5 Example of voltage loss



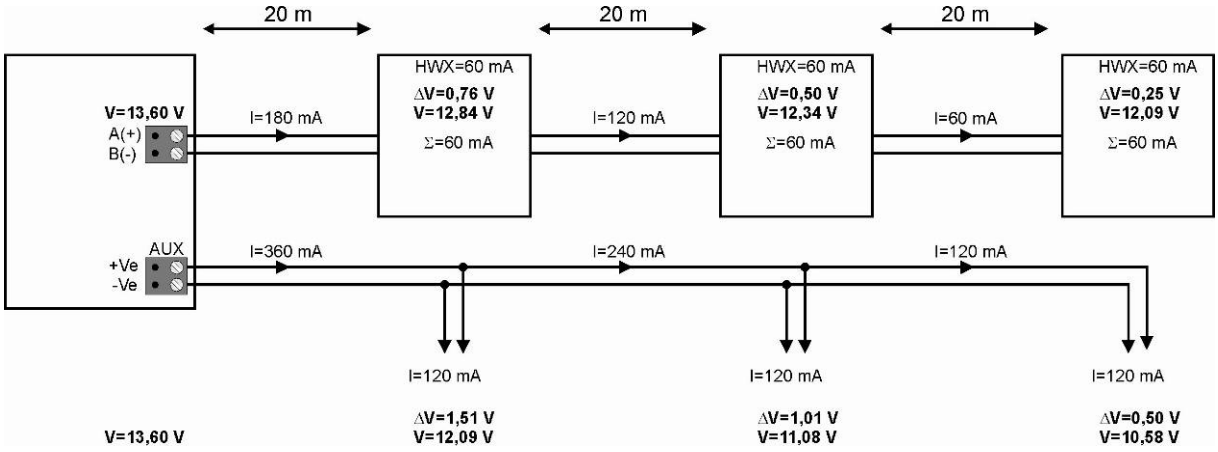
Example 1: Voltage loss with two auxiliaries



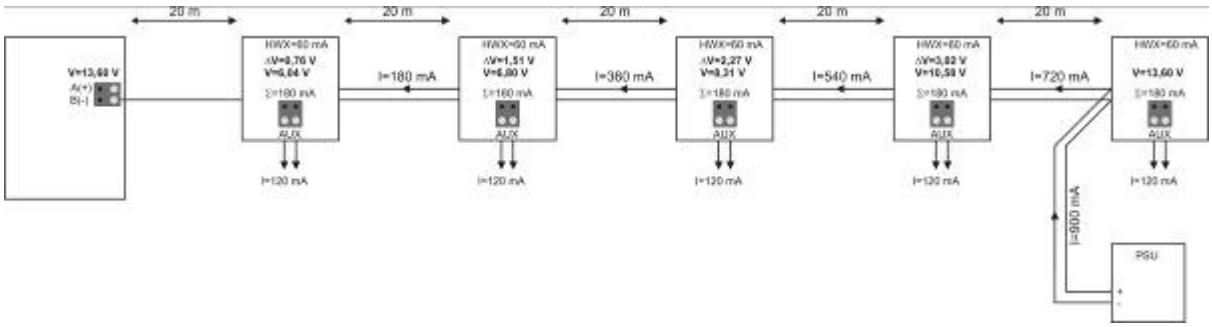
Example 2: Voltage loss with three auxiliaries



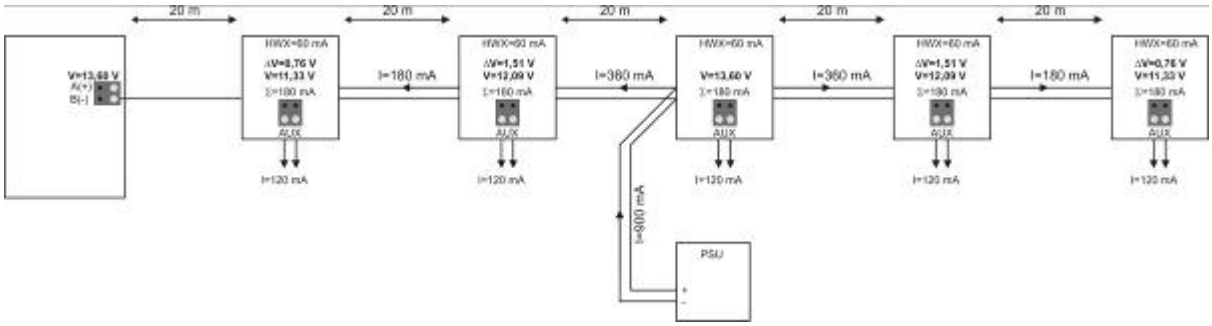
Example 3: Voltage loss with three auxiliaries and duplicate wiring as in Method 1



Example 4: Voltage loss with separate supply to sensors and auxiliaries



Example 5: Voltage loss with auxiliary voltage supply



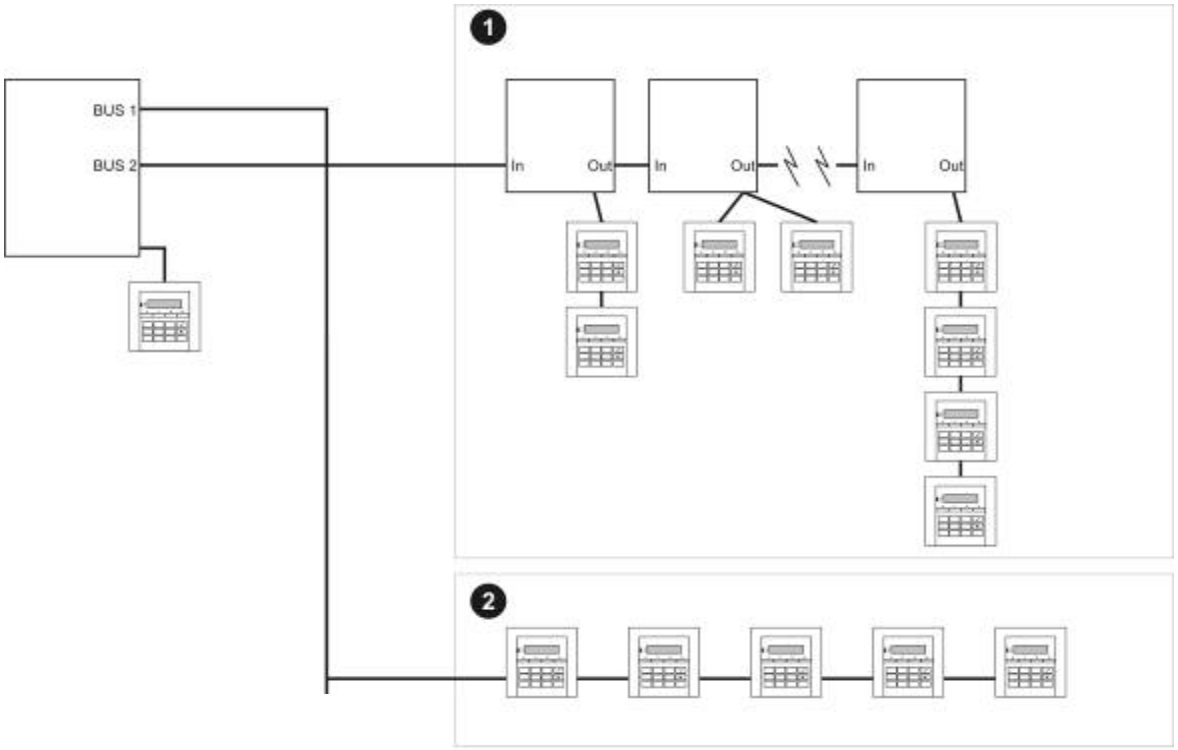
Example 6: Voltage loss with auxiliary power supply

1.6 Bus wiring

There are 3 ways of wiring auxiliaries for the Terxon L:

1. Connect the wired and radio auxiliaries to one bus or both buses. Up to 4 operating panels can be operated on each auxiliary. You can connect up to 16 auxiliaries per bus. If you connect the operating panels to auxiliaries, the two zones and the outputs of the operating panels are no longer available.

2. You can connect up to 5 operating panels to a bus directly and use the zones and outputs of the operating panels.



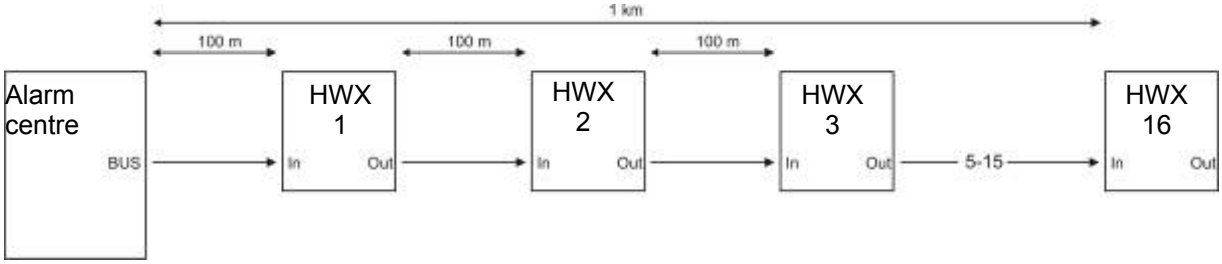
1.7 Maximum bus length

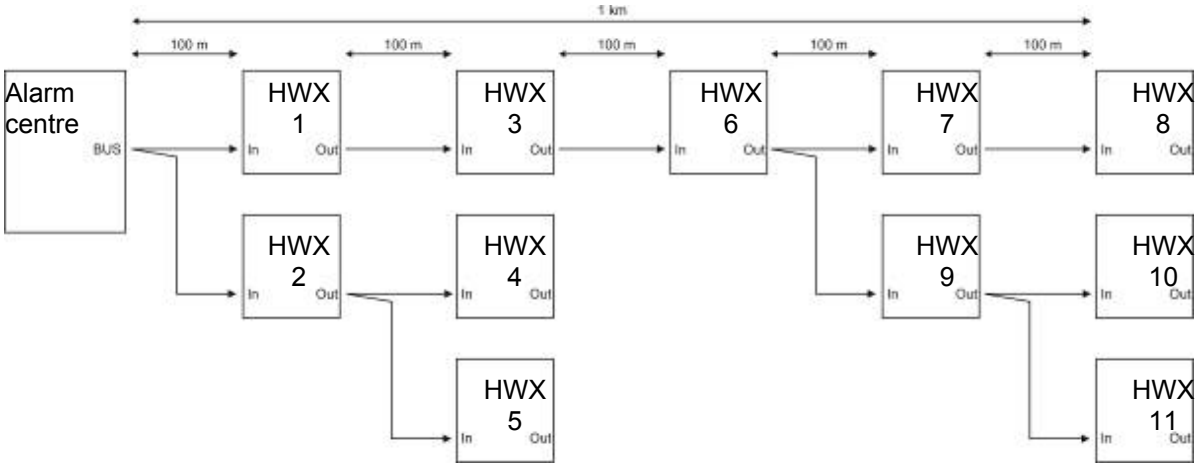
The following lengths apply to bus wiring:

- Wired and radio auxiliary:
  The maximum bus length per bus is restricted to 1000m, and the distance between two auxiliaries must not exceed 100m.
- Operating panels on bus:
  If you connect operating panels direct to the bus, the distance to the furthest operating panel is 100 m. You can connect max. 5 operating panels direct to the bus.
- Operating panels on wired auxiliaries:
  You can connect up to 4 operating panels to each of the 16 wired auxiliaries. Here too, the most distant operating panel must not be further that 100m from the auxiliary.

1.8 8-zone auxiliary (wired)

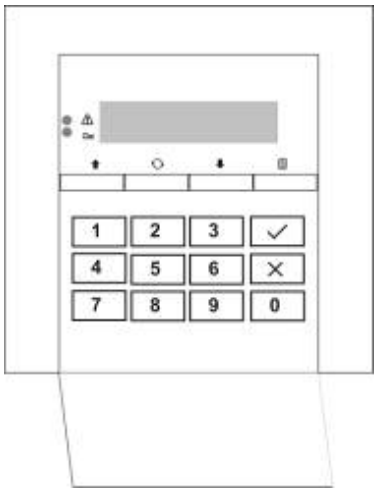
If 8-zone auxiliaries are connected to the bus, the maximum distance between two modules must not exceed 100m. The total length of the bus must not exceed 1km. Modules can be arranged in series or in a star shape.





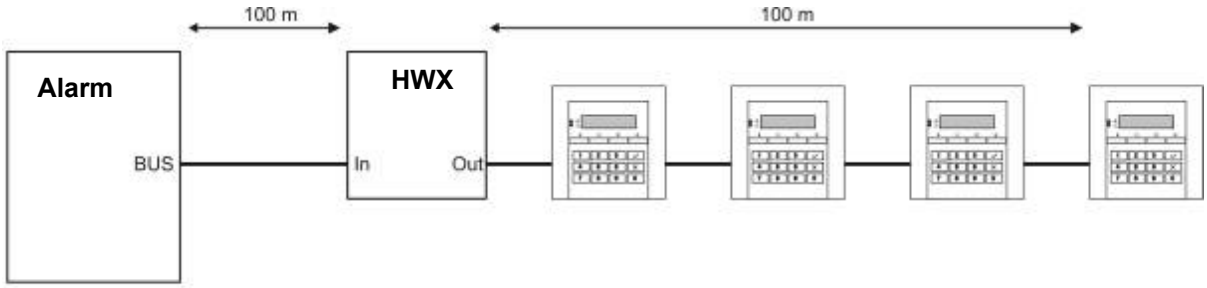
1.9 Operating panels

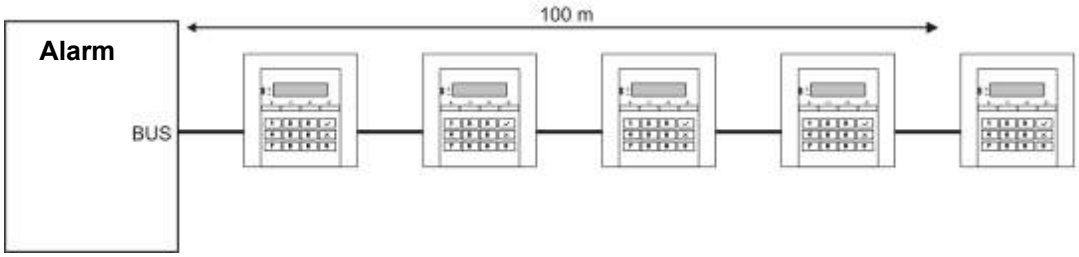
The distance from the alarm system to the most distant operating panel must not exceed 100m. This distance also applies if an operating panel is directly connected to an 8-zone auxiliary.



Important

Make sure that the bus and zone wiring is well isolated from other wiring such as power supplies, PC network cables or telephone cables. Do not use a multi-core cable for two or more bus connectors.

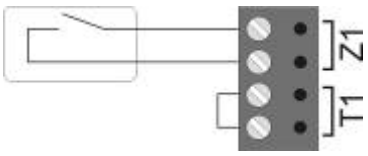




1.10 Door and window contacts

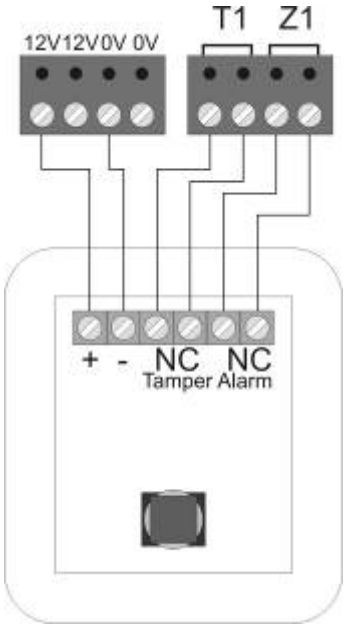
Door and window contacts monitor the opening of doors and windows. To activate the entry/exit delay time, at least one contact should be mounted on the main entrance door on which a control unit is also mounted.

For transparency reasons, no more than ten door/window contacts should be used per alarm zone. If the magnet of the reed contact of the detector is removed, the switch contact is opened and the alarm zone is interrupted. Please read the instructions for your door/window contacts.



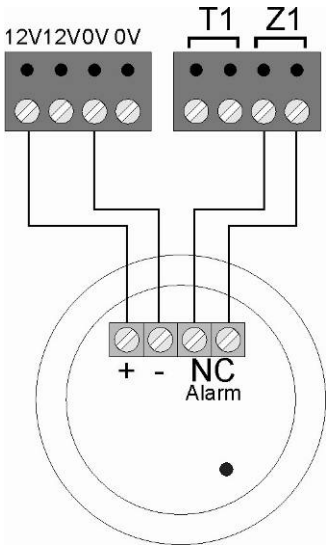
1.11 Infrared motion detectors

Infrared motion sensors detect the infrared heat movement of living creatures and must only be used indoors. For transparency reasons, avoid using motion sensors with door/window contacts in a zone.



1.12 Smoke detectors

This burglar alarm centre allows the connection of smoke detectors. For these, program zone type ”fire” or ”smoke detector”, depending on the function of the smoke detector. This programming results in a special acoustic warning for persons present (pulsed alarm tone).

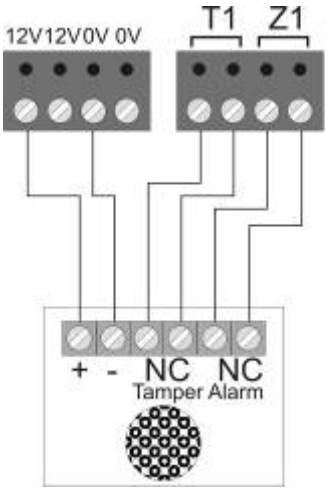


1.13 Glass breakage detectors

Two kinds of glass breakage sensor can be connected to this burglar alarm centre:

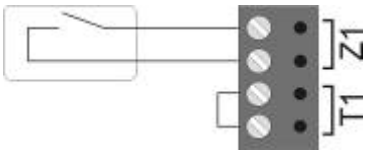
1.13.1 Acoustic glass break detectors

These glass breakage sensors evaluate acoustic signals resulting from glass breakage.



1.13.2 Passive glass break detector

Passive glass breakage sensors are fixed direct to the glass pane to be monitored. Only passive glass breakage sensors can be used that require no line feed but offer a potential-free alarm contact.

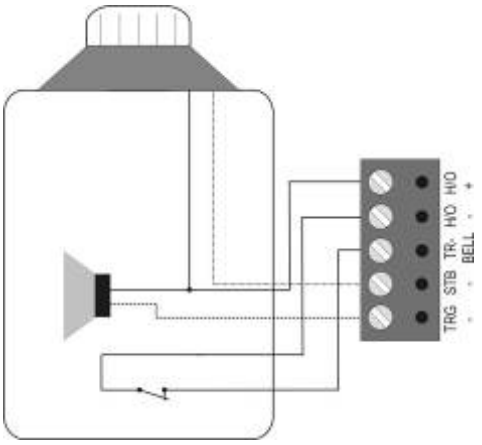


1.14 Outdoor bell and strobe

To deter burglars and alert the neighbourhood, we recommend connecting a bell and a strobe to the alarm centre.

Note that these alarm devices should be mounted as high as possible (e.g. at roof height) and the cables should not be visible. Outdoor acoustic alarms can be a disturbance to the neighbourhood. Observe country-specific regulations. We recommend a maximum alarm duration of three minutes. A visual alarm (strobe) remains active until it is acknowledged manually.

In addition to a bell and strobe, we recommend connecting the tamper contact of the combination signalling device to the tamper input of the alarm centre. If the bell housing is opened or the connection broken, the interrupted tamper contact triggers a tamper alarm.

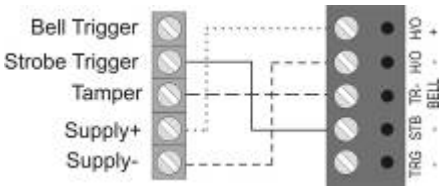


1.15 Connecting a signalling device with its own power supply

The functioning principle of this alarm signalling combination is based on an uninterruptible power supply to the bell and a rechargeable battery integrated in the bell housing.

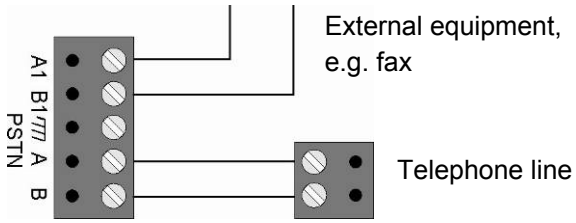
At a transistor output of the alarm centre, either a bias for the bell is applied that is removed in the event of an alarm (or is cut in the event of tampering), or the alarm centre issues a trigger signal on alarm via the transistor output that activates the bell and the strobe.

The alarm duration of the bell is set on the signalling equipment direct. Here too, the strobe remains active until it is acknowledged manually. For correct installation, please read the installation instructions of the signalling device with own power supply.



1.16 Integrated modem

The built-in modem of the central unit enables you to send the most varied system messages to different telephone numbers via the telephone network. Furthermore, the system can be monitored and controlled using a PC on which the Downloader software is installed, and information on alarm states can be transmitted to a command centre. You can connect the system either with an RJ11 plug or via the telephone connector clamps to the telephone network. Connect as shown in this picture:

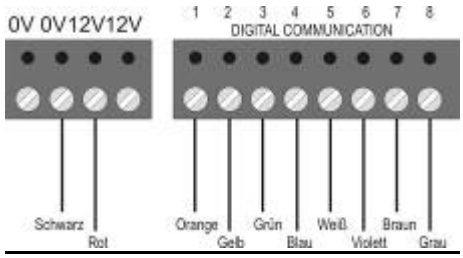


See also the information on auxiliary alarm outputs on the next page.

1.17 Auxiliary alarm outputs

You can optionally connect a relay board with 8 relays to the digital outputs of the alarm centre. Connect the cables to the digital outputs of the alarm centre as follows. Note that the colour code of the cable is not always the same as described below.

Colour	Function
Black (1)	Ground 0V permanent
Orange (2)	Auxiliary output 1
Yellow (3)	Auxiliary output 2
Green (4)	Auxiliary output 3
Blue (5)	Auxiliary output 4
White (6)	Auxiliary output 5
Violet (7)	Auxiliary output 6
Brown (8)	Auxiliary output 7
Grey (9)	Auxiliary output 8
Red (10)	+12V



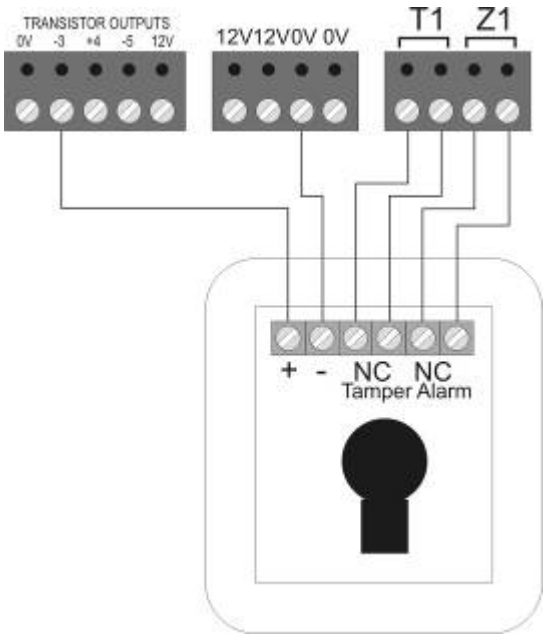
1.18 Keyswitch

If programmed accordingly, each zone permits the connection of a key-switch for activating or deactivating the alarm centre.

You can use key-switches with pulse contact or permanent contact. For key-switches with permanent contact, note that the control units are still active and misinterpretations can occur if a key-switch is still active but the alarm centre has already been deactivated via the control unit. We therefore recommend the use of key-switches with pulse contact.

When the key-switch is activated, the exit delay time for the respective area is activated, following which the alarm centre is activated. In the case of internal areas, immediate activation is possible. At reactivation, the alarm centre is deactivated.

Some key-switches have additional LED displays that can be externally activated. If necessary, these can be connected to the programmed transistor or relay outputs.

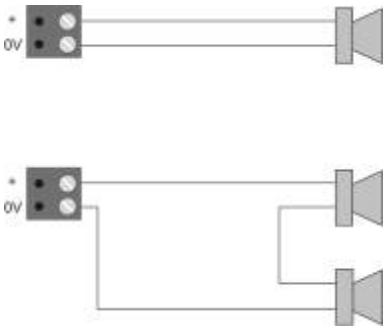


1.19 Loudspeaker

You can connect a 16-Ohm loudspeaker to the SPEAKR (+, 0V) clamps.

The loudspeaker output is designed for the connection of 2 loudspeakers. The alarm sounder can be integrated direct in the housing of the alarm centre.

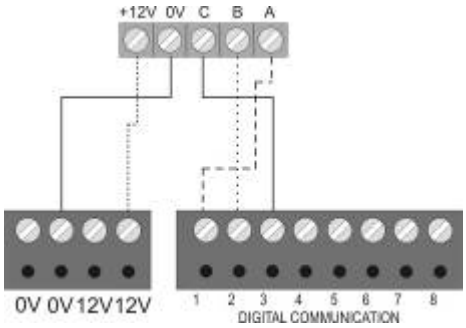
Important: External alarm sounders belong to all partitions. Make sure that the loudspeaker cables are separate from the network cables. The distance from the alarm centre should not exceed 20m.



1.20 Digital communication outputs

The alarm centre has 16 digital communication outputs that can be connected to a digital modem. Alternatively, low-current devices such as LEDs can be connected. The factory setting is that the outputs switch negatively when activated, i.e., from 12V to 0V. At 0V up to 100mA can flow through the output from an external source.

You can also invert outputs so that they switch positively on activation, i.e., from 0V to 12V. In this case, the output supplies a maximum current of 5mA at 12V for powering external devices.

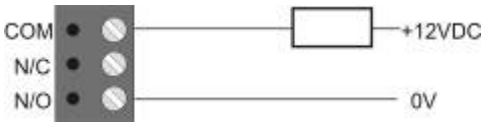


1.21 Transistor outputs

By programming the transistor outputs, you can address external devices such as LEDs, signalling devices and relays. The board contains 2 negative-switching outputs (–3 and –5) that switch from 12V to 0V on activation, and a positive-switching output (+4) that switches from 0V to 12V on activation. A current of up to 500mA can flow through outputs –3 and –5. If output +5 is activated, it supplies a maximum current of 500mA for addressing external devices. The outputs can be used for displaying intrusion, panic, duress, voltage loss or input of a special code.

1.22 Relay outputs

The two relay outputs have potential-free alternating contacts, which can switch on/off externally connected devices. Connect one contact of a device with the COM contact and the other either with N/O or N/C. If you connect to N/O, the contact between COM and N/O is open (N/O = normally open). If you use contact N/C, the contact between COM and N/C is closed (N/C = normally closed). Connect as shown here:



1.23 Relay module

For the digital communication outputs, you can optionally use a relay board. You can switch max. 1A/30V DC with this.

1.24 Connecting strip: factory defaults

If the FACTORY RESTART contacts are short-circuited while the alarm centre is connected to the mains power supply, all system parameters are reset to their factory default settings, including the engineer password. Make sure the contacts remain closed until LED1 begins to flash.

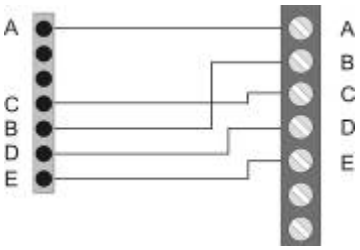
To reset the engineer password only, short-circuit the two contacts briefly while the equipment is connected to the mains power supply.

1.25 Serial printer interface

You can connect a serial printer (RS232) direct to the alarm centre at the serial printer interface. This enables you to print the programmed settings or the event memory, including online. In online mode, every event is printed immediately. The printer settings are: 4800 baud, 8 data bits, 1 stop bit, 1 start bit, no parity, and DTR normal.

1.26 Engineer keypad

An operating panel set to “Engineer Keypad” can be connected direct to the “ENGINEERS KEYPAD” contacts of the alarm centre. This operating panel should be connected only briefly, for programming and testing. No tamper alarm is generated when the engineer keypad is removed. After the system has been completely programmed, an engineer keypad should only be connected to bus 1 or 2 for programming purposes. Connect as in the following diagram:



1.27 Alarm centre LEDs

The LEDs have the following meaning:

- LED1 (heartbeat): Flashes once a second and shows that the alarm centre is operational. Following a reset, the LED flashes faster.
- LED2 (bus fuse 1): Monitors bus 1. When lit, shows that the 12V supply of the circuit is open.
- LED3 (bus fuse 2): Monitors bus 2. When lit, shows that the 12V supply of the circuit is open.
- LED4 (telephone): Lights when the telephone line is activated.
- LED5 (voltage): Lights when the alarm centre is supplied with voltage (mains or battery).
- LED6 (12V output fuse): Monitors the fuse for the 12V output for the connection of the voltage supply of external devices.
- LED7 (bell output fuse): Monitors the fuse of the bell output.
- LED8 (state of relay 1): Lights when relay 1 is activated.

- LED9 (state of relay 2): Lights when relay 1 is activated.
- LED10 (state of transistor output 3): Lights when transistor output 3 is activated.
- LED11 (state of transistor output 4): Lights when transistor output 4 is activated.
- LED12 (state of strobe output): Lights when the strobe output is activated.
- LED12 (state of bell output): Lights when the bell output is activated.
- LED14: (state of transistor output 5): Lights when transistor output 5 is activated.

1.28 Fuses

The alarm centre board contains the following fuses that reset automatically.

Note that voltage must be removed completely to make a reset!

F1: Battery charge circuit

F2: Output 12V DC bus 1

F3: Output 12V DC bus 2

F4: External alarm sounder

F5: 12V DC output for supplying external devices

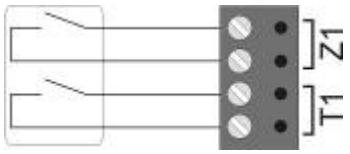
F6: Bell output

1.29 Resistors

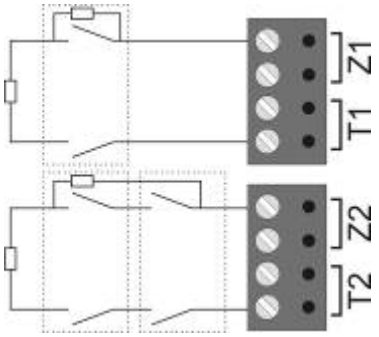
The alarm centre has 8 connection blocks for zones. Two or more sensors can be connected to each zone. Either DEOL or NC can be used for wiring the zones.

Method 1: Zone closed NC (no resistor inserted)

This is the factory default method. If you use sensors with normally open contacts, select “Invert” under the zone attributes. In this variant, the system can only detect whether the zone is opened and it always registers an opening as an alarm in this zone. The tamper contacts must be connected to the alarm contacts of the respective tamper zones. For wiring with this method, you need 4 lines. Note that the voltage supply of the sensor requires two additional lines.



Method 2: Zone closed by resistors (2 resistors used)



In Variant B, the tamper contact and alarm contact are monitored in one zone. In the event of a change of resistance, the alarm station can distinguish whether it is a real alarm or tampering. The first figure shows the connection of just one sensor to a zone. In the lower figure, two sensors are serially connected to a zone. Note that you can choose different variations of resistance values.

Alarm resistance (±5%)	**Series resistance** (±5%)
4.7kOhm	2.7kOhm
1kOhm	1kOhm
4.7kOhm	4.7kOhm
2.7kOhm	2.7kOhm

In the scope of delivery, there are 2.2kOhm and 4.7kOhm resistors (2.2kOhm: red, red, red, gold, and 4.7kOhm: yellow, violet, red, gold).

If you choose the DEOL method, you need 2 lines for wiring each zone. Note that the voltage supply of the sensor requires two additional lines.

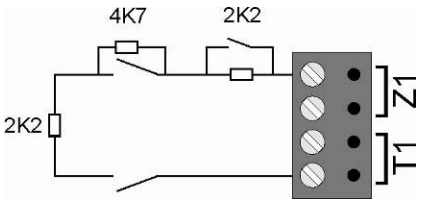
We recommend that you use a zone with only one sensor since you can then precisely identify the triggering sensor if there is an alarm.

Whichever method you choose, note that the line resistance must not exceed 100 Ohm.

1.30 Connections for anti-masking zones

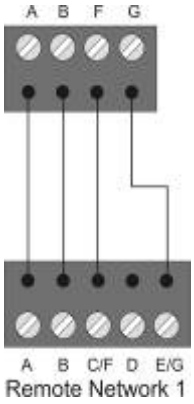
Some sensors are fitted with a so-called anti-masking function, which monitors whether the lens is covered or not.

They can e wired in two ways. In the first method, the open/close contact is connected to a separate, masking-type zone. Here, two zones are needed: one to monitor the masking state, and another for alarm and tamper. In the second method, a special resistor (normal 2K2) is used for masking the sensor and connected with alarm and tamper to a zone. The zone must be wired as in the figure below. See the figure for resistance values. The zone must also be assigned the “masking” zone attribute.



1.31 Connecting auxiliary modules

The 8-zone wired auxiliary module and the 8-zone radio auxiliary module are connected to the 4-wire bus as follows:



Wired extension

Terxon L

As with the alarm centre, you can select NC (without resistor) or DEOL (with two resistors) for the zone connection.

1.32 Addressing auxiliary modules

Every auxiliary module must have a unique address in order to be recognised by the alarm centre via the bus. No two auxiliary modules on the same bus must have the same address. Use the jumper to assign a unique address to the module. For more information, read the operating instructions of the auxiliary.

1.33 Walk test

For the walk test function, output OP3 must be programmed accordingly (see page 31). If the user activates the walk test function, the LED for detecting a movement is activated on the sensor.

1.34 Alarm memory sensor

For the alarm memory function, e.g., for motion sensors, an output must be programmed accordingly (see page 31). The sensor that first triggered in a line can store and signal this.

Technical data

Voltage supply

External voltage supply	230VAC +/- 10%, 50Hz
External power consumption	145 mA
Internal voltage supply	13.65V DC
Internal power consumption	1.5 A, of which 750mA battery charge current
Emergency power supply	12V DC, 7Ah/17Ah lead accumulator
Charging time	Max. 24 hours for 17Ah battery

Outputs

Relay outputs	2 potential-free outputs, max. 24V DC or 24V AC, 1A
Transistor outputs	2 negative-switching outputs, 12 V DC, 500mA 1 positive-switching output, 12V DC, 500mA
Siren-/	1 negative-switching output, max. 500 mA
Strobe outputs	1 negative-switching output, max. 500 mA
Loudspeaker	Max. 2 x 16 Ohm loudspeakers
AUX	12V DC, 750mA max.
Digital outputs	16 outputs 12V powered, 5mA max. 0V potential-free, 100mA max. Selectable output sense
Auxiliary outputs	Engineer keypad connection USB and RS232 interface for communication with a PC Printer interface (RS232) RJ11, PSTN connection for telephone connection Optional relay module
Zones	8 zones on board, extendible to up to 264 zones
Bus	2 buses, each with max.: 16 auxiliaries (wired or radio) or 5 operating panels

Specifications

Dimensions	390mm x 310mm x 95 mm (HxWxD)
Weight	5 kg
Environment conditions	-10° to 40°C
Ambient operating humidity	0-75% non-condensing
Main fuse	315mA (slow-acting)

Operating panel

Power consumption	12V DC, 90mA max.
Display	2 lines each with 16 characters
Zones	2 Zones, DEOL with anti-masking
Outputs	1 output, negative-switching, 12 V DC,100mA max.
Dimensions	90mm x 113mm x 23mm (HxWxD)
Weight	200g
Environment conditions	-10° to 55°C
Ambient operating humidity	Max. 96%

Wired extension

Power consumption	12V DC, 60mA max.
Zones	Max. 8 zones
Outputs	1 output, negative-switching, 12 V DC,100mA max. 1 output, positive-switching, 12 V DC,100mA max.
Fuses	3 circuit-breakers (operating panel, alarm sounder, power supply) automatically resetting
Dimensions	128mm x 182mm x 34mm (HxWxD)
Weight	310g
Environment conditions	-10° to 55°C
Ambient operating humidity	Max. 96%

Radio extension

Power consumption	12V DC, 55mA (close-circuit current)
Zones	Max. 8 radio zones
Remote controls	Max. 8 remote controls on aux. zone
Frequency	868.88625 MHz (bandwidth 20 kHz)
Dimensions	128mm x 182mm x 34mm (HxWxD)
Weight	342g
Environment conditions	-10° to 55°C
Ambient operating humidity	Max. 93%

Explanation of terms

Before starting to program the alarm station, you should understand the terms used. An explanation of zone types and their attributes:

NU – Not Used
A zone to which nothing is connected and therefore not used should be closed with a jumper and set to Not Used.

PA – Panic Alarm
This zone always triggers an alarm, irrespective of whether the burglar alarm station is activated or deactivated. A panic alarm can also be transmitted silently (e.g.: via an optional telephone dialler). The program menu can be exited only when this zone is closed.

FR – Fire
This zone always triggers an alarm, irrespective of whether the burglar alarm station is activated or deactivated. The alarm tone is sounder by the buzzer in the control unit and the external bell as a pulsed alarm tone. The program menu can be exited only when this zone is closed. Connect only fire alarms with an automatic reset to this zone since otherwise a new alarm is triggered during any manual reset.

NA – Normal Alarm
If the burglar alarm centre is active, this zone immediately triggers an alarm if the state of the alarm zone changes (e.g., opening the NC alarm contact). This zone can be opened when you exit the program menu.

24 Hours
This zone always triggers an immediate alarm. If the burglar alarm centre is deactivated, the alarm tone is heard via the buzzer in the control unit and the alarm sounder of the alarm centre. In an active state, the bell output is also activated. If a 24-hour zone is locked, this applies to the deactivated state only. The program menu can be exited only when this zone is closed.

FE – Final Exit
If the burglar alarm station is active, this zone first triggers an alarm following a specified delay time (entry delay). This zone type can be used for the door contact of your entrance. When you leave the premises, closing this zone can be used for ending the exit delay. This zone can be opened when you exit the program menu.

ER – Entry Route
This zone triggers no alarm if an entry/exit zone has previously activated the entry delay. An immediate alarm is triggered if no entry delay is first activated. You can use this zone type for a motion sensor in the entrance hall pointing to the entry door (fitted with a door contact). This detector can be used as an entry/exit detector for internal activation. This zone can be opened when you exit the program menu.

SA – Shock Analyser
This zone is used for older generations of shock sensors. Contact our technical hotline for more information.

TC – Technical

In deactivated state, a technical zone triggers an alarm via the control unit and an optional dialler. In activated state, no alarm is triggered. If an alarm occurs in this zone in activated state, this is displayed when the alarm station is deactivated. You can use this zone type for flood sensors. The program menu can be exited only when this zone is closed.

KB – Keybox

This zone is mainly used in Scandinavia. If this zone is opened, this event is stored in the memory of the burglar alarm station. The event can also be transmitted via the optional telephone dialler. No alarm is triggered.

SM – Smoke Detector

This zone works just like a fire zone. In contrast to a fire zone, the connected fire alarms can be reset by briefly switching off the power supply and no alarm is triggered. However, the reset must be made via a switch output. The program menu can be exited only when this zone is closed.

KM – Keyswitch Momentary

A key switch (pulsed) can be connected to the burglar alarm centre. Any change to this zone changes the state of the alarm station from active to inactive or from inactive to active (following the delay time).

KF – Keyswitched Fixed

A key switch (permanent) can be connected to the burglar alarm station. Any change to this zone changes the state of the alarm station from active to inactive or from inactive to active (following the delay time). Note that you can operate the alarm station only via the key switch. If the state is unclear, e.g.: the key switch is closed, and deactivated at the control unit, the alarm station can return to active state.

AM – Anti-Mask

The anti-mask function is supported by some motion sensors and works as a protection against being covered. Via a separate output on the sensor, the alarm centre is informed that the sensor has been covered. This problem is then reported to the respective alarm zone.

FB – Forbikobler

This zone property is mainly for the Scandinavian market. This zone is connected to an external code lock or an access control device. This zone

General terms

ZONE

A zone consists of one or more detectors connected to the burglar alarm centre via an input (Z1–Z8).

A zone is considered to be opened or triggered if the electric circuit within a zone (Z1–Z8) is interrupted by a detector (motion sensor, magnetic contact,…) (for NC), or if the resistance value changes (for DEOL).

A zone is considered as closed or at rest if the electric circuit is closed within a zone (Z1–Z8) (for NC), or if the line voltage from the alarm centre is within the right parameters (for DEOL).

SYSTEM ACTIVATED/SET

When the burglar alarm is active, it monitors all zones for changes to the line voltage and triggers a local alarm and optionally an external alarm.

SYSTEM DEACTIVATED/UNSET

When the burglar alarm is inactive, it monitors only zones that are always active, such as 24-hour zones, technical zones, and burglar and fire alarms. An alarm triggered by one of these zones usually results in an internal alarm.

INTERNALLY/EXTERNALLY ACTIVATED

In addition to the complete activation of the burglar alarm station, you can also activate individual partitions (up to 8). This means that areas can be activated and protected even if you are at home. This type of activation is known as internal.

INTERNAL ALARM

In the case of an internal alarm, only the buzzers of the control units and the optional alarm sounders are activated.

LOCAL ALARM

In the case of a local alarm, the connected combination signalling devices (strobe and bell) are also activated.

EXTERNAL ALARM

In the case of an external alarm, not only the acoustic and visual signalling devices are activated, but the alarm is also transmitted via telephone.

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